Approaches and results from the STREVA project: 12 months into STtrengthening REsilience in Volcanic Areas.

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The need to understand both the sequence of events around volcanic disasters and the root causes of loss of life and livelihood implicitly calls for an interdisciplinary approach to research. Analyses that attempt to identify the origins and components of disasters, based on identifying all possible contributing factors have recently been termed forensic investigations.

Strengthening Resilience in Volcanic Areas (STREVA) is a five year, NERC/ESRC funded project which is examining the interaction of dynamic factors contributing to volcanic risk. For three relatively well monitored and understood volcanic settings (our forensic volcanoes), we are investigating: changing volcanic hazard processes over time; scientific knowledge and monitoring methods; the exposure and vulnerability of people and assets; the institutional capacities in place to reduce, prepare for and recover from the impact, and levels of communication between different stakeholders. By learning from our forensic settings, we will design an innovative, widely applicable risk assessment framework. We will test our approach at less well understood volcanoes (our trial settings) which are showing signs of unrest.

STREVAs first forensic workshop, held in Montserrat in September 2012, brought together over 50 people; a diverse group of participants including volcanologists, disaster managers, social scientists and members of Montserratian civil society. The groups convened for two days to consider when specific moments or tipping points occurred that increased or undermined resilience; which social, economic, political and scientific components contribute the most to those changes, and, how the most important components can be evaluated, measured and monitored. Our second forensic workshop, held in Banos, Ecuador in June 2013, designed with project partners IG–EPN, focussed on how communities live with the volcano as their neighbour. This workshop also brought together a diverse group of researchers, decision makers and the public.

We will present a preview of our analyses from the Soufriere Hills forensic study, results from our second forensic workshop in Ecuador (with a focus on Tungurahua), and reflections on the value of STREVAs investigatory approach. We also discuss the lessons learned so far and our intentions for the future of this challenging interdisciplinary project.