

GHANA

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2024

Health and climate change in Ghana

The *Lancet* Countdown on Health and Climate Change annually takes stock of the evolving links between health and climate change through 50+ peer-reviewed indicators. Since 2016, these indicators have provided regular, reliable global and regional stocktakes on climate change and health. Data in this year's report reveal that people all around the world are facing record-breaking threats to their wellbeing, health and survival from the rapidly changing climate. This document summarises key country-level findings from the 2024 report of the *Lancet* Countdown for Ghana, which reveal that:



People are increasingly exposed to **health-threatening extreme heat**, with associated increases in heat-related illness and mortality.



Increasingly frequent and intense **droughts and wildfires** threaten crop yields, undermine food security, water security and sanitation, and increase the risk of malnutrition and infectious disease transmission.



Air pollution is harming peoples' health, 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 redirecting finance away from health-harming fossil fuels; and towards strengthening local health systems, adapting to climate change, and pursuing efforts to reduce greenhouse gas (GHG) emissions through interventions that simultaneously deliver health co-benefits.

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 people, and those with underlying health problems are particularly at risk.



From 2014 to 2023, each infant and adult over age 65 was exposed to an average of 10.5 heatwave days per year (indicator 1.1.1).



From 2014 to 2023, the total number of heatwave days experienced annually by children under the age of one was 5.6x more than the equivalent demographic from 1986-2005. Adults over age of 65 experienced 5.7x more heatwave days across the same time frame (indicator 1.1.1).



From 2014-2023, individuals were exposed to a moderate or higher risk of heat stress for nearly 3200 hours per year during light outdoor activities (like walking). This is a 13.5% increase compared to 1990-1999 (indicator 1.1.2).

ECONOMIC IMPACT OF HEAT

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

US\$5 billion potential income loss from labour capacity reduction due to heat in 2023 (indicator 4.1.3).

5.15 billion potential labour hours were lost due to heat exposure in 2023, an increase of 157% from 1990-1999 (indicator 1.1.3).



Agriculture workers were hit the hardest, seeing 75% of the potential hours lost (indicator 1.1.3) and nearly 66% of the potential income losses in 2023 (indicator 4.1.3).

Vulnerability to infectious diseases

The suitability for transmission of many infectious diseases, including vector-borne, food-borne, and water-borne diseases, is influenced by shifts in temperature and precipitation associated with climate change.



The climatic suitability for the transmission of dengue (represented by the basic reproduction number, R_0) for *Aedes aegypti* mosquitos was 3.15, having increased 5.3% from 1951-1960 to 2014-2023 (indicator 1.3.1).



From 2014-2023 there were an average of 6.6 months per year when conditions in Ghana's lowlands (<1500m) were suitable for the spread of malaria by *P. falciparum* and *P. vivax* (indicator 1.3.2).

Extreme weather events and health

Increasingly frequent and intense droughts threaten crop yields, undermine food security, water security and sanitation, and increase the risk of malnutrition and infectious disease transmission.



In 2019-2023, each person experienced an average 36.5 days with exposure to very high or extremely high fire danger, which increased 13% as compared to 2003-2007 (indicator 1.2.1).



Each year from 2019-2023, at least 75% of Ghana's land area experienced at least one month of extreme drought, and close to 50% of land area experienced at least three months, which are 32% and 30% increases, respectively, compared to estimates from 1950-1960 (indicator 1.2.2).

Air pollution, energy transition and health co-benefits

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. 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.

US\$1.8 billion

the record-breaking monetised value of premature mortality due to anthropogenic air pollution in Ghana in 2021 (indicator 4.1.4).

The persistent net subsidising of fossil fuels for billions of dollars restricts funds available for health-supportive services, and hampers a transition towards clean, zero-emission energy.



In 2022, Ghana had a net-negative carbon revenue, indicating that fossil fuel subsidies were higher than carbon prices. The country allocated a record-breaking net total of US\$ 2.8 billion in fossil fuel subsidies in 2022 alone (indicator 4.3.3).

People worldwide still use dirty fuels and inefficient technologies to meet their household energy needs, leading to high concentrations of indoor air pollution, and to other health harms from energy poverty.



In 2021, biomass accounted for close to 72% of household energy supply, with electricity contributing 20%, and fossil fuels 8%, highlighting the need for investment in technology transfers and cheaper financing for countries that still rely heavily on fossil fuels (indicator 3.1.2).



Indoor $PM_{2.5}$ derived from the burning of solid household fuels resulted in approximately 54 deaths per 100,000 in Ghana in 2020 (indicator 3.2.2).

Tree cover loss

Trees and forests are crucial carbon sinks and biodiversity reservoirs. Poor tree cover and forest conservation exacerbates climate change, and increases the risk of forest fires, zoonotic diseases, and allergies.



Between 2001-2022, Ghana lost over 1.5 million hectares of forest cover, over 22% of the country's area of forest cover in 2000, accounting for forestry activities, agriculture, wildfires and commodity-driven deforestation (indicator 3.4).

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