



Ten deadliest extreme weather events, 2004–24

Did climate change cause the most extreme weather events?



Aerial view of the devastation after the catastrophic floods caused by Storm Daniel hit the city of Derna, Libya on September 13, 2023

World Weather Attribution (WWA) network

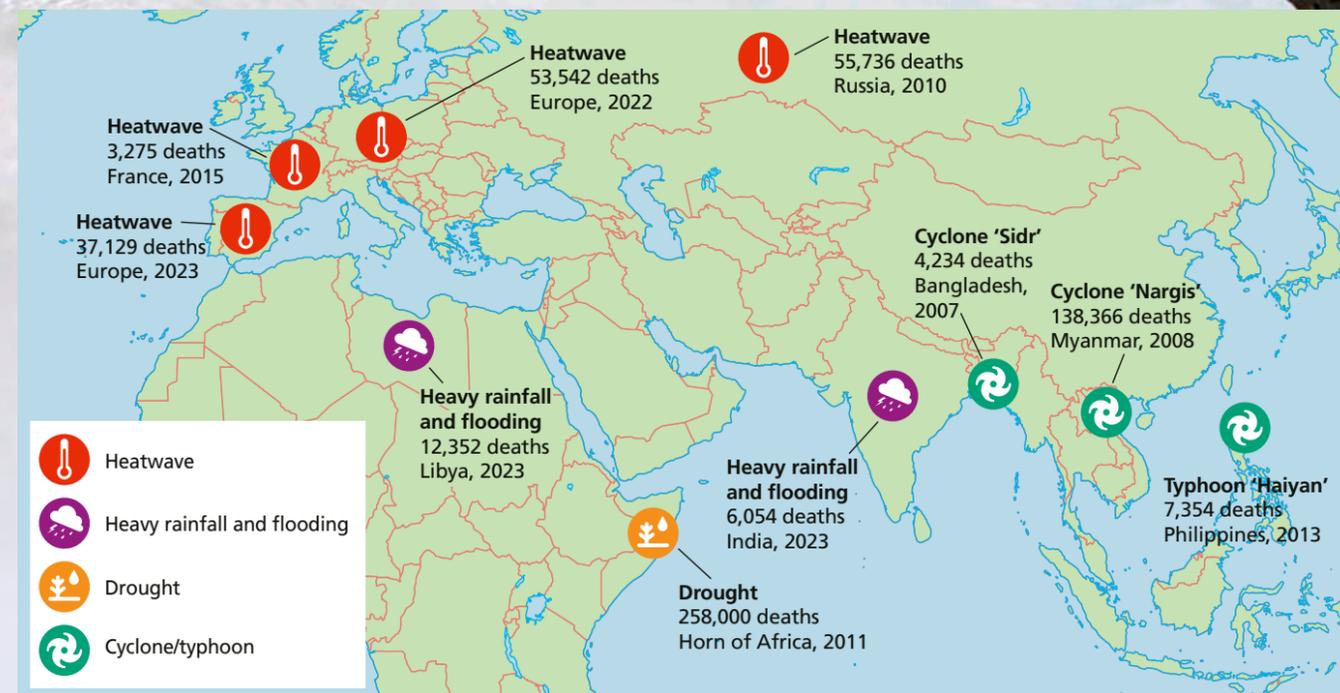
World Weather Attribution is an international network of climate scientists and institutes formed in 2015 by Geert Jan van Oldenborgh (1961–21) and Friederike Otto, who developed a methodology to establish the role of climate change in major weather-related disasters. In 2014, to mark 10 years since its founding, the WWA network analysed the ten deadliest extreme

weather events around the world over the past decade. These events claimed at least 576,042 lives. This analysis concluded that anthropogenic climate change due to the greenhouse warming driven by the burning of fossil fuels made each of these ten weather events 'more intense and more likely'.

When the 2024 report was published, Professor Otto explained that the main aim of the WWA was to make people understand that climate change is

directly linked to their daily lives. He also pointed out that the media had a key role to play in raising awareness:

Thanks to the stories that the media have written about the WWA network's findings, many people now better understand that climate change is already making life more dangerous and that there are also many things that can be done better to prepare for climatic extremes.



Source: World Weather Attribution

Figure 1 Ten deadliest extreme weather events, 2004–24

You can download the full report, with more information on the ten weather events, here: www.tinyurl.com/yvy7jjck

What are attribution studies?

The attribution analyses of disasters have demonstrated that certain people (such as the elderly, marginalised communities affected by conflict, people with disabilities, people who lack access to information) are disproportionately affected by the impacts from extreme weather events due to a range of social vulnerability factors.

Here is a passage from the WWA web page introducing the report:

World Weather Attribution has developed protocols that allow the rapid evaluation of different kinds of extreme weather events across the world. The team monitors extreme events globally and uses a set of fixed criteria to decide which ones to study. For every study, the WWA scientists partner with local experts and/or national meteorological agencies. We then use weather observations, climate models and expert literature to analyse how climate change influenced the event and what elements

on the ground turned a weather event into a humanitarian disaster. As soon as the findings are ready, we make them publicly available, with the hope they can help inform the conversations around the causes of the event, its impacts and what needs to be done to reduce the damage and protect the population from future events.

Attribution studies help to deepen our understanding of climate change and its impacts. The following site explains how the UK Met Office studies extreme weather events to establish if climate change was a cause: www.tinyurl.com/2v2f7mvk

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