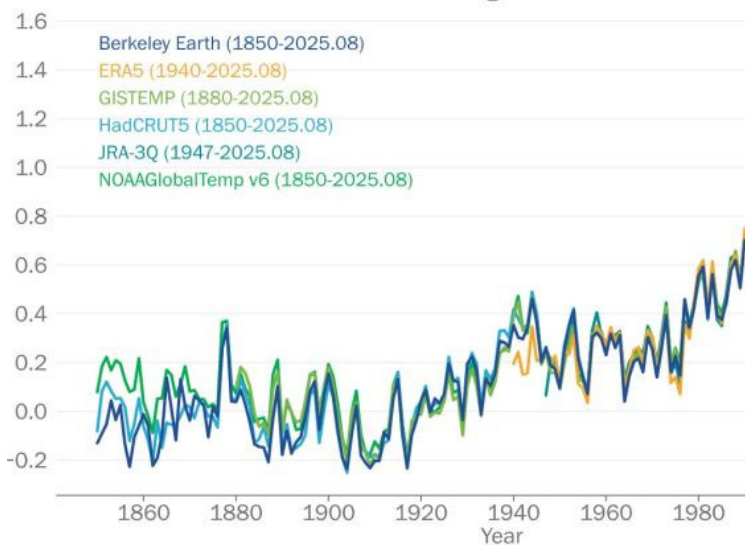


EXTREME HEATWAVES & CLIMATE CHANGE STRUCK WORLDWIDE

EXTREME HEATWAVES SURGE WORLDWIDE: CLIMATE CHANGE DRIVING RECORD TEMPERATURES_김도아

Global mean temperature 1850-2025
Difference from 1850-1900 average



Global average temperatures have steadily increased over time, demonstrating the long-term trend of climate change.

Extreme Heatwaves Intensify as Climate Change Accelerates?

Extreme heatwaves are becoming more **frequent and severe** across the globe, and scientists are increasingly linking this trend directly to climate change. Over the past decade, regions in Europe, Asia, and North America have experienced **record-breaking temperatures**, with some areas exceeding 45°C.

Main Causes:

- Increased greenhouse gas emissions
- Burning fossil fuels
- Deforestation

As the Earth's average temperature continues to **rise**, heatwaves are not only becoming **hotter** but also **lasting longer**. What were once considered rare events are now occurring more regularly, placing significant stress on:

- Infrastructure
- Healthcare systems
- The environment

Researchers estimate that extreme heat events today are several times **more likely** due to human-induced climate change, highlighting the urgent need for global action.

A Growing Crisis: The Human and Environmental Cost of Heatwaves

The consequences of extreme heatwaves extend far **beyond discomfort**—they pose serious **risks to human life and ecosystems**.

Key Impacts on People:

- Heatstroke and other heat-related illnesses
- Higher risk for vulnerable populations (elderly, outdoor workers)

Environmental Impacts:

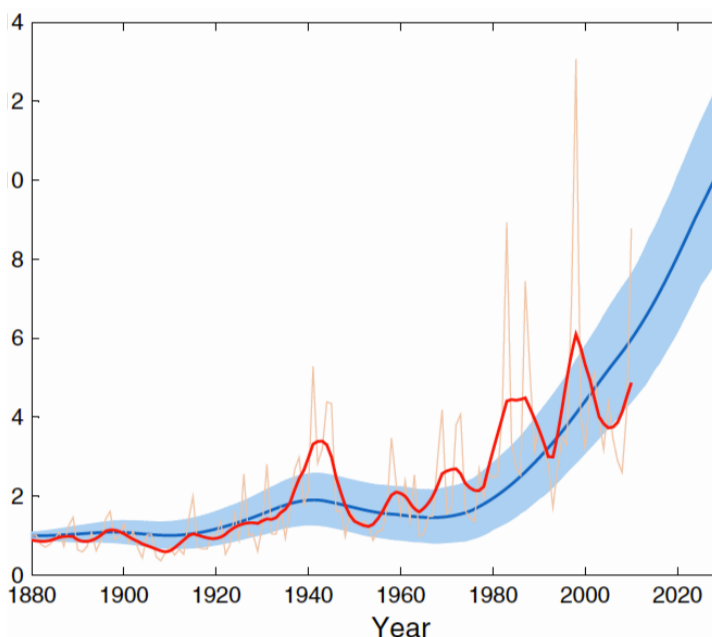
- Water shortages
- Crop failures
- Increased wildfires
- Loss of biodiversity

Moreover, urban areas are especially affected due to the urban heat island effect, where cities become significantly **hotter** than surrounding rural areas.

Urban Effects:

- Increased energy consumption
- Higher demand for air conditioning
- Rising carbon emissions (creating a vicious cycle)

Without immediate and sustained efforts to reduce greenhouse gas emissions and adapt to rising temperatures, extreme heatwaves may become the new normal, with devastating long-term consequences for societies worldwide.



The frequency of extreme heat events has increased significantly, showing how climate change intensifies heatwaves.