

# GERMANY

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

### Health and climate change in Germany

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 Germany, showing that:



**Germany is facing intensifying heat exposure**, with rising risks to workers and vulnerable populations as hotter summers increasingly disrupt health and productivity.



**Environmental pressures are mounting**, as wildfire smoke, drought variability, and warming seas compound threats to ecosystems, air quality, and human wellbeing.



**Progress towards decarbonisation is underway but uneven**, with persistent fossil fuel use and healthcare emissions underscoring the need for stronger climate-health action across sectors.

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.

### Escalating Heat and Labour Impacts

Exposure to extreme heat continues to threaten lives, productivity, and wellbeing across Germany. Rising temperatures are amplifying health risks, particularly among older adults and outdoor workers, while economic losses from heat-related labour disruptions are mounting.

#### RIISING HEAT EXPOSURE IS STRAINING GERMANY'S WORKFORCE

With summer heatwaves now a recurring feature, workers in outdoor sectors such as construction and manufacturing are bearing the brunt of productivity losses. In 2024, these two sectors accounted for over three-quarters of total heat-related labour hour losses, reflecting the growing economic and health burden of unmitigated heat exposure. These impacts underscore the urgent need for stronger protections for workers and climate-adaptive planning across vulnerable sectors.

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In 2024, people in Germany were exposed to 11 heatwave days each, on average. Of these, 9 (82%) 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 40 more hours during which ambient heat would have posed a moderate or higher risk of heat stress if undertaking moderate outdoor physical activity. This underscores the growing limitations on safe physical activity in outdoor environments. (Indicator 1.1.2)



In 2024, heat exposure resulted in a loss of 50.7 million potential labour hours, 77% more than in 1990-1999. The construction sector accounted for 59% of the losses in 2024. (Indicator 1.1.3)



The annual loss of \$1.64 billion in earnings due to heat in 2024, highlights the cost of inaction, both to individual livelihoods and the national economy. (Indicator 4.1.3) Without urgent measures to reduce emissions and protect workers from extreme heat, these economic losses are likely to grow, disproportionately affecting outdoor and low-income workers.

## Ecosystem and Environmental Pressures

Germany faces mounting environmental pressures that increasingly affect both population health and ecosystem stability. Warming seas, exposure to wildfire smoke, and fluctuating drought conditions are heightening risks to air quality, water availability, and food production.



Wildfire smoke (PM2.5) caused over 1,000 deaths per year from 2020 to 2024. (Indicator 1.2.1) These deaths reflect the severe health consequences of prolonged smoke exposure, which exacerbates respiratory and cardiovascular conditions and disproportionately affects vulnerable populations.



From 2020–2024, an average of 33.9% of German land experienced at least one month of extreme drought per year, showing continued widespread water stress and agricultural vulnerability. (Indicator 1.2.2)



In 2024, average sea surface temperatures in Germany's coastal waters were 1.5 °C above the 1981–2010 average, reflecting persistent sea warming with implications for marine biodiversity and coastal livelihoods. (Indicator 1.4)

## Decarbonisation Progress and Remaining Gaps

Germany has made measurable progress in cutting fossil fuel use and expanding renewable energy, yet its overall energy mix remains carbon-intensive. Continued dependence on coal and negative net carbon revenues reveal ongoing fiscal and structural misalignments with a health-centred climate transition.



In 2022, CO<sub>2</sub> emissions from fossil fuel combustion totalled 612,000 kilotonnes, a 16.7% reduction from 2016. From 2016 to 2022, coal's share in total energy supply fell from 24.7% to 20.3% and from 40.3% to 31.2% of electricity energy. As of 2022, renewable energy made up 6.3% of total energy supply and 32.3% of electricity supply, both doubling since 2016. (Indicator 3.1.1)



Despite these improvements, in 2023, Germany still subsidised fossil fuels, with a net total subsidy of \$61.8 bn, equivalent to 11.5% of health expenditure. (Indicator 4.3.2)

## Diet Transitions

Germany's food system remains a significant contributor to national greenhouse gas emissions, yet it also presents major opportunities for health and climate co-benefits. Shifting toward healthier, more sustainable diets can reduce emissions while improving health, making it a critical area for integrated climate and public health action.



In 2022, red meat and dairy accounted for 55% of all agricultural consumption-related emissions in Germany. However, emissions from red meat and dairy consumption fell 23% since 2000. (Indicator 3.5) This decline signals a positive shift toward more sustainable dietary patterns, yet the sector remains a major contributor to food-related emissions.



In 2022, 74,000 deaths were associated with insufficient consumption of nutritious plant-based foods, and 84,000 deaths were attributable to excess consumption of dairy, red meat, and processed meat. These figures reveal that diet-related mortality remains high, highlighting the health benefits of transitioning to balanced, plant-rich diets with lower environmental impacts. (Indicator 3.3.2)

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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