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'Understanding volcanoes and society: the key for risk mitigation'



Do you see what I see? Exploring diverse perspectives in volcanic hazard map development and design

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As a volcanic crisis begins to unfold, appetite surges for information about when and where dangerous volcanic hazards might impact. Hazard maps are a concise way to share this information with a wide range of different audiences. Past volcanic crises and recent research have shown that the way these hazard maps are designed can have an important influence on the messages that people take away. However, there is limited time to dedicate towards careful consideration of hazard map design during an emergency due to short time scales, high stress-levels, complex coordination networks, and a constantly evolving hazard situation. Here, we present findings from a transdisciplinary study in New Zealand which aims to understand how volcanic hazard maps can be designed in a way which meets scientists', stakeholders', and communities' communication needs. Qualitative surveys are used to explore differences in what people see as the primary communication needs and priorities under different crisis scenarios. Eye-gaze tracking experiments are then used to gain insight into how people visually see hazard maps, and how they cognitively process of hazard map information for decision-making.