# Climate change could slash global GDP by 50% by 2090 amid rising economic shocks



The economic implications of climate change are increasingly grave, with projections estimating a staggering 50% loss in global gross domestic product (GDP) between 2070 and 2090, according to recent analyses from the Institute and Faculty of Actuaries (IFoA) combined with researchers from the University of Exeter. This isn't merely a distant forecast; the damaging effects of climate-related events are already destabilising economies worldwide.

In the United States alone, the cost of extreme weather, which includes both direct damage and indirect repercussions, amounts to approximately $150 billion annually. This figure incorporates the expenses linked to infrastructure repair, agricultural losses, and healthcare costs resulting from climate-induced ailments, as confirmed in a 2023 federal assessment. The surge in grocery prices reflects these challenges, impacting consumers as farmers face unpredictable growing conditions.

Recent catastrophic events underscore these economic burdens. Hurricanes Helene and Milton collectively led to an estimated $113 billion in damages last year, crippling infrastructure and causing significant fatalities and losses in industries reliant on tourism. On the West Coast, wildfires in Los Angeles County earlier this year inflicted damages worth $250 billion, marking it as one of the costliest weather disasters in U.S. history. These incidents are not isolated but indicative of a broader pattern of burgeoning economic tolls linked to climate change, with 2022 alone witnessing 18 billion-dollar disasters that collectively racked up over $165 billion in damages.

This worrying trend is further compounded by a political landscape where climate-related economic costs are being systematically downplayed. The Trump administration's recent directive forbids federal agencies from factoring climate change's economic costs into regulatory decisions unless mandated by existing law. André Corrêa do Lago, a Brazilian diplomat poised to lead this year’s UN climate summit, warns that neglecting these costs poses serious risks for citizens. He advocates for an economic restructuring towards renewable energy to mitigate future financial damages.

Amidst this backdrop, discussions around the social cost of carbon have emerged as critical. Historically, under the Obama administration, this figure was calculated at approximately $40 per ton, reflecting the anticipated damages from greenhouse gas emissions. However, during Trump's presidency, it plummeted to under $5, only to see a dramatic increase to $190 under President Biden, illustrating the shifting political narratives around climate responsibility. The recent White House memorandum aimed at abolishing this metric altogether has sparked backlash from economists and environmental advocates, who contend that such a move undermines evidence demonstrating the economic shocks from climate change.

Concurrently, the National Oceanic and Atmospheric Administration (NOAA) has ceased efforts to track the economic impact of climate disasters, a decision described by its spokesperson as aligning with "evolving priorities." This shift may hinder future assessments and policies designed to bolster economic resilience against climate change, as longtime interventions, like the Building Resilient Infrastructure and Communities program, face cuts under current administrations.

Calls for action are escalating. As climate change continues to escalate, its ramifications on global economies cannot be overstated. The consensus among experts is clear: immediate and decisive measures are essential to avert an economic crisis intertwined with climate degradation. The capacity of our ecosystems to support human society is at stake, and without protective interventions, the projected economic losses could provoke widespread upheaval.

Addressing these interconnected challenges requires a holistic approach, leveraging advances in climate science and economic policy to ensure preparedness for the impending crises. For maximum effectiveness, this strategy must blend disaster resilience with robust climate policies aimed at curbing emissions and fostering sustainability.

While some political leaders may downplay the severity of climate change, the accumulating evidence presents an urgent clarion call for recognising its potential devastation. Economies thrive on stable environments, and as weather extremes become the norm, the imperative for collective action grows more critical than ever.

## Reference Map:

* Paragraph 1 – [[1]](https://insideclimatenews.org/news/30052025/todays-climate-economic-consequences-extreme-weather-trump/), [[2]](https://www.theguardian.com/environment/2025/jan/16/economic-growth-could-fall-50-over-20-years-from-climate-shocks-say-actuaries)
* Paragraph 2 – [[1]](https://insideclimatenews.org/news/30052025/todays-climate-economic-consequences-extreme-weather-trump/), [[3]](https://www.npr.org/2023/01/10/1147986096/extreme-weather-fueled-by-climate-change-cost-the-u-s-165-billion-in-2022), [[4]](https://www.axios.com/2023/09/12/disasters-weather-climate-record-2023-noaa)
* Paragraph 3 – [[1]](https://insideclimatenews.org/news/30052025/todays-climate-economic-consequences-extreme-weather-trump/), [[6]](https://www.axios.com/2024/06/10/climate-change-economy-flooding)
* Paragraph 4 – [[1]](https://insideclimatenews.org/news/30052025/todays-climate-economic-consequences-extreme-weather-trump/), [[7]](https://www.npr.org/2023/01/10/1147986096/extreme-weather-fueled-by-climate-change-cost-the-u-s-165-billion-in-2022)
* Paragraph 5 – [[1]](https://insideclimatenews.org/news/30052025/todays-climate-economic-consequences-extreme-weather-trump/), [[2]](https://www.theguardian.com/environment/2025/jan/16/economic-growth-could-fall-50-over-20-years-from-climate-shocks-say-actuaries)
* Paragraph 6 – [[1]](https://insideclimatenews.org/news/30052025/todays-climate-economic-consequences-extreme-weather-trump/), [[5]](https://www.npr.org/2023/01/10/1147986096/extreme-weather-fueled-by-climate-change-cost-the-u-s-165-billion-in-2022)

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## Bibliography

1. <https://insideclimatenews.org/news/30052025/todays-climate-economic-consequences-extreme-weather-trump/> - Please view link - unable to able to access data
2. <https://www.theguardian.com/environment/2025/jan/16/economic-growth-could-fall-50-over-20-years-from-climate-shocks-say-actuaries> - A report by the Institute and Faculty of Actuaries (IFoA) and the University of Exeter warns that the global economy could face a 50% loss in GDP between 2070 and 2090 due to climate change. The report highlights the severe economic risks posed by climate impacts such as fires, flooding, droughts, and temperature rises, urging immediate action to decarbonise and restore nature to mitigate these effects. The authors criticise current economic assessments for underestimating the potential severity of climate change impacts on global economic wellbeing.
3. <https://www.npr.org/2023/01/10/1147986096/extreme-weather-fueled-by-climate-change-cost-the-u-s-165-billion-in-2022> - In 2022, the United States experienced 18 separate billion-dollar disasters, resulting in over $165 billion in damages. These events, including hurricanes, heatwaves, and droughts, underscore the escalating financial toll of climate change. The report highlights the increasing frequency and severity of such disasters, emphasising the need for enhanced resilience and mitigation strategies to address the economic challenges posed by a changing climate.
4. <https://www.axios.com/2023/09/12/disasters-weather-climate-record-2023-noaa> - The National Oceanic and Atmospheric Administration (NOAA) reported that 2023 was a record-breaking year for billion-dollar weather and climate disasters in the U.S., with 23 separate events causing over $57.6 billion in damages. This surpasses the previous high of 22 events in 2020. The significant events included catastrophic wildfires in Hawai'i, highlighting the intensifying economic impact of extreme weather events linked to climate change.
5. <https://www.npr.org/2023/01/10/1147986096/extreme-weather-fueled-by-climate-change-cost-the-u-s-165-billion-in-2022> - In 2022, the United States experienced 18 separate billion-dollar disasters, resulting in over $165 billion in damages. These events, including hurricanes, heatwaves, and droughts, underscore the escalating financial toll of climate change. The report highlights the increasing frequency and severity of such disasters, emphasising the need for enhanced resilience and mitigation strategies to address the economic challenges posed by a changing climate.
6. <https://www.axios.com/2024/06/10/climate-change-economy-flooding> - Flooding in the U.S., exacerbated by extreme weather, is projected to cost the economy between $179.8 billion and $496 billion annually in 2023 dollars, equating to over 1% of GDP, according to a new Senate Joint Economic Committee report. This issue is impacting the insurance industry, businesses, and homeowners, with necessary infrastructure improvements ranging from $70 billion to $345 billion. While some experts not involved in the report agree with these findings, the report acknowledges that actual costs could be 0.5 to 2 times higher. Inflation, particularly in construction costs, exacerbates the financial strain, as climate change increases both the frequency and severity of flooding. Overall, the ongoing climate crisis is making the economy increasingly vulnerable.
7. <https://www.npr.org/2023/01/10/1147986096/extreme-weather-fueled-by-climate-change-cost-the-u-s-165-billion-in-2022> - In 2022, the United States experienced 18 separate billion-dollar disasters, resulting in over $165 billion in damages. These events, including hurricanes, heatwaves, and droughts, underscore the escalating financial toll of climate change. The report highlights the increasing frequency and severity of such disasters, emphasising the need for enhanced resilience and mitigation strategies to address the economic challenges posed by a changing climate.