

Exploring regional stakeholder needs and requirements in terms of Extreme Weather Event Attribution

Extreme event attribution has increasingly received attention in the scientific community. It may also serve decision-making at the *regional* level where much of the climate change impact mitigation takes place. Nevertheless, there is, to date, little known about the requirements of regional actors in terms of extreme event attribution. We have therefore analysed these at the example of regional decision-makers concerned with storm surge risks at the German Baltic Sea and heat wave risks in the Greater Paris area. In order to explore if stakeholders find scientific knowledge from extreme event attribution useful and how this information might be relevant to their decision-making, we consulted a diverse set of actors engaged in the assessment, mitigation and communication of storm surge, heat wave, and climate change-related risks. Extreme event attribution knowledge was perceived to be most useful to public and political awareness-raising, but was of little or no relevance for the consulted stakeholders themselves. It was not acknowledged that it would support adaptation planning as sometimes argued in the literature. The consulted coastal protection, health, and urban adaptation planners rather needed reliable statements about possible future changes in extreme events than causal statements about past events. To enhance salience, a suitable product of event attribution should be linked to regional problems, vulnerabilities, and impacts of climate change. Given that the tolerance of uncertainty is rather low, most of the stakeholders also claimed that a suitable product of event attribution is to be received from a trusted "honest broker" and published rather later, but with smaller uncertainties than vice versa. Institutional mechanisms, like regional climate services, which enable and foster communication, translation and mediation across the boundaries between knowledge and action can help fulfill such requirements. This is of particular importance for extreme event attribution which is conceived as science producing complex and abstract information attached to large uncertainties. They can serve as an interface for creating the necessary mutual understanding by being in a continuous dialogue with both science and stakeholders.

200 characters

INFORMATION ABOUT THE SESSION AND ABSTRACT SUBMISSION

A085: The Attribution of Extreme Weather Events and their Impacts to External Drivers of Climate Change

Session Description:

It is now widely accepted that “extreme event attribution” is possible, albeit in a probabilistic sense and recognizing the role of multiple causal factors. Annual assessments of the role of climate change in individual weather and climate events are being compiled using a range of approaches (BAMS: Peterson et al, 2012 & 2013, Herring et al., 2014). There is increasing interest in using event attribution in risk assessment, public communication, and, eventually, international negotiations. In order for the science to inform the latter, only attributing the role of climate change is likely insufficient and the relative roles of hazard and vulnerability need to be included when assessing impacts. This session aims to explore new developments in both the science and communication of attribution and would seek to include contributions from the detection and attribution, climate impacts, and disaster risk communities.

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Abstract Content

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