LANCET COUNTDOWN: HEALTH AND CLIMATE CHANGE IN AFRICA

NIGERIA

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE
DATA SHEET 2025

Health and climate change in Nigeria

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 Nigeria, showing that:

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

Frequent and intense droughts are threatening food and water security, damaging sanitation infrastructure, and increasing the risk of malnutrition and infectious disease outbreaks.

Air pollution continues to pose a major health threat, with a high burden of disease and premature deaths linked to exposure to fossil fuel and biomass-derived $PM_{2.5}$ Transitioning to clean energy could significantly reduce these risks.

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 Nigeria, heatwave exposure has risen above global averages, placing growing pressure on health systems.

"I have observed sleep disturbance due to heat in a community without an electricity supply. They are forced to sleep outside their houses leading to mosquito bites which have increased the incidence of malaria fever in the community. There are associated skin conditions such as rashes and itchy sensations that can be stressful."

Ministry of Health Employee, Nigeria

In 2024, people in Nigeria were exposed to 33 heatwave days each, on average. Of these, 85% would not have been expected to occur without climate change. (Indicator 1.1.1) This surge in heatwave exposure increases the risk of heat-related illnesses, disrupts livelihoods, and places growing pressure on health systems, especially in regions with limited access to cooling, water, and healthcare infrastructure.

In 2024, individuals experienced 465 more hours per-person of at least moderate heat stress risk during moderate exercise (running), relative to the 1990–1999 baseline average. (Indicator 1.1.2) This increase in heat stress exposure raises the risk of dehydration, heat exhaustion, and other heat-related illnesses,especially for outdoor workers, athletes, and vulnerable populations without access to cooling or rest.

31.9B For 2024, heat exposure resulted in a loss of 31,939,751,830 potential labour hours per year, 169% more than in 1990-1999. The agriculture sector accounted for 72.5% of losses in 2024. (Indicator 1.1.3)

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Air Pollution

Continued use of fossil fuels and biomass contributes to high levels of air pollution, increasing the risk of respiratory and cardiovascular diseases, and premature death. In Nigeria, transitioning to clean energy could significantly reduce disease burden and healthcare demand.

There were 12,400 deaths associated with anthropogenic outdoor $PM_{2.5}$ air pollution in Nigeria in 2022 – 31% above 2010. 24% of these deaths in 2022 were associated with the burning of fossil fuels, and 29% with biomass burning. The transport sector accounted for 68% of all deaths associated with fossil fuel-derived air pollution. (Indicator 3.2.1)

In 2022, the monetised value of premature mortality due to air pollution in Nigeria amounted to US$ 3.26 billion, the equivalent of 0.6% of gross domestic product. (Indicator 4.1.4)

Vulnerability to Infectious Diseases

Climate change is increasing the suitability for transmission of vector-, and water-borne diseases. In South Africa, changing temperature and precipitation patterns are expanding the risk zones for dengue and other climate-sensitive diseases.

The R_0 for dengue transmission by Aedes aegypti increased to 2.47 in 2015-2024, compared to 2.33 in the baseline 1951-1960. From 1951-1960 to 2015-2024, average R_0 for dengue transmission by Aedes albopictus increased by 0.62, crossing from less than to more than 1. (Indicator 1.3.1)

Sea level Rise

The sea surface temperature in coastal areas of Nigeria were 0.79 C higher in 2024 compared to 1981-2010, putting marine ecosystems and associated food yield at risk. (Indicator 1.4) In 2024, 818,000 people were living less than 1m above sea level in Nigeria, and therefore at risk from sea level rise. (Indicator 2.3.3)

Wildfire smoke and drought pressures

From 2020-2024, 64% of Nigeria land area experienced on average at least 1 month of extreme drought per year. (Indicator 1.2.2)

From 2020–2024, people in Nigeria experienced an average of 141 days per year classified as high wildfire risk. Compared to 2003–2012, this represents a 15% increase. In 2020-2024, wildfire smoke ($PM_{2.5}$) was accountable for an annual average of 3,000 deaths in Nigeria. However, the $PM_{2.5}$ concentration from wildfires was saw a 10% decrease from 2003-2012. (Indicator 1.2.1)

"Going back home to the community where I grew up as a child, I was shocked to see that most of the rivers we used to swim and fish in have all dried up, and those that are still there have become very shallow so that you can easily walk through a river you required a boat to cross in years past."

Samuel Chukwuemeka Obasi, Ministry of health

Testimonials were collected by The Geneva Learning Foundation as part of efforts to elevate health worker voices and recognize their lived experiences as valuable evidence in climate and health policy.

Romanello M, Walawender M, Hsu S-C, et al. The 2025 report of the Lancet Countdown on health and climate change. Lancet 2025; published online Oct 29. https://doi.org/10.1016/S0140-6736(25)01919-1.

The Lancet Countdown was established in partnership with Wellcome.
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