

# Community risk assessment

## RESEARCH TEAM

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Project duration: 9 months

## Background

Recent disaster events have shown the need to better understand our communities and the changing risks and impacts of such crises. With increasing severity and impact of natural hazards, understanding the risk and effects during and post events at a community level is essential to making operational and strategic decisions.

While significant advancements have taken place with mapping and predicting hazard exposure, combining this with meaningful vulnerability data for effective risk assessment processes remains a significant challenge.

This project aims to address several challenges towards assessing community risk.

## SUPPORTING ORGANISATIONS

NSW State Emergency Service

## Project description

Conducting a risk assessment is a fundamental first step in emergency management planning. While significant advancements have taken place to forecast and map hazard exposure, combining this with meaningful vulnerability data that is localised and up to date remains a significant challenge.

This project includes review of current risk assessment processes, challenges and needs across the emergency services sector, including insights from other relevant sectors such as defence.

This will include an exploration of technological innovation and availability of new data types and sources.

## Intended outcomes

The main outcome of the project is an improved knowledge base of community risk assessment approaches. This knowledge base is enhanced by explicit consideration of social and physical dimensions of local community vulnerabilities to disasters.

Specifically, the outcomes will include:

- a thorough understanding of the range of risk assessment models within the literature based on the systematically developed synthesis of the existing literature
- understanding the effectiveness, reliability and equitability of the community risk assessment models in the literature
- a comprehensive catalogue of the common community risk assessment practices, including systematic gap analysis of practice
- road-map for development of efficient, equitable, and reliable community risk assessment tools that combine vulnerability assessment with exposure assessment in a dynamic model for NSW State Emergency Service and other emergency service organisations.

## Translation and implementation potential

With the involvement of stakeholders through NSW State Emergency Service, the outcome of this project will be delivered as a report to provide the context of community risk assessment and explores democratising community risk assessment, in addition to considering physical and social vulnerability.

The outcomes from this project will be utilised for the development of a new multi-hazard risk assessment process for the NSW State Emergency Service in the subsequent project.

## Further information

For full project details head to: [www.naturalhazards.com.au/research/research-projects/community-risk-assessment](http://www.naturalhazards.com.au/research/research-projects/community-risk-assessment)

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