

THE AUSTRALIAN NATURAL DISASTER RESILIENCE INDEX

ASSESSING THE RESILIENCE OF AUSTRALIAN COMMUNITIES TO NATURAL HAZARDS



bushfire&natural
HAZARDSCRC

Melissa Parsons, Phil Morley, Peter Hastings, Sonya Glavac, Graham Marshall, James McGregor, Judith McNeill, Richard Stayner and Ian Reeve

School of Behavioural, Cognitive and Social Sciences and Institute for Rural Futures

University of New England, Armidale, NSW

AUSTRALIA FACES INCREASING LOSSES FROM NATURAL HAZARD EVENTS. RESILIENT COMMUNITIES WILL BE BETTER ABLE TO ANTICIPATE HAZARDS, WITHSTAND ADVERSITY, REDUCE LOSSES AND ADAPT AND LEARN IN A CHANGING ENVIRONMENT. THE AUSTRALIAN NATURAL DISASTER RESILIENCE INDEX IS A SYSTEM TO ASSESS AND REPORT THE RESILIENCE OF AUSTRALIAN COMMUNITIES TO NATURAL HAZARDS.

Natural hazard management policy throughout the world is increasingly being aligned to ideas of resilience. However there is a distinct need to assess resilience to identify areas of strength, areas for improvement, plan future actions and have a baseline condition from which to measure progress. To address this problem, researchers from the Bushfire and Natural Hazards CRC have teamed with various emergency service agencies around Australia to develop an index of disaster resilience and, for the first time, assess the state of disaster resilience Australia-wide. The Australian Natural Disaster Resilience Index will produce a consistent spatial assessment of the current state of disaster resilience across Australia and report results as a State of Disaster Resilience report.

COPING AND ADAPTIVE CAPACITY

In the Australian Natural Disaster Resilience Index, disaster resilience is defined as the capacity of communities to prepare for, absorb and recover from natural hazard

events, and the capacities of communities to learn, adapt and transform towards resilience. Importantly, this definition highlights not the actual realization of resilience but the capacities for resilience.

The index assesses resilience based on two sets of capacities:

Coping capacity enables people and organisations to use their available resources and abilities to face adverse consequences. These are the factors influencing the capacity of a community to prepare for, absorb and recover from a natural hazard event.

Adaptive capacity is the ability of a system to modify or change its characteristics and behaviours to cope with actual or anticipated stresses. These factors enable the adjustment of responses and behaviours through learning, adaptation and transformation.

Eight themes express the dimensions of coping and adaptive capacity. Indicators within each theme measure the status of a theme.

END USER STATEMENT

Suellen Flint

Director, Community Engagement
DFES (Western Australia)

At their best resilient communities are prepared, are able to adapt to changing situations, connected to each other and self reliant. Recent reports into disasters have identified that government has a responsibility to prepare for emergencies, however, these reports also identified the notion of shared responsibility. It is clear that government bears a responsibility to support the community to build the knowledge, skills and importantly protective behaviours that are part and parcel of disaster resilience.

Emergency Services supports it's communities by building these characteristics in communities. Not a simple task. It involves highly complex forms of engagement based on a raft of community-development based research focused on community and individual psychology, decision making under stress, physiology, knowledge exchange and information take up by the community.

The Australian Natural Disaster Resilience Index will be advantageous in many ways and support National, state and local governments. The ability to identify hot-spots of high or low disaster resilience, and identify areas of strength in coping and adaptive capacity will support the desired outcomes of the Australian Natural Disaster Resilience Strategy, and potentially help to embed disaster resilience not only into policy and legislation, but to lead to an increase in shared responsibility and resilience across Australia.



Structure of the Australian Natural Disaster Resilience Index as capacities (orange), themes (blue) and indicators (green). For brevity, indicators are listed as general areas.



Australian Government
Department of Industry,
Innovation and Science

Business
Cooperative Research
Centres Programme

For further details on the project please contact:
Dr Melissa Parsons melissa.parsons@une.edu.au
Dr Phil Morley pmorley@une.edu.au

