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Charles Darwin University

## Killing two birds with one stone

### Utilizing natural hazard threats to develop adaptive and thriving communities, and reduce the risk of disasters

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# **Killing Two Birds with One Stone: Utilizing Natural Hazard Threats to Develop Competent and Thriving Communities, and Reduce the Risk of Disasters**

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There is a growing and urgent need to develop competent, adaptive and thriving communities in northern Australia and to do so in the context of increasingly rapid change, uncertainty, insecurity and 'wicked problems.' A significant challenge in this context derives from the Top End's unique hazard-scape. Bushfires in the region burn an area larger than Germany every year and contribute 50% of regional greenhouse emissions. Cyclones affect communities within 50km of the coast, and flooding disrupts lives and livelihoods in many communities for some ninety days per year. Climate change will amplify the risk from these hazards, add threats from sea-level rise, heat stress and vector-borne diseases, and create significant challenges to economic productivity, infrastructure, and human health and wellbeing.

Capabilities to manage natural hazards are restricted by poor infrastructure, extremes of climate and weather that make construction and maintenance difficult and expensive, low population densities, communities of varying degrees of remoteness, and differences in stakeholder views about how to define and manage risks. Thus infrastructure issues, population dynamics and distribution, and social capital issues create significant challenges for realizing both the kind of community disaster resilience anticipated by the National Strategy for Disaster Resilience and the ability of Darwin to maintain its strategically important national role as Australia's base for responding to major natural hazards, pandemics and terrorist attacks in Southeast Asia.

The typical view is that its natural hazard prone environment limits opportunities for development in northern Australia. However, the national risk management emphasis on community resilience provides a foundation for arguing for an approach that recognizes that people's capacity to deal with hazardous circumstances derives from social capital developed from everyday personal and social experiences, and not from specific risk management interventions. This tactic argues for the cost-effective integration of community development and risk management strategies. This creates a context in which strategies facilitate community development that focuses safeguarding and enhancing the lifestyle, amenities and resources that make the Top End an attractive place to live, work and play and adapting to circumstances when the environmental processes that create these amenities occasionally turn hazardous. We suggest that the unique social and environmental conditions in northern Australia are ideal for utilising natural hazards to facilitate the sustained development of adaptive, competent and thriving communities.

By focusing on developing community capacity to capitalize on social and environmental amenities, the emphasis is on community development, with risk management being a subset of activities subsumed within social and environmental capital building. This creates an opportunity to frame the Northern Territory hazardscape as a catalyst for holistic social change and community development. Because hazards affect all sectors and levels of society, this approach offers the potential (which can be developed over time) for whole-of-community efforts involving community, government, businesses, and researchers (including Indigenous researchers) collaborating across local, state, federal, and international scales. The sense of shared fate that can be engendered by integrating community development with disaster risk reduction provides a context for collaborative learning. Innovative education technologies and techniques (e.g., transformative education, collaborative learning, scenario planning) can be used to dissolve old ways of thinking that proved unproductive and create new ways of thinking. Transformative processes will capitalise on the catalysing role of community leaders and by facilitating people becoming psychologically and socially embedded in, and thus attached to, the Northern Territory.

Assigning key roles to developing sense of community and place attachment/identity provides a foundation for motivating shared responsibility between all sectors of society to support the social capital building activities organised around disaster risk reduction strategies and by developing strengths-based disaster recovery and rebuilding plans. Strategies that integrate risk management, community and economic development and poverty alleviation will play integral roles in fostering adaptation and transformation of at-risk communities.

This integrated, community-based risk reduction framework enhances the capacities of local communities and values local knowledge. For this participatory civil society-based approach to be successful, the human, financial, social and cultural resources of local communities need to be able to operate at a high level of competence. By empowering and linking the leadership, and the resources of these groups, the adaptive capacity and competence of communities can be enhanced manifold.

This approach creates disaster risk reduction as an ongoing process which improves quality of life in communities and which is built into the community's everyday activities rather than being an added task along with all the other tasks people and communities have to manage. Moreover, groups traditionally perceived as vulnerable, especially indigenous Australians, women, immigrants/refugee, and older people, are construed in the proposed framework as valuable resources whose knowledge (e.g., local and spiritual knowledge, knowledge from different countries), experiences, perspectives, and capabilities (e.g., available time, relationships) is an as yet underutilized resource. This participatory approach not only draws out, and on, the resources and capacities inherent in the local communities, but also creates socio-cultural, financial, health and environmental outcomes that create communities that attract and retain people.

Darwin and northern Australia's urban, rural, environmental, social and cultural diversity creates ideal contexts for participatory hazard and recovery research. Darwin's proximity to Asia makes it an

ideal location for researching cross cultural and humanitarian aid hazard research. Darwin's population turnover provides unrivalled opportunities to research social change processes.

Utilizing the natural hazard threat to motivate and implementing such a whole-of-community participatory community development approach would help us to kill two birds with one stone: we contribute to the development of adaptive, competent and thriving communities capable of utilizing the unique opportunities Australia's Top End offers, and we minimize the impact of disasters, adding valuable capabilities in the development of northern Australia.

