

Linking storms to climate change a 'distraction', say experts

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(Phys.org) —Connecting extreme weather to climate change distracts from the need to protect society from high-impact weather events which will continue to happen irrespective of human-induced climate change, say experts.

Writing in the journal *Weather, Climate and Society*, the University of Manchester researchers argue that cutting greenhouse gas emissions, while crucial to reducing humanity's longer-term impact on the planet, will not eliminate violent storms, tornadoes or flooding and the damage they cause.

The authors suggest that developing greater resilience to [extreme weather](#) events must be given greater priority if the socioeconomic impact of storms, like those that have ravaged Britain this winter, is to be reduced.

Professor David Schultz, one of the authors of the guest editorial, said: "One of the long-term effects of [climate change](#) is often predicted to be an increase in the intensity and frequency of many high-impact [weather events](#), so reducing [greenhouse gas emissions](#) is often seen to be the response to the problem.

"Reducing humanity's impact on our planet should be pursued as a matter of urgency, but more emphasis must also be placed on being resilient to individual weather events, as this year's storms in Britain have so devastatingly shown."

In the past, say the authors, society responded to weather disasters with calls for greater resilience, but public awareness of manmade climate change has given climate timescales (decades and centuries) far greater importance than weather timescales (days and years).

Schultz, a professor of synoptic meteorology, and co-author Dr Vladimir Janković, a science historian specialising in weather and climate, say the short-term, large variability from year to year in high-impact weather makes it difficult, if not impossible, to draw conclusions about the correlation to longer-term climate change.

They argue that while large public investments in dams and flood defences, for example, must account for the possibilities of how weather might change in the future, this should not prevent short-term thinking to address more immediate vulnerability to inevitable high-impact weather events.

"Avoiding construction in floodplains, implementing strong building codes, and increasing preparedness can make society more resilient to [extreme weather events](#)," said Dr Janković. "But compounding the problem is that finding money for recovery is easier than spending on prevention, even if the costs of recovery are much higher."

This bias, say the authors, has a tendency to diminish the political dedication for preventative measures against extreme weather, regardless of whether they are caused or intensified by manmade influences. Yet, steps taken to protect society from the weather can protect the planet as well, they argue.

Dr Janković said: "Improving forecasting, increasing preparedness or building better infrastructure can increase resilience and reduce carbon-dioxide emissions. For example, greening neighbourhoods or painting roofs lighter colours will both reduce the urban heat-island effect and

reduce carbon-dioxide emissions through reduced air-conditioning costs, while making cities more resistant to storm damage would reduce emissions generated from rebuilding devastated areas."

Professor Schultz added: "Linking high-impact weather events with climate change can be distracting; perpetuating the idea that reducing greenhouse gases would be enough to reduce increasingly vulnerable world populations, in our view, only confuses the public and policy-makers as to the socio-economic susceptibility to extreme weather.

"With or without mitigation, there is no quick-fix, single-cause solution for the problem of human vulnerability to socio-environmental change, nor is there a reasonable prospect of attenuating high-impact weather. Addressing such issues would give the world an opportunity to develop a two-pronged policy in climate security, reducing longer-term climate risks in conjunction with preventing shorter-term [weather](#) disasters."

More information: "Climate Change and Resilience to Weather Events." David M. Schultz, Vladimir Janković. *Weather, Climate, and Society* 2014 ; doi: [dx.doi.org/10.1175/WCAS-D-14-00005.1](https://doi.org/10.1175/WCAS-D-14-00005.1)

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