

“Impacte del canvi climàtic sobre la salut i les polítiques”

Trobades de Salut Pública

Consorci de Salut de Catalunya (CSC)

6 de Novembre, 2025

Josep M. Antó

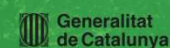
ISGlobal (Barcelona Institute for Global Health)

UPF (Pompeu Fabra University)

A partnership of:



ISGlobal
Barcelona
Institute for
Global Health

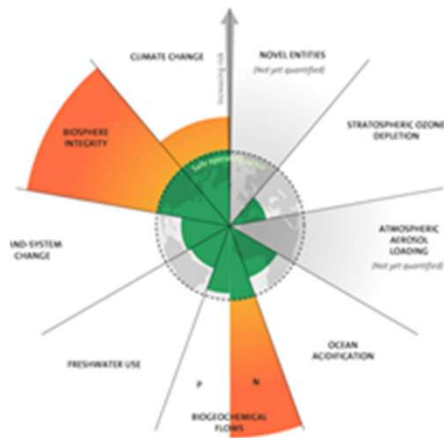


Safe Planetary Boundaries

Richardson K et al. Sci Adv 2023

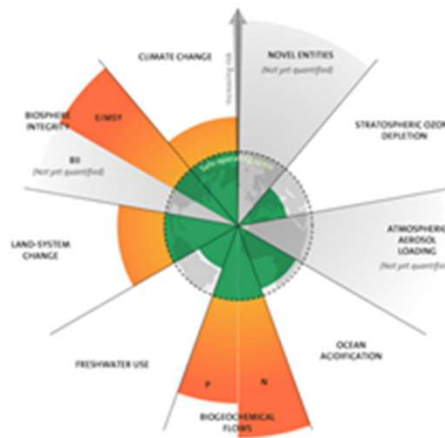
<https://www.stockholmresilience.org/research/planetary-boundaries.html>

2009



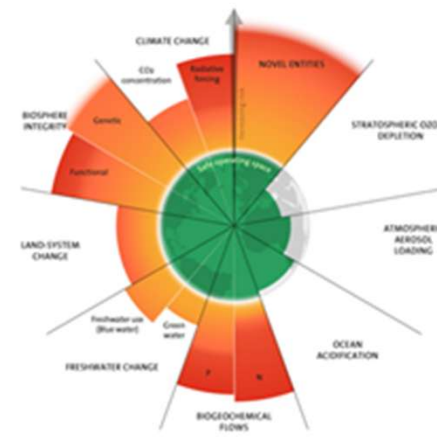
7 boundaries assessed,
3 crossed

2015



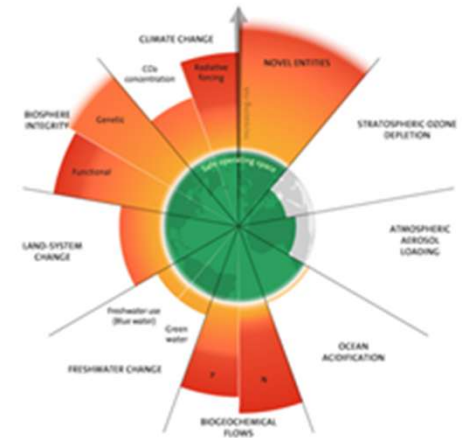
7 boundaries assessed,
4 crossed

2023



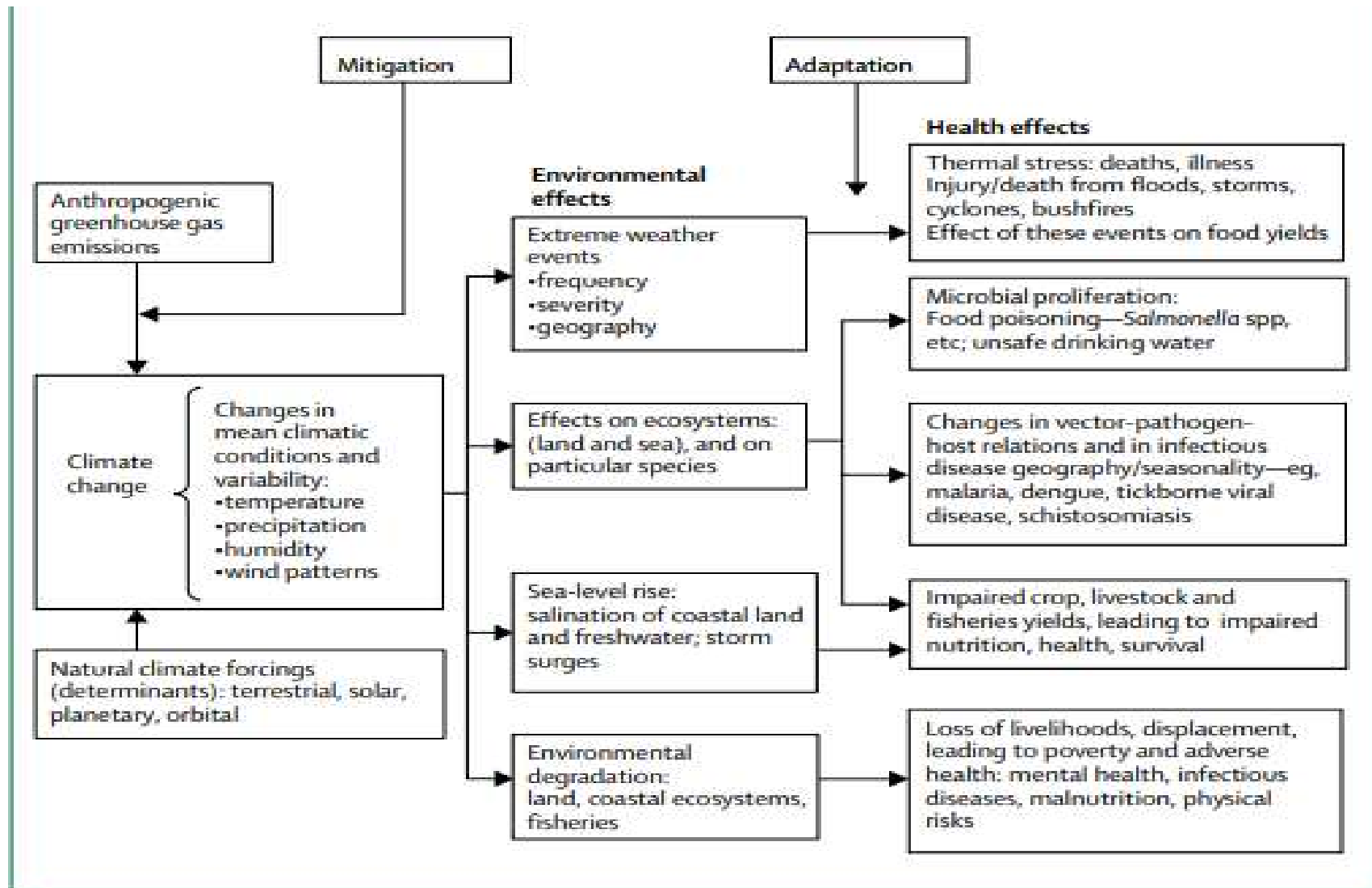
9 boundaries assessed,
6 crossed

2025



9 boundaries assessed,
7 crossed

Climate change and human health. McMichael AJ et al. Lancet 2006





The Lancet Countdown on health and climate change



The 2024 Europe report of the *Lancet* Countdown on health and climate change: unprecedented warming demands unprecedented action

Kim R van Daalen, Cathryn Tonne, Jan C Semenza, Joacim Rocklöv, Anil Markandya, Niheer Dasandi, Slava Jankin, Hicham Achebak, Joan Ballester,



Lancet Public Health 2024;
9: e495–522

Published Online
May 12, 2024
[https://doi.org/10.1016/
S2468-2667\(24\)00055-0](https://doi.org/10.1016/S2468-2667(24)00055-0)

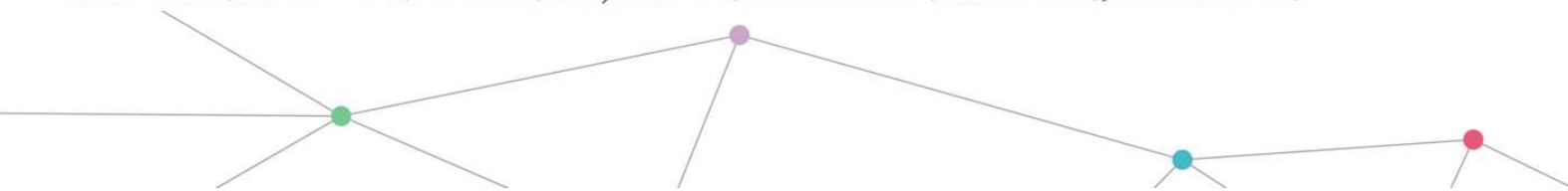


The 2025 report of the *Lancet* Countdown on health and climate change

Marina Romanello, Maria Walawender, Shih-Che Hsu, Annalyse Moskeland, Yasna Palmeiro-Silva, Daniel Scamman, James W Smallcombe,

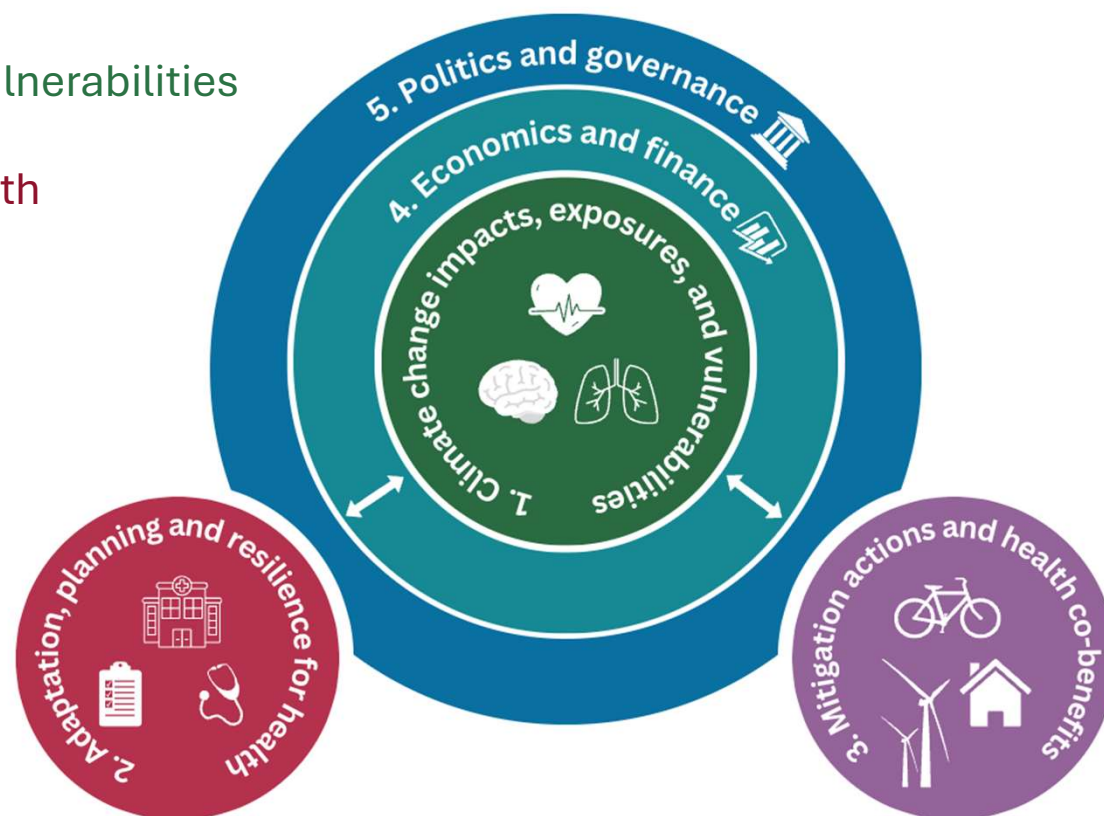


www.thelancet.com
Published Online
October 29, 2025
[https://doi.org/10.1016/
S0140-6736\(25\)01919-1](https://doi.org/10.1016/S0140-6736(25)01919-1)



Indicators distributed in 5 dimensions from impacts to politics

1. Climate change impacts, exposures, and vulnerabilities
2. Adaptation, planning and resilience for health
3. Mitigation actions and health co-benefits
4. Economics and finance
5. Politics and governance





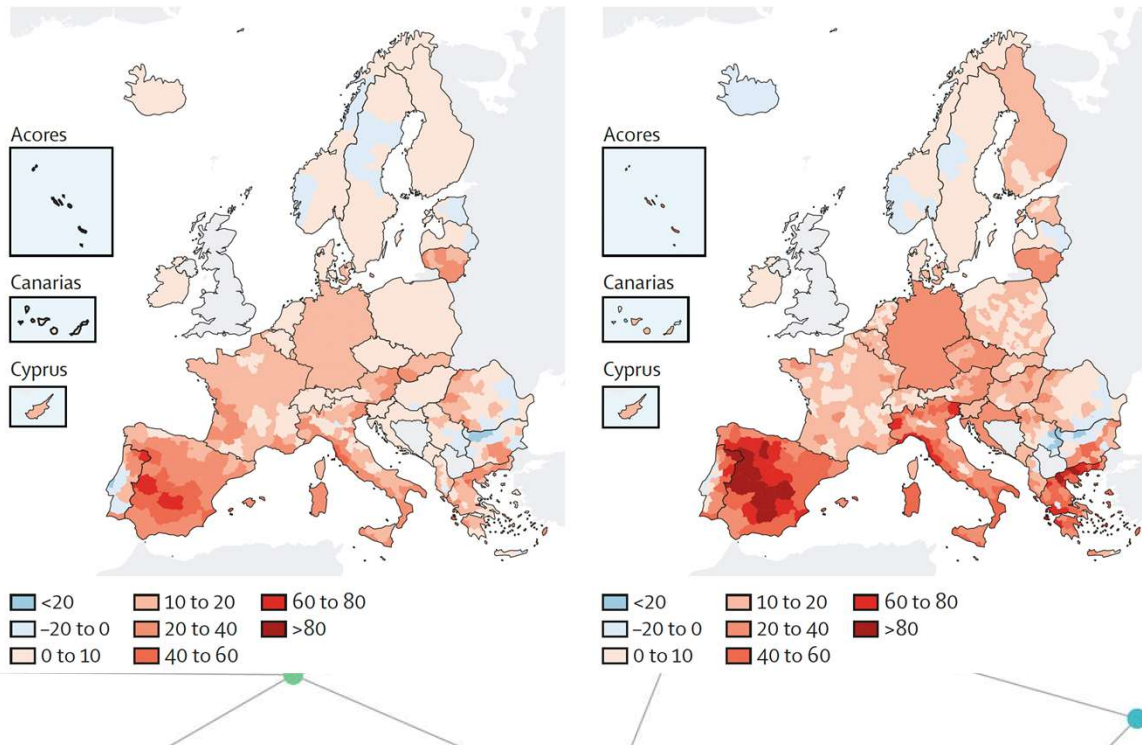
The 2024 report of the Lancet CD Europe Heat related mortality



Headline finding(s):

Heat attributable mortality rate increased by **17.2 deaths per 100 000 inhabitants** in Europe during the last decade (2013-2022) compared to the previous decade (2003-2012)

Increase in heat-related mortality was **almost twice as high in women** compared to men



nature medicine

Article

<https://doi.org/10.1038/s41591-025-03954-7>

Heat-related mortality in Europe during 2024 and health emergency forecasting to reduce preventable deaths

Received: 10 February 2025

Tomáš Janoš^{1,2}, Marcos Quijal-Zamorano¹, Natalia Shartova¹

Europe (654 regions in 32 countries) 62,700 heat-related deaths during the Summer of 2024; 181,000 in summers 2022-24

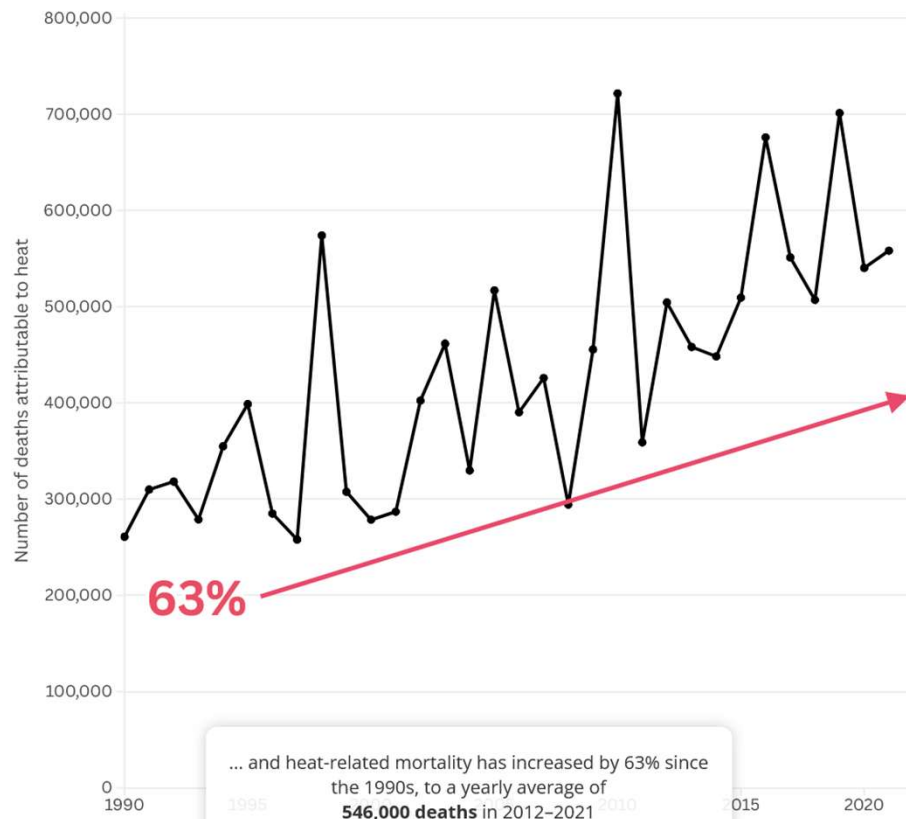
Spain: 6473 in 2024; 27.123 in 2022-24.

The 2025 report of the Lancet Countdown on health and climate change.



Heat-Related Mortality

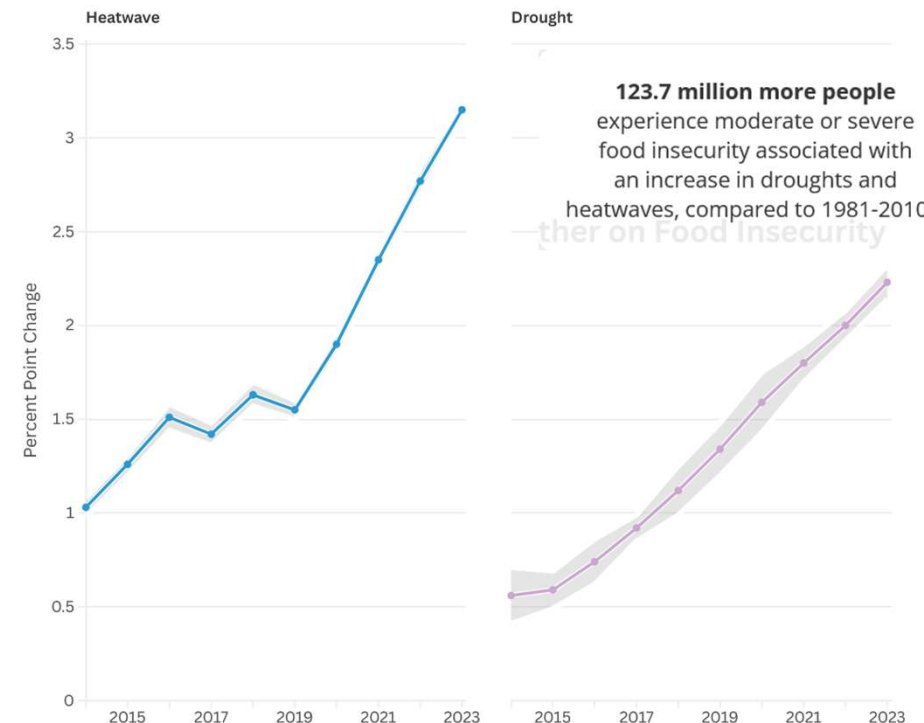
Number of deaths attributable to heat between 1990 and 2021



Impact of Extreme Weather on Food Insecurity

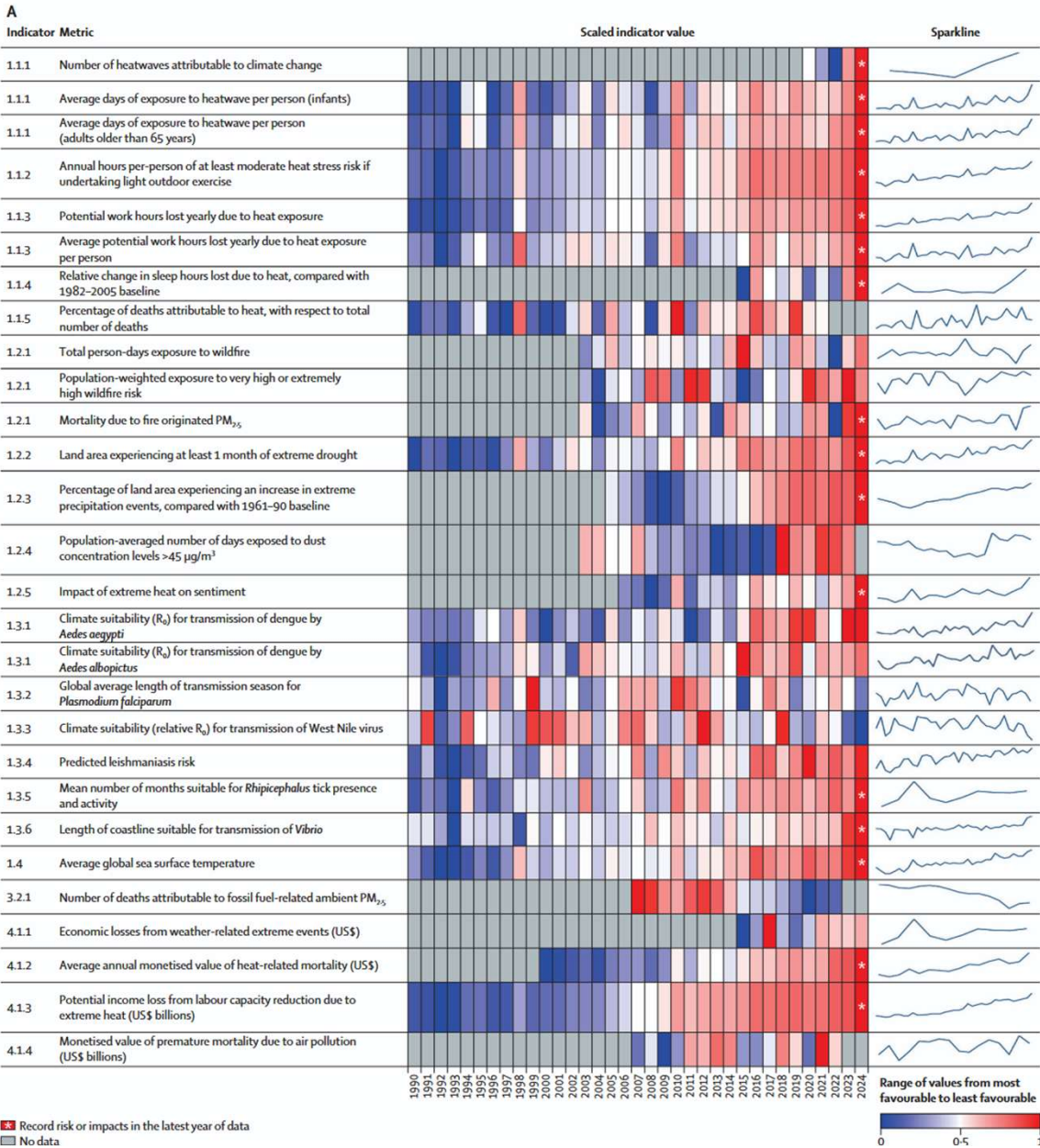
Change in the share of the population reporting moderate or severe food insecurity due to change in heatwave days and drought months, compared to 1981-2010

Extreme Weather Event: Heatwave Drought



The 2025 report of the *Lancet* Countdown on health and climate change

Figure 16: Summary of the evolving links between health and climate change since 1990



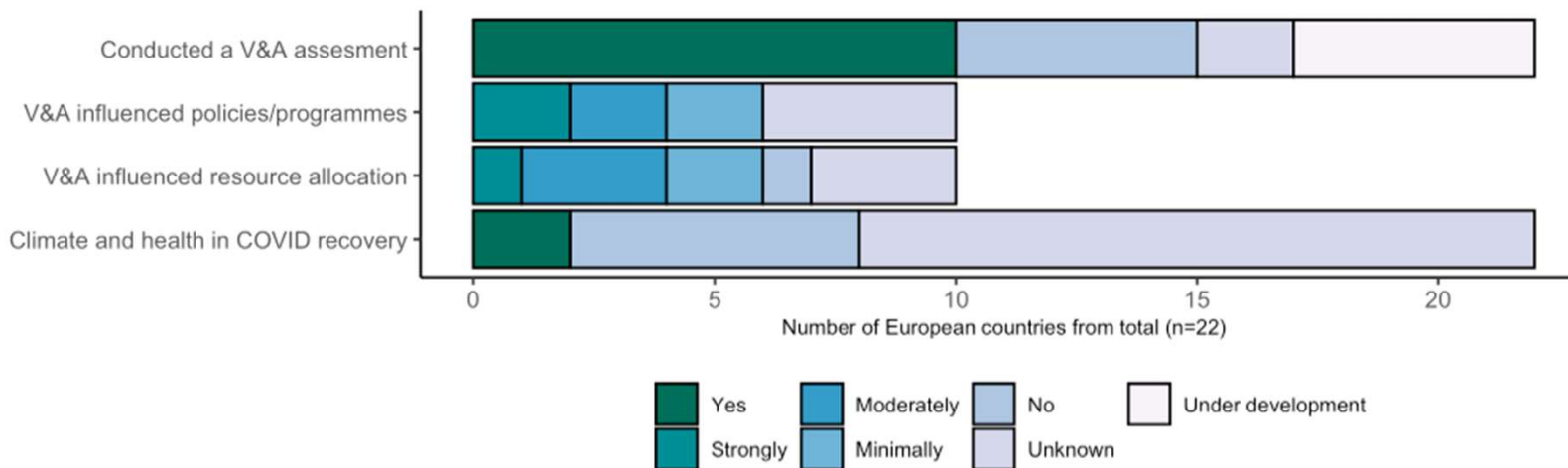


The 2024 report of the Lancet CD Europe National assessments of CC impacts & adaptation



In **2021 10 of 22** countries had conducted a **vulnerability and adaptation** assessments, but only **2 reported** the development of new or revised **health policies / programmes**.

A. Vulnerability and adaptation assessments and COVID-19 recovery



2021 WHO health
and climate change
global survey report



The 2025 report of the Lancet Countdown on health and climate change.

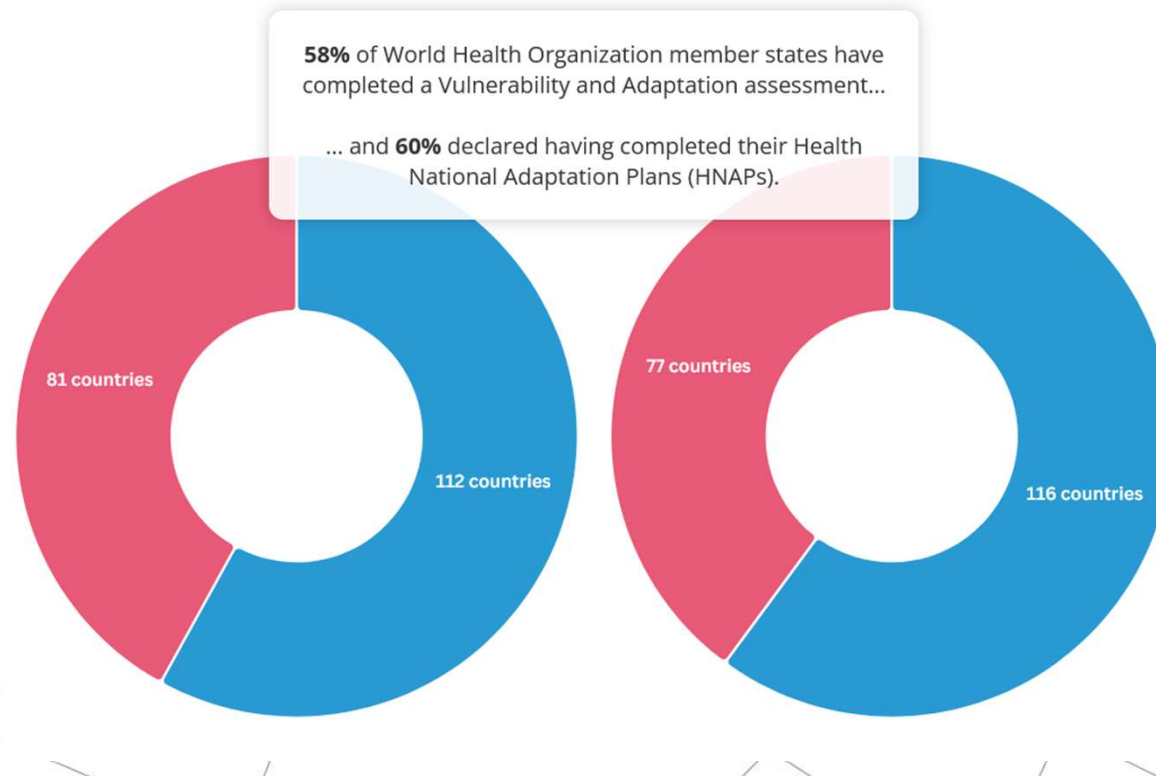
National Assessments and Plans for Health Adaptation

Number of World Health Organization (WHO) members that completed Vulnerability and Adaptation Assessments and Health National Adaptation Plans (HNAP) by ATACH membership, as of March 2025

Completed: ■ Yes ■ No

Vulnerability and Adaptation Assessment

Health National Adaptation Plan





The 2025 report of the Lancet Countdown on health and climate change.

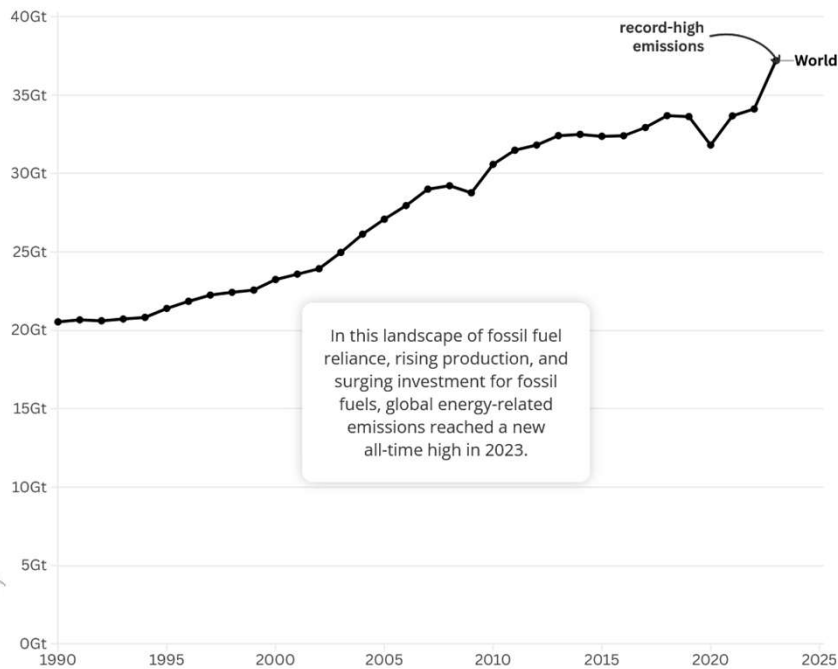


Total CO₂ Emissions from Fossil Fuel Combustion

Gigatonnes of CO₂ emissions from fossil fuel combustion, from 1990 to 2022

World China, low scenario, high China, low scenario, low China, low scenario, low China, low scenario, low

Gigatonnes of CO₂ (Gt)



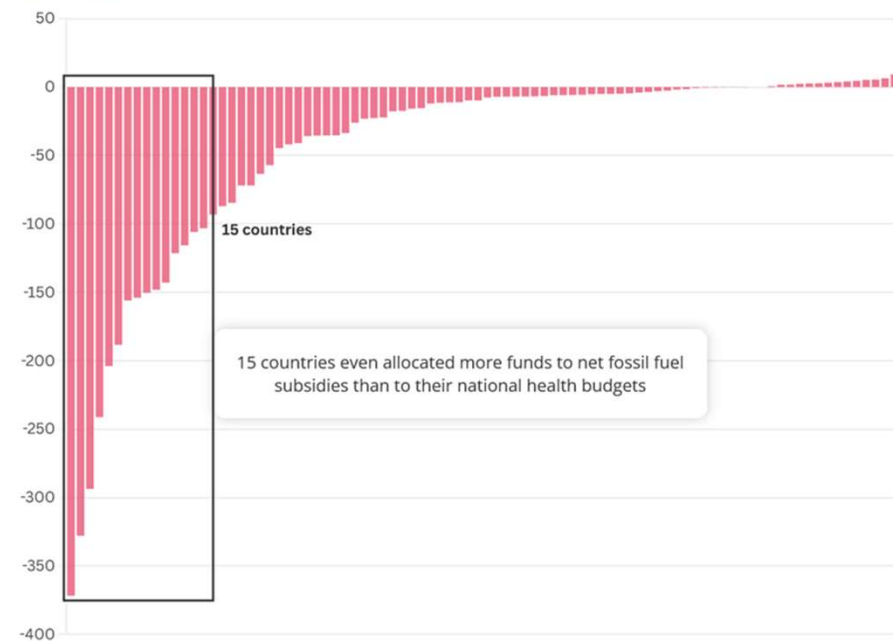
Pricing Greenhouse Gas Emissions

Net carbon price, net carbon revenue, and net revenue as percent of national health expenditure when comparing carbon pricing instruments and fossil fuel subsidies, in 2010 and 2023

Negative values represent net subsidising of fossil fuels

Net carbon revenue as % of health expenditure

2010 2023



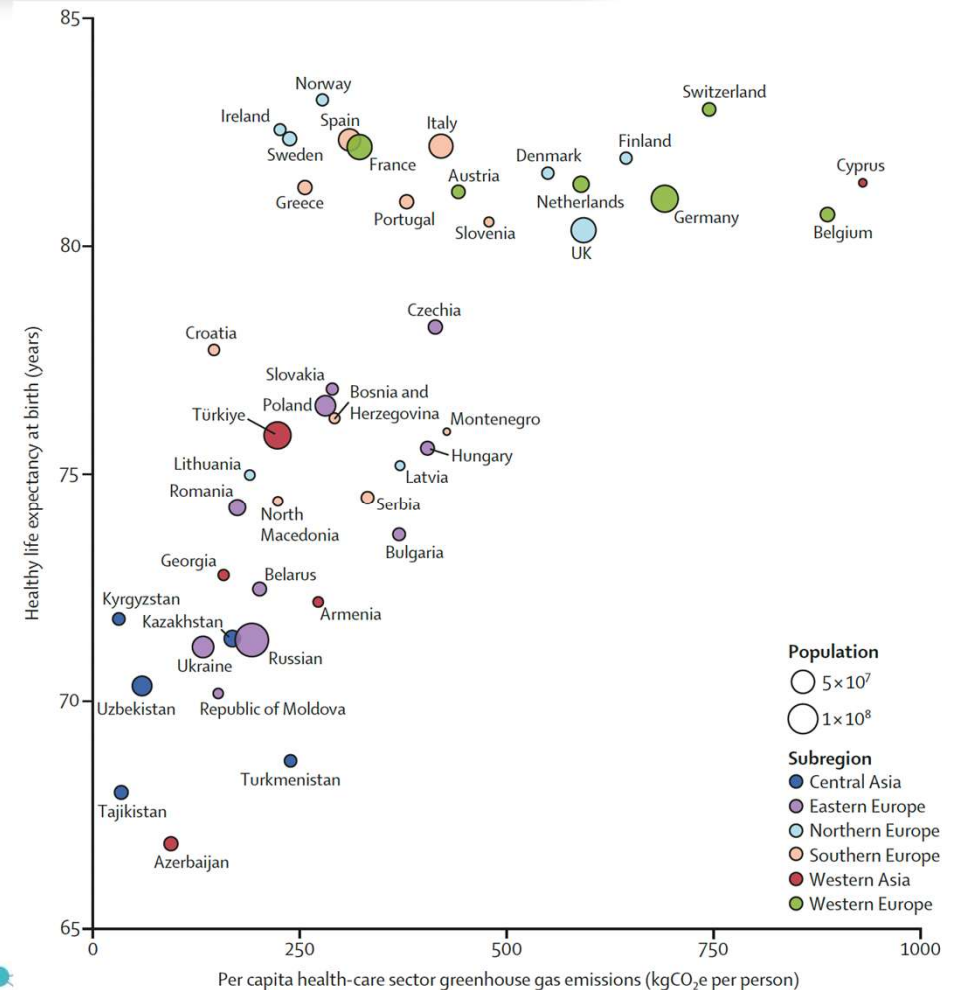


Section 3: Mitigation and cobenefits

3.5 Health sector emissions and harms

Headline finding(s):

- WHO European region healthcare sector contributed **330 MtCO₂e (356 kgCO₂e per person)** in 2020
- This was a **3% per capita increase** compared with 2010
- High-quality healthcare (using life expectancy as a proxy) can be achieved with lower emissions
- Regional air pollution related to European health care was estimated to result in an additional **540.000 disability adjusted life years (DALYs)** in 2020





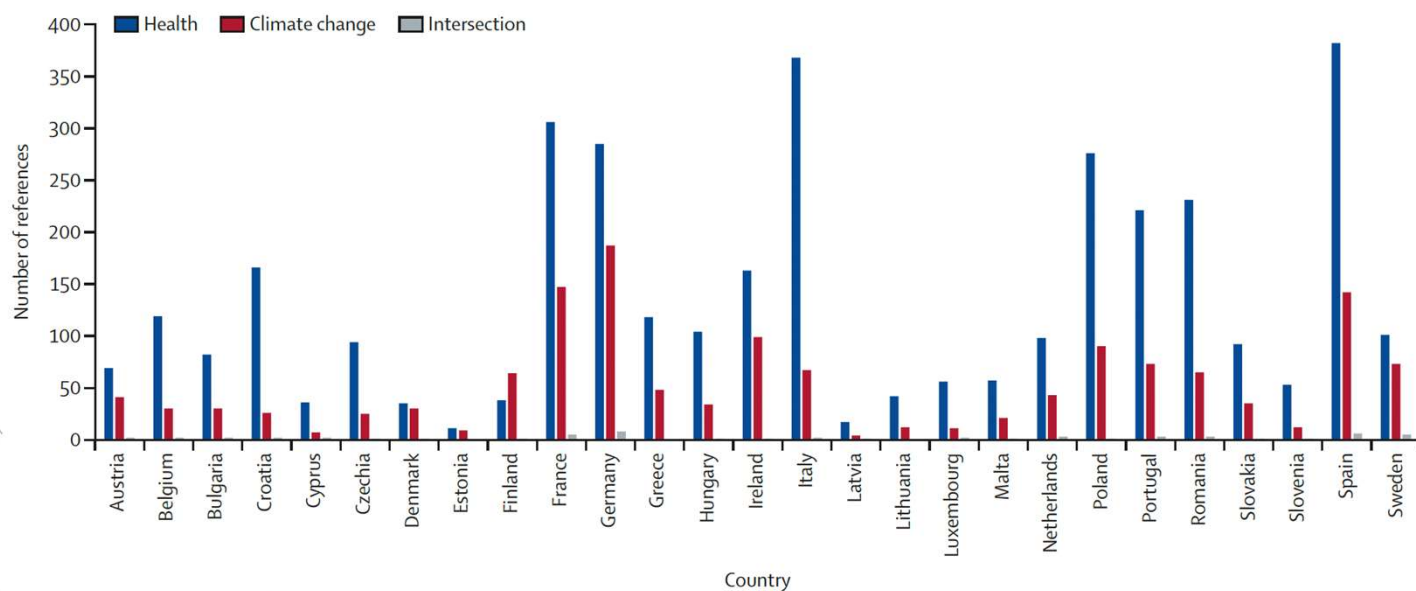
Section 5: Public and political engagement

5.3.1 Engagement in the European Parliament



Headline finding(s):

- EU Parliament speeches assessed between 2014-2022 (264 058). In 2022 over 800 climate change and 1400 health references – but **only 10 (0.1%)** climate change and health **intersection**
- Only 2 of the 10 also mentioned **inequality terminology**



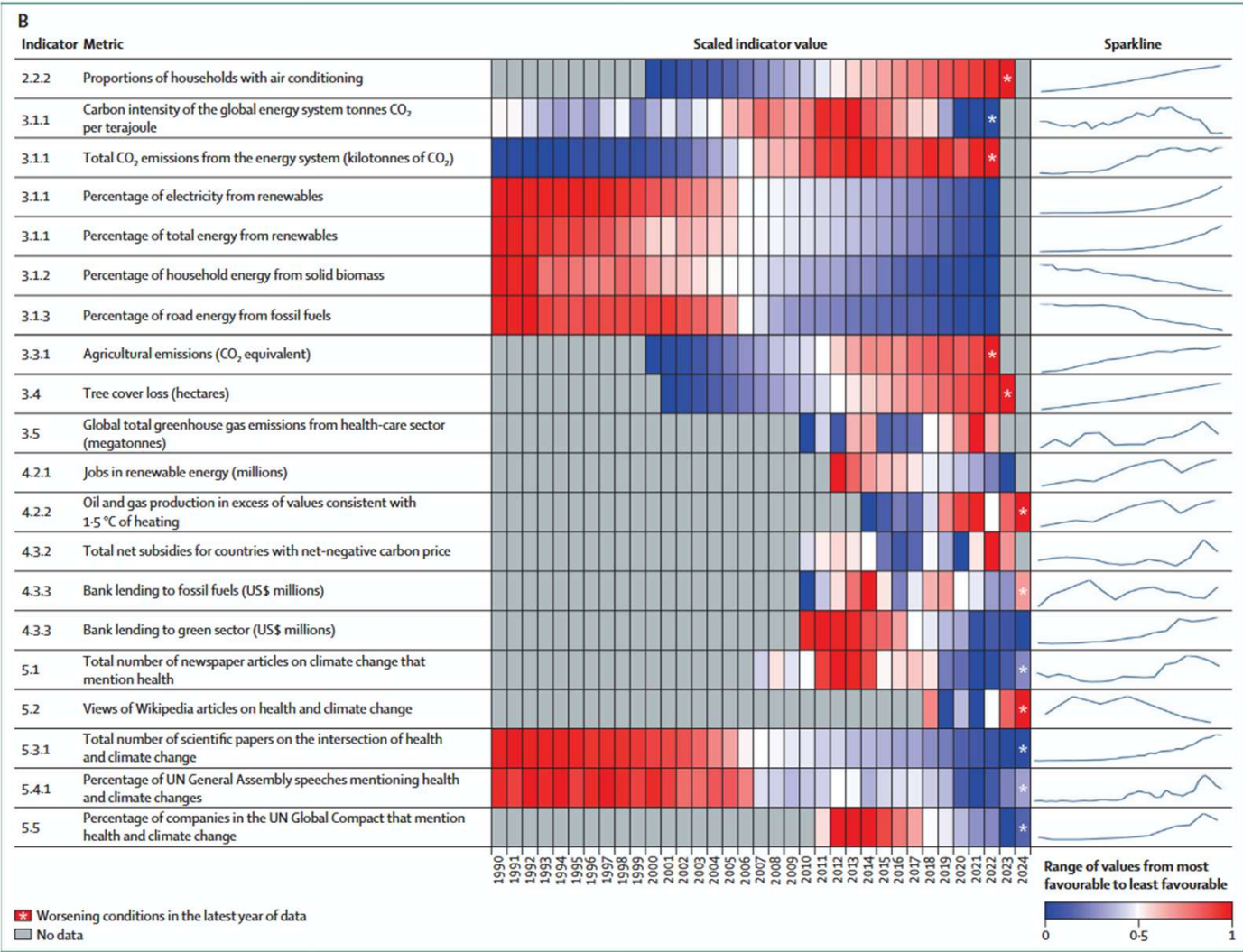
climate-health
cluster

The importance of
protecting **human
health** in the EU
climate policies

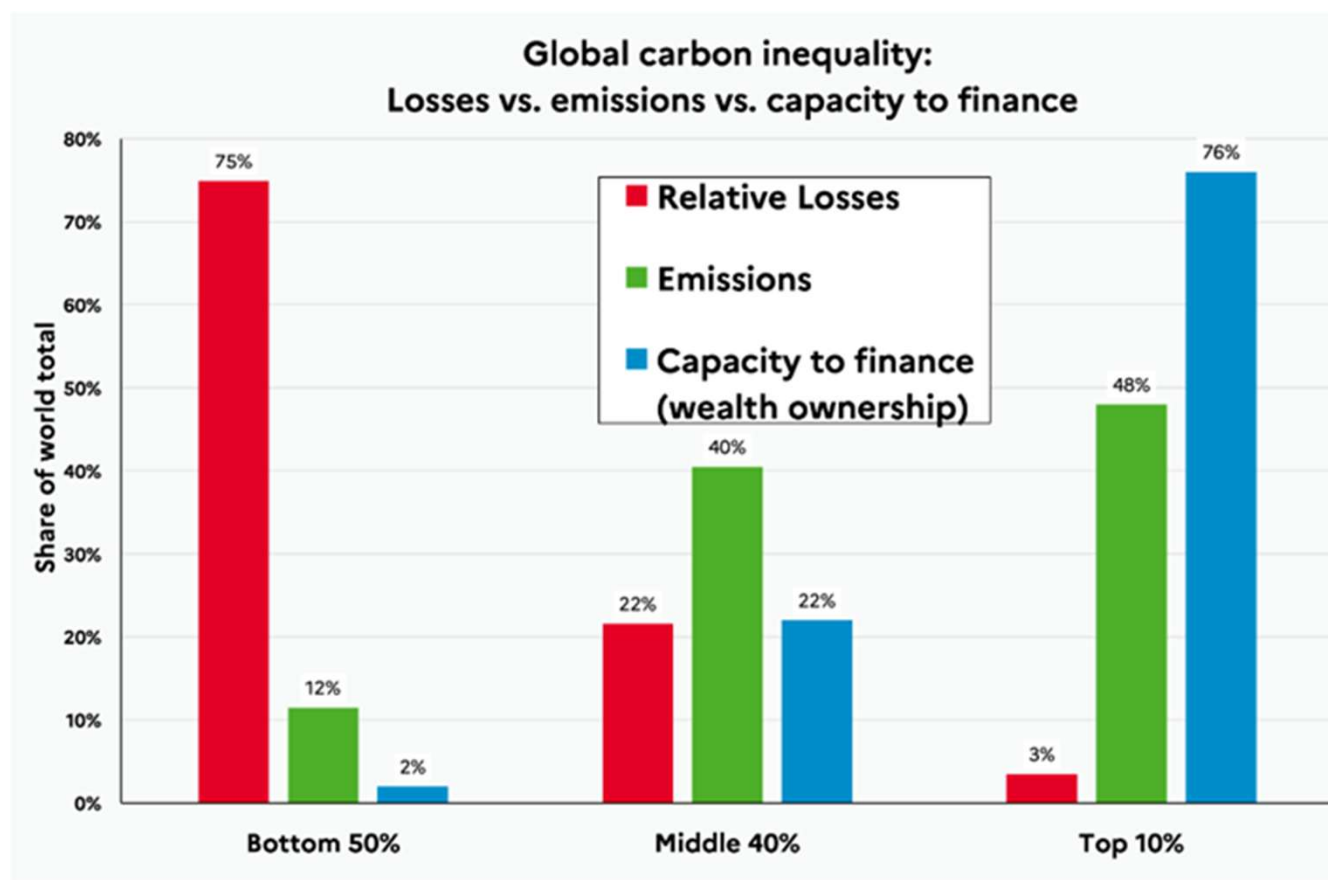


The 2025 report of the *Lancet* Countdown on health and climate change

Figure 16:
Summary of the
evolving links
between health
and climate change
since 1990



The need of equity oriented policies: Climate Inequality Report 2023 (Fig 29)



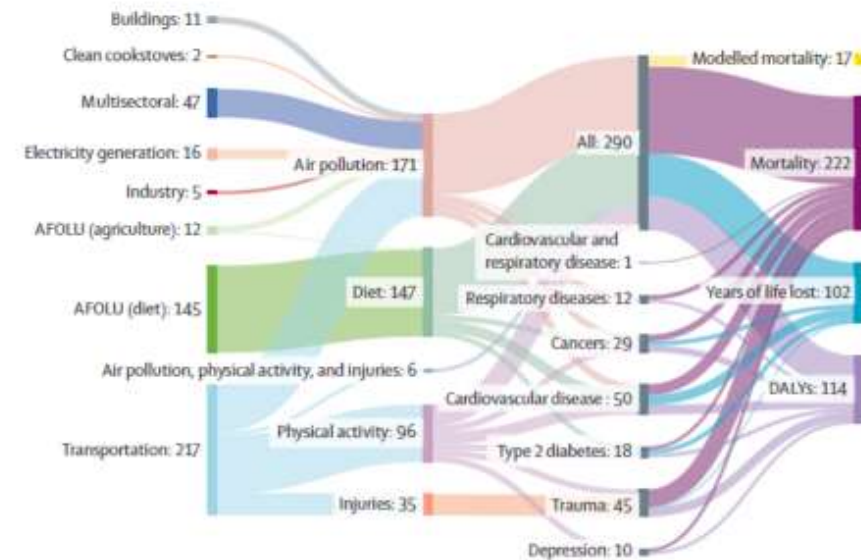


Evidence based ambitious and equitable policies with urgency

- Incentivise renewable energy, energy efficiency & fossil fuel phaseout
- Assess delivered interventions, & use the evidence to course-correct
- Support less resourced countries through knowledge transfer & financial support to
- Redirect fossil fuel subsidies towards equitable renewable energy access, & improving health
- Develop climate change mitigation and adaptation policies that integrate health, at all levels
- Include community perspectives in the design of climate-health policies
- Protect multilateralism to promote global action

The Lancet Pathfinder Commission on net-zero co-benefits. Whitmee S et al. Lancet 2024

- ◆ 26 reviews, 200 mitigation actions
- ◆ Health co-impact: YLL per 100 000 pop /year
- ◆ Carbon mitigation: Kilotons of CO₂eq per 100 000 pop / year



Connecting planetary boundaries and planetary health: a resilient and stable Earth system is crucial for human health



Earth system scientists developed the planetary boundaries framework for measuring and tracking the stability and resilience of the Earth system.¹ The framework quantifies safe boundary levels for nine processes that regulate the state of the Earth system and are increasingly affected by human activity.² Six of these planetary boundaries are now transgressed and most

health in a variety of ways (for examples of impacts of each planetary boundary on non-communicable diseases, food and nutrition, infectious diseases, reproductive, maternal and child health, and mental health, see the appendix). Although there has not been a comprehensive assessment of the total associated burden of disease, the scale of many known impacts⁸

Published Online
July 15, 2025
[https://doi.org/10.1016/S0140-6736\(25\)01256-5](https://doi.org/10.1016/S0140-6736(25)01256-5)

See Online for appendix

[https://doi.org/10.1016/S0140-6736\(25\)01256-5](https://doi.org/10.1016/S0140-6736(25)01256-5)

Annual Review of Environment and Resources

Planetary Health: Focusing on the Intersection of Human Health and the Earth System

Carlos A. Faerron Guzmán,^{1,2} Nicole Redvers,³
John S. Ji,⁴ Oliver Lacey-Hall,⁵ Jemilah Mahmood,⁵
Oskar Masztalerz,⁶ Alexandra L. Phelan,^{7,8}
Johan Rockström,^{6,9} and Samuel S. Myers⁷

