

A STATEMENT ON RESEARCH PRIORITIES FOR
NATURAL HAZARDS EMERGENCY MANAGEMENT IN AUSTRALIA

The capacity and capability of emergency management organisations to respond to disasters will be significantly tested as social demographics change, the frequency and intensity of disasters become more variable, and expectations of the emergency service increase. Recent natural disasters and security threats have revealed emerging issues at the regional, state, national and international levels.

Already our emergency services are under increasing pressure to develop adaptive emergency management policy and procedures that can respond to current and future challenges. Responding to these challenges requires strong leadership, workforce strategies, understanding of research and innovation in science, technology and operational capability and investment from the entire emergency management sector, including government and community.

As a volunteer-based organisation, workforce management for the emergency services is about ensuring there is a functioning, operational workforce in the present, with sufficient volunteer capacity and capability, integrated across multiple organisations, and securing this capability for the future.

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 operations summarises the outcomes of one of these workshops and poses questions as a guide for a national research agenda in natural hazard emergency management.



Photo: G. Ufcb E i UbXh NSWS Rural Fire Service

The emergency service workforce is facing a range of internal and external issues and barriers, most significantly, evolving cultures, climate change and changing demographics. Future resilience in the workforce will include the emergency management agencies developing leadership and a workforce strategy that is considerate of diversity, staff training and health and development, and career and succession planning.

Rising expectations of the volunteer workforce has expanded the role of volunteers, requiring upskilling in addition to the normal training regime. For example, the surf lifesaver's role has augmented from beach-based activities to participating in disaster response and large-scale search and rescue. The focus on building community resilience to disasters is also placing new demands on the staff and volunteers of the sector. The impact on the volunteer workforce and on training resources is of particular concern as it is clear that volunteers increasingly need more skill sets to perform the duties expected of them. The requirement for more specialised skills to perform roles could also place limitations on the duties that volunteers and staff perform due to training limitations and time spent away from family and work to not only gain skills but also provide services. This transition is requiring significant staff training and upskilling, which can be challenging in the volunteer environment, as it requires significant financial and time commitment from the organisation and volunteers.

As cultures, values and demographics evolve the issue of diversity is increasingly in the forefront. Government and private industry are subscribing to a more holistic view of the workforce and being more inclusive and flexible in the workplace. Identifying issues and barriers has been a traditional solution to the reduction of limitations on the existing workforce. However, as the emergency services are struggling to recruit and retain volunteers, a more diverse volunteer base provides a greater pool of volunteers to draw from.

There are a number of internal and external barriers to volunteering with the emergency services, that need to be addressed including. Most predominantly is the steady stream of volunteers being recruited and that there is a strong retention

campaign to ensure that volunteers are being retained. There are a number of complex contributing factors to recruitment and retention including bureaucratic impediments, matching volunteers to task, and volunteer burn out.

- **What are the critical steps to workforce management for current and future sustainability in the emergency services?**
- **What lessons can we learn from other industries about adaptive and diverse workforces?**
- **What are the different capabilities and skills required to work in the evolving emergency services environment and how do you manage training and upskilling of volunteers for them? How can the emergency services overcome impediments to recruit and retain a management volunteer workforce?**

The success of a local emergency services unit has long been associated with strong adaptive leadership. Increasing expectations of the workforce including changed community resilience paradigm, the drive towards professionalism and the diversification of the volunteer workforce emergency volunteering, have challenged the traditional command and control model of leadership that has been so prevalent in the emergency services. The new leader is inclusive, and motivated to build resilience in the team. Encouraging this type of leadership requires significant investment in a leadership strategy that will aim to nurture and develop adaptive leadership across the board, regardless of their level or volunteer status. The strategy would aim to provide training that will equip volunteer and career staff with the skills to lead and support other volunteers.

- **How can we develop strong leadership in emergency service units that is blind to status and level?**
- **What lessons can we learn from other industries about leading in adaptive and diverse workforces?**
- **How do we help emergency service leaders adapt from a command and control style leadership to a more contemporary inclusive leadership model?**

Recognising that a large segment of the Australian community are not active in their own preparedness for emergencies and natural disasters, the National Strategy for Disaster Resilience (NSDR) purposely advocates for the community to be active participants in their own resilience. This represents a major policy shift in emergency management moving from the traditional position of the emergency services serving the community, to where the community is empowered to act as its own agent in emergency management.

There are a series of community engagement approaches that the emergency services can utilise to warn communities and build community resilience in order for the community to be able to respond to communities. Embracing new technologies and enhancing communications through social media can allow the emergency services to access large segments of the community in a short amount of time. Social media is a growing field in emergency management. It has significantly changed from an add on, to a key tool that is able to provide advice in a timely and efficient manner. Social media also enables key messages to be tailored and is therefore more relevant for communities across the spectrum of emergency management. However, there are further opportunities that can be exploited where people continue to use traditional media for emergency warnings and communications.

- **What are the most effective community engagement tools for communicating warnings?**
- **How can the emergency services harness the power of social media to issue warnings to the community?**
- **How do the emergency services build community preparedness to enable a response to an emergency warning?**
- **How can the emergency services engage the community to discuss preparedness, uncertainty and risk?**

The role of emergency services worker is changing, broadening the role of firefighters into a number of roles that expand from traditional firefighting to include the provision of emergency medical response (EMR), and community resilience and education officer. Firefighting services are increasingly having to respond to diverse situations such as hazards, counter-terrorism, and pandemic health crises. These changes to the role of the firefighter have significant legal, training, procedural and technical implications for the emergency services, as they attempt to adapt the new role of the firefighter—this includes news tools, technology and collaboration.

Rapidly evolving technologies offer great promise for intelligence gathering (surveillance, reconnaissance (ISR)) and response in emergency management. Given the current challenging environment, emergency agencies are keen to exploit this technology help refine and improve emergency response. It is imperative that agencies understand and measure the effects they seek to achieve, and learn how to adapt their organisations to embed capability and technology into their normal business.

- **What are the implications of the changing role of the firefighter on emergency agencies?**
 - o **How will these changes affect the practice of urban emergency services?**
 - o **How are other countries dealing with these issues? Is there anything we can learn from international counterparts?**
- **What are the ISR requirements of response agencies that would support better, faster and safer response actions, and / or inform damage assessment in the immediate aftermath of events?**
 - **How can capability be quickly attained in the face of new hazards e.g. the new counter terrorism paradigm and need for better tactical exercises that involve multiple agencies?**
 - **What tools and new firefighting techniques can be utilised to achieve greater affect while at the same time protecting the health, safety and wellbeing of personnel?**



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 from 2015-2017.

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 the Australasian Fire and Emergency Services Council SES Operations Group key CRC stakeholders that sponsored a workshop on June 22, 2016.



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