

THE HIDDEN HEALTH CRISIS: HOW FOSSIL FUELS THREATEN HUMAN HEALTH AND WHAT WE CAN DO ABOUT IT

12 June 2025

Giulia Gasparri

Consultant, Cambridge Economics Policy Associates (CEPA)

Founding Committee Member, Youth Climate and Health Network, Global Climate and Health Alliance



5th edition

GLOBAL COMMUNITY HEALTH ANNUAL WORKSHOP

10, 11 and 12 June 2025

Organized by

WHO COLLABORATING CENTER

UNESCO CHAIR

Global Health & Education

Building healthy, fair and climate-smart communities: addressing commercial determinants of health

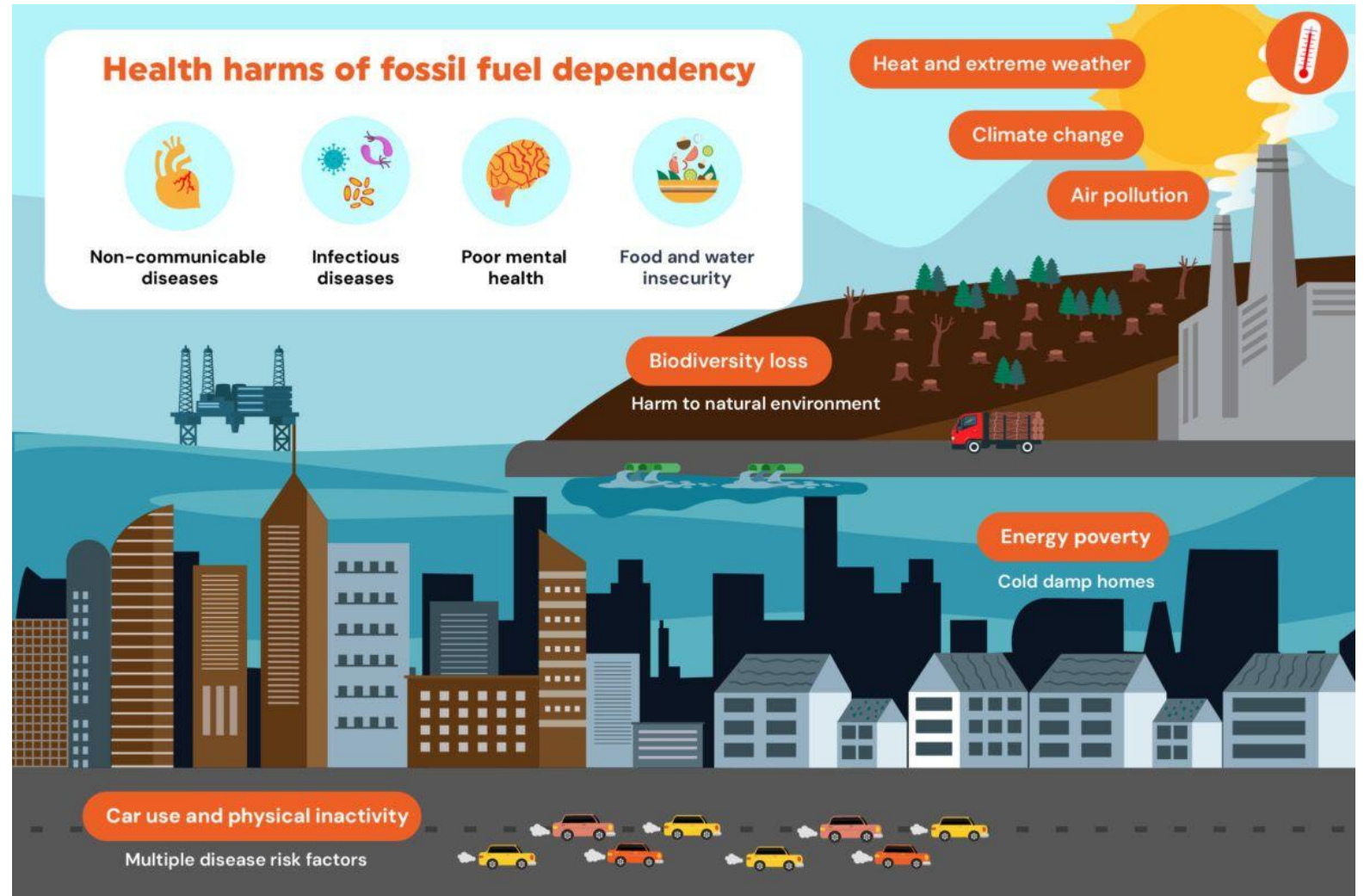
FREE, ONLINE AND INTERACTIVE REGISTER NOW!
[BIT.LY/REGISTER_CH_WORKSHOP_2025](https://bit.ly/register_ch_workshop_2025)

Logos at the bottom include: unesco, Global Health Education, EHESP, IUHPE UIPES, REFIPS, EUPHA, LCA Université Clermont Auvergne, and University of HUDDERSFIELD Inspiring global professionals.

bit.ly/register_ch_workshop_2025

AGENDA

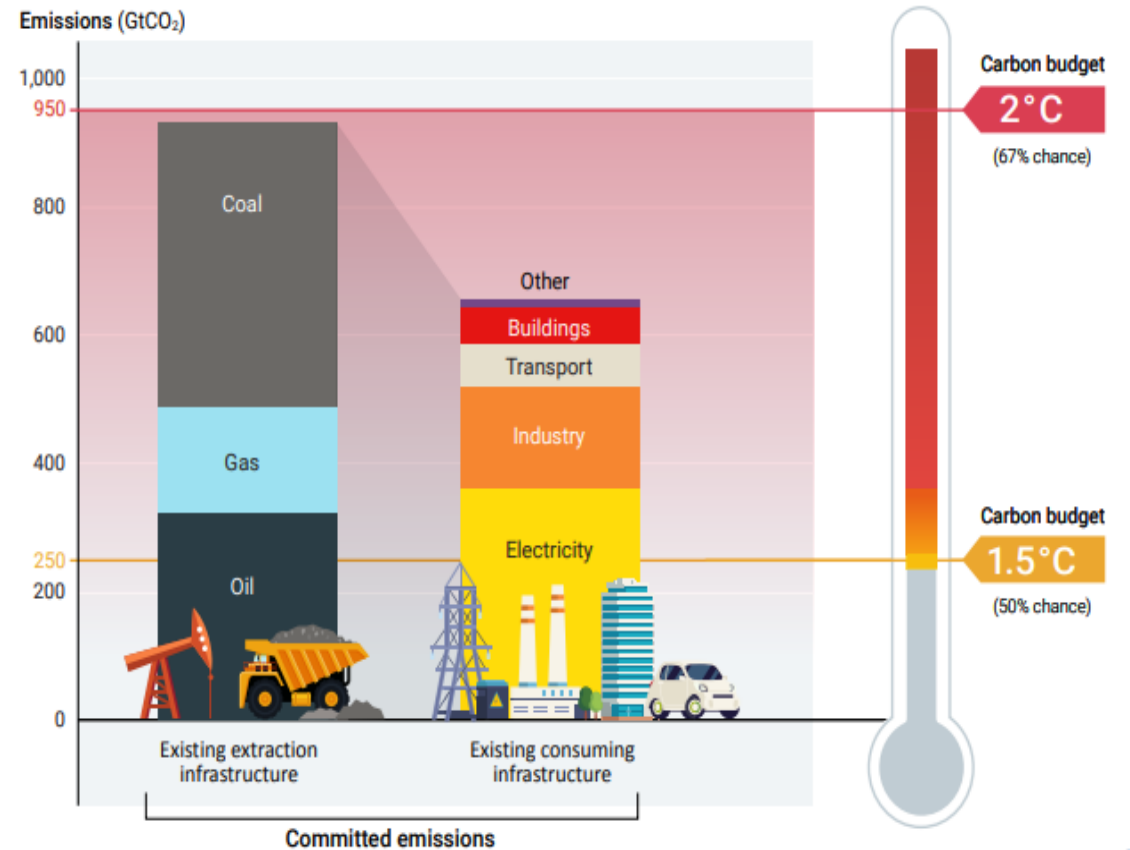
1. **The health impacts** of fossil fuels
2. **The co-benefits** of phasing-out fossil fuels for human health
3. **Civil society and youth** holding the industry and governments accountable



A FOSSIL FUEL DRIVEN WORLD

- The fossil fuel industry is the **biggest contributor to greenhouse gas emissions** which are dangerously heating the planet and exacerbating the climate crisis.
- GHG emissions are largely the product of **burning fossil fuels** (coal, gas and oil) for power generation (e.g. electricity, heating), transportation, manufacturing and production.
- **GHG emissions have been rising** and mean **global temperatures** along with it since the Industrial Revolution due to **human activities**.
- Nearly **80%** of **historical cumulative emissions** came from G20 countries, with the largest contributions from the United States of America, the European Union and China, while least developed countries contributed **4%**.

Figure ES.5 Committed CO₂ emissions from existing fossil fuel infrastructure, compared with carbon budgets reflecting the long-term temperature goal of the Paris Agreement



Source: UNEP, 2023

FOSSIL FUELS HARM HUMAN HEALTH

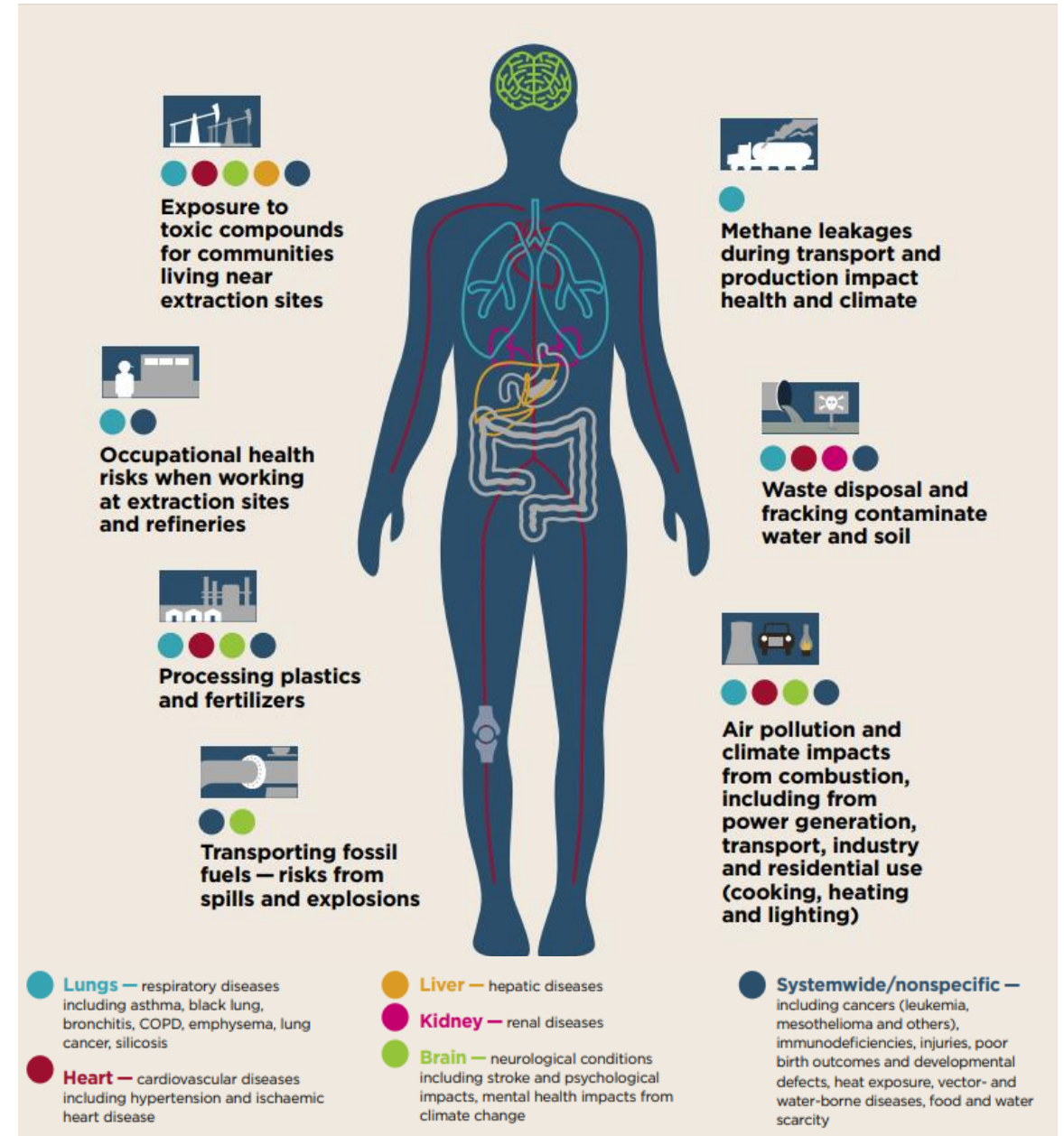
Air pollution

- Fossil fuel burning led to at least 3.33 million deaths from outdoor fine particulate matter (PM2.5) air pollution globally in 2021
- The domestic use of dirty solid fuels caused 2.3 million deaths from indoor air pollution in 2020 across 65 countries analysed

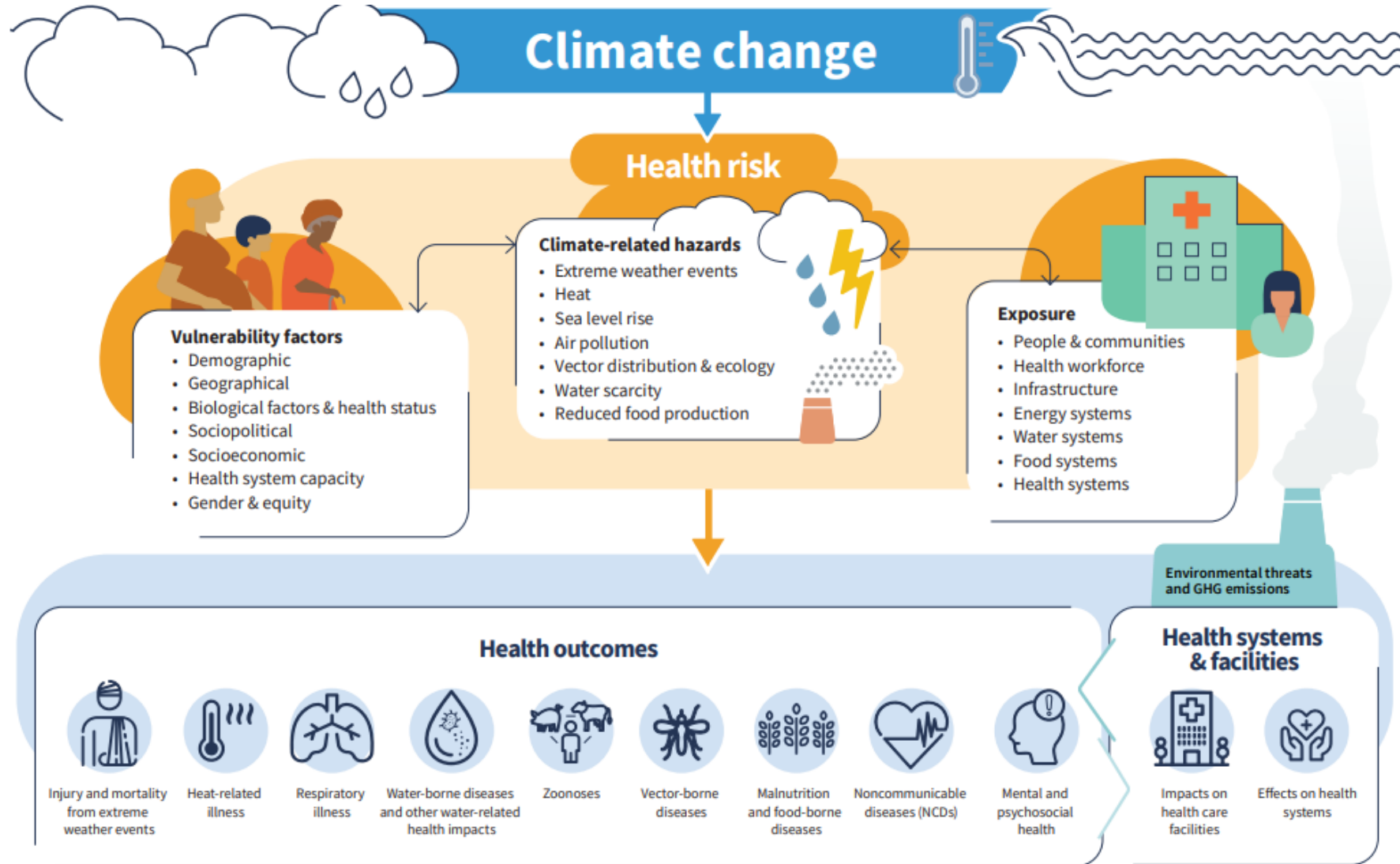
Water pollution

- Each fracking well uses between 1.5 million to 16 million gallons of water, and the resulting wastewater can be toxic, contaminating groundwater and drinking water.

Climate change



FUELING THE CLIMATE CRISIS



HEAT-RELATED MORTALITY AND MORBIDITY

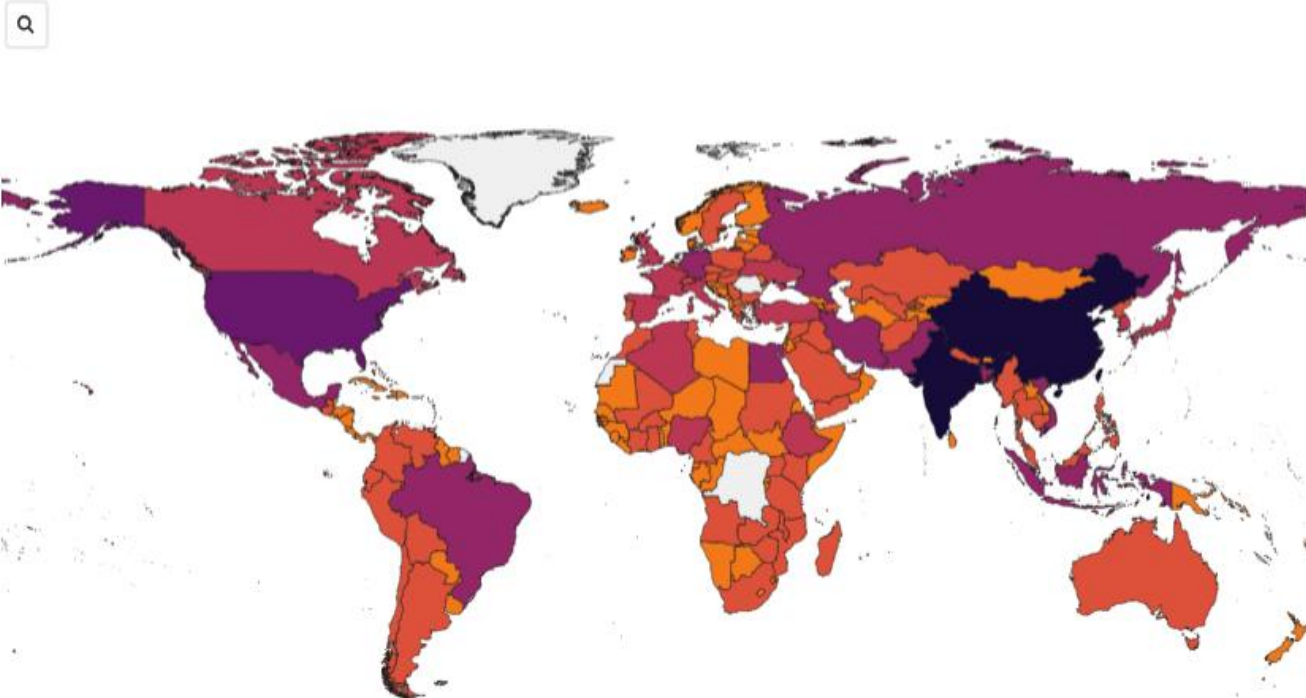
Projection: Heat-related mortality at Mid-Century

Estimated absolute change in health-related deaths in adults over age 65 at mid-century (2041 - 2060), with respect to 1995-2004 baseline. Results are shown for two emissions scenarios.

Emissions scenarios are denoted by estimated increase in average global temperature by 2100

Emissions Scenarios: **Under 2° Scenario** 3.7° Scenario

Heat-related Mortality:  -3800 50,000 100,000 200,000



Source: [Lancet Countdown on Health and Climate Change, 2023](#)

Deaths

- Heat-related deaths are projected to increase by **370%** by mid-century.

Malnutrition

- **524.9 million additional** people are projected to experience moderate to severe food insecurity
- Compared with 1981–2010, climate change led to **127 million more people** experiencing moderate or severe food insecurity in 2021.

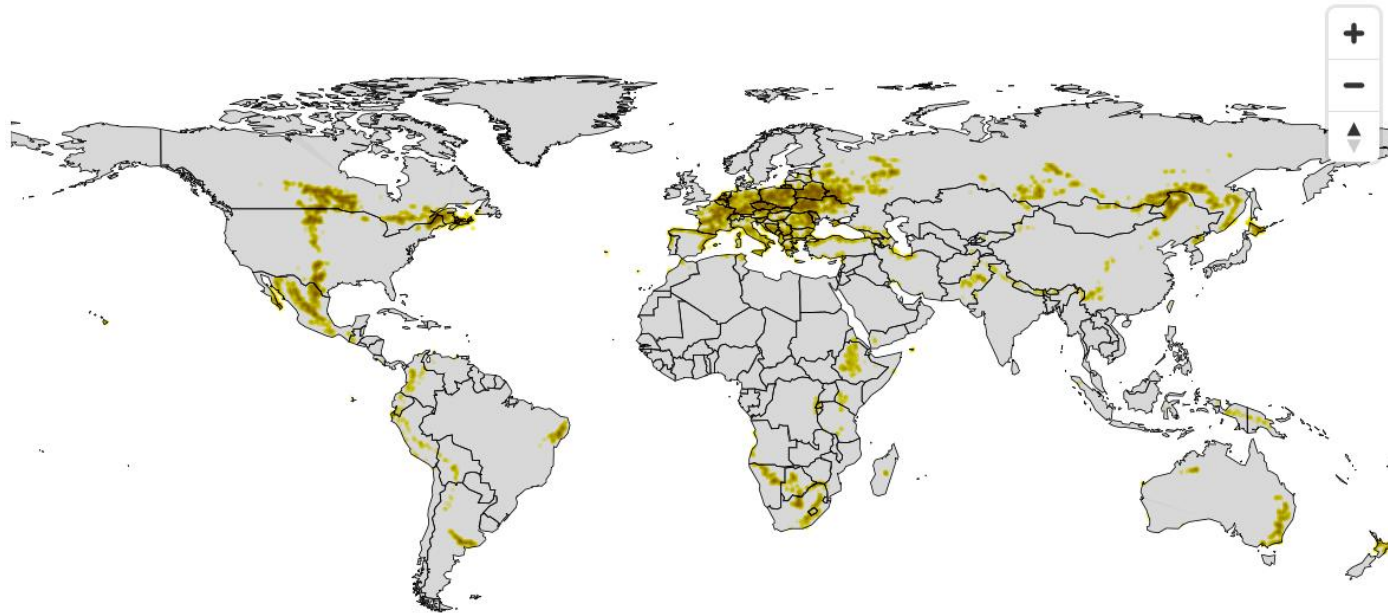
Labour loss

- Heat-related labour loss is projected to increase by **50%** by mid-century.
- Heat exposure-related loss in labour capacity resulted in average potential income losses equivalent to **US \$835 billion in 2023**.

INCREASE IN CLIMATE SUITABILITY FOR INFECTIOUS DISEASE TRANSMISSION

Climate Suitability for the Transmission of Malaria

Newly suitable areas for transmission of *Plasmodium falciparum* in the 2014-2023 period, compared to 1951-1960, in land areas that are suitable for *Anopheles* mosquitoes



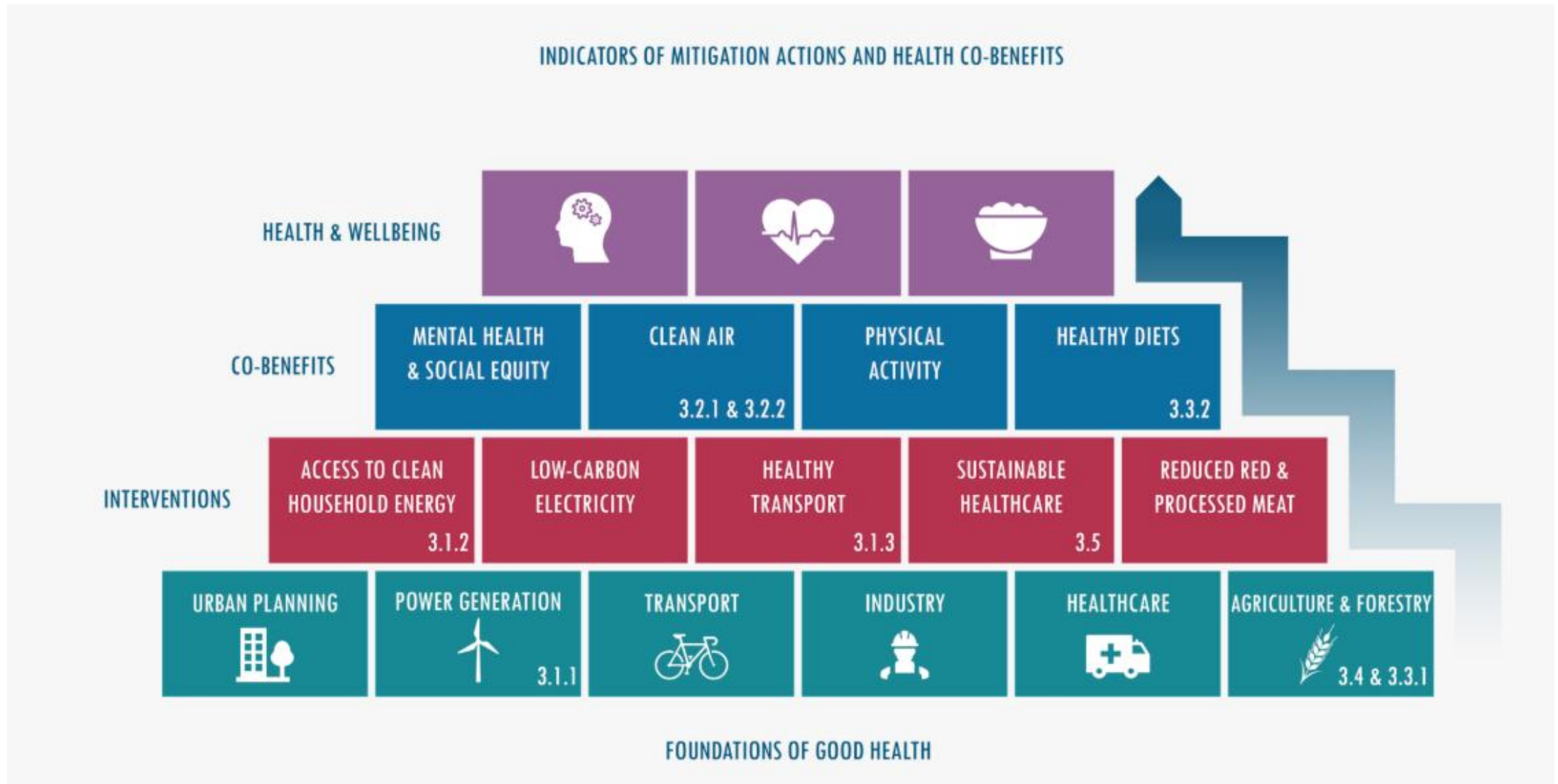
Malaria

Between 1951-1960 and 2014–2023, an extra **17.1%** of the global land area became suitable for the transmission of *P. falciparum*; and an extra **21.8%** for the transmission of *P. vivax*.

Dengue

The climatic suitability for the transmission of dengue by *Aedes albopictus* and *Aedes aegypti* increased by **46.3%** and **10.7%** respectively between 1951–1960 and 2014–2023

THE CO-BENEFITS OF PHASING OUT FOSSIL FUELS



Source: [Lancet Countdown on Health and Climate Change, 2024](#)

THE CO-BENEFITS OF PHASING OUT FOSSIL FUELS

- **Cleaner electrification of primary healthcare facilities:** Using decentralized solar systems and life-saving medical devices, modelled for 63 countries, saves **290 thousand lives per year from 2024**.
- **Cleaner household energy sources:** Transition to 100% clean household energy by 2030 for 129 countries, **averts 133 thousand deaths each year**.
- **Sustainable transportation systems:** Encouraging the use of public transport, cycling and walking can lower air pollution and promote physical activity saving **1.2 million premature deaths due to physical inactivity per year by 2040**. Moreover, redesigning cities for sustainable mobility can **reduce traffic injuries**, the leading cause of death for people aged 5–29 years
- **Fiscal policies on fossil fuel pricing:** Phasing out fossil fuel subsidies and taxing fossil fuels, modelled for 168 countries, saves **1.2 million lives annually by 2034**.



GOVERNMENTS AND COMPANIES CONTINUE FUELLING THE FIRE

Financial resources continue to be poured by governments and companies to fossil fuel extraction harming human health.

- Energy CO2 emissions continue to grow **reaching a record high** in 2023.
- The strategies of the world's 114 largest oil and gas companies as of early 2024 will result in emissions surpassing levels consistent with Paris Agreement goals by **189% by 2040**.
- 72 countries still promoted fossil fuel burning through **net direct subsidies** in 2022, for a net total of US\$ 1.4 trillion.
- 23 countries **spent more in fossil fuel subsidies than on healthcare**.



FOSSIL FUEL GREENWASHING



Source: The Guardian

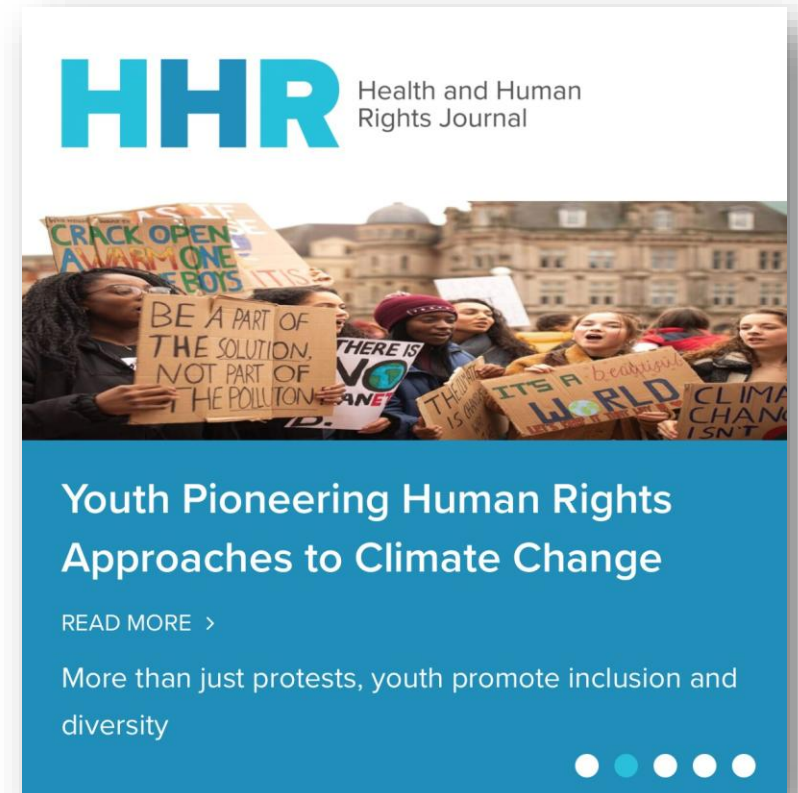
Research on ExxonMobil, Chevron, Shell and BP, which together are responsible for more than 10% of global emissions since 1965, found:

- strong increase in discourse related to “climate”, “low-carbon” and “transition”, especially by BP and Shell;
- increasing tendencies toward strategies related to decarbonization and clean energy;
- a continuing business model dependence on fossil fuels, which includes increasing rather than decreasing exploration.

YOUTH HOLDING THE INDUSTRY AND GOVERNMENTS ACCOUNTABLE

Youth are leading civil society protests in every country and have filed litigations in national courts, such as in Australia, Canada, Colombia, Mexico, India, Pakistan, and South Korea, to hold governments and the fossil fuel industry accountable ([Gasparri et al, 2022](#)).

Members of the Youth Climate and Health Network are specifically focusing their advocacy on the urgency of governments and private companies to phase-out fossil fuels to avoid devastating consequences on human health (e.g. [Okorie and Fletcher, 2025](#))



YOUTH DRIVING CHANGE



Source: Pacific Islands Students Fighting Climate Change | Seeking an Advisory Opinion from the ICJ

In 2019, a group of 27 students from the University of the South Pacific came together to begin a campaign to persuade the leaders of the Pacific Islands Forum to take the issue of **climate change and human rights to the International Court of Justice**.

Following the UN General Assembly's adoption of Resolution in March 2023, the **International Court of Justice issued an order on 4 August 2023 regarding the obligations of states in respect of climate change**.

YOUTH RECOGNIZED AS AGENTS FOR CHANGE

Recognizes the role of children and youth as agents of change in addressing and responding to climate change and encourages Parties to include children and youth in their processes for designing and implementing climate policy and action, and, as appropriate, to consider including young representatives and negotiators into their national delegations, recognizing the importance of intergenerational equity and maintaining the stability of the climate system for future generations (COP27, [Sharm el-Sheikh Implementation Plan, art. 55](#))



HEALTH COMMUNITY LAUNCHES #BREAKFOSSILFUELINFLUENCE CAMPAIGN

The Break the Fossil Influence campaign is calling on health organizations to lead by example: Stop working with PR and ad agencies that also work for the fossil fuel industry.



For more information:
[Break the Fossil
Influence Campaign -
The Global Climate
and Health Alliance](#)

TAKE HOME MESSAGES

1. Fossil fuels are negatively impacting human health and increasing mortality and morbidity. The populations most affected are the least responsible for the fossil fuel driven emissions.
2. Phasing out fossil fuels will yield many co-benefits for human health due to the reduction of pollution, climate change and the opportunities to build sustainable cities and transport systems powered by clean energy.
3. Danger of greenwashing and the commercial practices of the fossil fuel industry which serve to promote their business interests in direct conflict with public health goals
4. Civil society and youth are holding the industry and governments accountable across the world. There are many opportunities to join these activities.



QUESTIONS

1. Do you have any examples in your community, country or region of actions to hold the fossil fuel industry accountable?
2. What are some barriers to meaningful youth engagement from your experience? How can these be overcome?

THANK YOU

Further reading material:

- [Lancet Countdown on Health and Climate Change, 2024 report](#)
- [Children, Adolescents, and Youth Pioneering a Human Rights-Based Approach to Climate Change](#)
- [WHO COP29 Special Report: Health is The Argument for Climate Action](#)
- [Cradle to grave: The health harms of fossil fuel dependence and the case for a just phase-out](#)
- [UNEP Broken Record: Temperatures hit new highs, yet world fails to cut emissions \(again\)](#)
- [Practical Guidance Resource to Operationalize the Global Consensus Statement on Meaningful Adolescent and Youth Engagement \(MAYE\)](#)

Giulia Gasparri

g.gasparri@hotmail.com