


# International study finds no evidence in records of 'climate emergency'

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An international study of major weather and extreme events has found no evidence of a “climate emergency” in the record to date.

The study by Italian scientists provides a long-term analysis of heat, drought, floods, hurricanes, tornadoes and ecosystem productivity and finds no clear positive trend of extreme events.

The authors do not say that no action should be taken on climate change but argue the issue should be placed in a bigger context.

“Fearing a climate emergency without this being supported by data, means altering the framework of priorities with negative effects that could prove deleterious to our ability to face the challenges of the future, squandering natural and human resources in an economically difficult context,” the report, published in *European Physical Journal Plus*, said.

The paper – “A critical assessment of extreme events trends in times of global warming” – found the most robust global changes in climate extremes are found in yearly values of heatwaves, but it said global trends in heatwave intensity were “not significant”.

Daily rainfall intensity and extreme precipitation frequency were stationary.

Tropical cyclones show a “substantial temporal invariance”, as do tornadoes.

The impact of warming on surface and wind speed remained unclear.

The team, led by Gianluca Alimonti from the Italian National Institute for Nuclear Physics and the University of Milan, extended the analysis to include natural disasters, floods, drought, ecosystem productivity and yields of the four main crops (maize, rice, soybean and wheat).

“None of these response indicators show a clear positive trend of extreme events,” the report said.

The authors said it was important to underline the difference between statistical evidence of excess of events, with given characteristic, and probabilistic calculation of anthropogenic attribution of extreme events. The statistical evidence is based on historical observations and tries to highlight differences between these and recent observations or possible trends as a function of time. “The anthropogenic versus natural attribution of the origin of a phenomenon is based on probabilistic models and makes reliance on simulations that hardly reproduce the macro and microphysical variables involved in it,” the researchers said.

“In conclusion, on the basis of observational data, the climate crisis that, according to many sources, we are experiencing today, is not evident yet.”

On floods, the report said: “Although evidence of an increase in total annual precipitation is observed on a global level, corresponding evidence for increases in flooding remains elusive and a long list of studies shows little or no evidence of increased flood magnitudes, with some studies finding more evidence of decreases than increases.”

The paper said there was “no evidence that the areas affected by the different types of drought are increasing”.

In conclusion, the findings do not mean we should do nothing about climate change. “We should work to minimise our impact on the planet and to minimise air and water pollution,” the authors said.

“Whether or not we manage to drastically curtail our carbon dioxide emissions in the coming decades, we need to reduce our vulnerability to extreme weather and climate events.

“How the climate of the twenty-first century will play out is a topic of deep uncertainty. We need to increase our resiliency to whatever the future climate will present us.”

#### **GRAHAM LLOYD, ENVIRONMENT EDITOR**

Graham Lloyd is a fearless reporter of all sides of the environment debate. A former night editor, chief editorial writer and deputy business editor with The Australian, Graham has held senior positions nationa... [Read more](#)



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