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Natural Hazard Risk Assessment in the Australasian Region: Informing Disaster Risk Reduction and Building Community Resilience

Abstract

Effective disaster risk reduction is founded on knowledge of the underlying risk. The key themes of the Australian Government's National Strategy for Disaster Resilience are the understanding of risk and the communication of risk. To deliver on these themes, not only does risk information need to be created, but effectively disseminated to allow the information to be understood and translated into appropriate measures to reduce the risk and build community resilience.

While methods and tools for assessing risk from specific hazards or to individual assets are generally well developed, our ability to holistically assess risk to a community across a range of hazards and elements at risk remains limited. This requires interdisciplinary collaboration amongst a wide range of hazard, spatial and social scientists, engineers and economists, as well as engagement of a range of stakeholders in land-use planning, emergency management and the spatial sector.

Here, key challenges and issues are explored via projects from Australia, Indonesia and the Philippines. Issues range from the availability of appropriate risk assessment tools and data, the ability of communities to implement appropriate risk reduction measures, to the expansion in data portals and virtual laboratories that allow communities to directly interact with the data and information.