

JAPAN

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2025

Health and climate change in Japan

The Lancet Countdown on Health and Climate Change tracks the evolving relationship between climate and health through 50+ peer-reviewed indicators. Since 2016, it has provided peer-reviewed annual assessments, published in *The Lancet*. The 2025 report reveals the grave health toll of climate change inaction: fossil fuel dependence, rising emissions, and delayed adaptation are costing millions of lives. Recent climate policy rollbacks further threaten our ability to respond to the accelerating crisis, undermining progress towards a healthy future.

This document highlights key country-level findings from the 2025 Lancet Countdown report for Japan, showing that:



In Japan, populations are increasingly exposed to extreme heat, contributing to rising cases of heat-related illness and mortality, and undermining livelihoods and wellbeing.



Sea level rise poses risks through flooding, erosion, water contamination, and disease spread. Populations living less than one metre above sea level in Japan are particularly vulnerable.



In Japan, continued fossil fuel subsidies are diverting resources away from health-supportive services and slowing the transition to clean, zero-emission energy systems that could reduce disease burden.

With the threats of climate change growing, protecting people's health and survival demands simultaneous and unprecedented efforts to advance adaptation and mitigation, and requires an "all hands on deck" approach.

Heat and Health

Exposure to high temperatures threatens lives and health, increasing the risk of heat-related illness and mortality. Vulnerable groups, including older adults, young children, pregnant women, and those with pre-existing conditions, face the greatest risks. In Japan, heatwave exposure is rising, placing growing pressure on health systems.



In 2024, people in Japan were exposed to 48.5 heatwave days each, on average. Of these, 28.8 (60%) would not have been expected to occur without climate change. (Indicator 1.1.1)



Compared to 1990-1999, in 2024, people were exposed on average to 426 more hours during which ambient heat would have posed a moderate or higher risk of heat stress if undertaking moderate outdoor physical activity. This was a record high. (Indicator 1.1.2)



From 2012-2021, Japan experienced an annual average of 4,300 deaths attributable to heat, a 136% increase compared to the 1990-1999. (Indicator 1.1.5)



In 2024, heat exposure in Japan resulted in a loss of 1.42 billion potential labour hours per year, a record high 43h per person, and representing a 96% increase over the 1990-1999 baseline. The service sector accounted for 33% of losses in 2024, and the manufacturing sector accounted for 24% of losses in 2024. The potential income lost from labour capacity reduction due to extreme heat was US\$ 49.42 billion in 2024. (Indicator 1.1.3 and 4.1.3)

Sea level rise

Sea level rise poses risks through flooding, erosion, water contamination, and disease spread. Populations living less than one metre above sea level in Japan are particularly vulnerable. Without adequate adaptation, relocation may be necessary, with health outcomes depending on the support provided to migrant and immobile populations.



In 2024, 6,590,000 people were living less than 1 metre above sea level in Japan, and therefore at risk of sea level rise. (Indicator 2.3.3)



The sea surface temperature in coastal areas of Japan was 1.72°C higher in 2024, compared to 1981–2010, putting marine ecosystems and marine food security at risk. (Indicator 1.4)

ESCALATING RISKS

Sea level rise and warming coastal waters threaten ecosystems and human health through flooding, erosion, water contamination, and increased disease risks. For low-lying areas in Japan, these changes heighten displacement pressures and strain health systems, making adaptation critical to protect communities.

Decarbonisation and Financial Flows

Carbon pricing can accelerate the shift away from high-emission fuels, while fossil fuel subsidies prolong exposure to health-harming pollution. Redirecting these subsidies toward clean energy and health-promoting interventions would support a just transition.



Between 2016 and 2022, CO₂ emissions from fossil fuel combustion in Japan declined 14.2% to 974,000 kilotonnes. However, as of 2022, coal still made up 28% of total energy supply and 29% of Japan's electricity. Meanwhile renewable energy made up only 3% of total energy supply. (Indicator 3.1.1)



Japan had a net-negative carbon revenue in 2023, indicating that fossil fuel subsidies were higher than carbon prices. Japan allocated a net total of US\$ 70.27 billion to net fossil fuel subsidies in 2023 alone. (Indicator 4.3.2)

AIR POLLUTION

There were 81,200 deaths associated with anthropogenic outdoor PM_{2.5} air pollution in Japan in 2022- this is a 6% reduction from 2010. 30% (24,800) of the deaths in 2022 were associated with the burning of fossil fuels, and 7,800 of those were associated with coal burning, mostly for power generation. The transport sector alone contributed to 12,600 deaths from petrol burning. (Indicator 3.2.1)

30%

Diets and Health

Shifting to healthier, plant-rich diets can reduce agricultural emissions and improve health outcomes. In Japan, diet-related risks contribute to preventable deaths and chronic disease burden.



In 2022, red meat and dairy accounted for 29% of all emissions associated with the consumption of agricultural products in Japan. However, emissions from red meat and dairy consumption have decreased by 27% since 2000. (Indicator 3.3.1)



In 2022, 194,400 deaths were associated with insufficient consumption of nutritious plant-based foods (including fruits, vegetables, legumes, wholegrains, nuts and seeds), and 11,900 deaths were attributable to excessive consumption of dairy, red meat, and processed meat. (Indicator 3.3.2)

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