



# NCCARF

National  
Climate Change Adaptation  
Research Facility



## National Climate Change Adaptation Research Plan: Emergency Management

### Summary

A National Climate Change Adaptation Research Plan for Emergency Management has been developed to identify the information that decision makers within government, industry and communities need in order to effectively respond and adapt to the impacts of climate change.

Climate change is expected to increase the frequency and intensity of natural disasters, especially those associated with warmer conditions such as heat waves and bushfires. With less certainty, the occurrence of storms, droughts and flooding may also increase. Emergency management organisations are on society's front line in preparing for such events, in preventing the worst forms of damage and harm when they occur, and in managing post-event recovery.

The National Climate Change Adaptation Research Plan for Emergency Management outlines critical challenges for emergency management due to climate change.

The Plan:

- identifies research priorities to help provide Australian governments and communities with the information needed to better respond to extreme events for which disaster planning, preparedness, response and recovery will be required
- identifies gaps in existing climate change and emergency management research and in information available to decision makers
- identifies key research priorities aimed at filling these gaps to develop an effective and equitable portfolio of adaptive strategies.

This Plan aims to assist policy makers, funding bodies, service providers and researchers better support, coordinate and undertake research activities for emergency management and climate change adaptation nationwide. In so doing, it aims to guide investment in climate change adaptation research on a national scale over the next five to seven years.

This document provides a summary of the Plan; the full plan is available online at [www.nccarf.edu.au](http://www.nccarf.edu.au)

## Climate change adaptation impacts in Australia: priorities for emergency management

The objective of the Plan is to identify priority research to enhance community and organisational resilience to the increased risks posed by climate change from the perspective of emergency management. The Plan identifies three overarching streams to the research agenda for emergency management:

1. Understanding the nature and location of the risks posed by climate change
2. Enhancing community and organisational resilience to climate change risks
3. Developing and implementing adaptive strategies.

A number of critical information needs and research gaps have been identified under each sub-theme.

A full understanding of, and preparation for, the risks from climate change requires more than a simple multiplying of existing emergency management capabilities. When natural disasters occur, the consequences of damage and loss are a function of the effectiveness of the disaster mitigation strategies that have been implemented, the activities of the emergency services and the resilience of the communities and economic sectors affected.



# Climate change and emergency management: priority research questions

## Understanding risk

- Where and how are changes in climate going to put us at greatest risk?
- What tools are needed to enable decision-making under future climate uncertainty?

## Community and organisational resilience

- What does community resilience mean in a changing climate?
- What behaviours promote community preparedness and preventive strategies in a changing climate?
- What are the most effective strategies to ensure that individuals, governments and the private sector adopt better practices in preparing for the increased risk to communities, business operations or critical infrastructure arising from climate change?

## Regional implications

- How will the climate change adaptive capacity of other countries, particularly those in the Pacific region, impact upon the Australian disaster management system and Australian fire and emergency service organisations?

## Adaptive strategies

- How will climate change affect the emergency management sector's capacity to support preparedness, response and recovery?
- What is the role of the private sector in adaptation through emergency management?

## Developing the Plan

The writing team for the National Climate Change Adaptation Research Plan for Emergency Management was led by Emergency Management Australia Director-General Tony Pearce. The team comprised Australia's leading specialists working in the area of emergency management and climate change adaptation including John Handmer, David King, Frank Pagano, John Schneider, Penny Whetton, Jan McDonald and John Higgins.

The National Climate Change Adaptation Research Facility coordinated the development of this Plan, and the writing team consulted broadly with stakeholders including government departments and agencies, peak emergency management organisation bodies and disaster recovery agencies.

A formal period of review of the draft Plan ensured that all interested parties were able to contribute comments.

## Criteria for prioritising research questions

The research questions were evaluated and prioritised using the following criteria:

- Severity of impact/degree of benefit
- Immediacy of required intervention/response
- Need to change current intervention/practicality of intervention
- Potential for co-benefit
- Potential to address multiple, including cross-sectoral, issues, and
- The distribution and equity of the perceived benefit of any adaptation strategy.

## A coordinated national approach to climate change and emergency management research in Australia

The implementation of the National Climate Change Adaptation Research Plan for Emergency Management will be supported by the Adaptation Research Network for Emergency Management, which is funded by the Australian Government via the National Climate Change Adaptation Research Facility. This Network is hosted by RMIT University, and convened by Professor John Handmer.

The aim of both the Plan and the Network is to facilitate a coordinated research effort to address the information needs of decision makers with respect to adaptation to climate change in the area of emergency management. This effort will include the identification of sources of research funding and the communication of research outcomes to inform decision making by government, industry and communities.

The Australian Government Department of Climate Change has made available an initial investment of \$2 million towards implementing the Plan, with further investment anticipated from government, industry and research institutions.

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**Disclaimer: The views expressed herein are not necessarily the views of the Commonwealth, and the Commonwealth does not accept responsibility for any information or advice contained within.**

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### NCCARF

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## How to get involved: key contacts

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