

State Housing Authorities and Natural Disasters in Australia



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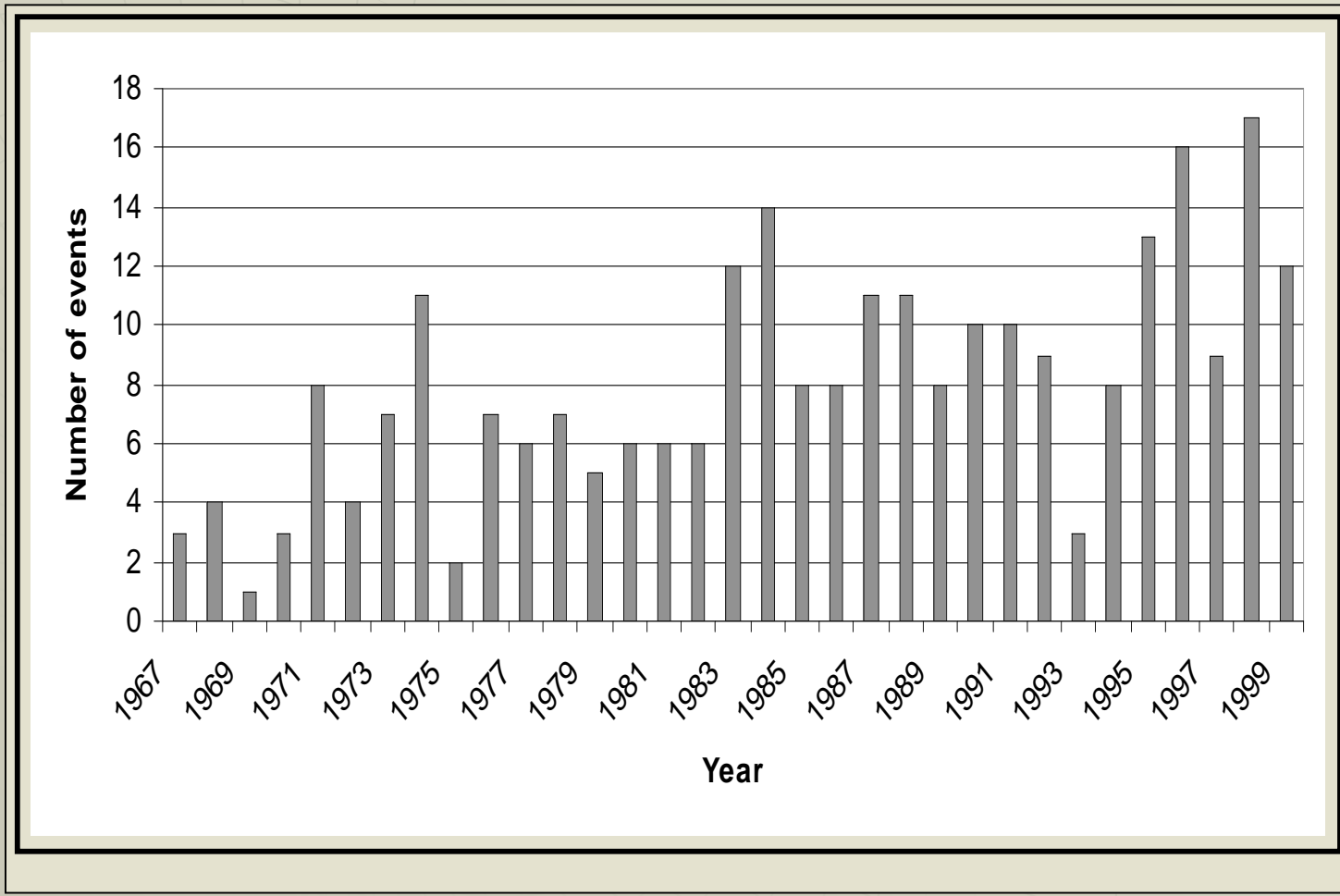
Natural disasters, housing, and SHAs in Australia: A context for AHURIU project #40520

- ◆ Disaster terminology
- ◆ Incidence, type and costs of such events
- ◆ Factors influencing their occurrence in Australia
- ◆ Current policy and practice in disaster management
- ◆ Emergency shelter, and temporary and permanent housing
- ◆ SHAs and their roles in managing for disasters in Australia
- ◆ AHURI research project #40520 aims and methods

Key Terminology

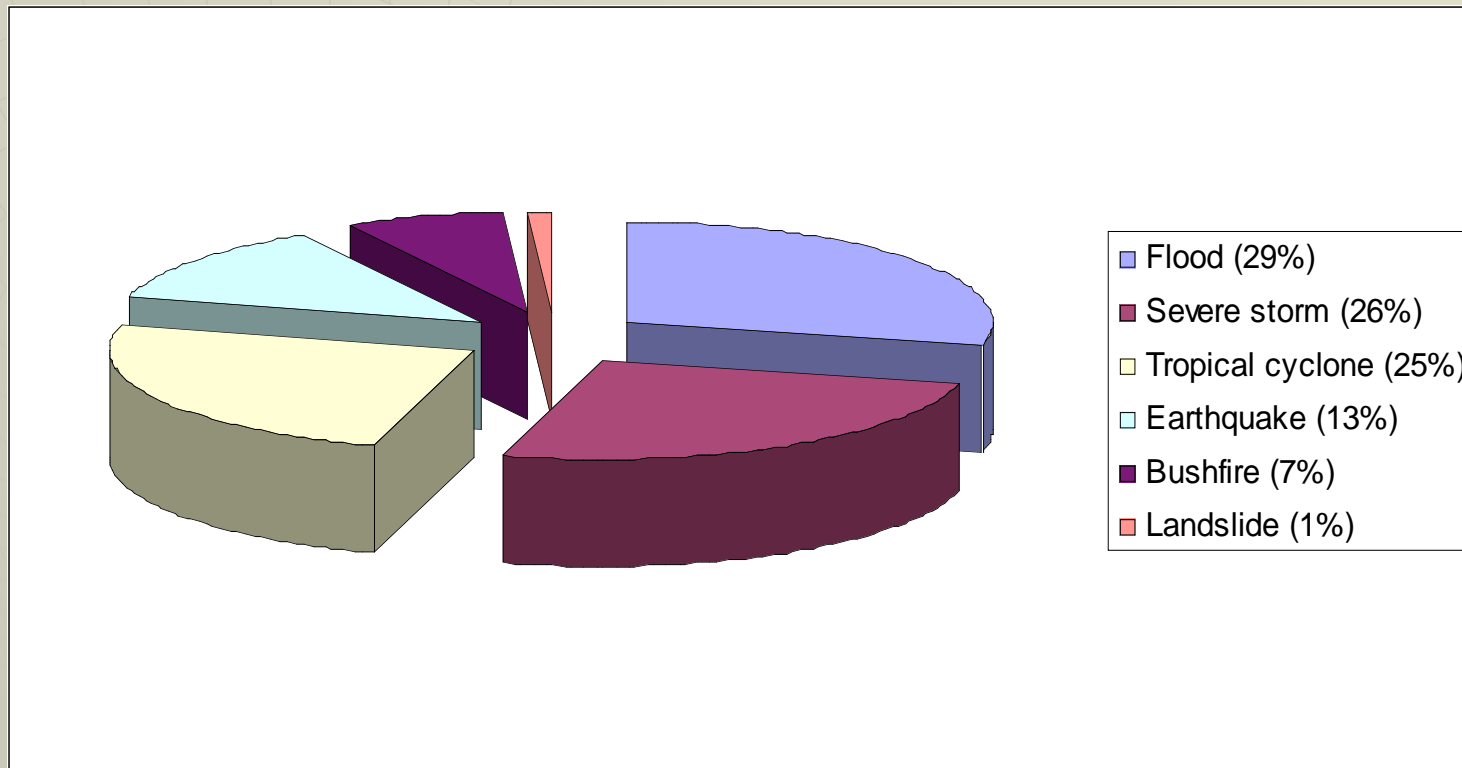
- ◆ A risk is the chance of something happening that will have an impact on a current or future set of conditions or states. It usually refers to 'the likelihood of harmful consequences arising from the interaction of hazards, communities and the environment' (EMA, 2002: 77).
- ◆ An emergency is 'an event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and requires a significant and coordinated response' but is of a lesser magnitude than a disaster (COAG, 2004: 103).
- ◆ A natural hazard is 'a source of potential harm or a situation with a potential to cause loss' (COAG, 2004: 103). As an existing or potential event or condition that may cause harm a hazard poses risks to the community or the environment.
- ◆ A natural disaster is a serious disruption to a community or region caused by the impacts of a naturally occurring event which can cause death, injury or damage to property or the environment and requires a significant and coordinated multi-agency and community response. It can result from any one, or a combination of bushfire; earthquake; flood; storm; cyclone; storm surge; landslide; tsunami; meteorite strike; or tornado (COAG, 2004: 103).
- ◆ A catastrophe is 'an extreme natural hazard event which impacts on a community, or communities, resulting in widespread, devastating, economic, social and environmental consequences' (COAG, 2004: 63). It is of greater magnitude than a disaster, and exceeds the response and recovery capacities of the affected state or territory and the nation combined across all jurisdictions, requiring assistance from other states or territories, and overseas.

Figure 1 Number of natural disasters in Australia 1967-1999 with costs exceeding AUD \$10 m



(Source: BTE, 2001)

Figure 2 Average proportional cost of natural disasters in Australia 1967-1999 by type of event



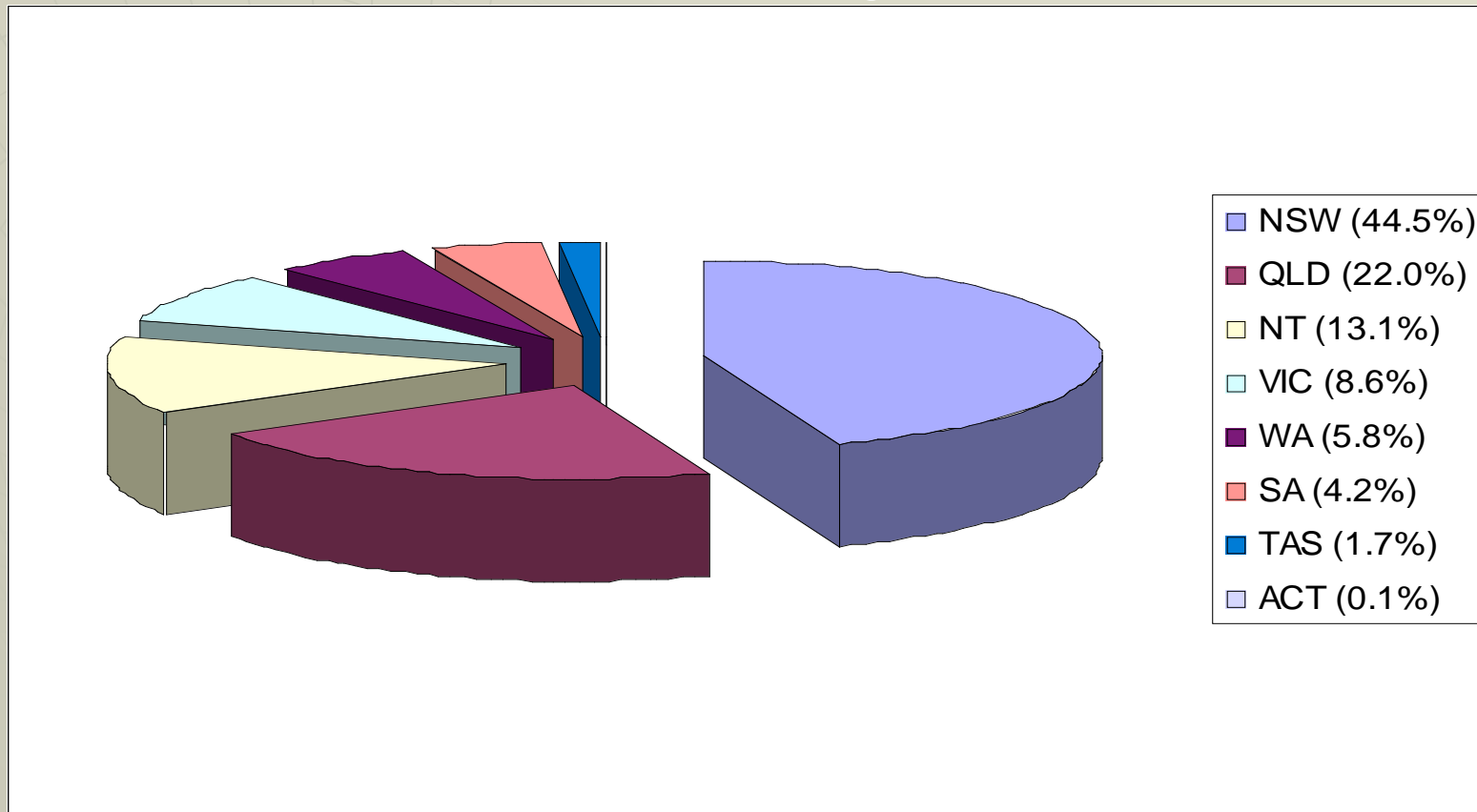
(Source: BTE, 2001)

Figure 3 Average annual cost of natural disasters in Australia 1967-1999 by type of event

Natural disaster (type of event)	Average annual cost (AUD \$ millions)
Flood	314
Severe storm	284
Tropical cyclone	266
Earthquake	144.5
Bushfire	77
Landslide ¹	15
Tsunami	n/a

(Source: BTE, 2001
except ¹ EMA, 1999 [using 1900-1999 data])

Figure 4 Average proportional cost of natural disasters in Australia 1967-1999 by state and territory



(Source: BTE, 2001)

Figure 5 Most costly types of natural disaster in Australia 1967-1999 by state and territory

State or territory	Natural disasters
New South Wales	Floods, storms
Queensland	Floods, tropical cyclones
Victoria	Floods, bushfires
Western Australia	Tropical cyclones, storms
South Australia	Floods, storms
Tasmania	Bushfires, floods
Northern Territory	Tropical cyclones, floods
Australian Capital Territory	Bushfires, storms

(Source: BTE, 2001)

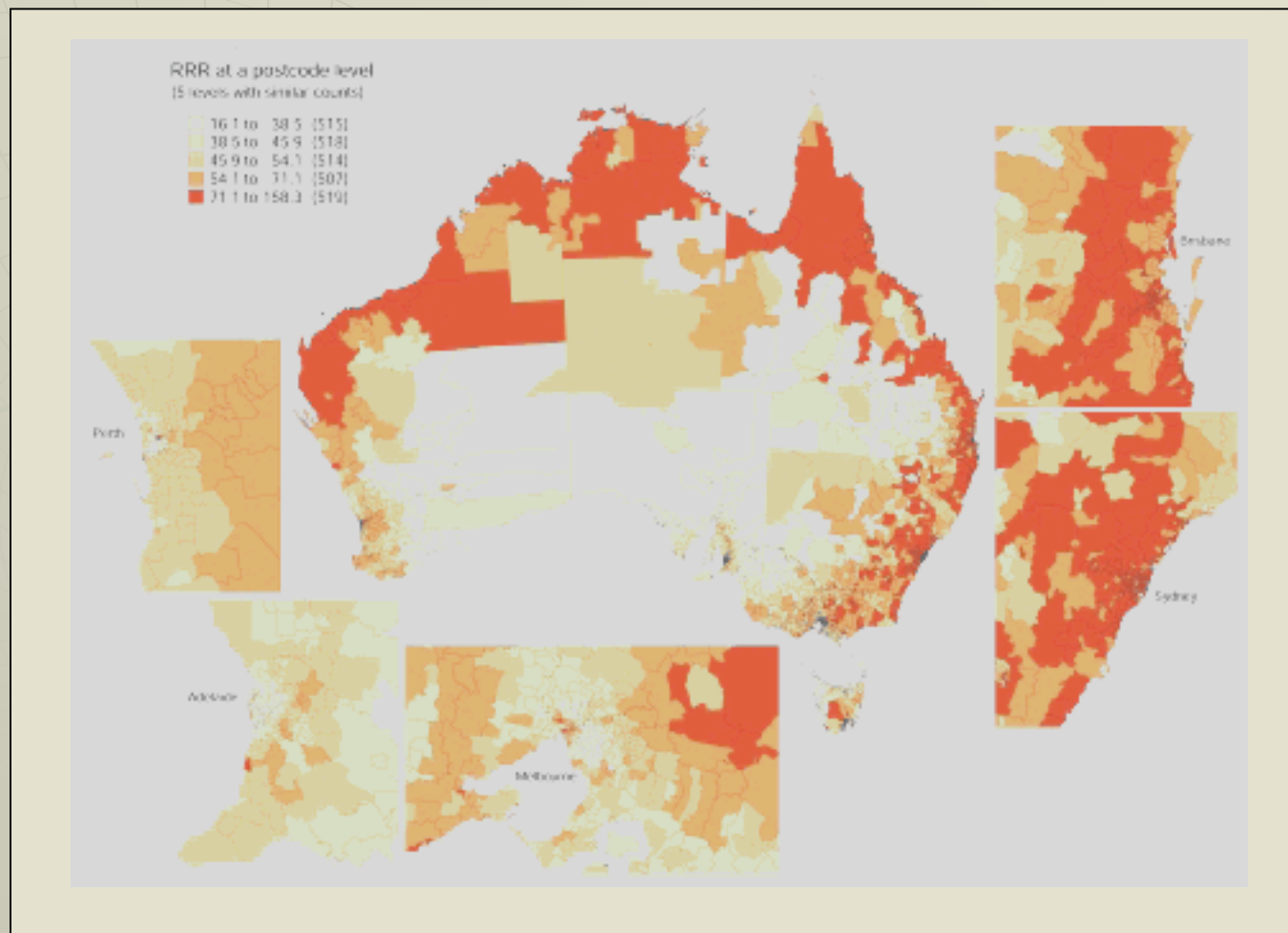
Factors influencing the risk of natural disaster in Australia today

- ◆ Population growth
- ◆ Demographic structure
- ◆ An affluent lifestyle
- ◆ Sea- and tree-changers
- ◆ Continued urbanisation
- ◆ Urban/rural interface
- ◆ Coastal fringe development
- ◆ Impacts of climate change

Assessing, monitoring and planning for natural disaster in Australia today

- ◆ International organisations (IPCC Assessment Reports)
- ◆ Australian organisations (GA, BoM, EMA, AusDIN)
- ◆ Commonwealth, State/Territory and Local Governments (COMDISPLAN, NEMCC, State DISPLANS, NDRRA)
- ◆ Key agencies (Police, Fire, Ambulance, SES)
- ◆ State Housing Authorities (SHAs)
- ◆ Other stakeholders

Figure 6 Relative risk ratings for Australia by postcode



(Source: NHQ, 2000 in Newton *et al.*, 2001)

Disaster management policy and practice: International literature review

Key examples:

- ◆ Kobe, Japan: Great Hanshin-Awaji earthquake, 1995
- ◆ New Orleans, US: Hurricane Katrina, 2005
- ◆ Midlands, UK: Summer floods, 2007

Housing issues:

- ◆ Emergency shelter, temporary and permanent accommodation
- ◆ Housing is critical in both planning and response stages
- ◆ Various key stakeholders and management tools
- ◆ Disasters intensify social inequities embedded in housing
- ◆ Impacts on housing, land and labour markets are extensive
- ◆ The nature of housing issues in a disaster is complex

Figure 7 The shift in natural disaster management strategies

<i>From ...</i>	<i>To ...</i>
Hazards	Vulnerability
Reactive	Proactive
Single agency	Partnerships
Science driven	Multi-disciplinary approach
Response management	Risk management
Planning for communities	Planning with communities
Communicating to communities	Communicating with communities

(Source: Pearce, 2003)

Principles of good disaster management

- ◆ Views disasters as both quantitatively and qualitatively different from accidents and minor emergencies.
- ◆ Highlights a continuing planning process rather than the production of an end-product, such as a written plan.
- ◆ Adopts a multi-hazard rather than a single-hazard focus, and is generic rather than agent specific.
- ◆ Builds on the notion that what is needed is a model that focuses on the co-ordination of the emergent resources, rather than trying to impose some kind of command and control.
- ◆ Focuses on general principles rather than specific details.
- ◆ Assumes potential victims will react well, instead of badly, during the emergency time of major crises.
- ◆ Emphasises the need for intra- and inter-organisational integration in the process.
- ◆ Encourages appropriate actions by anticipating likely problems and possible solutions or options.
- ◆ Builds on social-science research findings derived from systematic data rather than personal anecdotes or “war stories”.
- ◆ Includes all four time phases of the planning process (that is mitigation, preparedness, response and recovery) rather than a single phase.

(Source: Quarantelli, 1997)

The problems with having to manage disasters as exceptional events

- ◆ Planning and preparations are not prioritised
- ◆ Idealised goals in planning v. the 'ugly' realities in responding
- ◆ Universal applicability v. specific demands
- ◆ Discreet four-stage typology v. a blurred continuum
- ◆ Response and recovery is the moment of truth

AHURI Research Project #40520

- ◆ The frequency and severity of natural disasters in Australia is expected to increase in the future
- ◆ Housing damage and loss comprise a significant part of all costs incurred with a disaster
- ◆ SHAs provide housing for those members of society already most vulnerable but extend services to all in the event of a disaster
- ◆ SHAs will continue to have a critical role while working with other agencies in disaster management in Australia
- ◆ Most SHAs have focused on developing a plan in their disaster preparations in concert primarily with state government
- ◆ Possible insights and individual experiences gained in past disasters are not well documented for institutional learning
- ◆ AHURI Project #40520 was developed to assist SHAs and aimed to address that knowledge gap

Research Focus

Selection of case studies:

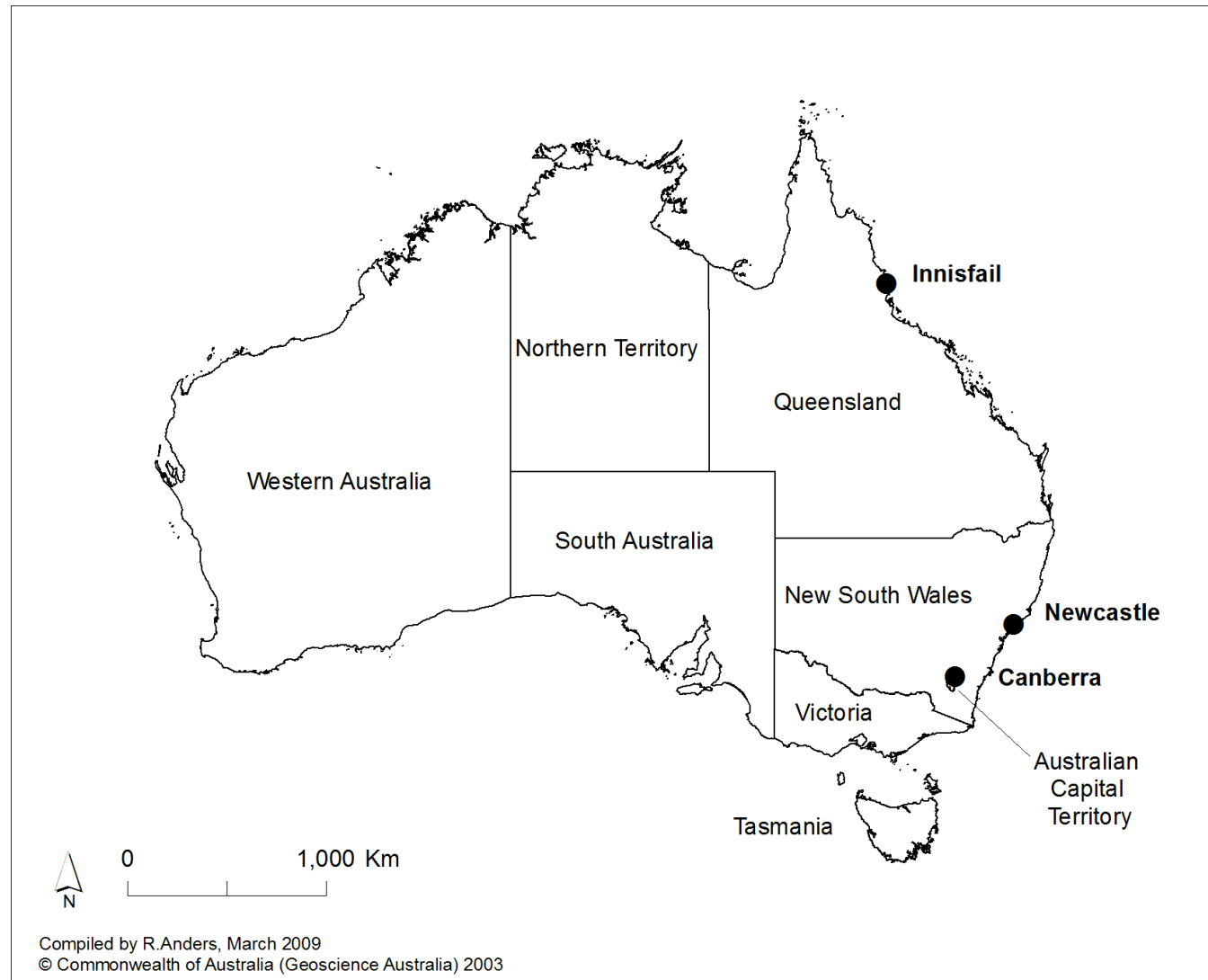
- ◆ Based on recent event history in Australia
- ◆ Representative of the different sizes of SHAs
- ◆ Located under varying systems of state governance
- ◆ Inclusive of the three main disaster types in Australia

Research Focus

Three case studies:

- ◆ Newcastle, NSW: Storm and flood, 2007
- ◆ Canberra, ACT: Bushfires, 2003
- ◆ Innisfail, QLD: Tropical cyclone 'Larry', 2006

Figure 8 The three case study locations



Research Methods

- ◆ Qualitative approach to data collection
- ◆ Purposeful selection of participants through each SHA
- ◆ Inclusive of SHA tenants and staff at all levels
- ◆ Open-ended, semi-structured interviews and focus groups
- ◆ Digital audio-recording and transcription of all data
- ◆ Thematic analysis

Research Questions

Experiences and lessons from the past

- ◆ From the perspective of SHAs: what lessons can be learnt from previous responses to natural disasters and environmental emergencies in Australia and abroad?

Planning protocols

- ◆ What is the most appropriate role for SHAs in preparing for natural disasters and environmental emergencies?
- ◆ What are the organisational and budgetary issues that need to be addressed in planning a natural disaster and environmental emergency response?
- ◆ How can SHAs provide practical assistance to tenants to help households prepare for a natural disaster or environmental emergency?
- ◆ What is the appropriate network of organisational relationships that SHAs need to forge with other agencies in the preparation for such events?

Responding to disasters

- ◆ What are the most effective ways that SHAs can respond when housing is affected by natural disasters and environmental emergencies (both in the immediate and longer term period)?
- ◆ What are the networks and command structures that are best suited to natural disaster and environmental emergency responses?
- ◆ What are the most significant constraints that impact upon responses and how can these be minimised?
- ◆ What are the most appropriate financial mechanisms for SHAs to enable an effective response?







Research Findings - Learning from the Past

'Hurricane Katrina provided a wake up call for us all, it made us all think about the mistakes that were made and how we could ensure our response was a good one. If we had not had Hurricane Katrina, I think complacency would have set in and we would have been less effective in our response' (Senior staff member Qld).

Research Findings - Learning from the Past

'Loss of institutional knowledge is something that affects all agencies over time. Staff turnover means that much of the experience is lost. Training can make up for some of this but it is not the same as the knowledge learnt from those who go through it themselves' (Project Officer Qld).

Research Findings - Learning from the Past

'We got some flack from people living in properties when our inspectors turned up to view the properties that were partially damaged. Some felt we should have been more people orientated at the early stages and not focus on the properties. There was a tension between our need to be welfare orientated and our need to gather technical information so that we could begin the task of recovery' (ACT Housing Officer).

Research Findings - Learning from the Past

'We hadn't documented anything from our previous disasters, e.g. [*sic*] the Sydney hailstorms. We just didn't have a shred of paper ... we had to reinvent the wheel [and] still are reinventing the wheel to some extent ... even after the Hunter [storm and flood event in 2007]' (NSW Housing Officer).

Research Findings - Learning from the Past

Overview:

- ◆ Variation in knowledge skills
- ◆ Failure to implement lessons of previous disasters
- ◆ Lack of political will and corporate understanding







Planning For Disasters

'There is a tension between planning and flexibility, you need to plan but not let this get in the way of making flexible decisions on the ground. You don't want to get caught out by not preparing well enough in advance. If you are to have a plan, everyone needs to know their role' (Housing Officer Qld).

Planning For Disasters

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Responding to Disasters

'The bushfires created major problems for accessing information stored on databases. The whole of government's IT centre had to rely on a back up emergency generator as the main power supply was cut off. To conserve power, a decision was made to cut off the power to the housing data. Clearly there was a failure of communication, the centre not knowing how important this data was. The emergency data was not big enough to meet all the needs we had' (Housing officer ACT).

Responding to Disasters

'It is difficult to appreciate just how upset people were unless you saw it for yourself. People were in shock and it was important that we listened to how people felt even if this took up our time. We were fortunate in that we had trained counsellors on hand from the Salvation Army to help out at the recovery centres' (ACT housing officer).

Responding to Disasters

'There is a hierarchy that is explicit but not formally stated which is the uniformed services who are in charge on the ground and make the big key decisions. We are next in line along with other welfare agencies' (Housing Officer, Qld).

Responding to Disasters

'In the recovery centres, it was clear that many people were angry that some people appeared to be getting quicker responses. Some people wanted to vent their anger on the bureaucracy for what had happened. Most of us understood this reaction' (ACT Housing Officer).

Responding to Disasters

'I found that I spent a lot of time providing emotional reassurance to tenants affected. It is easy to underestimate the impact of these events at a psychological level. It was necessary that we conveyed our empathy especially as many tenants were elderly and vulnerable. It was important that we let them know things were going to be okay after what had happened' (Housing officer, Qld).







Conclusions: lessons from the past

- ◆ There is a consensus that an all-hazards, multi-agency approach encompassing all levels of government, the private sector, NGOs and communities is the best way to address the complexities of disaster.
- ◆ In practice, agencies involved in disaster management have to address the technical and welfare aspects of planning and response.
- ◆ preparations and planning protocols inevitably underestimate the scale and complexity of the activities and resources required to respond effectively.

Conclusions: Planning Issues

- ◆ There is a need to resist the temptation to adopt formulaic procedures
- ◆ Effective response requires an appreciation of the complexity of the tasks required and the need for inter- and intra-departmental collaboration.
- ◆ Preparations should involve steps to maintain institutional knowledge.
- ◆ The high turnover of staff can often mean that important insights gained from practical experience are lost.

Afterthoughts: thinking natural disasters from a sociological perspective

- ◆ Housing and disaster x real-world practice
- ◆ Housing and disaster x traditional sociology
- ◆ Housing and disaster x the sociology of risk





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