

The weather risk attribution forecast for October 2011

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Whenever an unusual weather event occurs these days, the question is immediately asked: "Are our emissions to blame for this event?" Unfortunately, real-time or near-real-time assessments have all been subjective, amounting to contradictory samples of expert opinion which place different weights on various indirect sources of evidence and different interpretations of the question. Here we describe the world's first, and so far only, objective real-time system for examining how anthropogenic emissions have contributed to weather risk in our current climate. By comparing real seasonal forecasts against parallel counterfactual seasonal forecasts of the climate that might have been had human activities never emitted greenhouse gases, this "attribution forecast" responds proactively to the question: "Has this event been made more or less frequent by our emissions?" This talk will present the attribution forecast for October 2011. It will then describe the design of the system and lessons learned from two and a half years of operation. In particular it will discuss how such services can feed the needs of understanding current affairs, informing litigation, and informing adaptation activities and their funding allocation. It will include informal surveys of the audience's understanding of the October 2011 attribution forecast after its presentation and then again after the description of the technical details of the service.