



Re-assessing volcanic hazard maps for improving volcanic risk communication: two different Italian active volcanic systems, Campi Flegrei and Stromboli (Italy).

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Recent studies of the volcanic communication process have clearly shown that information will often be ignored or even resisted if not placed into an appropriate frame of reference. A survey carried out in Montserrat has shown that the volcanic hazard and risk maps used have been difficult for people to interpret. This has limited understanding and consequently preparedness to react to changes in volcanic activity.

The purpose of our research is to test the efficacy of currently available hazard maps for two different Italian active volcanic systems: Campi Flegrei caldera and Stromboli volcano.

Semi-structured interviews have been conducted with 12 of the local legislators, administrators and 'enforcers' for Stromboli. These interviews had both quantitative and qualitative elements and were designed to test map understanding and comprehension, understanding (and perception) of the volcanic hazards and to elicit opinion about existing maps and the information that this group would like to see on any future map.

Preliminary recommendations and conclusions inferred from these analyses show that: i) Differing maps should be produced for both 'expert' and 'tourist' use. Most of our 'expert' respondents would prefer detailed information on a topographic map, clearly labelled. Without prompting a majority expressed the need to include information

about the volcanic hazards on the map; ii) Occasional users (tourists or non-expert local population) simple hazard zones superimposed on a black and white photographic map. Colour should be restricted to the use of symbols. Critical information would include: important infrastructure, safe paths, the location of 400m contour, beaches vulnerable to tsunami and escape routes.

GIS techniques will be applied to represent information and then through semi-structured interviews of group of respondents the new maps have to be tested and validated.

The findings from this study not only elucidate any difficulty in understanding of the existing hazard maps but will also develop an appropriate methodology to produce maps for a variety of different contexts that maximise the flow of information and increase the local people preparedness both during volcanic crises and long-term inactivity.