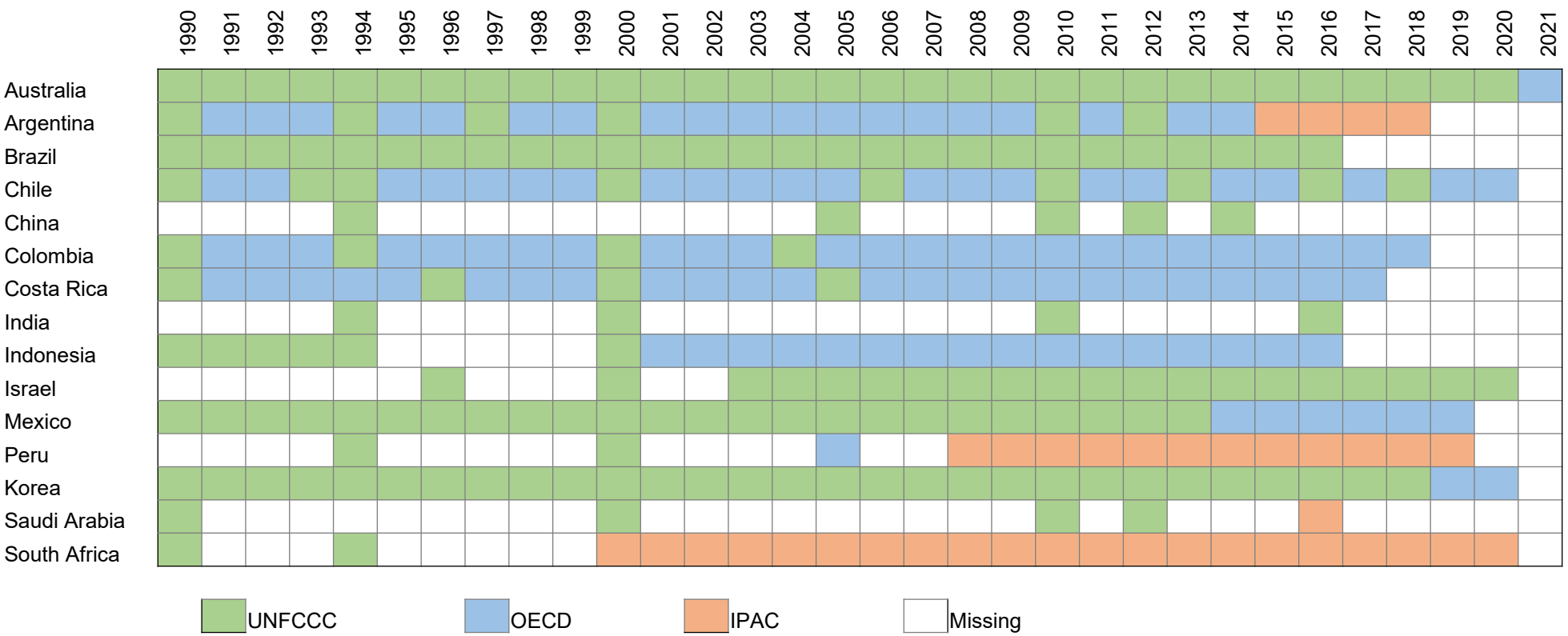
TENTH MEETING OF THE EXPERT GROUP ON ENVIRONMENT STATISTICS

INTERNATIONAL PROGRAMME ON ACTION ON CLIMATE (IPAC)

Rodrigo Pizarro
IPAC Manager

OECD
BETTER POLICIES FOR BETTER LIVES

Data on country-level GHG emissions data



WHAT: IPAC and Objectives

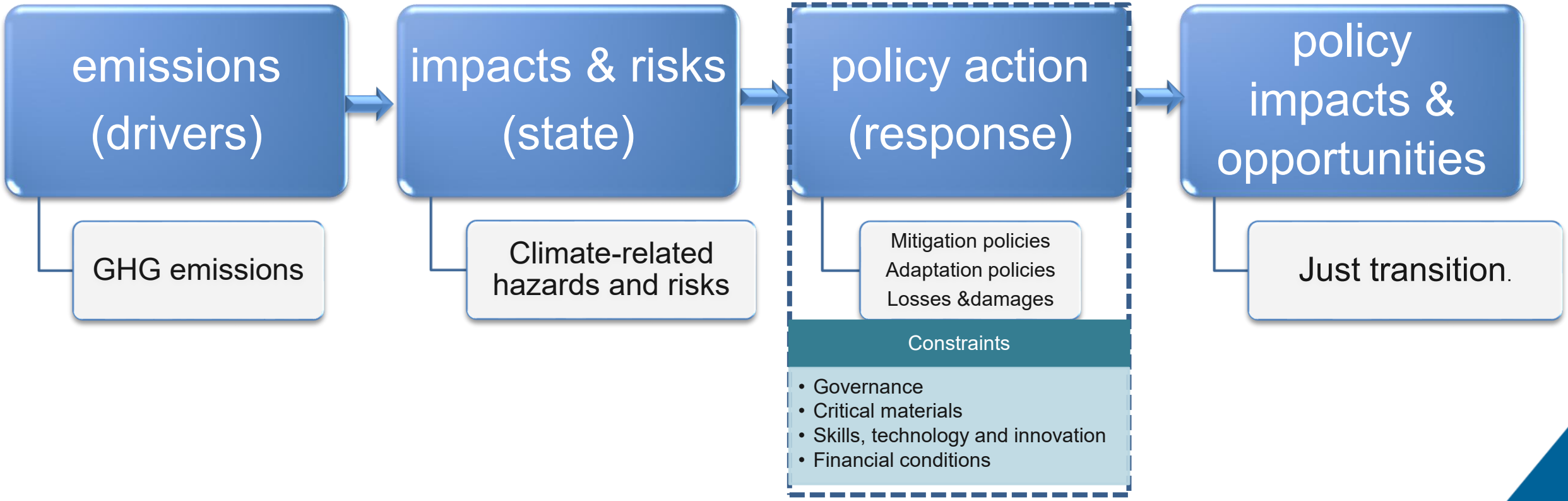
- IPAC is a new climate change programme that collects, coordinates, and captures climate change relevant data and indicators.
- IPAC responds to countries' need for up-to-date, comparable and comprehensive indicators to support the full range of climate policy-making (mitigation, adaptation and losses and damages).
- It is a foundational component of the OECD climate work (eg. HP and IFCMA).

- **Specifically, IPAC:**
  1. Provides consistent, comprehensive climate-related data on (1) GHG emissions and (2) environmental impacts.
  2. Assesses (1) country-specific climate objectives and (2) policy responses, accounting for the socio-economic and technological developments to guide policy choices.

The analytical approach to environmental data collection: PSR model

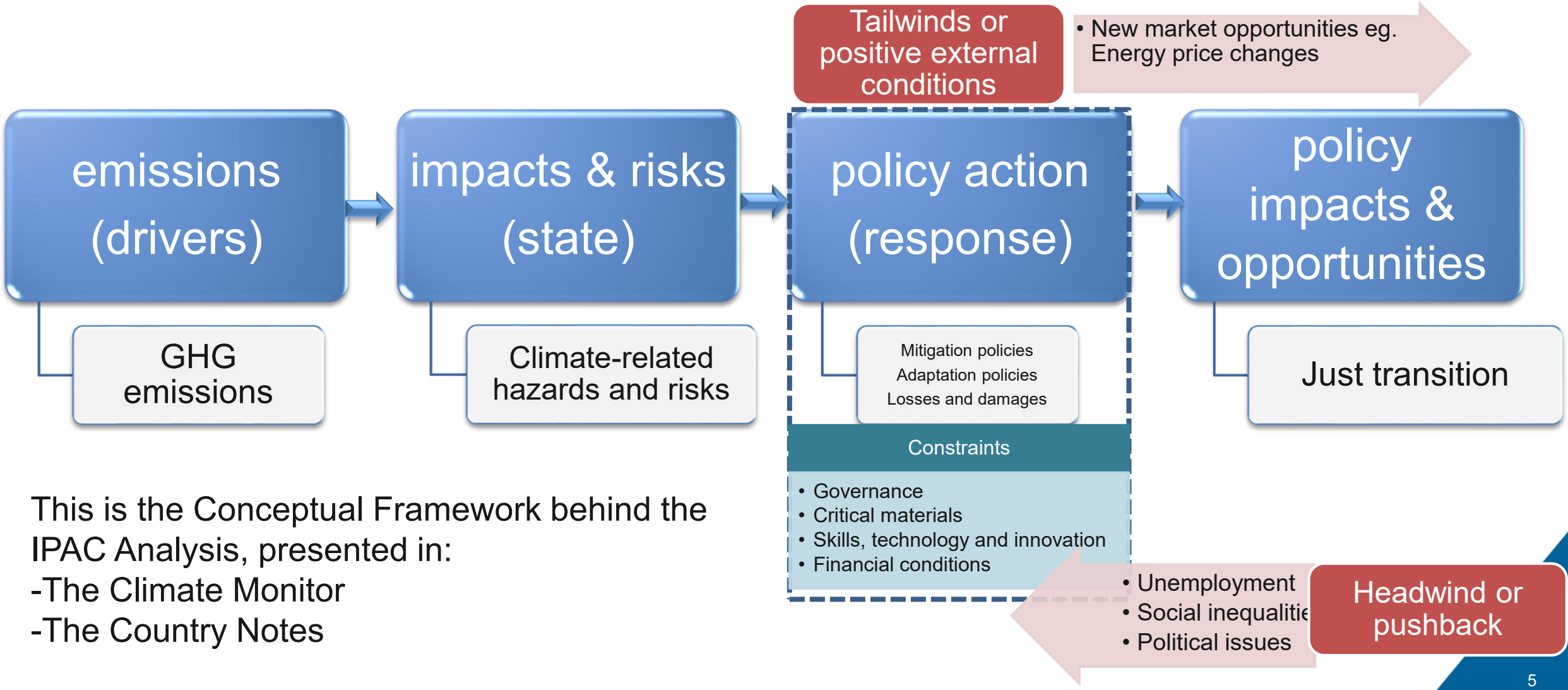
Foundational Work on data development

Feeds into best practice policy responses



Note: materials and skills necessary to implement policy choices will also be addressed

The IPAC analytical approach: Consider external environment on policy responses



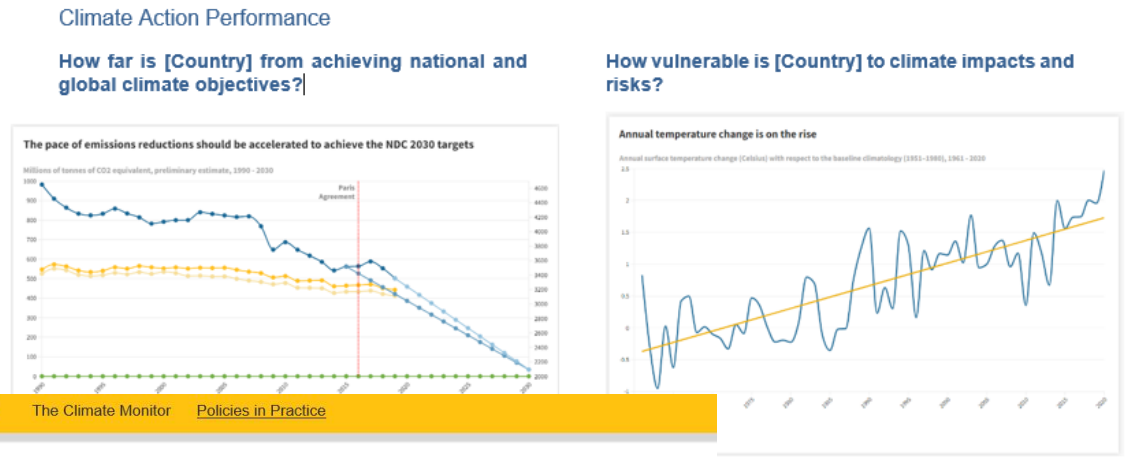
This is the Conceptual Framework behind the IPAC Analysis, presented in:
-The Climate Monitor
-The Country Notes

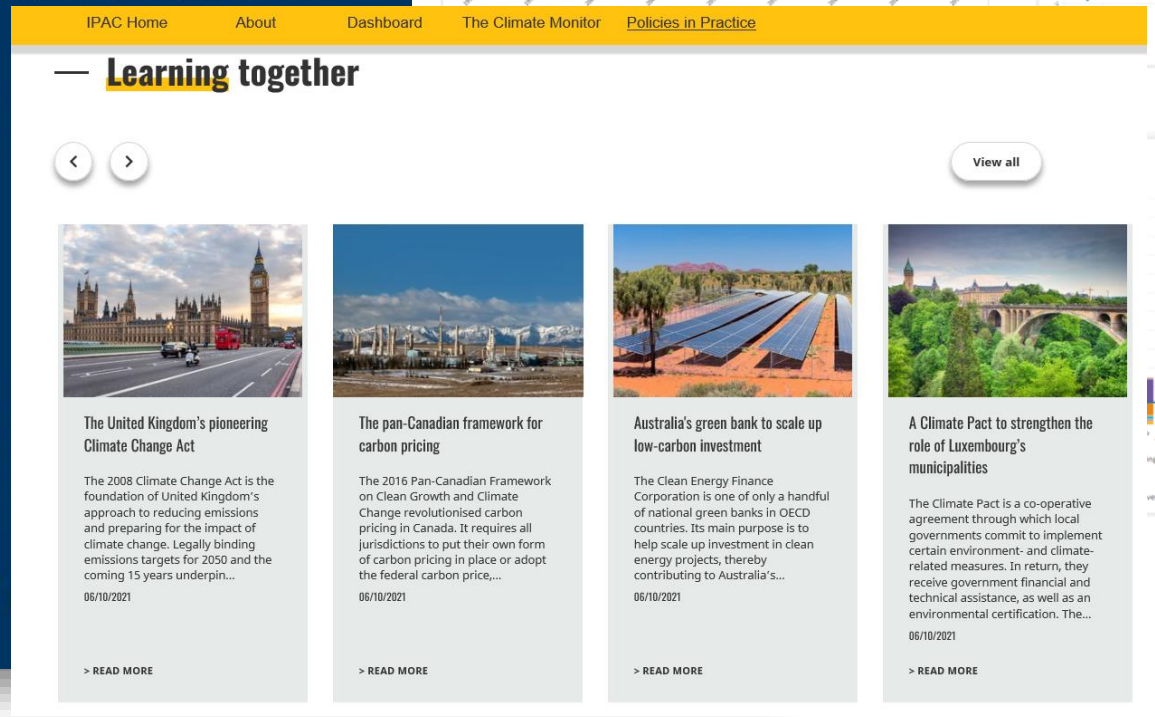
HOW: IPAC's Programme structure

- IPAC consists of four components:
  - An **Indicator Dashboard** - official and comprehensive individual country level data, considering the pressure-state-response framework;
  - **Climate Action Monitor** - An annual summary of climate action across the world;
  - **Policies in Practice** – Examples of best climate policy practices;
  - **Country Notes** – An annual individual country assessment of climate action (will cover 51 IPAC countries: 38 Members, 6 accession candidates, major emitters)

- The IPAC webpage (https://www.oecd.org/climate-action/ipac/): A **one-stop resource** to support policy choices.

IPAC Deliverables

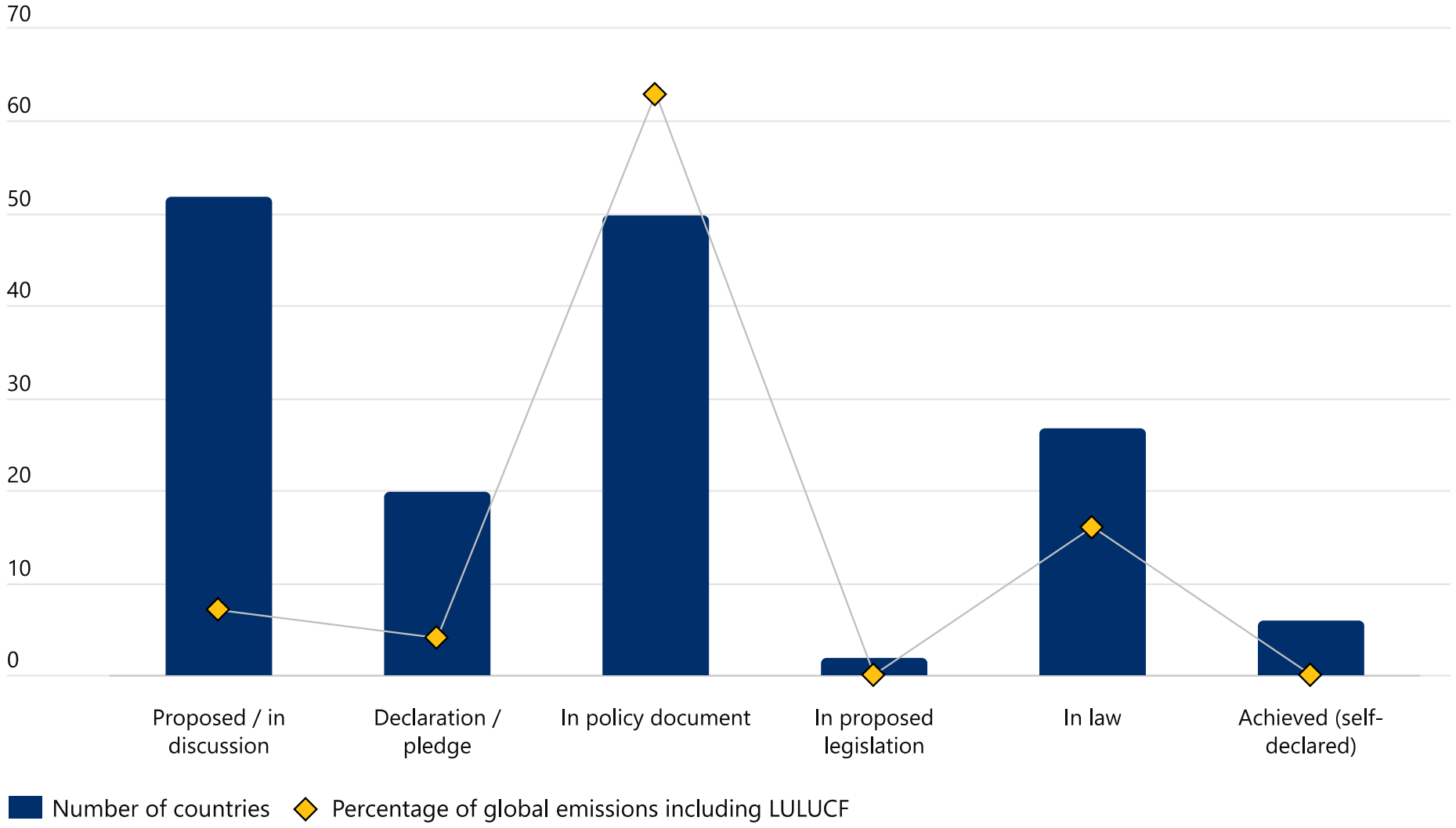




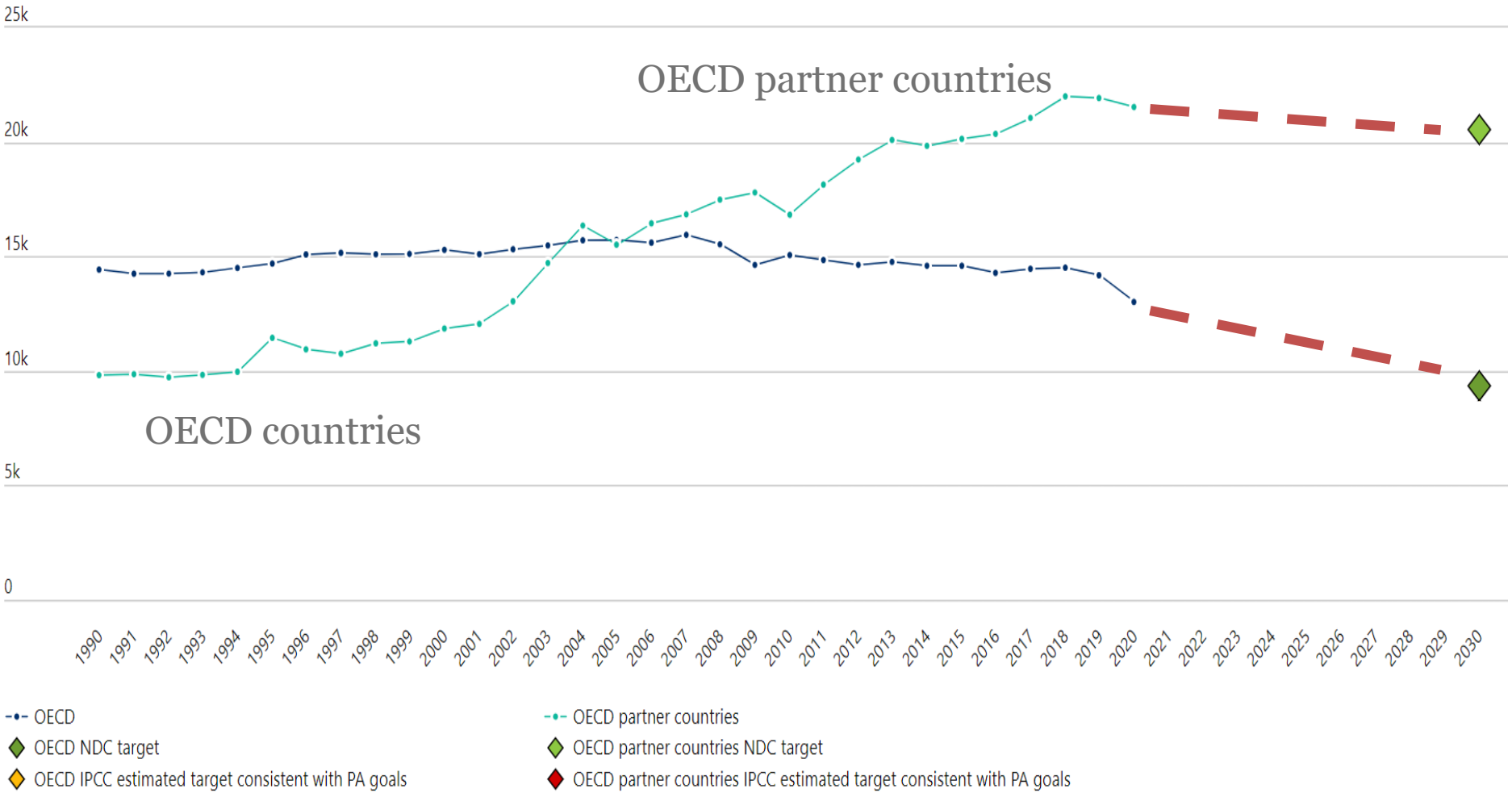
Progress: 2022/3 IPAC Deliverables

1. **The Climate Dashboard**: New updated Dashboard (October)
2. **The Climate Action Monitor** (COP27/8, November)
3. **Climate Policies in Practice** (COP27/8, November)
4. **Climate Action Country Notes** a full set presented by Q1 2024.

Number of countries with a net-zero pledge by type and their % share in global emissions



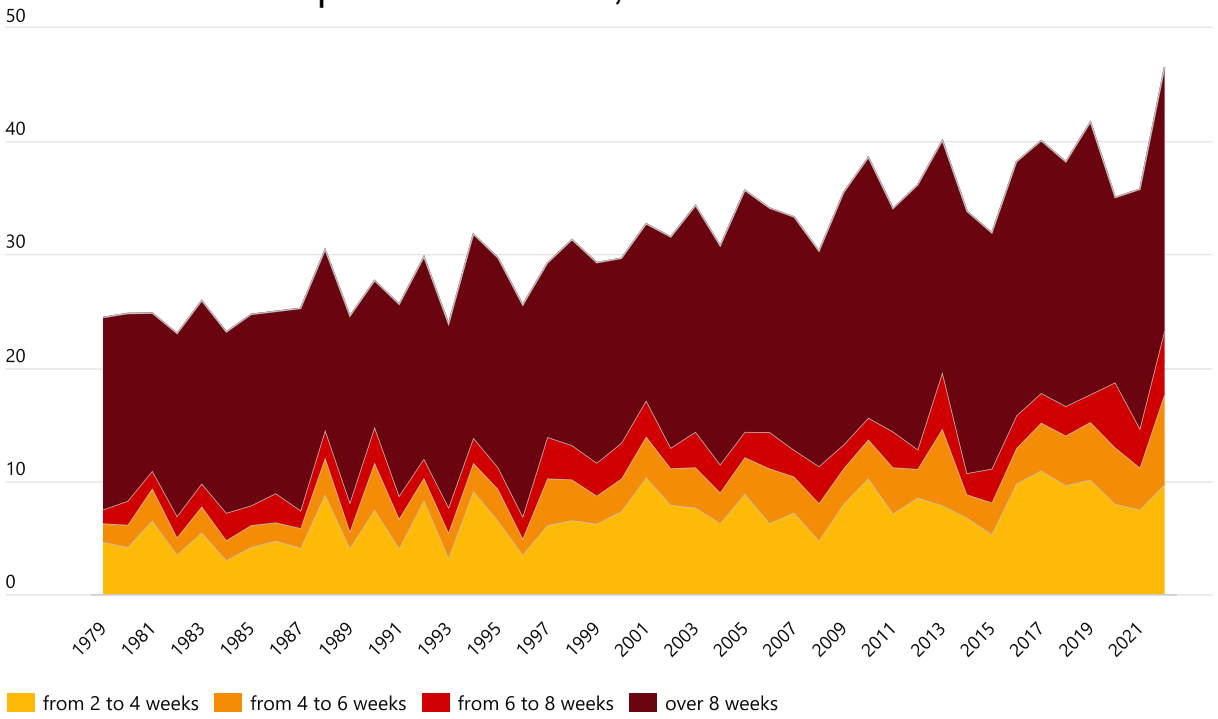
Total emissions including LULUCF (1990 - 2020), NDC targets and IPCC estimated targets consistent with PA goals, OECD and OECD partner countries, Mt CO2e



The population exposed to extreme temperatures is an alarming and escalating phenomenon.

Population exposure to hot days increases across OECD and OECD partner countries

Percentage of population exposed to more than 2 weeks of hot days, OECD and OECD partner countries, 1979-2022

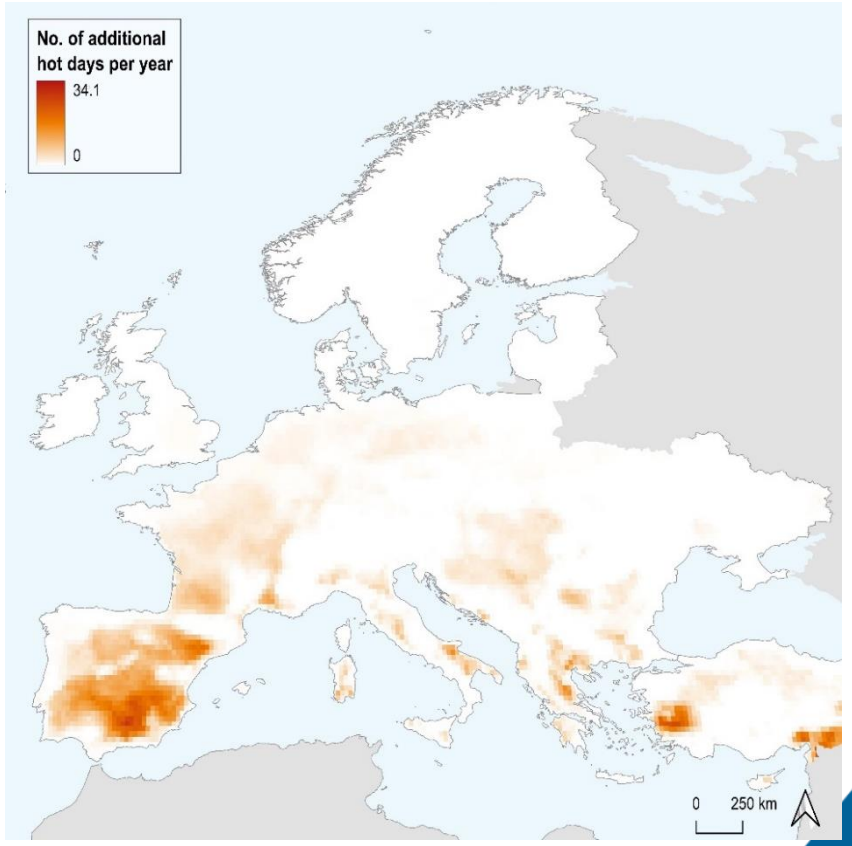


Note: Over- or under-estimations of the estimated exposure to extreme temperature are possible due to the spatial resolution of gridded data, particularly for smaller countries or regions. A variety of indicators have been developed that estimate exposure to extreme temperatures; these should be consulted for more detailed analysis of individual countries.

Source: IEA/OECD (2022), " Climate-related hazards: Extreme temperature", Environment Statistics (database), https://oe.cd/dx/58r.

Increasing extreme temperatures across southern Europe

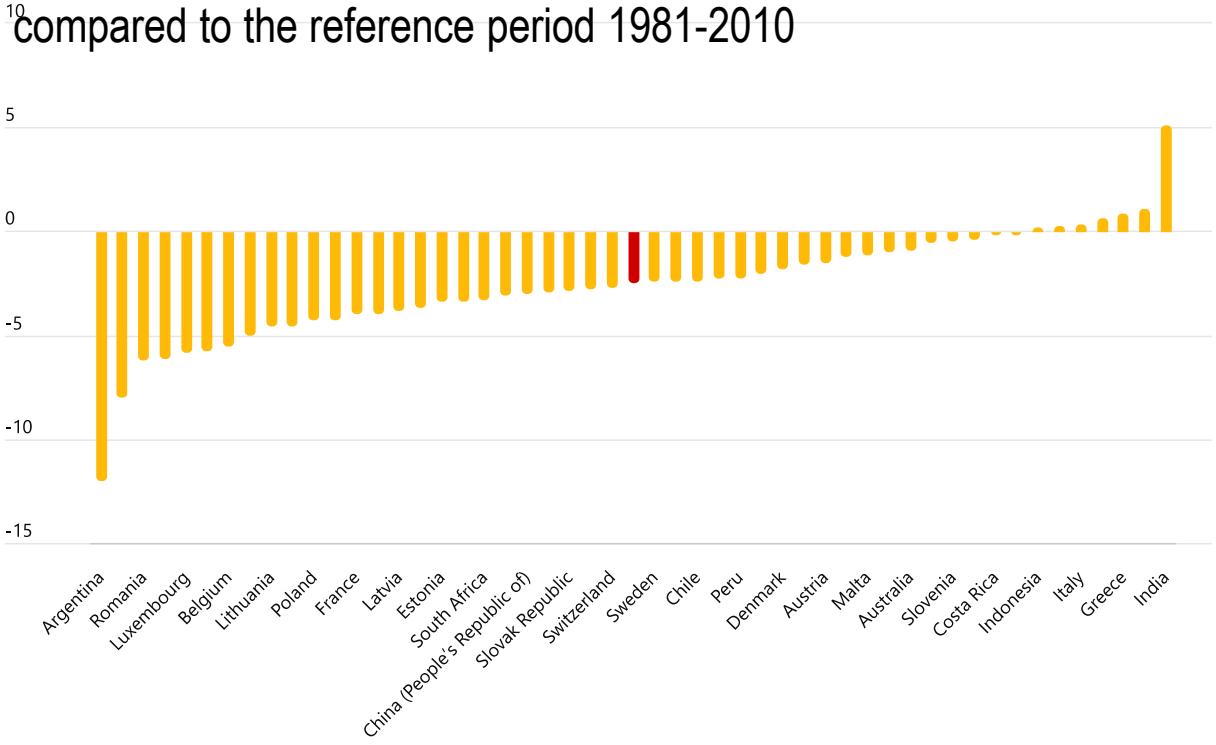
Annual number of additional hot days (2018-22 average) compared to the reference period 1981-2010 across the European region.



Increasing mean temperatures alter rainfall patterns, intensify drought, and affect agricultural production and vulnerability.

Agricultural drought is worsening for a majority of OECD and OECD partner countries

Cropland soil moisture anomaly (%), 2018-22 average compared to the reference period 1981-2010

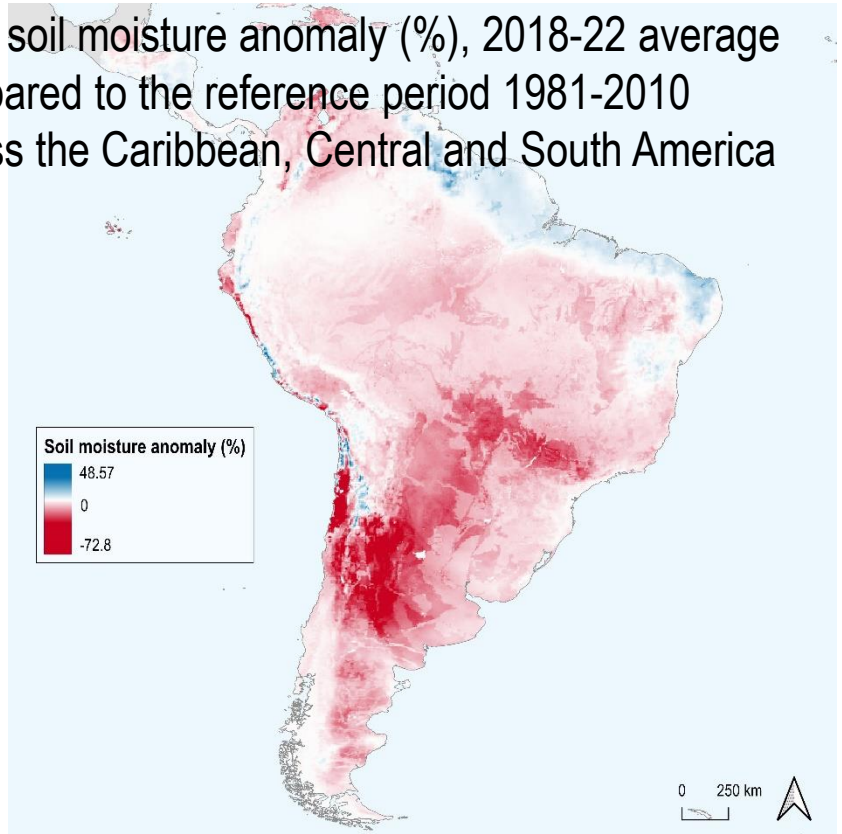


Note: No results are available for Iceland since no cropland cover is detected using Copernicus global land cover data. Caution is advised interpreting results for Saudi Arabia because cropland cover is low.

Source: IEA/OECD (2022), " Climate-related hazards: Drought", Environment Statistics (database), https://oe.cd/dx/58t.

Intensifying drought impacts across Central and South America

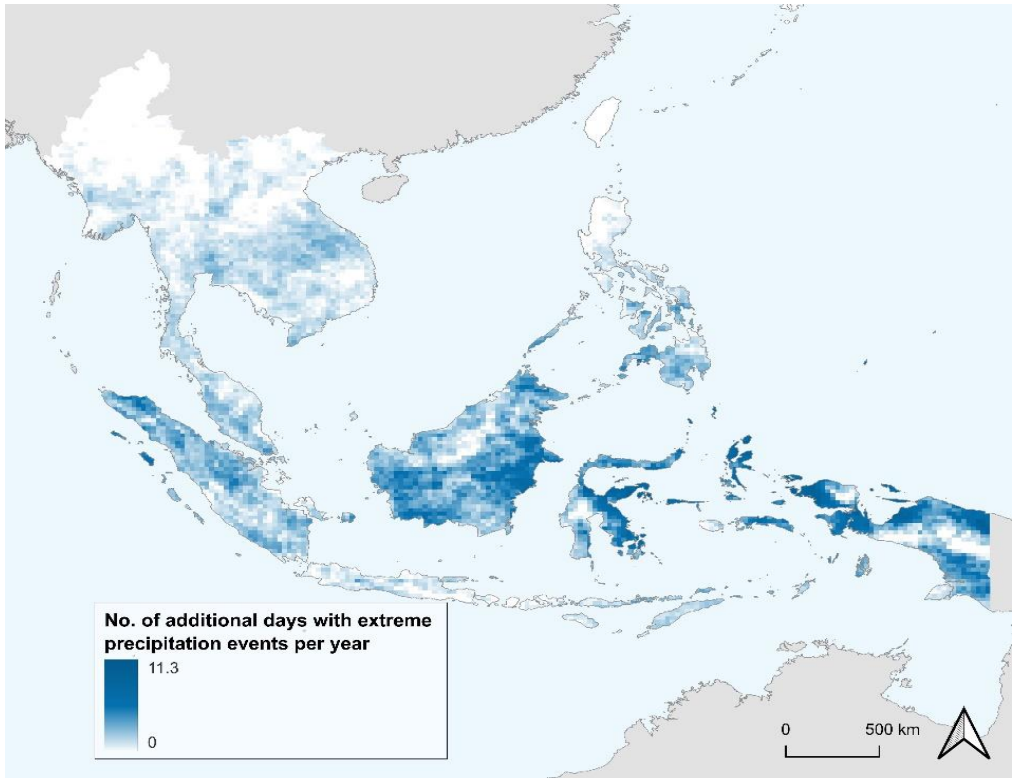
Land soil moisture anomaly (%), 2018-22 average compared to the reference period 1981-2010 across the Caribbean, Central and South America



Flooding events this year were devastating, and likely to continue.

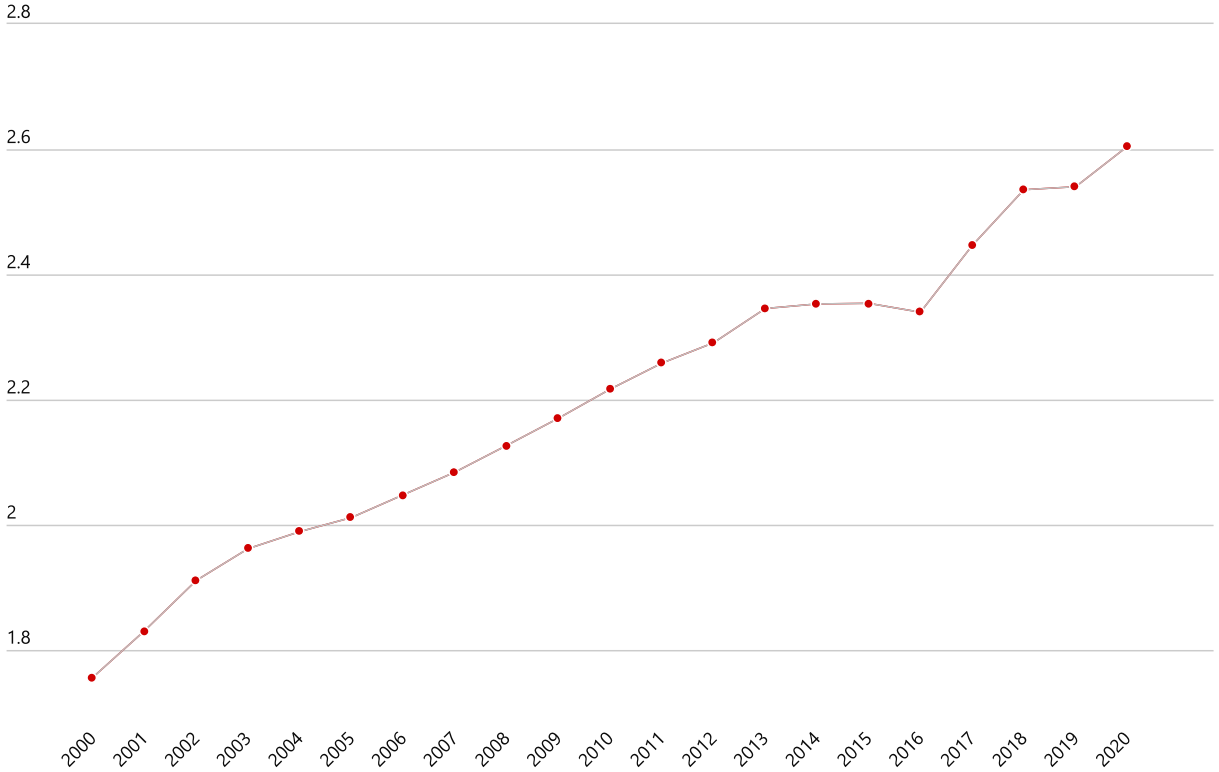
Increasing extreme precipitation events across Southeast Asia

Yearly number of additional days with extreme precipitation events (2018-22 average) compared to the reference period 1981-2010 across Southeast Asia



Built-up area exposure to coastal flooding increased across OECD and OECD partner countries

Percentage of built-up area exposed to coastal flooding, with a return period of 100 years, OECD and OECD partner countries, 2000-2020



Source: IEA/OECD (2022), " Climate-related hazards: Coastal flooding", Environment Statistics (database), https://oe.cd/dx/58x.

A new comprehensive dataset on climate action (CAPMF)

Countries adoption of price-based climate policy action

Policy	Number of countries adopted	Share of global emissions from region/country where policy is implemented (1)	Sector
Emissions trading scheme - Electricity	35	45%	Electricity
Carbon tax - Electricity	11	10%	Electricity
Fossil fuels excise taxes - Electricity	6	2%	Electricity
Emissions trading scheme - Industry	36	46%	Industry
Fossil fuels excise taxes - Industry	22	5%	Industry
Carbon tax - Industry	14	10%	Industry
Fossil fuels excise taxes - Buildings	28	9%	Buildings
Carbon tax - Building	17	11%	Buildings
Fossil fuels excise taxes - Transport	44	39%	Transport
Carbon tax - Transport	18	12%	Transport
Emissions trading scheme - Transport	4	35%	Transport

1. Share of emissions of the country or subnational region where policy is implemented as a % of global emissions.

Note: 2020 data, but considers China although the ETS was implemented in 2021.

Next Steps

IPAC's future goals:

1. Deliver country-level targeted advice with Country Notes.
2. Expand indicator framework and datasets.
3. Develop a platform for peer exchange on best practices.
4. Develop new analytical work based on countries' needs and concerns.

THANK YOU

WWW.OECD.ORG/CLIMATE-ACTION/IPAC

OECD
BETTER POLICIES FOR BETTER LIVES