



## **Living in the heart of a volcanic hazard zone and the issues that affect community vulnerability and resilience**

Deanne Bird (1,2,3), Guðrún Gísladóttir (2), and Dale Dominey-Howes (3)

(1) Department of Environment and Geography, Faculty of Science, Macquarie University, North Ryde, Australia (deanne.bird@gmail.com, 61 9850 8420), (2) Department of Geography & Tourism, Faculty of Life and Environmental Sciences, Earth Science Institute, University of Iceland, Reykjavík, Iceland (ggisla@hi.is), (3) Natural Hazards Research Laboratory, School of Biological, Earth & Environmental Sciences, University of New South Wales, Sydney, Australia (dale.dh@unsw.edu.au)

Volcanic risk mitigation strategies were revised for residents living in the eastern jökulhlaup hazard zone of Mýrdalsjökull, southern Iceland. These plans were trialled during a full-scale evacuation exercise on 25 March 2006. In order to assess residents' perception of and response to the exercise and proposed mitigation strategies a mixed methods survey was applied. This investigation consisted of field observations during the exercise and semi-structured interviews with emergency management officials and residents of a small rural community after the exercise. This community was the focus of this survey because these residents did not consider the previous plan appropriate to their beliefs and needs. The results of the survey revealed that residents are reluctant to evacuate and do not agree with the proposed strategies. Residents believe that the newly devised plans do not address the contextual issues of their community. Factors influencing the residents' perception are inherited knowledge, attachment to place and livelihood connections (i.e. concern for livestock). Residents' requests for alternative plans, in case adverse environmental conditions prevent evacuation, were ignored. Consequently, emergency managers failed to resolve residents' risk mitigation concerns prior to the evacuation exercise. We recommend that emergency managers should incorporate local knowledge and perceptions to ensure reduced vulnerability and enhanced community resilience.