

2012 Great Plains drought not caused by climate change

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From May to July 2012, the Great Plains region of the western United States faced a powerful and unpredicted drought. Following 7 months of normal rainfall, the drought was one of the largest deviations from seasonal precipitation rates seen in the region since observations began in 1895. When such extreme events take place today against the backdrop of ongoing global climate change, they raise questions about the relationship between climate change and natural disasters.

In a new modeling study, Kumar et al. use an ensemble of runs from an operational climate model, initialized with the observed conditions leading up to the 2012 Great Plains drought, to simulate the range of conditions that could have played out during the subsequent months. They find that the drought fell within the bounds of natural [atmospheric variability](#). The strength of the drought, they suggest, was a consequence of the multiple complex nonlinear systems that make up the [climate system](#) and did not critically depend on the existence of a strong external forcing.

The authors note that their findings do not detract from the idea that climate change could enhance some [extreme events](#). Rather, their research says that climate change was not a first-order forcing of the drought. They say that climate change and other pressures could still serve as "proximate causes," setting the stage for or enhancing, but not necessarily causing, extreme events. That the drought was driven by natural variability not requiring a steady background forcing, they say, will limit the predictability of similar future extreme events.

More information: Do Extreme Climate Events Require Extreme Forcings? *Geophysical Research Letters*, DOI: [10.1002/grl.50657](https://doi.org/10.1002/grl.50657), 2013 [onlinelibrary.wiley.com/doi/10 ... 2/grl.50657/abstract](https://onlinelibrary.wiley.com/doi/10.1002/grl.50657/abstract)

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