

# BULGARIA

## LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2025

### Health and climate change in Bulgaria

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 Bulgaria, showing that:



People in Bulgaria are facing **intensifying exposure to extreme heat**, threatening lives, health, and livelihoods, particularly among older adults, infants, and outdoor workers.



Widespread **droughts and growing wildfire risks** are endangering ecosystems and air quality, with cascading effects on health and agricultural stability.



Continued **reliance on coal and other fossil fuels** is undermining air quality, economic resilience, and progress towards a just low-carbon transition that could bring major health gains.

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.

### Intensifying Heat Exposure and Labour Impacts

Exposure to high temperatures increasingly threatens people's lives, health, and ability to work safely. Older people, infants, and outdoor workers face particularly high risks, with extreme heat already constraining livelihoods and the economy. These impacts are not only a public health concern but also a growing economic challenge, as extreme heat constrains labour productivity, disrupts daily activities, and undermines livelihoods, especially in sectors reliant on physical work.

#### ESCALATING HEAT IMPACTS ON HEALTH AND WORK

Rising heat exposure is affecting both vulnerable populations and Bulgaria's workforce, with sharp increases among infants and older adults and growing productivity losses across outdoor sectors. These trends highlight the urgent need for stronger heat-health action plans and occupational protection.



In 2024, people in Bulgaria were exposed to 12 heatwave days each, on average. Of these, 10 (83%) would not have been expected to occur without climate change. (Indicator 1.1.1)



In 2024, people were exposed on average to a record high 452 hours during which ambient heat would have posed a moderate or higher risk of heat stress if undertaking moderate outdoor physical activity, nearly triple the hours compare to 1990-1999. (Indicator 1.1.2)

**32.5  
MILLION**

potential labour hours were lost in 2024 due to heat exposure, 65.9% more than in 1990-1999 (indicator 1.1.3). The largest share of these losses occurred in construction (45%) and agriculture (29%), followed by manufacturing (13%) and services (12%). (Indicator 1.1.3)



The associated income losses from reduced labour capacity totalled US\$ 0.18 billion in 2024, with construction alone accounting for 44.5% of this sum. (Indicator 4.1.3) As temperatures rise, physically demanding outdoor work becomes increasingly unsafe and inefficient, leading to economic disruptions across key industries.

## Drought and Wildfire Risks Threatening Health and Land

Rising temperatures and shifting rainfall patterns are intensifying drought conditions and wildfire risks across Bulgaria. These changes endanger ecosystems, agriculture, and air quality, posing increasing threats to human health and livelihoods. As these climate hazards grow more frequent and severe, they are also placing mounting pressure on public services, food systems, and rural economies, underscoring the urgent need for coordinated adaptation efforts.



From 2020–2024, an average of 54.8% of Bulgaria's land experienced at least one month of extreme drought per year, five times higher than 1951–1960. (Indicator 1.2.2)



During the same period, people faced an annual average of 10.4 days classified as high wildfire risk, up 133.0% compared with 2003–2012 (indicator 1.2.1).

### GROWING DROUGHT AND WILDFIRE EXPOSURE

Bulgaria's population is experiencing both more frequent drought and greater wildfire exposure, with land dryness and smoke-related air pollution amplifying the health risks of a warming climate.



Wildfire smoke also contributed to an estimated 329 deaths per year in 2020–2024 due to fine particulate matter (PM<sub>2.5</sub>) exposure (indicator 1.2.1).

## Fossil Fuel Dependence and Missed Transition Opportunities

Despite recent efforts towards diversification, Bulgaria remains one of the most coal-reliant energy systems in the European Union. Continued dependence on fossil fuels is slowing the low-carbon transition and sustaining high levels of air pollution and health burden.



Between 2016 and 2022, CO<sub>2</sub> emissions from fossil fuel combustion increased by 6% and reached 42,831 kilotonnes. In 2022, 42% of electricity generation and 32% of total energy came from coal, while solid biofuels still accounted for nearly 30% of household energy use. (Indicators 3.1.1 and 3.1.2)



Preparedness for a low-carbon transition was measured at 0.608 in 2024, signalling limited readiness compared with leading European economies. (Indicators 4.2.4) Bulgaria had a net-positive carbon revenue in 2023, indicating that carbon prices were higher than fossil fuel subsidies. The country saw a net revenue of USD\$ 0.67 billion, which is equivalent to 9.3% of the national health budget. (Indicator 4.3.2)

## Air Pollution and Health Burden

Air pollution remains one of the most serious environmental health challenges in Bulgaria, driven largely by fossil fuel combustion and residential biomass use. The resulting burden of disease and premature mortality highlights the urgent need to accelerate clean energy transitions and strengthen health-protective policies.



In 2022, over 10,000 deaths were attributable to anthropogenic outdoor air pollution (PM<sub>2.5</sub>). This is a 32% reduction from 2010. In 2022, fossil fuels caused 40.8% of these deaths. (Indicator 3.2.1)



In 2022, the monetised value of premature mortality due to air pollution was US\$7.48 billion (2024 USD), equivalent to 7.8% of Bulgaria's GDP. (Indicator 4.1.4) This represents one of the highest proportions in Europe, underlining the scale of avoidable economic and health losses associated with polluted air.

### ECONOMIC COSTS OF AIR POLLUTION

The value of lives lost to air pollution in Bulgaria corresponds to nearly one in every thirteen dollars of GDP, reflecting the severe health and economic toll of continued fossil fuel reliance.

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](https://doi.org/10.1016/S0140-6736(25)01919-1).

The Lancet Countdown was established in partnership with Wellcome.  
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