LANCET COUNTDOWN: TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE

SRI LANKA

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE
DATA SHEET 2024

Health and climate change in Sri Lanka

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 Sri Lanka, which reveal that:

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.

Climatic conditions have grown increasingly suitable for the spread of **vector-borne diseases**, including dengue and malaria.

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.

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 2014-2023, the total number of heatwave days experienced annually by the general population of children under the age of one was 356% greater than the equivalent demographic from 1986-2005. The general population of adults over the age 65 experienced a 920% increase in heatwave days across the same timeframe (indicator 1.1.1).

From 2014-2023, each infant under the age of one and adults over the age of 65 were exposed to an average of 3.8 and 4.3 heatwave days per year, respectively. This is approximately a 214% and 286.5% increase in heatwave days per person, respectively, compared to 1986-2005 (indicator 1.1.1).

ECONOMIC IMPACT OF HEAT

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

US$1.65 billion was the estimated potential income loss from labour capacity reduction due to heat in 2023 (indicator 4.1.3).

1.8 billion estimated potential labour hours were lost due to heat exposure in 2023, an increase of 11% from 1990-1999 (indicator 1.1.3).

Agricultural workers were hit the hardest, seeing 63% of the potential hours lost and 36% of the potential income losses in 2023 (indicators 1.1.4 and 4.1.3).

From 2014-2023, individuals were exposed to moderate or higher risk of heat stress for an average of 3024 hours per year during light outdoor activities (like walking) (indicator 1.1.2).

Diet, food security and health

Despite the widespread adoption of mostly vegetarian and vegan diets due to cultural and religious traditions, gaps remain in the availability, affordability, and diversity of these foods, leading to unbalanced diets and preventable health outcomes.

In 2021, 20,600 deaths were associated with insufficient consumption of nutritious plant-based foods (including fruits, vegetables, legumes, wholegrains, nuts, and seeds), accounting for 67% of diet-related deaths (indicator 3.3.2).

Climate change worsens food system challenges by disrupting agriculture and key crop production. Promoting diverse, nutritious plant-based diets can reduce diet-related deaths, enhance food system resilience to climate impacts, align with cultural values, and lower agricultural GHG emissions, contributing to both public health and environmental sustainability.

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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 dengue transmission (measured by the basic reproduction number, R0) for *Aedes aegypti* mosquitoes increased 10.6% from 4.29 in 1951-1960 to 4.74 in 2014-2023 (indicator 1.3.1).

From 2014-2023, there was an average of 7.3 months per year when conditions in Sri Lanka's lowlands (<1500m) were suitable for the spread of the malaria vector (indicator 1.3.2).

292%

From 2014 to 2023, the length of coastline with conditions suitable for the transmission of *Vibrio* pathogens at any time during the year was 292% greater than in 2000-2004. In these 5 years, the average annual population living within 100 km from coastal waters with conditions suitable for *Vibrio* transmission reached 3.3 million, representing a 374% increase from the annual averages from 1990-1999 (indicator 1.3.3).

Energy transition and health co-benefits

The continued use of fossil fuels and biomass leads 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.

$2.1 bn

In 2022, Sri Lanka had a net-negative carbon revenue, indicating that fossil fuel subsidies were higher than carbon prices. The country allocated a net total of over US$2.1 billion in fossil fuel subsidies (indicator 4.3.3).

Redirecting fossil fuel subsidy funds to incentivising the expansion and affordability of low-carbon power and to health-promoting interventions would deliver net benefits to local populations, and support a just transition.

HEALTH IMPACTS OF AIR POLLUTION

7700 deaths were attributable to anthropogenic air pollution ($PM_{2·5}$) in 2021. Fossil fuels (coal and liquid gas) were estimated to have contributed to 46% of these deaths (indicator 3.2.1).

Indoor $PM_{2·5}$ derived from the burning of solid household fuels resulted in nearly 87 deaths per 100,000 in 2020 (indicator 3.2.2).

US$2.45 billion was the monetised value of premature mortality due to anthropogenic air pollution in 2021 (indicator 4.1.4).

In 2021, coal use increased from almost no use in 2000 to supply 34% of electricity and 16% of total energy supply. Low carbon sources, including renewables, slightly trended upwards, accounting for 49% of electricity supply and 6% of total energy supply. Renewable use alone remained low for electricity and total energy supply at 5% and 0.6%, respectively (indicator 3.1.1).

Extreme weather and health

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

The annual average exposure of all people to active wildfires in Sri Lanka decreased 50% in 2019-2023 compared to 2003-2007. Across the same time period, each person experienced an average of 12 days with exposure to very high or extremely high risk of wildfires, which is a 46% decrease compared to 2003-2007 (indicator 1.2.1).

Each year from 2019-2023, an average 60% of Sri Lanka's land area experienced at least one month of extreme drought. Additionally 33% faced at least three months, and close to 27% experienced at least six months of extreme drought (indicator 1.2.2).

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