



Singular Extreme Events and Their Attribution to Climate Change: A Climate Service–Centered Analysis

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Extreme event attribution (EEA) proposes scientific diagnostics on whether and how a specific weather event is (or is not) different in the actual world from what it could have been in a world without climate change. This branch of climate science has developed to the point where European institutions are preparing the ground for an operational attribution service. In this context, the goal of this article is to explore a panorama of scientist perspectives on their motivations to undertake EEA studies. To do so, we rely on qualitative semi-structured interviews of climate scientists involved in EEA, on peer-reviewed social and climate literature discussing the usefulness of EEA, and on reports from the EUCLEIA project (European Climate and Weather Events: Interpretation and Attribution), which investigated the possibility of building an EEA service. We propose a classification of EEA's potential uses and users and discuss each of them. We find that, first, there is a plurality of motivations and that individual scientists disagree on which one is most useful. Second, there is a lack of solid, empirical evidence to back up any of these motivations.