

Politics, Policies and Paradigms

Challenges of Change in Future
Emergency Management

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ABSTRACT:

Senior fire and emergency services personnel have to manage many complex challenges and these demands are going to increase in the future. Part of that complexity comes from a range of interdependencies of social, technical and infrastructure systems. A core challenge for the emergency management sector is that the number and intensity of adverse events is increasing, while factors driving social and ecological vulnerabilities to those events are also changing. This places considerable tensions on both emergency managers and other stakeholders and suggests a need to re-evaluate how stakeholders may work together in the future. Part of the challenge lies in the existing arrangements and frameworks guiding activities of emergency preparedness, response and recovery. Existing approaches in public policy generally and emergency management in particular divide responsibilities into discrete areas, which can then lead to silo mentalities and rivalries guarding authority and resources. In addition, there are problems with a command and control culture that focuses on reacting and responding.

This paper presents findings from interviews with senior personnel about the future challenges they see facing emergency management. These included a need to manage: increased uncertainty, complexity and its associated converging pressures on those working in the domain; community expectations and resilience; social media and networks; the political- operational nexus; measurement of emergency management effectiveness; and Disaster Risk Reduction (DRR) and policy disconnects, including need for a strategic and longer term approach rather than reactive and short-term change. All of this places new demands on leadership and capability. The presentation will report on the interview findings along with suggested areas for change identified through consultation with industry personnel where these challenges, strategic options, and proposed strategies for change were discussed.

Introduction

Emergency events continue to grow larger in duration, intensity and geographic spread events (COAG, 2011; CSIRO & BoM 2010; Yates & Bergin 2009). In these “out-of-scale” events (Murphy & Dunn 2012), people perform a range of emergency management activities at operational, tactical and strategic levels. At operational levels, first responders are working directly on the frontline on the incident ground. At tactical levels, local incident management teams work at supporting frontline responders in containing and mitigating the event and in enabling communities to make good decisions. At the strategic level (which may be regional state or national), the focus is on: oversight of incident management and consequence management for longer-term recovery. This paper focuses on challenges facing the strategic level of incident management.

Challenges facing those working at the strategic level are different in both content and context from the challenges facing people working at tactical and operational levels. The strategic level is typically engaged in out-of-scale events because of their high (direct and indirect) consequences, and thereby, high political involvement. This level is also concerned with post-event strategies that support community well-being and recovery; prioritisation of resources across multiple events and regions; and in inter-state or international deployment requests. Out-of-scale events also require political and whole of government liaison, particularly with a regard to assessing the reliability of the overall response and recovery effort.

The research reported here is a synopsis of the literature reviews, analyses of secondary sources of findings from key inquiries as well as empirical research conducted. This empirical research has included interviews with emergency management leaders working in regional and state levels of emergency management and industry wide surveys of personnel working in the sector (for the full reports of the various researches conducted see Bearman, Grunwald, Owen & Brooks, 2012; Brooks, Owen & Bearman, 2012, Owen, 2011, 2012; Curnin and Owen (forthcoming a; forthcoming b). These research findings have been presented to a range of industry forums and used to consult with subject matter experts through the AFAC. The key issues reported here are a synopsis of the consultations with industry groups on the implications of the research findings (Owen, Bosomworth, Brooks and Bearman 2013).

Drivers of change and their challenges and opportunities

This research identified several external and internal drivers for change in the industry. External drivers include climate change exacerbating vulnerabilities of communities and our environment, as climate change intersects with other out-of-scale dynamics such as global socio-economic shifts, demographic changes, and biological system shifts (BOM 2012, 2013; Bosomworth & Handmer 2008; Field, et. al, 2012; IPCC, 2012; Kolmannskog, 2008). Internal drivers for change include changes in local, national and international policy as well as internal changes within the emergency services sector. Through the research process seven key challenges have been identified that will need to be addressed for the future of the industry:

- Increased uncertainty, complexity and convergence
- Disaster Risk Reduction and policy disconnects
- Community expectations and resilience
- Social media, networking, and emergence
- The political- operational nexus
- Measuring emergency management effectiveness
- Development and Capability

This paper briefly discusses implications of these challenges for emergency management based on the consultations. The first five pertain to external drivers and the last two are enablers internal to the sector.

1. Increased uncertainty complexity and convergence

Managing out-of-scale emergency events presents increased levels of complexity and uncertainty for strategic emergency management teams. Growing numbers of events is likely to increase risks of injury to personnel and community members, raise exposure to health-related pathogens, increase psychosocial and mental health impacts, and place higher cognitive demands on leaders and teams. More out-of-scale and unprecedented events will amplify demands on emergency services, at the same time that these services and support agencies such as local governments are managing economic cut-backs, workforce rationalisations and an aging workforce. There will be more stakeholders to be engaged, resulting in larger teams and increased interdependencies, alongside higher potential for breakdowns in coordination, particularly when coupled with the other pressures. The adversarial nature of post-event inquiries can also make leaders and teams risk averse, which impedes decision-making in such complex contexts. Growing pressures to provide seamless delivery of services and real-time information stem from a diversity in information media streams and growing number of stakeholders. This places higher demands on organisational interoperability and interdependencies. More positively, addressing these challenges presents opportunities to clarify scope and responsibilities and capture emergent opportunities of breakthrough technologies in aiding coordination.

2. Disaster Risk Reduction and policy disconnects

There is a perceived disconnect between funding for different Disaster Risk Reduction strategies and emergency management in practice at all levels of government. Populations, housing and infrastructure continue to develop in hazard-prone areas, leading to a range of consequences. Climate change will exacerbate this situation with communities that hitherto not experienced severe natural hazards may be increasingly exposed. All of which challenges existing policies and practices built upon assumptions of a stable risk environment. A plethora of research also points to the problematic disjunct nature of various policies that limits actions to address complex and multi-disciplinary problems such as climate change and emergency management (Bhandari & Curnin 2012). There is an uneasy political relationship between state and federal governments, and tensions between administrative areas of responsibility within and between levels of responsibility (Howes et al. 2012). All of which can undermine coordinated efforts. While there has been some shift toward the idea of a 'whole-of-government' approach, it has yet to evolve in regular practice. This highlights the need for strategic emergency management to engage in a broader and long-term view of disaster management planning, alongside reflection upon conceptualisations and management of unanticipated and emerging problems.

3. Community expectations and resilience

Many of those interviewed described expectations of communities and elected representative as increasingly unrealistic, that emergency services will manage any event well, regardless of its scale.. Many respondents suggested that while policies include exhortations to 'enhance community resilience', in some communities it has declined, placing even greater expectations on emergency services. Equally, there is little agreement and some disquiet upon what constitutes resilience and the concept of self-reliance. Some argued that both are undermined by mixed and sometimes contradictory messages from emergency services, governments, communities and other groups. Using insights into factors contributing to variations in communities and individual capacities, vulnerabilities and indeed, 'resilience' is crucial (Wisner et al. 2004); especially in light of climate change. We found a perception that our way of life is currently unsustainable, increasingly unlikely to cope with out-of-scale events, and the social change required may take too long, even if such a thing is achievable. That is unless, there is an increased sensitivity to different community needs, especially groups in communities who, for various reasons, may be more vulnerable to hazards. Expressions of Disaster Risk Reduction (DRR), such as found in the Hyogo Framework (UNISDR) may support such an approach.

4. Social media, networking, and emergence

Social media has become increasingly important in recent disasters; driven by the proliferation of social media and communities' needs to find information where it is not forthcoming from emergency services (Yates & Paquette 2011; Bruns et al. 2012). Strategic emergency management must somehow live with the tensions of potential information distortion, greater intelligence gathering and self-organised emergence in communities 'outside official channels'. Social media within emergency management remains a controversial and contested space (Owen 2012), presenting both an opportunity for dialogue and partnership with communities, and potential additional strains on information and intelligence processes.

5. The political- operational nexus

Political representatives have key roles in emergency management, particularly in policy administration and support for emergency services during events. Yet the roles, relationships and expectations between political and operational aspects of emergency management can be challenging. Out-of-scale disasters such as Queensland's 2010 floods or Victoria's 2009 fires come to mind. Given the reciprocal importance of these arenas, strong connections and working relationships between them are critical. This provides an opportunity to engage political decision-making before times of crisis to develop productively functional relationships that operate well in the entire PRR spectrum, and increase the skills of strategic emergency management teams and politicians.

6. Measuring emergency management response effectiveness

Developing criteria to evaluate the management and outcomes of emergency events needs attention, including the question of who conducts such evaluations. Currently, external sources (such as 'the media') arbitrarily judge the success of emergency management. Several other safety-critical industries consider sole reliance on the idea of 'a good outcome' flawed (Dekker 2006; Hollnagel, Woods & Levensen 2006). Outcomes may still be successful despite the taking of high risks and unsafe practices. Conversely, the best measures and processes might have performed well, and while harm was minimised, the outcome could still be negative (but might have been much worse).

Acknowledging that during out-of-scale events, emergency management operations are frequently degraded (e.g., communications failure; insufficient resources; escalating and uncontrollable conditions) is important (Brooks 2012). Personnel need support in managing despite these conditions and in recognising shifts toward unsafe conditions. What is required is adaptive behaviour, effective teamwork coordination, learning as part of the process of adaptive coordination, and flexible strategies. There is a need to develop agreed processes and outcome measures for emergency management, including awareness of shifts towards degraded operational conditions. This could help attain positive outcomes, and confidence among officers that they are supported in the work with which they have been charged.

7. Development and capability

Addressing many of these challenges requires a proactive strategy. However, this challenges an emergency services culture that is traditionally reactive and operational, and characteristically limited in opportunities (time) to critically reflect and adjust, whether because of constant preparedness to respond (and actually responding), or ongoing responses to various inquiries. Expectations of communities and political leaders exacerbate such constraints, engendering change fatigue and an increasing aversion of individuals to managing future events for fear of litigation.

All of this sets up challenges for leadership and capability development. A number of reports suggest that while tactical and operational training is well established, training for novel or out-of-scale events, or for

those operating within strategic emergency management is less so (NOETIC report); placing undue stress on people who care deeply about the outcomes.

It is crucial to understand and develop the skills required for out-of-scale, multi-jurisdictional, cross-agency strategic emergency management; equally, to enhance the sectors capacity for reflection and learning (Bosomworth et al In Press).

Conclusion

The above challenges facing the emergency management sector for out-of-scale, non-routine emergency events need to be confronted if leaders are going to manage within such a context of change. The presentation from which this paper is drawn, will allude to the key questions these challenges raise and will discuss findings from a consultation process with industry personnel to identify strategic options and strategies to address those challenges.

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