

Climate at a Glance: Deaths from Extreme Weather



Key Takeaways:

- Extreme weather events are often attributed to climate change, but weather and climate are not the same thing.
- Real-world data show **no significant increase in extreme weather** over the past 100 years.
- Existing data show many **extreme weather events have declined significantly** during the recent period of modest warming, and **deaths from extreme weather events have declined dramatically**.

Short Summary:

Extreme weather events are just that, weather events. Such events are [often conflated with climate change but this is a mistake](#). Weather and climate operate on vastly different timescales.¹

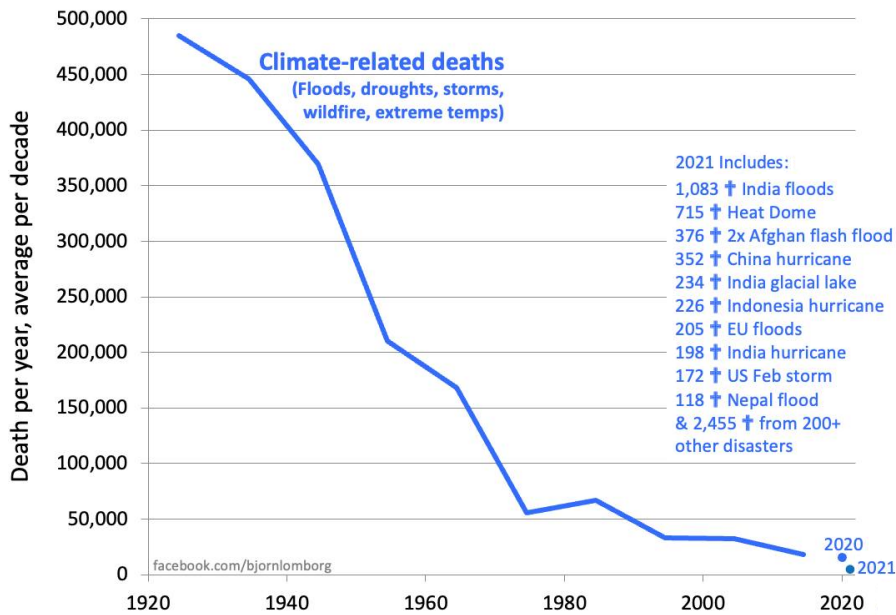
The Intergovernmental Panel on Climate Change (IPCC) AR6 report, Chapter 11, [Weather and Climate Extreme Events in a Changing Climate](#), concludes that changes in the frequency and intensity of most severe weather events have not been detected nor can they be attributed to human caused climate change.²

Real world data shows that there has been no increase in [drought](#), or [heatwaves](#); no increase in [flooding](#); no increase in [tropical cyclones and hurricanes](#); no increase in [winter storms](#); and no increase in [thunderstorms or tornadoes](#), or associated hail, lightning, and extreme winds from thunderstorms.

Regardless of weather trends and climate change, human mortality attributable to weather related disasters, including floods, droughts, storms, wildfires, and extreme temperatures has declined by more than 99 percent over the last 100 years. In the 1920s, death related to weather-related disasters averaged approximately 485,000 each year. By 2020 the average number of deaths attributable to extreme weather events had fallen 7,790. (See Figure 1, below)

Climate-related Deaths: 1920-2021

Deaths have declined precipitously because richer and more resilient societies reduce disaster deaths and swamp any potential climate signal



OFDA/CRED International Disaster Database, <https://public.emdat.be>, deaths averaged over decades 1920-29, 1930-1939, ... 2010-2019 placed at decadal midpoints (1924.5, 1934.5 etc), with data from 2020 and 2021, accessed January 1, 2022. Likely database will be updated further, so current 2021 estimate probably low. 2020 at 14,885 dead, full 2021 at 6,134.

Figure 1. The graph demonstrates a vast improvement in human mortality related to all extreme weather events over a 100-year span from 1920 to 2021. Source: Dr. Bjorn Lomborg, data from International Disaster Database published in ScienceDirect.⁹

Studies also show that, because cold temperatures kill more people than hot temperatures, the slight warming we've seen over the past century has *reduced* overall mortality related to extreme temperatures by as much as [166,000 premature deaths from 2000 to 2019](#).¹⁰

Claims that climate change is killing more people are refuted by hard data which shows a significant decline in weather and temperature related deaths.

References:

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3. Climate at a Glance: Drought, *The Heartland Institute*, accessed 11/16/22, <https://climateataglace.com/climate-at-a-glance-drought/>
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10. Climate at a Glance: Temperature Related Deaths, *The Heartland Institute*, accessed 11/16/22, <https://climateataglace.com/climate-at-a-glance-temperature-related-deaths/>

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Commented [Ma1]: Per year? Per decade? No hyperlink, just footnote..