

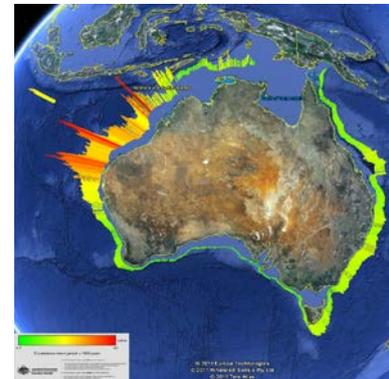
COMMUNITY UNDERSTANDING OF THE TSUNAMI RISK AND WARNINGS SYSTEMS IN AUSTRALIAN COMMUNITIES



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THE EASTERN AUSTRALIAN COASTLINE FACES SOME 8,000KM OF ACTIVE TECTONIC PLATE BOUNDARY CAPABLE OF GENERATING TSUNAMI THAT COULD REACH AUSTRALIA IN 2-4 HOURS (Australian Bureau Of Meteorology, 2008; Dominey-Howes, 2007). THE RISK TO COASTAL AREAS IS SUBSTANTIAL. FOR EXAMPLE, IN NEW SOUTH WALES, SOME 330,000 PEOPLE LIVE AT OR BELOW A HEIGHT OF 10 METRES ABOVE SEA-LEVEL AND WITHIN 1KM. OF THE COAST/COASTAL RIVER. RECOGNITION OF THIS RISK PROMOTED DEVELOPMENT OF THE AUSTRALIAN TSUNAMI WARNING SYSTEM (ATWS).



The effectiveness of a warning system is a function of its ability to detect a threat, issue a warning, and facilitate timely action in those at risk.

The ATWS can detect a threat and issue a warning (e.g., as was the case in 2009 and 2010), but...

→ realizing the full benefits of the system require ensuring those at risk can receive and interpret the warning and can act on it promptly



TSUNAMI!

- ▶ Activation of the ATWS could result in warning times (depending on initial location of the tsunamigenic event and the point of impact on the Australian coastline) ranging from 90 minutes to 3 hours.
- ▶ Warning times of these durations leave insufficient time for people to develop their capacity to respond in situ (e.g., to prepare their property, plan an evacuation etc.) on receipt of a warning.
- ▶ Warning system development must be complemented with developing peoples' capability to respond promptly/appropriately in advance of tsunami hazard activity occurring.

Working with end-user agencies, NSW SES and Surf Life Saving Australia/Australian Tsunami Advisory Group, this work will inform the development and implementation of a community engagement strategy that can be used by end-user agencies to develop community warning and response strategies.

ISSUES IN WARNING SYSTEM DEVELOPMENT

Diversity (e.g., location, topography, demographic, length of residence etc.) across areas susceptible to experiencing tsunami hazards...

→ national warnings complemented by local (community-based) initiatives.

This project examines how community members & stakeholders can engage in ways that contribute to developing tsunami warning systems that can:

- ▶ Accommodate community and geographical diversity, and
- ▶ Facilitate the development of an enduring community capacity to respond in effective and timely ways on receipt of a warning.



Research Questions

- ▶ *What are individuals' perceptions of tsunami risk in their local Australian communities?*
- ▶ *How do people develop their tsunami risk beliefs and preparedness?*
- ▶ *What risk communication issues arise when dealing with low/no risk awareness/acceptance?*
- ▶ *How do interpersonal, media & social media resources influence communication about and encourage community engagement about tsunami risk and preparedness?*
- ▶ *How do community engagement processes, direct/social-media mediated, facilitate the effective linking of risk management agencies and communities?*

APPROACH

Using a qualitative approach (thematic analysis), community members in coastal areas are being interviewed on:

- ▶ Causes/location/tsunami travel times,
- ▶ Warning times/response times,
- ▶ Warning sources/media, and
- ▶ What people warned of/actions triggered.

INITIAL FINDINGS

18 semi-structured telephone interviews have been conducted so far. Initial findings include:

- ▶ Low risk attributed to tsunami
- ▶ Focus education/preparedness on bushfire, not on rare events like tsunami
- ▶ Bushfire preparedness low-if people don't prepare for them no point educating/preparing for rare tsunami hazards.
- ▶ 8 interviewees acknowledged SES or BOM as official sources of tsunami warning.
- ▶ Warnings via several sources (Radio/SMS...internet/social media/word of mouth/tv), and
- ▶ Include specific information (how long till arrival, where it will arrive, where to evacuate to...)
- ▶ On receiving a warning, people will check at least one other source before acting
- ▶ Social media - useful (e.g., inform many people) and problematic (e.g., spread false information/less trusted).
- ▶ Warnings → time to respond (estimates of warning time: 20mins- several hours)
- ▶ 30mins - ample time (to check with warning sources, gather people together, evacuate).
- ▶ Community meetings → inform about tsunami risk (but few would attend these).

