

THE LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE

# BELEM MISSION 1.5 CALL FOR INPUTS



LANCET COUNTDOWN:  
TRACKING PROGRESS  
ON HEALTH AND  
CLIMATE CHANGE

In collaboration with Wellcome



# Introduction

Climate change is already affecting people's health and claiming lives globally. These impacts represent the human face of climate change, and the gravest impact to populations globally.

Adaptation to protect health is therefore urgently needed.

In turn, actions to mitigate and adapt to climate change offer significant and immediate-term health benefits in the form of a healthier environment, healthier lifestyles, more liveable cities, and human-focused development. These in turn have major economic benefits.

This brief draws on evidence from the 2025 Report of the Lancet Countdown on Health and Climate Change<sup>1</sup> in response to the Belem Mission 1.5 Call for Inputs, to show how a health-centred approach can increase the potential of nationally determined contributions (NDCs) and national adaptation plans (NAPs) to accelerate implementation, international cooperation, and investment.



**2025 Report of the Lancet Countdown**

## CLIMATE CHANGE IS CAUSING WIDESPREAD HEALTH HARM

The 2025 Report of the Lancet Countdown finds that climate change is already causing widespread, measurable harm to people's health across every region.

Heat, air pollution, drought, and extreme weather events, increased risk of infectious disease transmission and impacts on food and water security are impacting people's physical and mental health and wellbeing, and increasing demand on healthcare systems.



Heat exposure represents an acute threat to health and lives, especially for elderly populations, people with underlying health conditions, underserved populations and young children. They also represent a risk to pregnancy and adverse birth outcomes. Heat-related deaths have risen by 63% since the 1990s, reaching an estimated average 546,000 annual deaths in 2012–21. Globally, 84% of the heatwave days that people were exposed to annually in 2020–24 would not have occurred without climate change. Infants below 1 year and adults over 65 - the most vulnerable age groups - experienced record-high heatwave exposures in 2024, with infants exposed to 389% more heatwave days and older adults to 304% more heatwave days compared with 1986–2005. In 2024, extreme heat events led to a 132% decline in people's overall mood and wellbeing compared with the 2006–22 average.



In 2020 – 2024, people were exposed to 6.6% more days of dangerous wildfire risk conditions — about six extra days per person— compared with the 2003–12 average. While this did not translate to an increase in direct human exposure to fires, deaths from wildfire smoke reached a record 154,000 in 2024, an increase of 36% from 2003 - 2012 levels.



A record-breaking 60.7% of the global land area was affected by at least one month of extreme drought in 2024, 299% above the 1951–60 average. In 2015–24, a record 64% of the global land area had increases in extreme precipitation events from 1961–90.



Climate change is affecting the distribution and transmission risk for vector-, food-, air-, water-, and soil-borne diseases. While some endemic regions might become less suitable, the range of transmission is expanding towards previously unsuitable regions, especially for tropical and sub-tropical diseases. For example, from 1951–60 to 2015–24, the average climate-defined transmission potential of dengue by the vector mosquitoes *Ae albopictus* and *Ae aegypti* increased by 48.5% and 11.6%, respectively.



Despite the growing health threats to health, only 58% (n=112) of 193 WHO member states reported to the WHO having ever completed an assessment of their vulnerabilities and adaptation needs, and only 60% reported having ever completed a Health National Adaptation plan.



Countries with climate-informed health early warning systems showed a significantly faster decline in annual mortality from floods and storms from 2000 to 2024 than countries without such systems (3.2% vs 1.6% decrease per year).

## HEADLINE RECOMMENDATIONS:

- Develop and implement science-based NAPs that incorporate health considerations, with well-defined and costed interventions that include improvements in people's health and wellbeing as an end goal. This requires a close evaluation of climate change-related health risks, identifying populations facing highest levels of vulnerabilities, and a climate-informed assessment of future trends in established and emerging risks.
- Deliver evidence-based aligned NDCs which restrict temperature rise in line with the Paris Agreement goals, to keep climate change within levels that countries can still adapt to, reduce the costs of adaptation and minimize unavoidable climate change impacts, losses and damages.
- Incorporate evidence from rigorous assessments of climate change-related health risks in NAPs and NDCs, by engaging with national statistical bodies and public health agencies as appropriate to support data collection and bridge data gaps.
- Incorporate rigorous and scientifically-robust health indicators within NAPs and NDCs to ensure evidence-based monitoring and accountability in their delivery.
- Provide resource-limited countries with sufficient financial resources and technical expertise to undertake evidence-based risk assessments and develop health-promoting NAPs and NDCs. This in turn necessitates mechanisms for international support across countries, with particular focus on providing financial and technical support.
- Include the implementation of health-tailored early warning and response systems within NAPs, which are effective interventions to build national health resilience.

## THE TRANSITION AWAY FROM FOSSIL FUELS TO CLEAN ENERGY CAN MAXIMISE HEALTH AND ECONOMIC BENEFITS

Lancet Countdown indicators show that clean energy, sustainable transport, and transition to a low-carbon diet can deliver immediate-term health and economic benefits, including through reduction of air pollution-related mortality, healthier cities, healthier diets, reduced health harms from

energy poverty, and reduced inequalities.

These trends justify prioritizing energy transitions that reduce emissions and fossil fuel reliance, increase access to clean energy including in energy-poor regions, promote access to healthy diets, favour active and public transport, and improve economic resilience.



Global energy-related emissions rose by 1.6% in 2023, pushing CO<sub>2</sub> emissions to their highest level on record. Fossil fuel combustion still contributed to 2.52 million avoidable deaths from associated ambient particulate matter (PM<sub>2.5</sub>) air pollution in 2022, for a monetized value equivalent of \$4.8 trillion, equal to 4.7% of global GDP.



The proportion of household energy from harmful solid biomass dropped from 28% in 2016 to 26% in 2022; however, the decline varied based on country development status – in 2022, 88% of energy in countries with low Human Development Index (HDI) levels and 64% of energy in medium HDI countries still came from solid biomass. The persistent use of dirty fuels in people's homes led to 2.3 million avoidable deaths from household air pollution in 2022.



Global agricultural greenhouse gas emissions increased by 36% from 2000 to 2022, with red meat and dairy responsible for 55% of agricultural emissions in 2022. Deaths related to unhealthy diets between 2021 and 2022 increased from 148 deaths to 150 deaths per 100 000, totaling 11.8 million deaths, including 1.9 million deaths from excessive red meat and dairy intake.

### HEADLINE RECOMMENDATIONS:

- In NDCs, prioritise interventions that maximise the health co-benefits of the clean energy transition by reducing air pollution from fossil fuels, phasing out fossil fuel combustion in urban centres, expanding access to public and active transport, replacing solid fuels with clean energy, improving energy access in energy-poor regions, ensuring a just transition, and supporting food system decarbonisation through healthy, low-carbon diets.
- Prevent the lock-in of new fossil fuel-based energy systems that undermine health and climate goals.

## CLIMATE CHANGE-RELATED HEALTH IMPACTS ARE COSTING ECONOMIES; NATIONAL BUDGETS AND GLOBAL FINANCE ARE NOT ALIGNED WITH CLIMATE CHANGE AND HEALTH GOALS

The health impacts of climate change are leading to rapidly growing economic losses from associated healthcare costs, labour capacity loss, impacts of growing health risks on tourism, and other effects.

Health-benefitting climate action could deliver major economic benefits from reduced costs related

to illness and death, avoided health-related losses, and improved productivity.

Adaptation investments in the health sector render the highest return of investment amongst all sectors<sup>2</sup>. Yet, fiscal and financial systems are misaligned with climate change and health goals, including through persistent fossil fuel subsidies, weak carbon pricing, persistent investment in fossil fuels and high-emitting sectors, and insufficient financing for climate change action. Aligning financial incentives with climate change and health goals is essential to ensure a safe future, and will in turn yield high return on investment through associated health benefits.



In 2024, 640 billion potential work hours were lost due to heat exposure - a 98% increase from the 1990–99 average. Heat exposure reduced labour capacity, leading to an estimated \$1.09 trillion in lost income worldwide; about 39% of these losses were in the agriculture sector.



Extreme weather-related events in 2024 caused \$304 billion in global economic losses - a 58.9% increase from the 2010–14 annual average.



In 2022, deaths linked to air pollution, avoidable through fossil fuel phase-out, were valued at about \$4.8 trillion, equal to 4.7% of global GDP.



83% of the 87 countries reviewed (covering over 95% of global greenhouse gas emissions) had a net-negative carbon price in 2023, which generated a net fossil fuel subsidy of \$956 billion. Of these, 15 countries allocated more funds to net fossil fuel subsidies than to their overall health budgets.



Of the 64 UNFCCC-designated developing countries that submitted costed NAPs and NDCs as of 21 March 2025, only 28 (44%) included quantified estimates for health adaptation needs. Collectively, these countries reported health adaptation needs exceeding \$7 billion per year for the 2025–30 period.



Between 2020 and 2022, the GCF provided \$166 million for health adaptation, while the World Bank financing for climate change and health adaptation in 2024 increased by 221% to reach \$1.12 billion. Despite these increases, these fall far short of declared adaptation finance needs.

## HEADLINE RECOMMENDATIONS:

- Quantify the potential health co-benefits of climate change interventions, and incorporate health experts to support their incorporation in NAPs and NDCs.
- Quantify the costs of health-promoting interventions in NAPs and NDCs, and include the economic gains from improved health outcomes in cost-benefit analyses to reflect their full economic value.
- Embed supportive regulations and financial incentives for the public and private sectors to accelerate the transition to affordable and clean energy, improve energy efficiency, and enable a safe and just transition away from fossil fuels.

**NATIONAL GOVERNMENTS CAN PROMOTE PUBLIC UNDERSTANDING AND LITERACY ON THE CONNECTIONS BETWEEN HEALTH AND CLIMATE CHANGE, THUS INCREASING SUPPORT AND ENGAGEMENT FROM INDIVIDUALS, THE MEDIA, AND CORPORATIONS.**

The 2025 Report of the Lancet Countdown shows that media coverage of health and climate change has

declined, while public interest is increasing.

Government statements on health and climate change grounded in science and evidence are a powerful resource to engage support from the public, the media, and corporations.



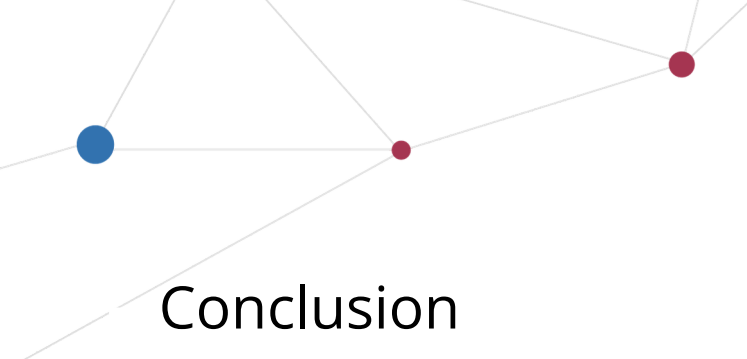
In 2024, 24.8% of climate change articles mentioned health, up from 23.5% in 2023; however, average coverage of health and climate change across sources fell by 15%. Individuals' engagement with health and climate change is rising, with the average global Google search index increasing by over 21% from 2023 to 2024 (from 49.4 to 59.9). Countries most affected by climate impacts are driving much of this increase.



In 2024, only 30% of countries referred to climate change in their UN General Assembly remarks, and only 51% of companies referred to the health dimensions of climate change in their UN Global Compact reports – a reduction of 63% from 2023.

## HEADLINE RECOMMENDATIONS:

- Assess and effectively communicate the health risks of climate change, and the health benefits of climate change interventions, in NDCs and NAPs. This involves promoting public understanding and literacy on the connections between health and climate change, thereby increasing support and engagement from individuals, the media, and corporations.



## Conclusion

Integrating health into NDCs and NAPs is both scientifically sound, and essential for effective and equitable climate action.

The evidence from the 2025 report of the Lancet Countdown on Health and Climate Change demonstrates that climate change and the delays in tackling emissions are already harming health, straining economies,

and widening adaptation gaps, while proven interventions — from early warning systems to clean energy transitions — are saving lives and strengthening resilience. As Parties work together under the Belem Mission to 1.5, a health-centred approach can help accelerate implementation, guide investment, and deepen international cooperation. By aligning national policies, budgets, and climate plans with the best available health and climate science, countries can protect their populations, unlock economic benefits, and contribute meaningfully to keeping 1.5°C within reach.



# References

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2. Brandon, C., Kratzer, B., Aggarwal, A., & Heubaum, H. (2025). Strengthening the investment case for climate adaptation: A triple dividend approach. World Resources Institute, Washington, DC. <https://doi.org/10.46830/wriwp.25.00019>