

Climate action for health: from COVID-19 to COP-26



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Planetary Health**



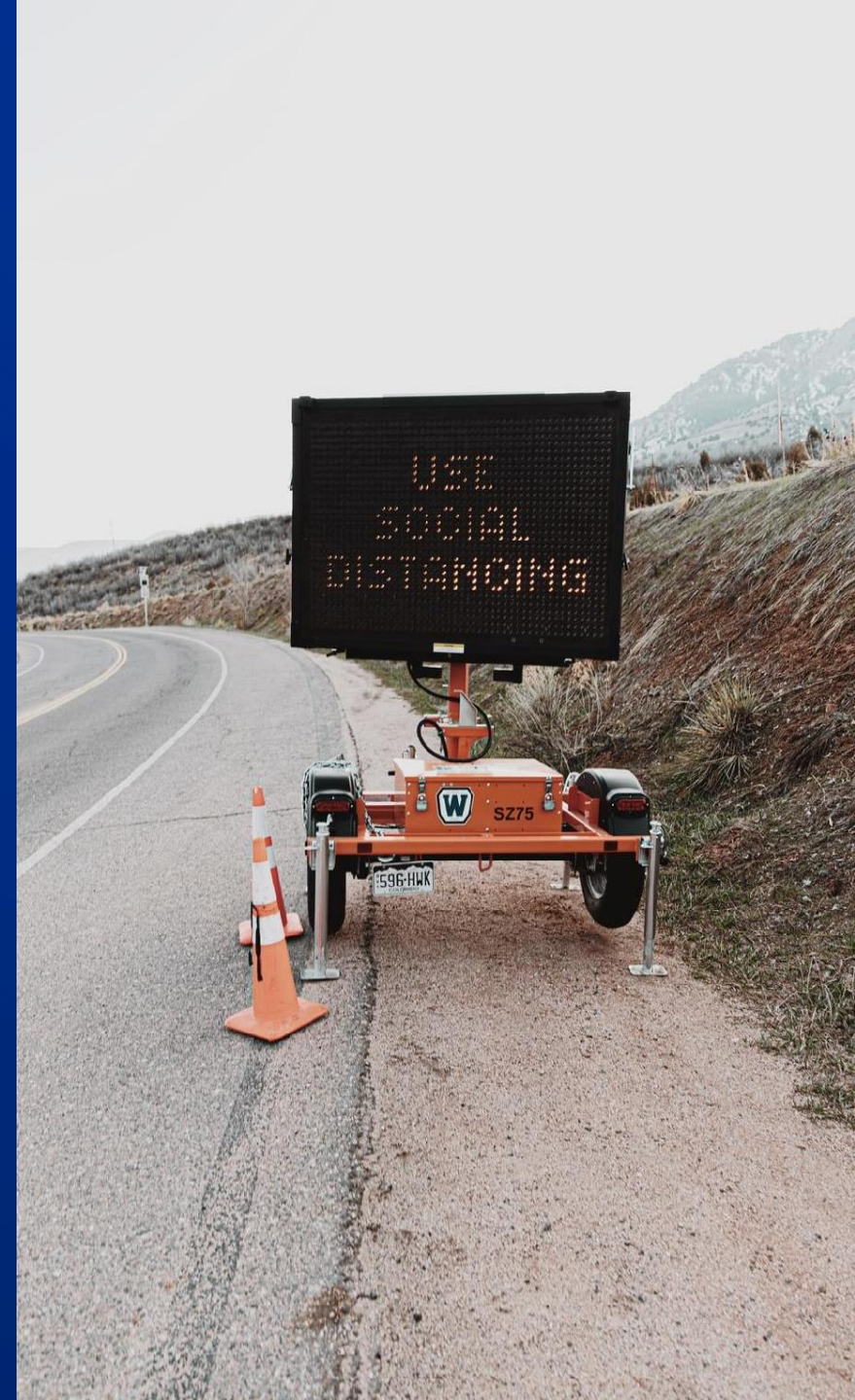
**LONDON
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& TROPICAL
MEDICINE**

A turning point for our planet and our health ?

COVID-19 has brought into sharp focus the fragile relationship between society, the economy and health. We owe it to today's and future generations to build our recovery on **solid foundations**

The last year has also demonstrated the need for **resilient health and social care systems**, as well as renewed focus and public support for global health priorities

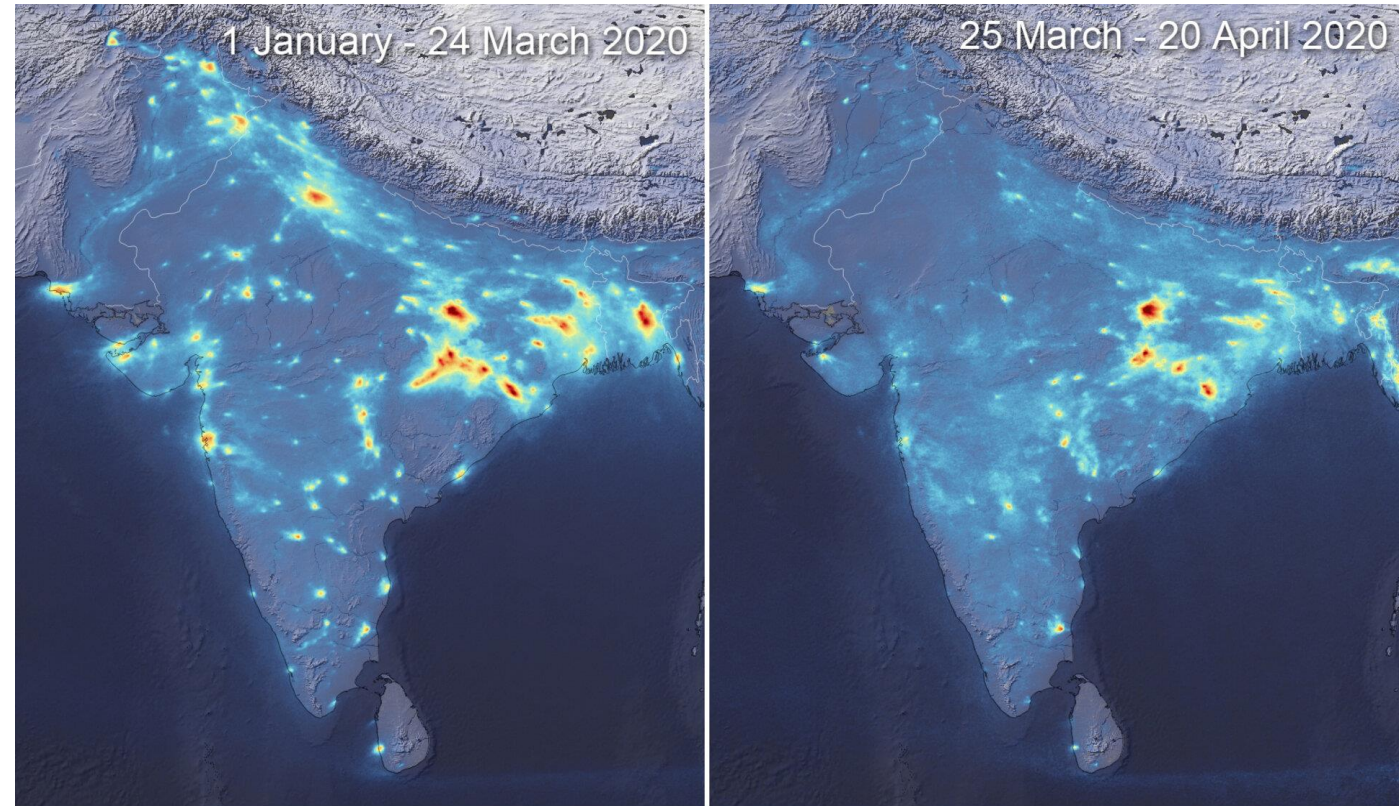
COP26 provides the opportunity to **unite** on an evidence based path to a zero carbon, resilient and inclusive global economy - building back greener and healthier from COVID-19



Air pollution declines in some countries



Nitrogen dioxide over India



Sentinel-5P Nitrogen Dioxide tropospheric column

0 $\mu\text{mol}/\text{m}^2$ 300

<https://www.abc.net.au/news/2020-04-09/himalayas-visible-india-pollution/12136856>

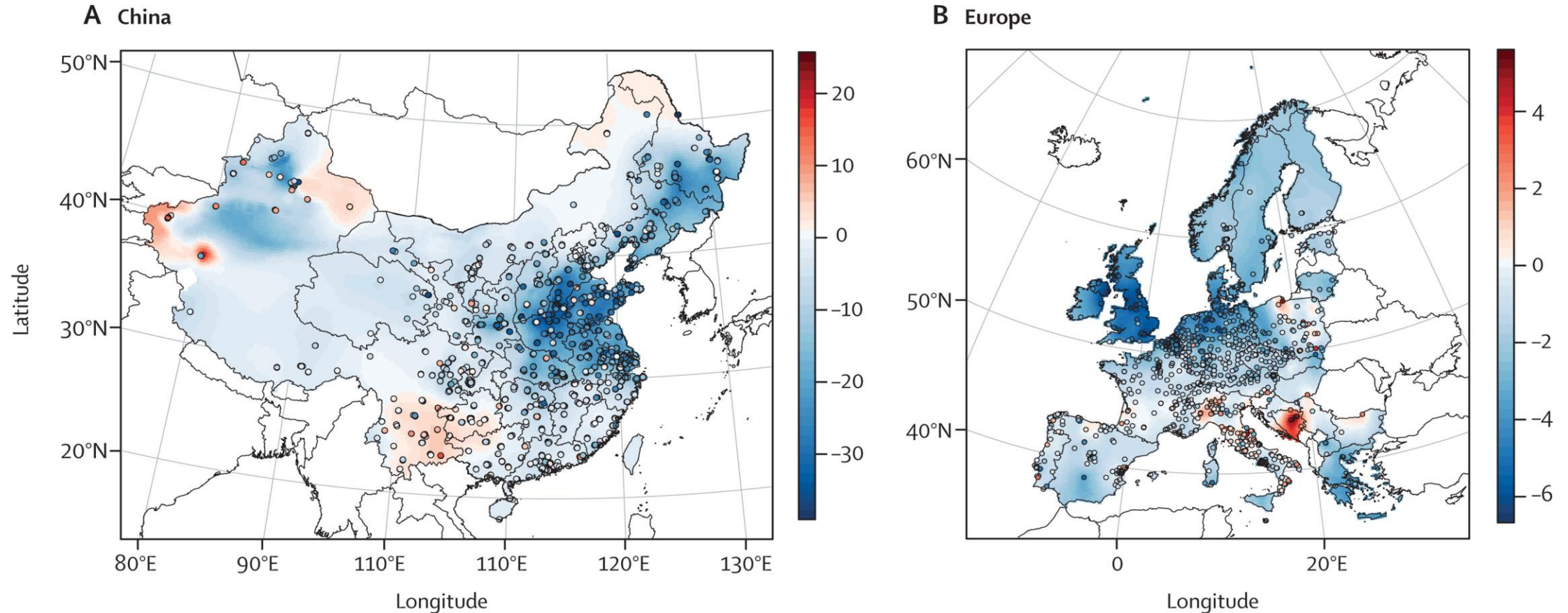
Reduced PM_{2.5} during COVID lockdowns slowing global economy

Giana et al. 2020 Lancet
Planetary Health

Feb 1 to March 31 an estimated 24,200 deaths were averted in China

Feb 21 to May 17 an estimated 2,190 deaths were averted in Europe

Long-term avoided premature fatalities due to reduced PM_{2.5} : 76 400 - 287 000 for China, and 13,600 to 29,500 for Europe.



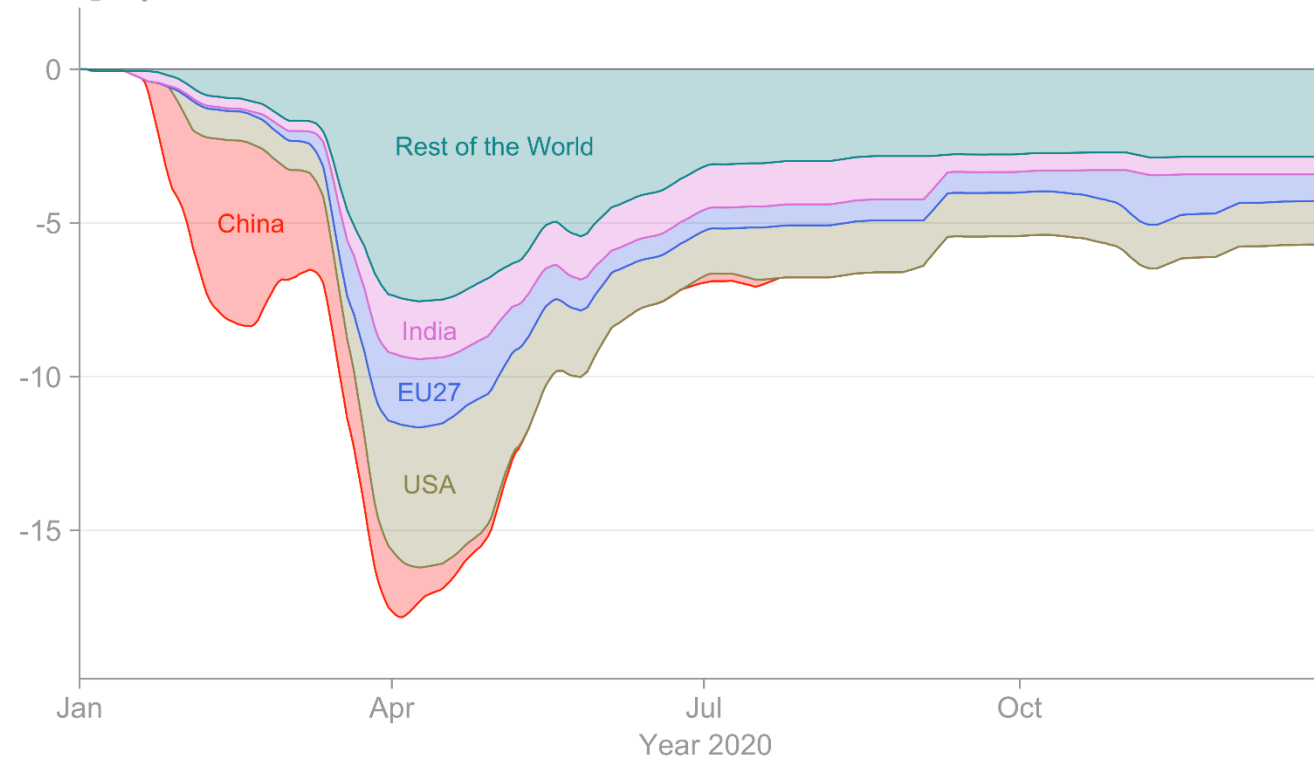
Exposure to air pollution estimated to increase COVID-19 deaths by 15% worldwide (19% Europe) Lelieveld et Cardiovasc Res 2020

UEA Projection: impact of COVID-19 on regional emissions

Projection for 2020: 34.1 ± 2 GtCO₂, about 7% lower than 2019

While China's emissions declined strongly during February, emissions declines in the rest of the world reached their peaks in April.

Change in global daily fossil CO₂ emissions
MtCO₂ day⁻¹

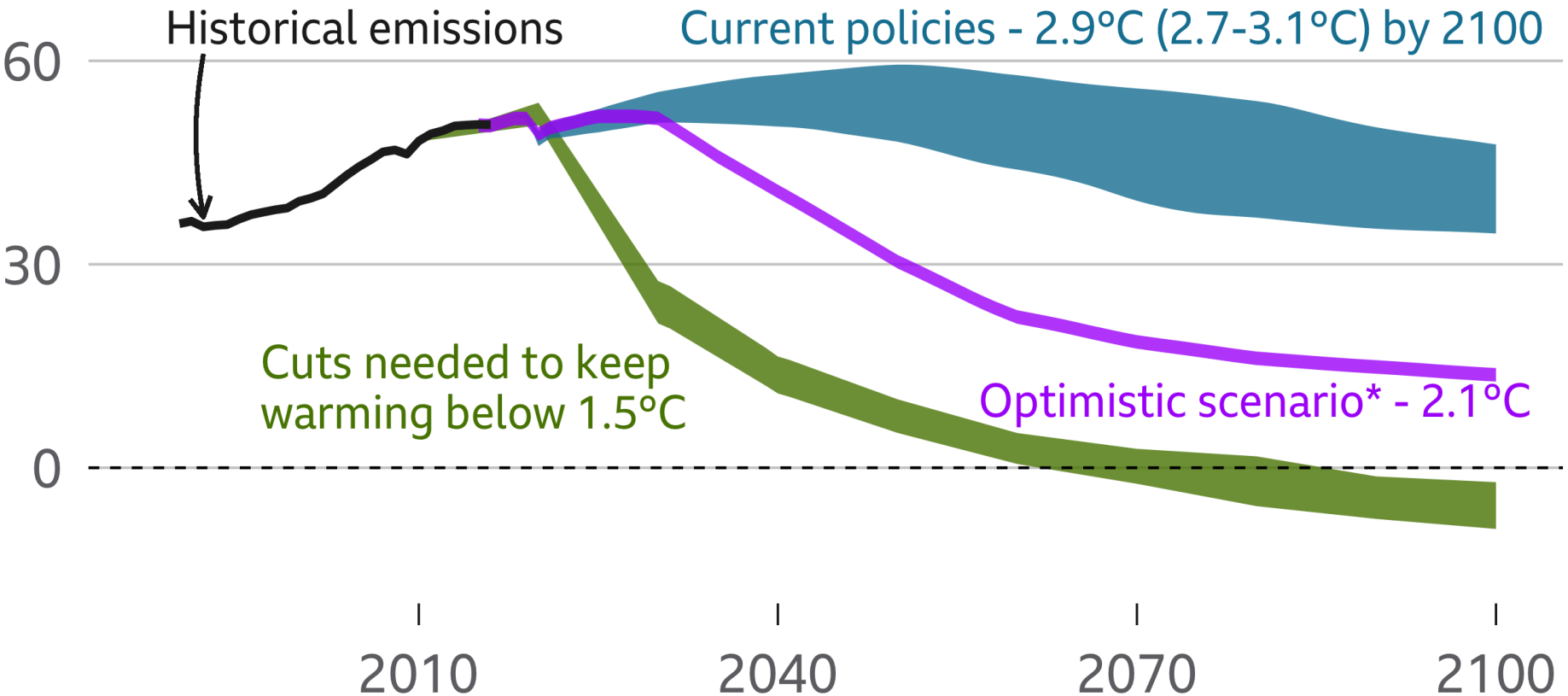


© Updated from Le Quéré et al. Nature Climate Change (2020); Global Carbon Project

Figure: @Jones_MattW

Greenhouse gas emissions projections

Gigatonnes of global CO2 equivalent emissions per year



*Based on new long term promises by China, US, EU and others

COP26 Campaign aims

Bringing countries together to tackle shared climate challenges and accelerate progress towards a zero emission, resilient global economy



Adaptation and resilience

Encourage greater political ambition, tools, finance, coordination and commitments to support practical adaptation and resilience action



Energy transition

Seize the opportunity of rapidly falling renewables and storage costs to accelerate zero-carbon transition



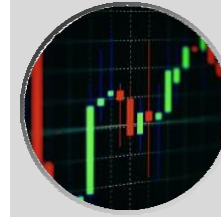
Clean transport

Accelerate the transition to zero carbon road transport by phasing out petrol and diesel engines



Nature

Protect and restore our natural habitats and ecosystems on which our climate, air, water and way of life depend



Finance

A green transformation of the financial system so that all countries have access to funds for climate investment

COP campaign aim

Health aim

Build climate resilient health systems, and support adaptation in food systems, water and sanitation, transport and energy systems

Guide a rapid transition to clean renewable energy, to save lives from air pollution, particularly from coal combustion. Ensure energy security for health facilities and decrease energy poverty.

Promote sustainable, healthy urban transport systems, including active and public transport, and the rapid phase out of petrol and diesel engines

Protect and restore nature and ecosystems, the foundations for healthy lives and sustainable livelihoods

Invest in climate-resilient health systems. Value health gains from carbon mitigation and adaptation policies, fossil fuel-subsidy reform and carbon pricing

Action on finance underpins all other COP campaigns

WHO 'Manifesto for a healthy, green recovery'

May 2020

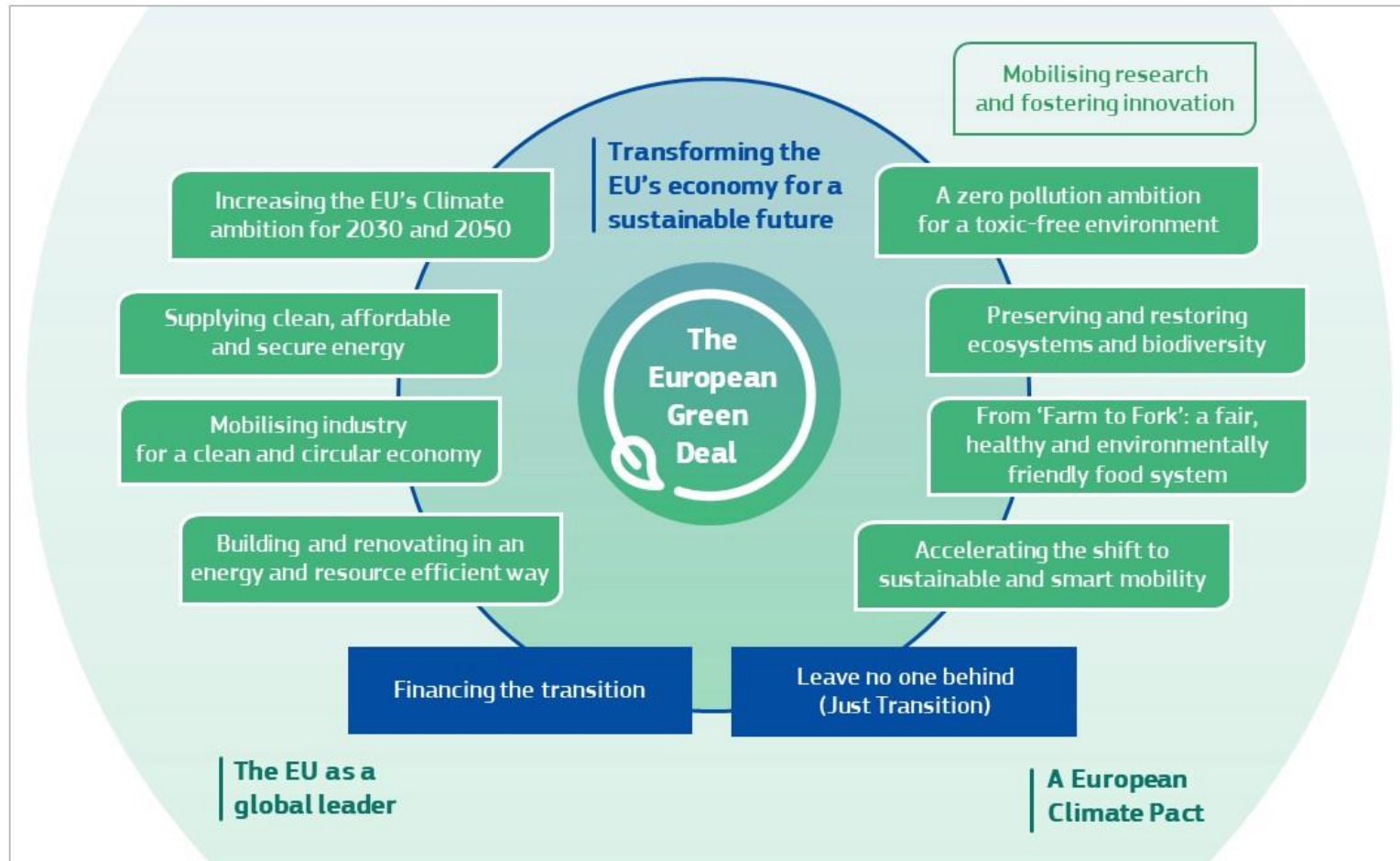


- **Prescriptions for a healthy, green recovery**

- 1) Protect and preserve the source of human health: nature.
- 2) Invest in essential services, from water and sanitation to clean energy in healthcare facilities.
- 3) Ensure a quick healthy energy transition.
- 4) Promote healthy, sustainable food systems.
- 5) Build healthy, liveable cities.
- 6) Stop using taxpayers money to fund pollution.

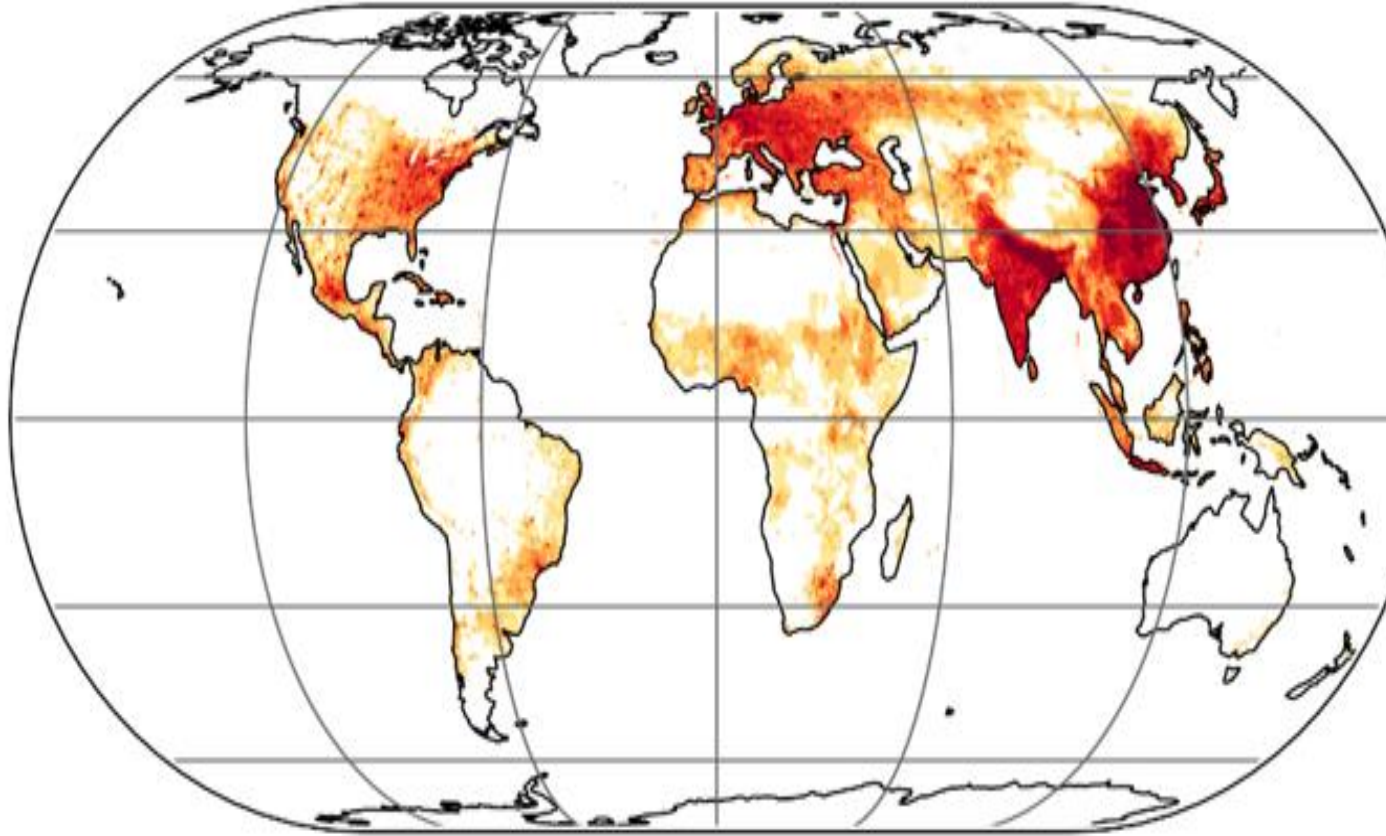
Potential health benefits of the EU Green Deal

Haines and Scheelbeek Lancet 2020



Phasing out fossil fuel burning could prevent ~3.6 million premature deaths annually from ambient air pollution (~430,000 in Europe) (Lelieveld, Klingmüller Pozzer, Burnett, Haines, Ramanathan PNAS 2019)

Total: $3.62(2.97 - 4.22) \times 10^6 / \text{yr}$



Avoidable fossil fuel deaths



Increasing green space & reducing traffic in cities- the example of Superblocks in Barcelona (Mueller et al Env. Int. 2020)

The Health Benefits of Natural Spaces

ISGlobal

ADULTS

- Stress reduction
- Improved life expectancy
- Better general mental and physical health
- Improved cognitive performance
- Improved sleep quality
- Reduction in cancer risk



CHILDREN

Improvements in:

- Attention capacity
- Concentration
- Emotional and behavioural development
- Coordination
- Balance
- Agility
- Self-confidence
- Self-discipline
- Social skills
- Weight of newborns



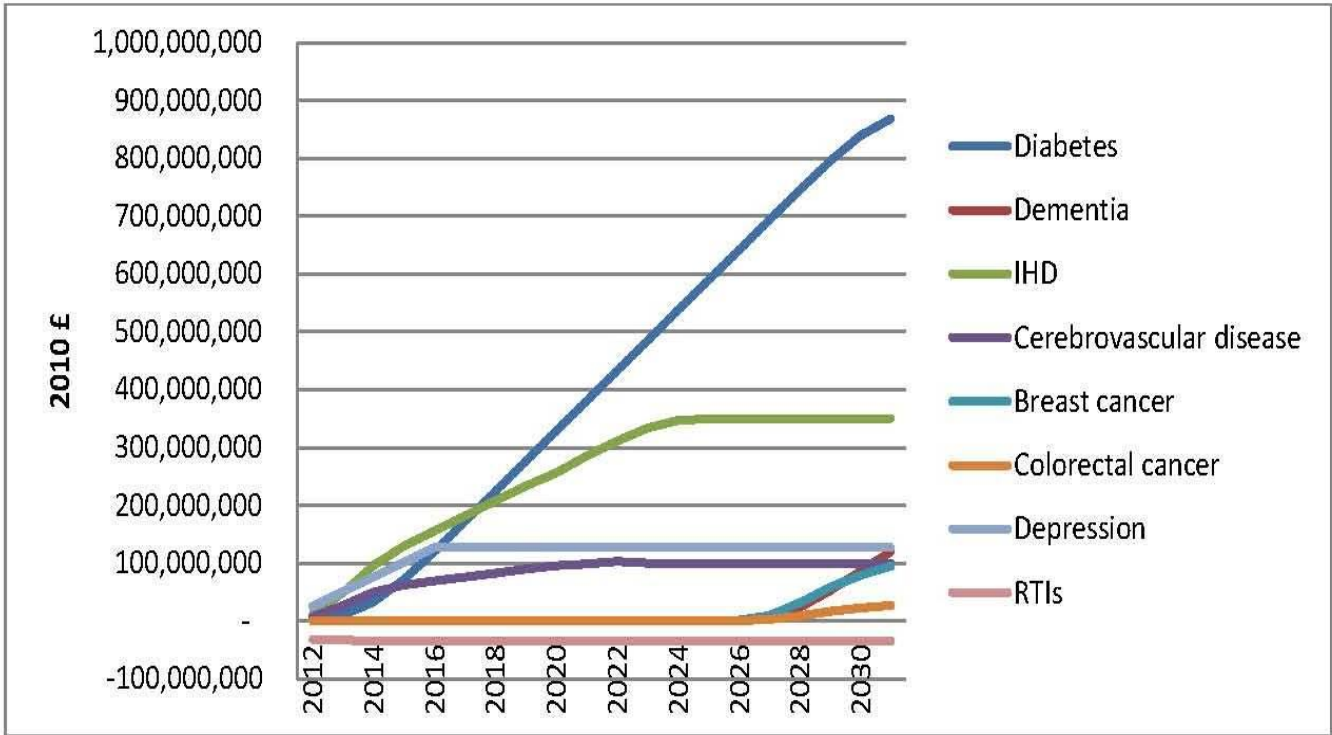
- Further studies are needed to confirm these results



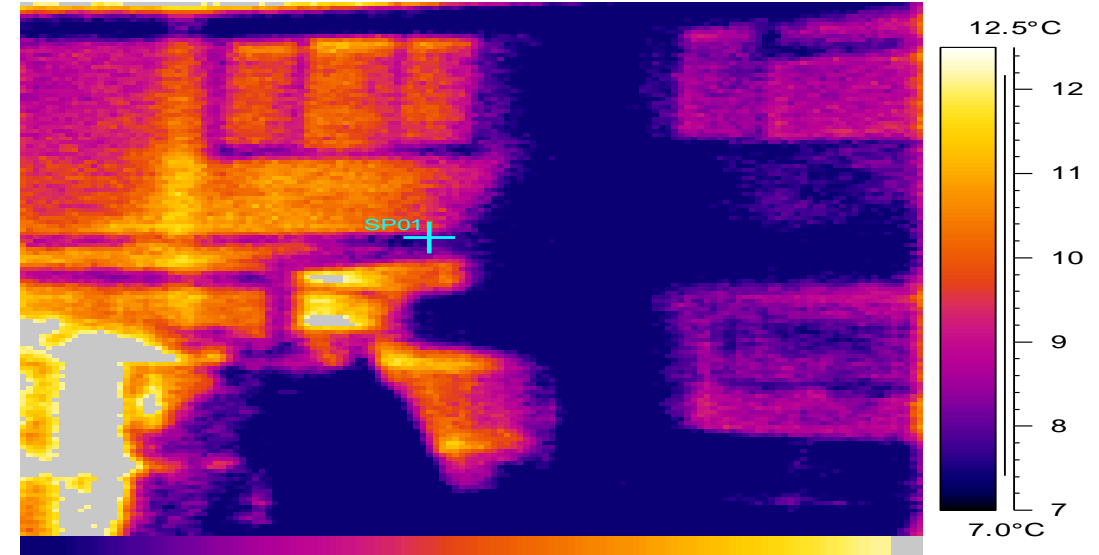
Increased active travel and low carbon transport – health and environmental benefits

(Woodcock et al 2009, Jarrett et al 2012))

Figure 1: Potential annual NHS expenditure averted by year and health outcome from Increased Active Travel scenario



Benefits of low carbon and energy efficient housing in the UK (combined insulation and ventilation control improvements) (Wilkinson et al 2009 Lancet)

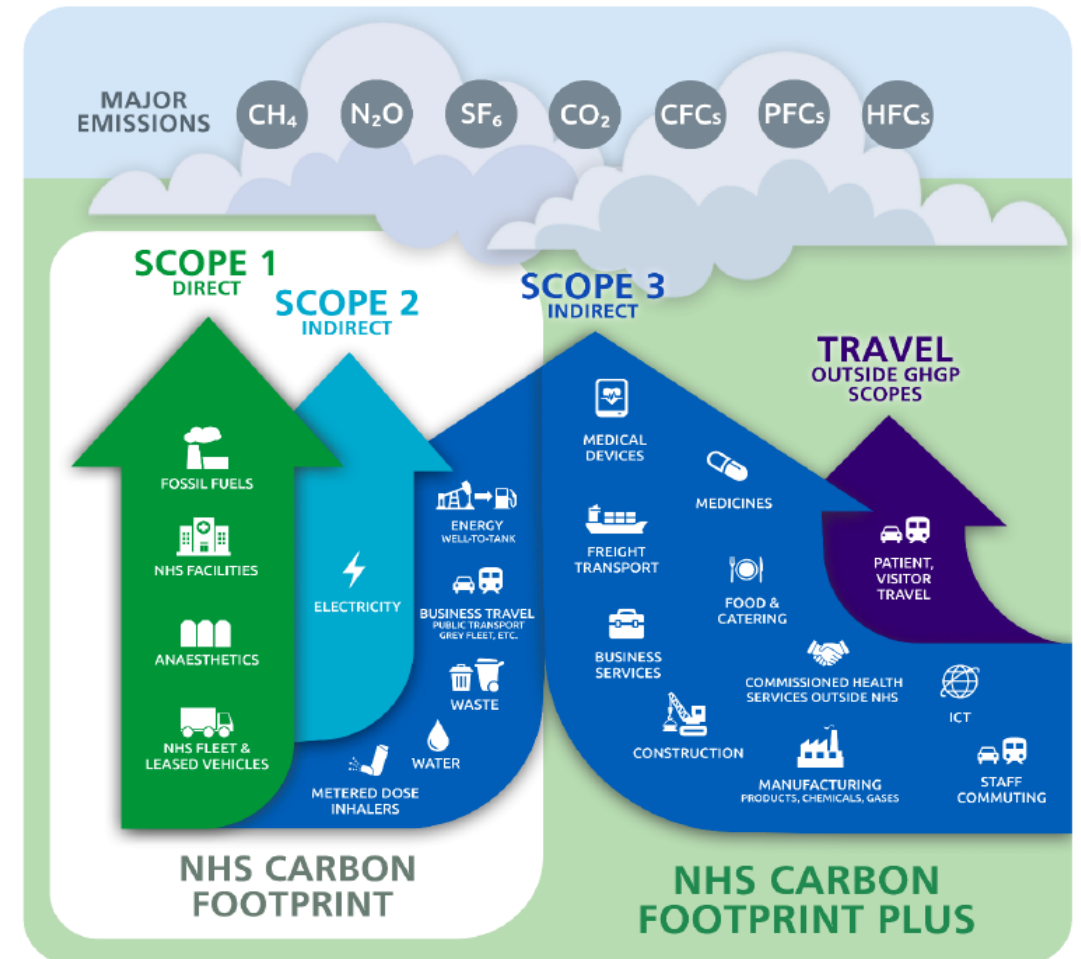


Impacts	Reduced exposures e.g. to fine particles, radon, cold, mould, tobacco smoke
Premature deaths averted	~ 5400/ year
Mt-CO ₂ saved (vs 1990)	55

Reducing the carbon emissions from health care

--NHS England commits to net zero by 2040 for direct emissions and by 2045 for indirect emissions

Figure 1: GHGP scopes in the context of the NHS



If the global health care sector were a country, it would be the **5th largest emitter on the planet.**

a new report:
**HEALTH CARE'S
CLIMATE FOOTPRINT**



The COP26 Nature campaign-- priorities:

1. Building a **new dialogue on sustainable land use and trade between agricultural producer and consumer countries**, to reduce tropical deforestation; investing in sustainable production and building new markets;
2. Delivering increased, and more sustainable, **finance for Nature Based Solutions**
3. Secure political commitment to **concrete actions on nature at COP26**.
4. **Just rural transition**
5. Increase ambition and awareness of the **potential of Ocean ecosystems for adaptation and mitigation**.



Priority countries: European Commission, France, Germany, China, US, Saudi Arabia, Colombia, Costa Rica, Mexico, Norway, Canada, New Zealand, Japan, Italy, Netherlands, Indonesia, Brazil, Malaysia, Argentina, Ghana, Cote D'Ivoire, DRC, Fiji, Vanuatu, Ethiopia, Zambia

The EAT-Lancet Commission - planetary health diet and targets for sustainable food production that can prevent 10-11 million premature adult deaths per year by 2050.

THE LANCET

January, 2019

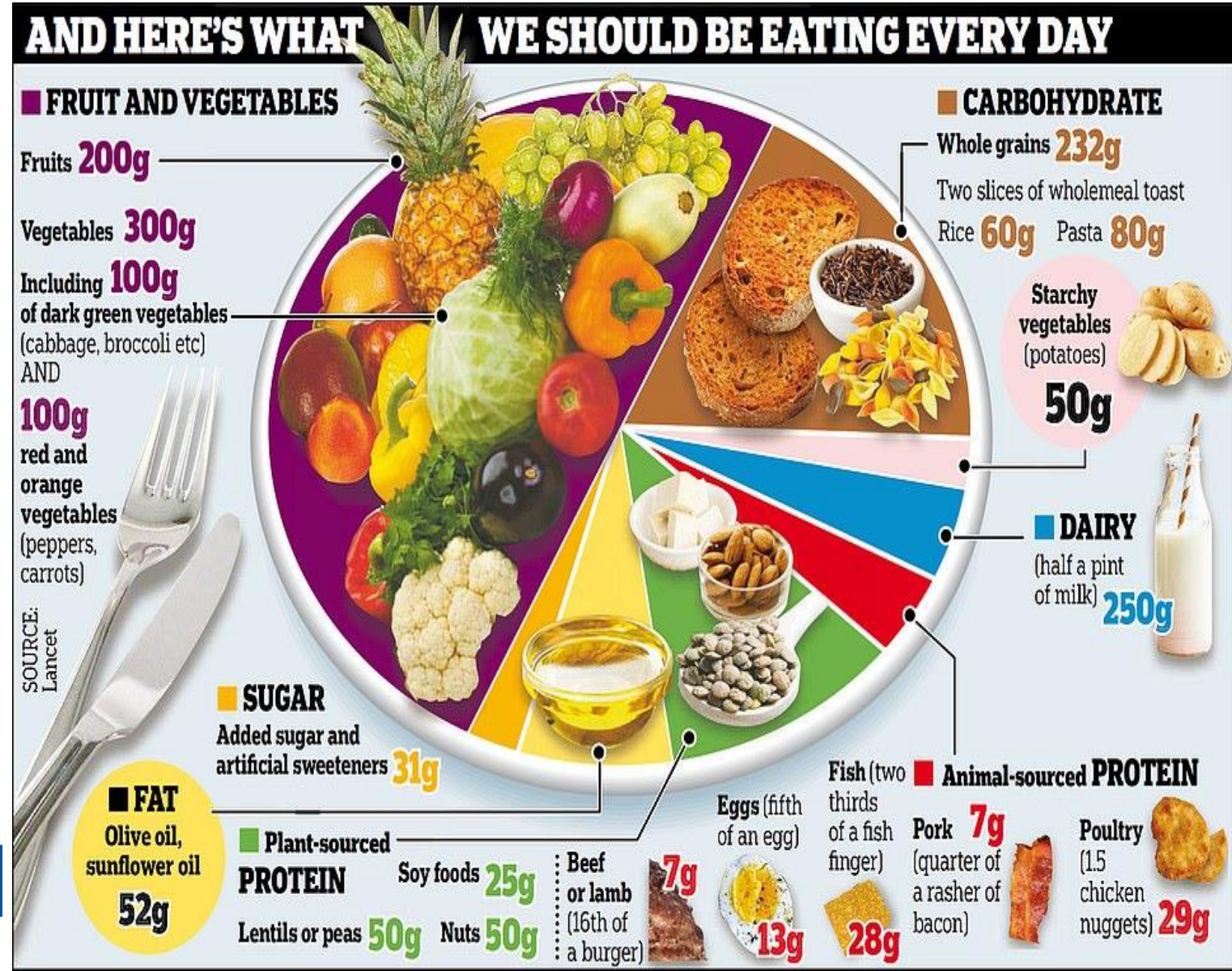
www.thelancet.com

Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems



"Food in the Anthropocene represents one of the greatest health and environmental challenges of the 21st century."

A Commission by The Lancet





Ecosystem Restoration

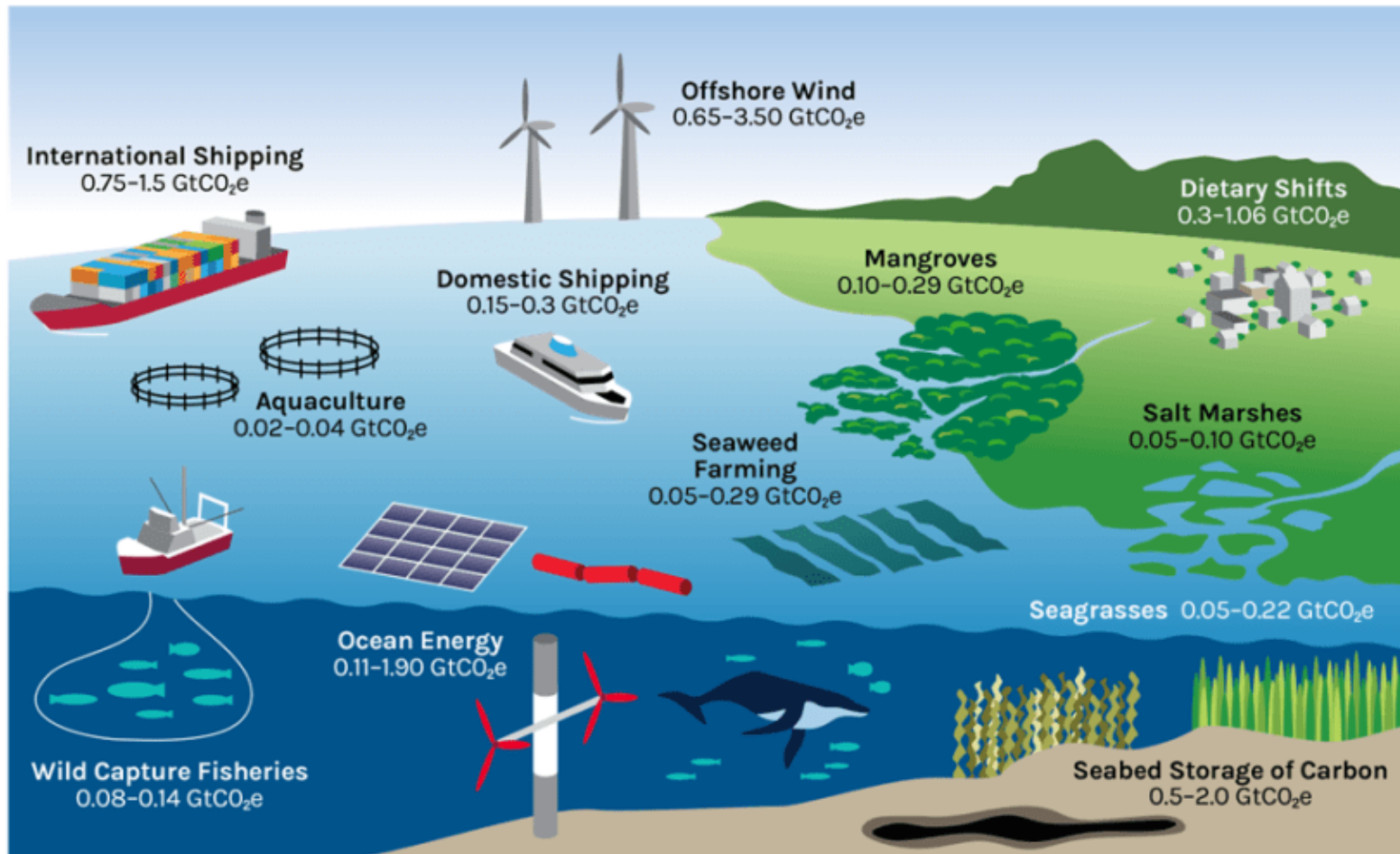


Restoring ecosystems can play an essential role in regulating freshwater quantity and quality and flood protection. They are also carbon sinks.

33 of 105 of the world's largest cities source their clean water from protected areas

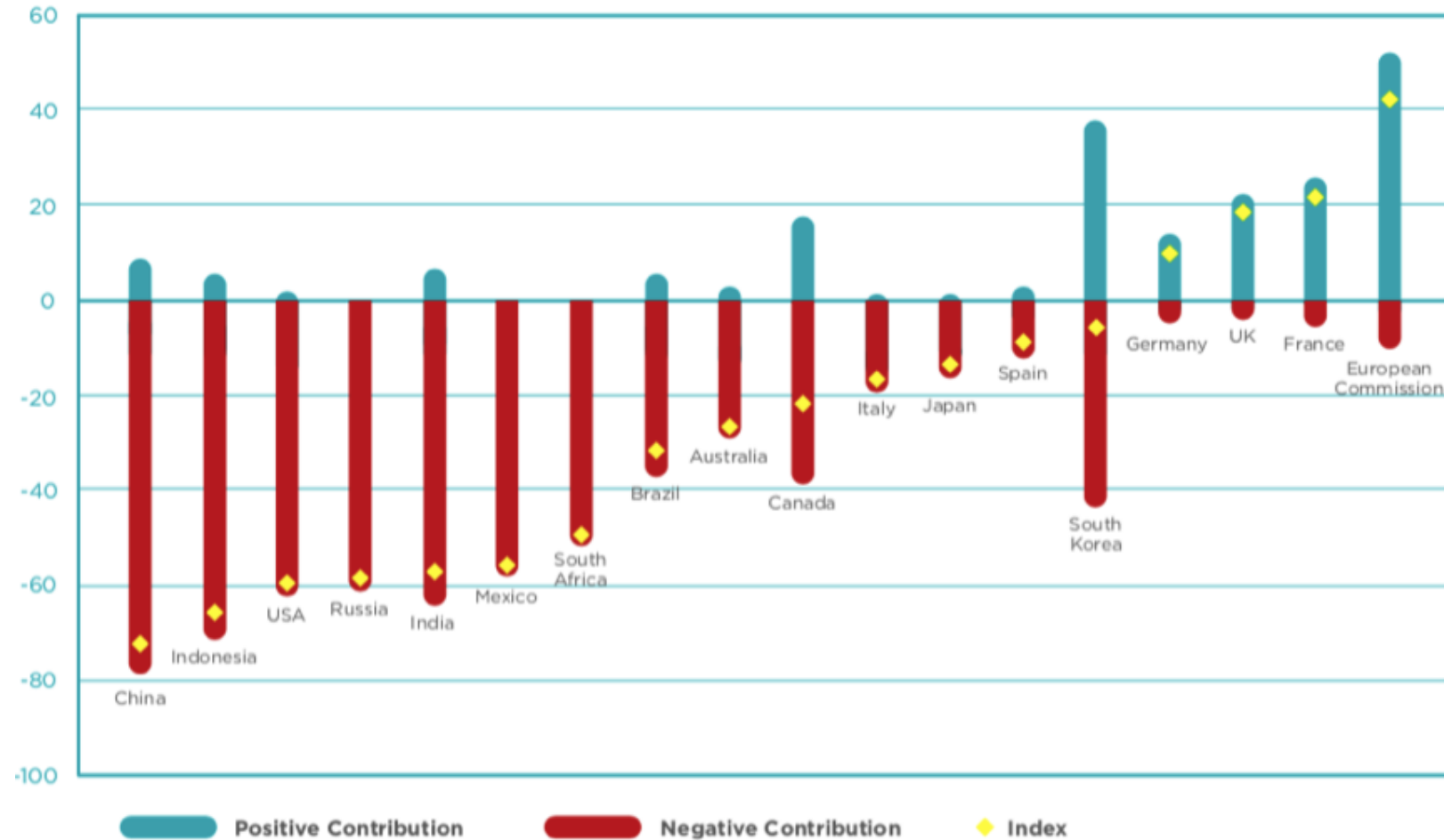
Ocean-based mitigation –potential health effects

Ocean-based mitigation options explored in *The Ocean as a Solution to Climate Change* and associated annual mitigation potential in 2050



How 'climate friendly' is the \$11.8 tn post-Covid stimulus?

(Vivid economics 2020)



<https://ieefa.org/ieefa-green-vs-brown-clean-energy-must-play-a-greater-role-in-economic-recovery-from-covid-19/>

Achieving a healthy, zero carbon economy

The logo for the 'Race to Zero' campaign. It features the words 'RACE TO ZERO' in a bold, white, sans-serif font. The text is set against a dark blue background that has a subtle gradient and a vertical light flare on the right side. The letters are slightly shadowed, giving them a three-dimensional appearance as if they are floating or attached to a surface.

1,391 Businesses

454 Cities

74 Investors

23 Regions

569 Universities

- These actors join 120 countries in the [largest ever alliance](https://unfccc.int/climate-action/race-to-zero-campaign) committed to achieving net zero carbon emissions by 2050 at the latest.
<https://unfccc.int/climate-action/race-to-zero-campaign>