

Can we relate climate change to specific extreme events?

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Climate scientists, when asked whether a specific storm, flood or heat wave is caused by climate change, will give you the same answer again and again: we don't know, these events may occur in the 'old climate', but they will occur more often due to climate change.

In the past, we did not have the tools to explain how climate change might have impacted a specific event. Hence many people around the world see "climate change" as a problem of the future, not as something that is already happening today. But over the past decade, a new field of science called "extreme event attribution" has emerged, which addresses the gap in our knowledge and answers the question: did climate change play a role in this specific extreme event?

In July 2015, extreme heat waves set in across the Netherlands, Spain, Germany, France, and Switzerland. In this case, the evidence was overwhelming: climate change increased the likelihood of each of the heat waves. France and Germany set records for the hottest day ever observed, and a team of scientists specialized in "extreme event attribution" is "virtually certain" that because of climate change, heat waves of this type are more likely to happen now than in

the past in this part of the world. In fact, many of the extremes were found to be at least twice as likely to happen today as they would have been in a world without climate change.

Source: Global Facility for Disaster Reduction and Recovery, 2016.

Photo: Nicolas Longchamps (www.stckr.com)