

The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) specifically identifies the importance of the integration of natural hazard risks into financial management and accounting sectors.

Recent experiences of natural disasters and the potential for more frequent and intense weather and other climate events have prompted governments around the world to take action to develop strategies for enhancing the resilience of communities. Natural hazards have always been part of the Australian landscape. However, the rising costs of disasters have instigated policy documents, such as the Productivity Commission's report on natural disaster funding arrangements and the National Strategy for Disaster Resilience (NSDR), that build on previous work and highlight the importance of mitigation and resilience activities.

The Australian Productivity Commission report is strong in its support of mitigation. It notes that

'Governments overinvest in post-disaster reconstruction and underinvest in mitigation that would limit the impact of natural disasters in the first place. As such, natural disaster costs have become a growing, unfunded liability for governments.'

Further, the Australian Government formed the North Australian Insurance Premiums Task Force to explore the feasibility of options to address insurance affordability concerns arising from cyclone risk. The Taskforce, which reported in November 2015, made a number of recommendations, in particular related to benefits of undertaking and recognising mitigation activities.

In 2015 the Global Seminar on Disaster Risk Financing: Towards the Development of Effective Approaches to the Financial Management of Disaster Risks, focused on the need for the development of effective approaches and questions regarding the sustainability of the insurance industry in its current form, the understanding and measurement risk profiles in both the financial and government sectors, and the tools or innovations available to help manage fiscal risks.

**Throughout 2015-2017, emergency service agencies around Australia participated in workshops hosted by the Bushfire and Natural Hazards CRC to consider the major issues in natural hazards emergency management.**

**This publication on insurance summarises the outcomes of one of these workshops and poses questions as a guide for a national research agenda in natural hazard emergency management.**

Behaviour change includes any activity that mitigates risk at the community or individual level. The ultimate goal of a behaviour change campaign in the emergency management sector is to build resilience in individuals and communities.

Understanding hazard potential and risk is critical to the resilience of communities, businesses and government and a key feature of the shared responsibility policy platform in the NSDR. A better understanding of behaviour change in the emergency management context would provide much needed guidance about how to nurture and develop resilience in communities and individuals and the translation of this into behaviour change.

Currently there is a lack of evidence that demonstrates the value of government and business investment in risk mitigation for communities and individuals. This is because there is no direct 'line of sight' between behaviour change, risk mitigation and the cost of disasters. Developing a better understanding of the economic costs of disasters and their risks, and the risk-reducing benefits of treatments will build a more compelling case that improves the likelihood of risk treatments being appropriately resourced and implemented.

- **How does investment in changing behaviour at different levels, including political, government agency, business, community and individual support improving disaster resilience?**
- **How can we encourage new partnerships and enhance existing partnerships between government, business and community to deliver change?**
- **How can we quantify the long-term costs and benefits of mitigation investments across hazards?**
- **How can emergency events and climate change be used as an opportunity**
  - o to further develop and expand the emergency management narrative when there is a heightened level of interest, to government, business and community
  - o to prepare for and mitigate disasters?

Australian communities face multiple natural hazards, such as bushfires, cyclones, floods, heat waves and earthquakes. Traditional notions of risk management focus on government and emergency management agencies taking sole responsibility for identifying, quantifying and mitigating risks. However, those directly threatened by natural hazards have the most to lose, and hence, the most to gain in managing risks.

It is important that government and community work together to acknowledge their risk and establish risk ownership to ensure appropriate mitigation. Communities that are able to identify physical and social assets that are central to their everyday lives and essential to the functioning of their community, when provided with relevant and accessible risk information, are often in the best position to identify ways of managing those risks.

There are numerous sources of hazard and exposure data, available from a diverse range of sources, including official warnings and information (via the various media channels), social media, independent websites that compile publicly available information, and community meetings. The diversity of sources can make it difficult to make sense of the information and how it applies to one's own situation. Investment in systems such as standardised language and technology will support universal use of data (in a coherent format) to be used by a range partners in a variety of preparedness, response and recovery events.

- **What can government and agencies do to enable communities to manage their own risks?**
- **How can hazard information be better communicated to inform mitigation activity at personal, community and government levels?**
- **How can we capitalise on the experience of emergency events to heighten interest in government, community and business to prepare for and mitigate natural hazards?**

## COLLABORATION ACROSS GOVERNMENT, ACADEMIA AND HOMEOWNERS

Applying a resilience-based approach should not be the sole domain of emergency management agencies. Many of the actions needed to improve Australia's disaster resilience sit well outside the emergency management sector. The ability to prepare for, respond to, and recover from disasters relies on capabilities and policies across a range of sectors and across all levels of community, business and government. To 'mainstream' emergency management, then, is to consider how all sectors interact in order to enhance disaster resilience and support existing and developing capability in this area. A collaborative approach encourages community (individuals and the finance and insurance sector) and government (state and federal) to understand and value risk similarly and potentially work together to mitigate risk and establish a boundary for acceptable risk levels.

Collaboration between government and community can be complex—there are some significant institutional and systemic barriers including; data formats, intellectual property and lack of investment in using these resources to use as tools. In addition, currently there is no government-run repository for hazard-related data, that is available to government, business and community. Data is a key issue for the emergency management sector, it is integral to understanding risk as it helps to build risk profile.

Currently Australia does not have the data capability to understand the size of the problem, there is neither transparency nor consistency of data. Good data capability will help the insurance industry develop more accurate pricing. At the granular level this can help to demonstrate to householders the different risk profiles of living in different areas. At a local government level, it can help make decisions on where to invest in mitigation to develop better state risk assessments and to understand better investment in mitigation activities.

- **How can emergency management sector priorities be moved into whole of government decision making for resource allocation, rather than focused on agency-specific responsibilities?**
- **How can we better develop new partnerships and leverage existing partnerships between government, business and community to engage and to deliver change?**
- **How can technology be used to present multiple, diverse sources of data together in a coherent fashion and be sensibly presented to stakeholders?**
- **How can advanced data analytics be used to support targeted communication to promote personal and community risk mitigation activities?**





## National research priorities for natural hazards emergency management

*What are the most significant natural hazard emergency management issues Australia faces over the next 10 years?*

This was the question posed to emergency service agencies around Australia in a series of workshops hosted by the Bushfire and Natural Hazards CRC throughout 2016.

This publication is an outcome of one of these workshops and part of a broader national research agenda in natural hazards emergency management being developed by the CRC.

The workshops provided an exploration of major issues that would benefit from the support of research at a national level. There was no attempt to solve any of the issues or problems raised nor was there any discussion on the details of specific research projects. The participants discussed the issues they believed were relevant to the specific topic under discussion, the relative importance of the issues and the reasons underpinning their relative importance.

This series of publications summarises the outcomes of the workshops conducted so far – more will take place in 2017. They provide a guide for future research activities by identifying national priorities across major themes. The workshop outcomes have also influenced the evolving research agenda of the CRC.

This statement has been developed with the assistance of Willis RE which hosted a workshop with key natural hazard stakeholders in Melbourne and by video conference in all other Australian states on 15 June 2016.



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