ISSN: 2978-3801

Journal of Global Warming and Climate Change

SCIENTIFIC Research and Community

Perspective Article

Open Access

What is Global Warming and How it can Disrupt the World Economy by 2030?

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Received: November 15, 2025; **Accepted:** November 17, 2025; **Published:** March 26, 2026

The long-term rise in Earth's average surface temperature, mostly brought on by human activity that releases greenhouse gases into the atmosphere, is known as global warming.

It is predicted to cause severe weather-related damage, lower worker productivity, and substantial expenses for food and public health systems by 2030, upending the global economy.

The main identified drivers of increased greenhouse gas emissions around the globe are:

- **Burning of Fossil Fuels:** The use of coal, oil, and natural gas for electricity, transport, and industry is the largest source of emissions.
- **Deforestation:** Trees absorb carbon dioxide, so clearing forests for other land uses releases stored carbon and reduces the planet's natural ability to remove emissions from the atmosphere.
- **Agriculture:** Certain farming practices, such as livestock farming and the use of nitrogen-based fertilizers, produce significant amounts of methane and nitrous oxide.

It is anticipated that there will be significant and unequal economic disruption by 2030. This includes climate change-related threats to agriculture and food systems, decreased labor productivity from heat stress (estimated to reduce global GDP by $2.4 trillion by 2030), and direct damage to infrastructure from extreme weather events.

The direct damage costs to the health sector are estimated to be between $2 billion and $4 billion annually by 2030, excluding costs in related sectors like water and sanitation.

Vulnerable populations are predicted to be disproportionately affected by the economic effects, which could push an additional 100 million people into poverty by 2030, according to World Bank's climate experts' recent estimates.

A substantial decline in global income per capita is predicted by 2049 if climate change is not addressed, posing a systemic risk to financial markets and investment. For example, developing countries could face annual losses of up to $580 billion by 2030 due to climate change impacts.

Climate change related heat stress is projected to cut global GDP by $2.4 trillion by 2030, a productivity loss equivalent to 80 million full-time jobs.

Investing in climate action now, such as transitioning to renewable energy and building climate-resilient infrastructure, is estimated to yield significant economic benefits and create millions of new jobs, far outweighing the cost of inaction.

Citation: Jairo Vasquez Pravia (2026) What is Global Warming and How it can Disrupt the World Economy by 2030? . Journal of Global Warming and Climate Change. SRC/JGWCC-130. DOI: doi.org/10.47363/JGWCC/2026(1)129