

Forensic investigation of disasters: an application to the case of volcanoes impacts

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In recent years there has been a growing interest on how post-disaster data are collected and more in general on the quality of disaster damage and losses databases, both globally and nationally. The recent Sendai Framework for Disaster Risk Reduction signed by 187 countries at the World Conference in March 2015 puts “Understanding risk” as the first priority for action, which includes the need for a significant advancement in the way disaster data are collected, structured, and used. At international levels, eminent groups have been created to work on the topic. In a Report developed by the European Commission in 2013 the different purposes for which disaster damage data are collected were explicated. “Forensic analysis” is one of those relevant arenas where good quality disaster data are necessary. In the context of an EU funded project, Idea, we have dug into the topic and developed our own understanding and methodology for disaster forensic. The latter is at the crossroads between the forensic investigation as intended by the Forin project promoted by IRDR, traditional forensic engineering and geology to support different parts in court cases, and the search for root causes in case of large technological accidents. Overall the method is aimed at disentangling the role relevant risk factors, related to hazards, exposure, vulnerabilities and resilience played on the damage outcome, taking into consideration the specific territorial, social and economic context at stake. The method has relevance in virtually all natural hazards; recently we have proposed such an assessment on the case of the volcanic eruption in Mount Cameroon in 1999. A young researcher working for the University of Geneva did an extensive survey to collect damage data and to interview locals and stakeholders regarding the longer term consequences of the event providing this way key material for the forensic investigation.