

# VIETNAM

## LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2023

### Health and climate change in Vietnam

The *Lancet* Countdown on Health and Climate Change is an academic collaboration of over 200 researchers from around the world, which annually takes stock of the evolving links between health and climate change through 40+ peer-reviewed indicators. Since 2016, these indicators have provided reliable global and regional stocktakes on climate change and health. This document summarises key findings from the 2023 Report of the *Lancet* Countdown\* for Vietnam which reveal that:



Trends in **heat and health** are concerning, with populations experiencing increases in exposure to high temperatures, undermining livelihoods and threatening people's health and wellbeing.



Large increases in urban population have contributed to higher vulnerability to **Aedes-borne disease**. Additionally, climatic conditions have grown increasingly suitable for the spread of vector-borne diseases including dengue and malaria.



**Air pollution** is increasingly affecting the health of local populations, with a high burden of disease and deaths that could be avoided by transitioning to zero emission, clean energy sources.

These findings underline the urgency of strengthening local health systems, adapting to climate change, and pursuing efforts to reduce greenhouse gas emissions through interventions that simultaneously deliver health co-benefits. These actions will help build healthier, more resilient populations, and forge the way to a thriving future for Vietnam.

### Heat and health

Exposure to high temperatures threatens people's lives, health, and wellbeing, leading to death and heat-related disease, and increasing healthcare demand during heatwave episodes. Older people, socio-economically deprived communities, very young children, pregnant women, and those with underlying health problems are particularly at risk.



**0.8°C** From 2018 to 2022, the average summer temperatures that people were exposed to were 0.8°C higher than the 1986–2005 baseline average (indicator 1.1.1).



From 2013–2022, each infant was exposed to an average of 12 life-threatening heatwave days per year, while adults over age 65 were exposed to 13 days per year (indicator 1.1.2).

#### ECONOMIC IMPACT OF HEAT

Heat exposure limits labour productivity, which undermines livelihoods and the social determinants of health.

**16 billion** potential labour hours lost due to heat exposure in 2022, an increase of 16% from 1991–2000 (indicator 1.1.4).

**US\$23 billion** potential associated income loss in 2022, equivalent to 5.6% of GDP (indicator 4.1.3).



Agricultural workers were hit the hardest, seeing 67% of the total potential hours lost and 58% of the potential income losses in 2022 (indicators 1.1.4 & 4.1.3).

#### FUTURE PROJECTIONS

Unless urgent mitigation and adaptation action is taken, the health impacts of heat will increase drastically in coming years.

##### 2°C SCENARIO

In a scenario in which temperatures are kept to under 2°C of heating, heatwave exposure for people over age 65 is projected to be 7 times greater by mid-century (2041–2060 average) (indicator 1.1.2).

## Vulnerability to infectious disease

11%

In 2013-2022, compared to 1951-1960, the basic reproduction number (R0, an indication of the transmissibility of a disease) for dengue in Vietnam has increased 11% and is now over 3 (indicator 1.3). This means that each person who develops dengue infection is likely to spread it to 3 other susceptible people.



The portion of the year during which conditions are suitable for the spread of malaria in Vietnam increased roughly 6% between 1951-1960 and 2013-2022, and it can now spread for over 7 months of the year (indicator 1.3).

22%

On average, over the past five years (2018-2022), the proportion of Vietnam's coast that has been suitable for the spread of *Vibrio* pathogens at any one point in the year has been 21.8% (indicator 1.3).



Vulnerability to severe outcomes from *Aedes*-borne diseases has been increasing, largely driven by increases in urbanisation (indicator 2.3.1).

## Air pollution, energy transition and health co-benefits

The low adoption of clean renewable energy and the continued use of fossil fuels and biomass lead to high levels of air pollution, which increases the risk of respiratory and cardiovascular disease, lung cancer, diabetes, neurological disorders, adverse pregnancy outcomes, and leads to a high burden of disease and mortality. All of these lead to increasing demand on care services.

72%

In 2020, nearly 34,000 deaths were attributable to small particulate matter (PM<sub>2.5</sub>) generated from human activities (anthropogenic). This was a 72% increase from 2005 (indicator 3.2.1).



Household air pollution from the use of dirty fuels resulted in 117 deaths per 100,000 people in 2020 (indicator 3.2.2).

### RENEWABLE ENERGY TRANSITION



The carbon intensity (measured as the carbon dioxide emissions over the total energy supply) of Vietnam's energy system has been trending up since the 1970s, reaching its highest point ever in 2020 (indicator 3.1.1).

94%

The proportion of Vietnam's total energy supply that is generated by coal hit an all-time high in 2020, contributing over half (51.6%) that year. Meanwhile, renewables and other low carbon sources contributed only 7% (indicator 3.1.1).

42%

Dirty fuels (biomass, fossil fuels, and natural gas) accounted for 42% of domestic energy per person in 2020 (indicator 3.1.2).

Transitioning energy systems to renewables would benefit human health, simultaneously reducing air pollution; mitigating greenhouse gas emissions; and contributing towards universal, affordable and clean energy.

FOR FURTHER INFORMATION, VISIT:  
[WWW.LANCETCOUNTDOWN.ORG](http://WWW.LANCETCOUNTDOWN.ORG)

\*Romanello M, di Napoli C, Green C et al. The 2023 report of the *Lancet* Countdown on health and climate change: the imperative for a health-centred response in a world facing irreversible harms. *Lancet* 2023; published online Nov 14. [https://doi.org/10.1016/S0140-6736\(23\)01859-7](https://doi.org/10.1016/S0140-6736(23)01859-7).

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