# **ECONOMICS OF NATURAL HAZARDS**



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# THE PROJECT TACKLES A RANGE OF ECONOMICS ISSUES, INCLUDING ESTIMATION OF NON-FINANCIAL BENEFITS FROM HAZARD REDUCTION, RISK ANALYSIS, AND DEVELOPMENT OF DECISION MAKING FRAMEWORKS THAT WOULD HELP DELIVER VALUE FOR MONEY FROM PUBLIC INVESTMENTS IN NATURAL HAZARD MANAGEMENT.

# Research questions:

- Which strategies for managing or mitigating natural hazards offer the best value for money?
- How can we value social and environmental benefits of management?
- How should emergency budgets be set, recognising variability of need?
- What are the requirements for sound economic analysis of natural hazard management?



#### BACKGROUND

The project has a broad scope in terms of natural hazards, including fires, earthquakes, floods, cyclones and tsunamis. The social, economic and environmental consequences of these hazards are complex. Decision makers face the challenging task of allocating scarce resources effectively among different management options.

#### OBJECTIVES

To develop an innovative tool for generating estimates of non-financial benefits;

To undertake an integrated economic analysis of management and policy options;

To conduct risk analysis under different budget allocations; and

To develop guidelines for the conduct of sound economic analysis of natural hazard policy and management.

#### **EXPECTED PROJECT BENEFITS**

We aim to improve the management of bushfires and other natural hazards by delivering the following outcomes:

- Improved recognition of non-financial benefits of management and policy for natural hazards, influencing decisions about budget levels and about management and policy options.
- Improved decision making about management and policy options considering the full range of relevant factors (technical, social, economic, environmental, policy).
- Improved ability to discuss appropriate budget levels with policy makers and treasury.
- Improved quality of economic analysis throughout the sector, resulting in stronger and more defensible analyses, and stronger support from Treasury.



#### END USERS

The project has partners from most states, including: Metropolitan Fire and Emergency Services Board (Victoria), Department of Fire and Emergency Services (WA), Attorney-General's Department, Rural Fire Services (NSW), Fire and Emergency Services Commission SA (SAFECOM), State Fire Management Council (TAS), Office of Environment & Heritage (NSW), South Australia Metropolitan Fire Service (SAMFS). The project has links to several projects in the Bushfire and Natural Hazard CRC.

## RESEARCH TEAM

The research team includes Professor David Pannell, Associate Professor Atakelty Hailu, Professor Michael Burton, two postdoctoral researchers and a PhD student. The project has collaborators from the University of Alberta (Canada), Central Queensland University, Clark University (USA) and the University of Sterling (UK).

## PROJECT INFORMATION

For more information, email David Pannell at <u>david.pannell@uwa.edu.au</u>





