



Understanding disaster event causation to shape future risk: how can disaster forensics inform climate risk scenarios?

Reinhard Mechler

IIASA, RISK, Laxenburg, Austria (mechler@iiasa.ac.at)

The emerging field of disaster forensics aims at a step change in understanding the contributions of hazard, exposure and vulnerability to specific '(un)natural' disasters. In doing so, it supports the shaping of risk management roles and responsibilities at local to national scales. We discuss opportunities for integration with the quickly developing field of climate attribution science, which is concerned with the role of changes in climate-related hazards for motivating global to national action on greenhouse gas emission reduction and, at lesser degrees, also risk management. Synergistic alignment between these complementary research fields may be particularly useful around a projective risk-scenario approach for charting out the risk and options space along near to mid-term timescales. A case study on Peruvian flood impacts and risk, amplified by climate change and El Niño, and strongly characterised by uncertainty and surprise, illustrates our suggestions and identifies lessons learnt for generating actionable risk information. Of particular relevance, we suggest a contribution to be made is in terms of improved clarification of risk responsibilities and enhanced communication instrumental to upgrading efforts of corrective reduction of current risk and of prospective efforts for avoiding future risk creation.