

Report: Climate change contributed to some of 2020's worst weather

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Lake Powell has fallen to its lowest level on record since it was first filled more than 50 years ago. Credit: Jay Huang, Flickr/Creative Commons

Failed monsoon rains that reignited the southwestern U.S. drought. A spring heat wave in western Europe. Intense Siberian wildfires. Scientists say human-caused climate change made these extreme weather events more likely, according to new research published today in the *Bulletin of the American Meteorological Society (BAMS)*.

Among the findings:

- A NOAA study that examined the U.S. Southwest drought using several different model simulations found [climate change](#) may have increased the likelihood that the monsoon-season rains would fail as they did in 2020, reigniting a multiyear drought that shows no sign of relenting.
- The extremely warm and wet winter over Northwest Russia in 2019 and 2020 was only possible due to climate change, another study concluded.
- A heat wave in western Europe in May 2020 was made 40 times more likely by human caused climate change, one paper found.
- Extreme wildfires in Siberia during 2020 were caused by weather conditions that are up to 80 percent more likely than a century ago as a result of global warming.

One trend emerging in the past several years is a number of studies that find climate change is reducing the risk of certain types of extreme events, typically cold outbreaks or heavy precipitation.

- Climate change decreased the likelihood of the exceptional April 2020 cold spell over Northern China by 80 percent, one study found.
- Four separate studies that examined 2020's record-breaking annual spring rains in China found the downpours were less likely and less intense than they would have been without climate change.

"This report reinforces the scientific consensus that [human influence](#) has created a new climate—one that is impacting extreme events today," said Stephanie Herring, a NOAA climate scientist and editor of the Explaining Extreme Events report. "As humans continue to emit billions of tons of greenhouse gasses into the atmosphere, these extreme weather

impacts are highly likely to increase."

More information: Explaining Extreme Events from a Climate Perspective. www.ametsoc.org/ams/index.cfm/...climate-perspective/

Provided by NOAA Headquarters

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