

Barclay, J., K. Haynes, T. Mitchell, R. Teeuw, P. Cole, I. Kelman, S. Crossweller, and the UK SPIDER Network Team. 2008. "Framing volcanic risk communication within disaster risk reduction: Finding ways for the social and physical sciences to work together". Presentation at [IAVCEI 2008](#) (International Association of Volcanology and Chemistry of the Earth's Interior General Assembly), Reykjavík, Iceland, 17-22 August 2008.

Presentation abstract:

If risk-related messages are to become truly effective there is an increasing body of evidence to suggest that the current multidisciplinary approach within volcanology needs a broader scope to include sociological knowledge and techniques. This is far easier said than done and for volcanologists involves embracing new ways of thinking about risk and uncertainty. The ways in which uncertainty is perceived and conveyed are central to this problem. Ideally, in the planning stages, before an emergency arises, communications need to focus more on the development of a mutual understanding of an acceptable or tolerable risk framed within a wider discussion to tackle the causes of vulnerability and create sustainable livelihoods. There is a need to make both key decision makers and the general public aware of the degree of uncertainty surrounding hazard -related information, with participatory decision making processes becoming popular in addressing the challenges posed by disaster risk. However, opening highly technical discussions about the quantification of uncertainty to participatory processes may not help with transparency and inclusion of involved decision makers. Equally, during crises themselves there is a need to deal with changing and dynamic uncertainties without losing credibility and trust within the broader community. There are currently few guidelines or empirical evidence that help resolve these issues.

To be successful, a new approach would need to include the understanding of the incentives that make governments and communities act to reduce volcanic risk. Volcanic risk reduction programmes also need to be placed within the context of other risk-related phenomena (e.g. other natural hazards, climate change) and aim to develop an all-risks reduction culture. We suggest that the greatest potential for resolving these issues comes from deliberative inclusive processes and Geographical Information Systems without forgetting the limitations of both these methods.