

BELIZE

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2025

Health and climate change in Belize

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 Belize, showing that:



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



Deforestation remains a critical concern for Belize with thousands of hectares of tree cover lost since 2000. A balance must be struck between preserving forests and economic activities



In Belize, droughts threaten water and food security, while rising sea levels increase risks of displacement, flooding, and damage to coastal infrastructure, especially for vulnerable communities.

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 Belize, heatwave exposure has risen over the years, placing growing pressure on health systems. This trend not only challenges emergency response capacity but also strains long-term care services, highlighting the urgent need for climate-resilient health infrastructure and targeted public health interventions.



In 2024, people in Belize were exposed to 50.6 heatwave days each, on average. Of these, 45.3 (89.5%) would not have been expected to occur without climate change (Indicator 1.1.1) This sharp rise in climate-driven heatwave days signals an escalating public health threat, increasing the risk of heat-related illness, especially among vulnerable populations.



Rising temperatures have likely compromised the health benefits associated with outdoor physical activity, with a roughly 18% increase in more hours per person during which ambient heat would have posed a moderate or higher risk of heat stress if undertaking light or moderate outdoor physical activity (e.g., walking or running), amounting to an additional 500 hours of potential exposure to health-harming heat. (Indicator 1.1.2)



From 2015-2024, heat exposure resulted in the loss of over 30 million potential labour hours each year, 3 times higher than the 1990-1999 annual average. While workers in the agriculture sector were the hardest hit (51% of 2015-2024 average losses), losses in the service sector have increased the most - over 5.5 times as many hours lost in 2015-2024 compared to the 1990-1999 annual average. (Indicator 1.1.3)



The potential income lost from labour capacity reduction due to extreme heat was US\$14.7 billion in 2024 in the SIDS region. Workers in the agricultural and construction sectors were severely affected, incurring 31% and 32% of the respective losses in 2024. (Indicator 4.1.3) This underscores the disproportionate impact of climate-related heat stress on outdoor labour sectors, threatening food production, rural livelihoods, and economic stability.

Infectious Diseases

While malaria transmission risk has decreased, warming temperatures, changing rainfall patterns and rising sea temperatures have increased the risk of dengue and Vibrio transmission in Belize.

-  **5.3%** The transmission potential (R_0) of dengue by *Ae aegypti* mosquitoes increased by 5.3% in 2015-2024, compared to the 1951-1960 baseline. (Indicator 1.3.1)
-  The total coastal area environmentally suitable for Vibrio transmission was 59% greater in 2024, compared to the 1982-2010 baseline. (Indicator 1.3.6)
-  The amount of time that areas of Belize were suitable for malaria transmission in 2015-2024 was 12.5% lower, compared to 1951-1960. (Indicator 1.3.2) This is validated by the malaria-free status of Belize since 2010 (PAHO).

Tree Cover Loss and Urban Greenness

Tree cover and urban greenness help reduce urban heat, filter air pollutants, and support mental and physical wellbeing. They are essential for climate adaptation, cooling cities, improving air quality, and shielding vulnerable populations from heat-related health risks. Green spaces also promote healthier lifestyles and offer low-cost, nature-based solutions to build more resilient urban environments.

-  **22500** In 2023, Belize lost over 22,500 hectares of tree cover. As of 2023, over 300,000 hectares of tree cover have been lost since 2000. (Indicator 3.4)
-  There is also room for improvement as urban greenness in the Belizian city, Belmopan, remains low. (Indicator 2.2.2)

Vulnerability to Extreme Weather Events

Droughts threaten water and food security, disrupt livelihoods, and heighten health risks, especially for rural and agricultural communities. Sea level rise puts millions living in low-lying coastal areas at risk of displacement, infrastructure damage, and increased vulnerability to storm surges and flooding.

-  From 2020-2024, 60% of Belize's land area experienced on average at least 1 month of extreme drought per year. (Indicator 1.2.2)
- 11,255** people were living less than 1m above sea level in Belize in 2024. (Indicator 2.3.3)
-  The sea surface temperature in coastal areas of Belize were 1.1 C higher in 2024 compared to 1981-2010. (Indicator 1.4) Warmer seas fuel stronger storms and hurricanes, increasing risks to health infrastructure and vulnerable populations.

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Pan-American Health Organization

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