# THE AUSTRALIAN NATURAL DISASTER RESILIENCE INDEX

## ASSESSING THE RESILIENCE OF AUSTRALIAN COMMUNITIES TO NATURAL HAZARDS

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**RESILIENT COMMUNITIES ARE BETTER ABLE TO ANTICIPATE HAZARDS, WITHSTAND ADVERSITY, REDUCE LOSSES AND RECOVER FROM NATURAL HAZARD EVENTS. THE AUSTRALIAN NATURAL DISASTER RESILIENCE INDEX IS A SYSTEM OF INDICATORS THAT WILL ASSESS AND REPORT THE RESILIENCE OF AUSTRALIAN COMMUNITIES TO NATURAL HAZARDS.**

### WHAT IS THE PROBLEM?

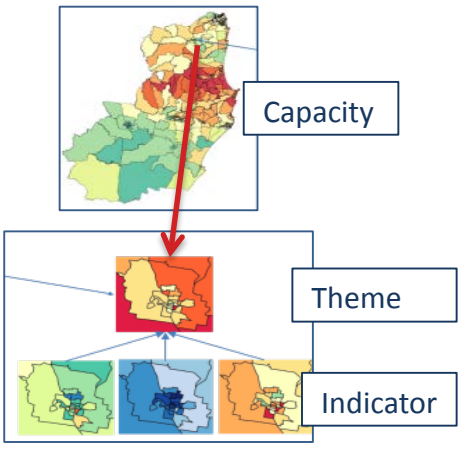
In 2010, the Council of Australian Governments (COAG) adopted resilience as one of the key guiding principles for making the nation safer. The National Strategy for Disaster Resilience (Australian Government 2011) outlines how Australia should aim to improve social and community resilience with the view that resilient communities are in a much better position to withstand adversity and to recover more quickly from extreme events. The recent Sendai Framework for Disaster Risk Reduction 2015-2030 (REF) also uses resilience as a key concept and calls for a people centred, multi-hazard, multi-sectoral approach to disaster risk reduction. As such each tier of government, emergency services and related NGO's have a distinct need to be able assess and monitor the ability to prevent, prepare, respond to and recover from disasters as well as a clear baseline condition from which to measure progress.

### PROGRESS TO DATE

The Australian Natural Disaster Resilience Index project has worked through numerous concepts of resilience and has developed a model based on two sets of capacities: coping capacity and adaptive capacity. In a practical sense, coping capacity relates to the factors influencing the ability of a community to prepare for, absorb and recover from a natural hazard event whereas adaptive capacity relates to the factors that enable adjustment of responses and behaviours through learning, adaptation and transformation.

### WHY IS IT IMPORTANT?

Society has always been susceptible to extreme events. While the occurrence of these events generally cannot be prevented; the risks can often be minimised and the impacts on affected populations and property reduced. For people and communities, the capacity to cope with, adapt to, learn from, and where needed transform behaviour and social structures in response to an event and its aftermath all reduce the impact of the disaster (Maguire and Cartwright, 2008) and can broadly be considered resilience. Improving resilience at various scales and thereby reducing the effects of natural hazards has increasingly become a key goal of governments, organisations and communities within Australia and internationally.




### HOW ARE WE GOING TO SOLVE IT?

The Australian Natural Disaster Resilience Index project intends to produce a spatial representation of the current state of disaster resilience across Australia. Composed of multiple levels of information that can be reported separately and represented as colour-coded maps where each point will have a corresponding set of information about natural hazard resilience. Spatially explicit capture of data will facilitate seamless integration with other types of information and mapping and allow the use of the project outcomes in the preparation, prevention and recovery spheres. Additionally the index and indicators will be drawn together as a State of Disaster Resilience Report which will interpret resilience at multiple levels and highlight hotspots of high and low elements of natural hazard resilience.

### PROGRESS (CONT)

Project staff have also identified various indicators of resilience from numerous sources within the themes: Social Capital, Economic Capital, Infrastructure and Planning, Emergency Services, Community Capital, Information and Engagement as well as Governance, Leadership & Policy.

Currently we determining how and to what level these factors influence resilience and trialling methods of combining and representing this information.

### END USER STATEMENT - Suellen Flint, 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 has 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 support it's communities by building these characteristics in communities. Not a simple task. It involves highly complex forms of engagement based in 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.

For further information about the Australian Natural Disaster Resilience Index please contact:

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