PROJECT SUMMARY

Multi-hazard public information and warning platforms for the future

Natural Hazards Research Australia

RESEARCH TEAM

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SUPPORTING ORGANISATIONS

Country Fire Authority (CFA)
Victoria State Emergency Service
South Australian Country Fire Service
Australian Bureau of Meteorology

Project duration: 2.5 years

Background

Emergency management agencies, weather agencies, and government agencies across Australia share a common challenge of distributing public information and warnings effectively in line with technology advancements and communities' changing communication expectations and needs. To do this, they increasingly use multi-hazard public information and warning platforms ('platforms'). These are user-centred digital tools and services that make spatially displayed emergency and warning information available to the public online for a range of hazards including bushfires, floods, tsunamis, cyclones, storms and heatwaves, amongst others. These platforms may also share preparedness and recovery information. They serve as central hubs for public communication by emergency management and weather agencies. The AFAC Public Information and Warnings Group is seeking to understand how these platforms are supporting public safety as part of the wider risk communication system in order to explore future communication innovations and capabilities.

This project is based on a concept developed by the AFAC National Public Information and Warnings Group, the custodian of national public information and warnings doctrine, and provides leadership, strategic direction and governance for continuous improvement in public information and warning systems.

Project description

This research project will explore current and changing perceptions and usage of multi-hazard public information and warning platforms amongst Australian communities. The research will focus on usability, comprehension and accessibility for all communities – including all generations, people with culturally and linguistically diverse backgrounds, people with disabilities and those with varying digital literacies and access. The findings of this research will cumulatively support the strategic direction of developing a national, all-hazard emergency warning app, as recommended by the Royal Commission into National Natural Disaster Arrangements in 2020. More widely, it will build a deeper understanding of community expectations and multi-hazard communication and warning needs, helping to frame future communication of hazard risks and warning information and the future use and development of multi-hazard public information and warning platforms.

Intended outcomes

This research project identifies critical knowledge gaps through a systematic review and creates a "Living Research Database" to support evidence-based decision-making by emergency agencies. The project also explores the communication needs and preferences of different community groups to ensure warnings are more targeted and effective in multi-hazard warning platforms, cognisant of the broader warnings ecosystem with official and unofficial sources. By involving communities directly, it ensures that communication strategies, design principles for future platforms reflect real-world needs during complex and cascading emergencies. The findings will help shape the design and implementation of next-generation, multi-hazard public information and warning platforms, supporting their integration into national emergency management doctrine. Ultimately, the research aligns with the strategic goal of creating a national, multi-hazard emergency warning platform, as recommended by the Royal Commission into National Natural Disaster Arrangements, while also strengthening long-term understanding of how communities expect to receive and respond to hazard information.

Translation and implementation potential

The research delivers practical applications through strategically planned outputs across all phases of work, cumulating in the implementation through jurisdiction specific insights for practice, design principles for future builds of multi-hazard public information and warnings platforms, updates to AIDR doctrine, and a novel "Living Research Database" allowing agencies to efficiently access relevant research insights. Throughout the project, close collaboration with the Steering Committee and the broader AFAC Public Information and Warnings Group ensures outputs directly support emergency management practitioners.

Further information

For full project details head to: https://www.naturalhazards.com.au/research/research-projects/multi-hazard-public-information-and-warning-platforms-future

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