

# IS 'RESILIENCE' THE SAME AS 'ADAPTATION'?



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**FLOODING IS AUSTRALIA'S MOST EXPENSIVE NATURAL HAZARD. CLIMATE CHANGE SCENARIOS predict increasing flood intensity and frequency. This potentially exposes Australia to greater damages in the future, making flood management key to improving adaptive capacity. This research explores whether 'resilience' strategies will result in outcomes that are truly adaptive.**

## RESEARCH QUESTIONS

Which approaches to flood management best enable us to respond to changes in climate and population?

Can we transfer innovative approaches used overseas?

Are there implementation barriers?  
Is reform needed?

Will the resilience approach adequately address future flood threats?

## FINDINGS TO DATE: OVERSEAS

Australian approaches to flooding were compared with Netherlands, China & USA.

Overseas: a shift from 'control the river' to 'room for the river' strategies.

This 'transformational' change includes measures such as:

- ▶ relocation
- ▶ housing design
- ▶ flood-compatible land use & livelihoods
- ▶ ecosystems based approaches
- ▶ basin-scale integrated water resource management

## ENDUSER STATEMENTS

"This research has the potential to identify new risk treatments and outline the institutional and social changes required to enable them to be implemented in Australia. These outputs would assist in ensuring that risk treatments assessed in Floodplain Management Studies and included in Floodplain Management Plans build resilience to current and future risks."

Chris Irvine, SES Tasmania

"Governments at both federal and state level are placing greater policy emphasis on promoting resilience in the face of natural disasters. Translating this into community action is a significant challenge, especially when coupled with environmental and demographic change. Research that helps make this approach less haphazard will be welcomed across the emergency management sector."

John Schauble  
Emergency Management Victoria

## FINDINGS TO DATE: AUSTRALIA

Australian 2012 flood reviews looked backwards and failed to consider future threats such as climate change.

Australian decision-making processes and institutional arrangements favour traditional flood control approaches.

Continuing development of flood prone areas will fuel future demand for levees.

Using adaptation criteria, levees appear maladaptive over the longer term.

Levees are an incremental adaptation measure that extend the amount of time that 'business as usual' can occur: a temporary solution.

Long term adjustments also need to be planned and funded.

Risk awareness is no substitute for effective flood development controls.

Relocation needs to be incorporated into post-disaster reconstruction programs to improve long-term resilience

## A RESILIENT STATUS QUO MAY PREVENT

### LONG TERM ADAPTATION

Find out more: a publications list, including some free downloads, at: <http://fenner.school.anu.edu.au/about-us/people/caroline-wenger#acton-tabs-link--tabs-0-middle-3>

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