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INCREASING EMERGENCY MANAGEMENT CAPACITY THROUGH BUSINESS SECTOR INVOLVEMENT

LITERATURE REVIEW

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ABSTRACT

Catastrophic disasters overwhelm the capacity and capability of existing emergency management frameworks. To reduce the occurrence of such events it is essential to consider the use of alternate sources of capability and capacity. The business sector has a history of involvement during disasters. This report considers models for the utilisation of the business sector in disaster management and provides suggestions for improvement within the Australian context.



INTRODUCTION

The resource capacities of emergency management organisations are geared around managing relatively frequent disaster scenarios. It is not cost effective to have significant investments of resources that might be only employed in the most extreme or catastrophic events. However, the inevitability of more extreme events that can overwhelm local and regional, and even national, resources means that it is worth considering where additional surge capacity might be sourced if and when needed. This report considers the role of the business sector in both sustaining business continuity and in the provision of resources, services and technical expertise in relatively rare disaster events.

The business sector is defined here as organisations that do not comprise part of government and who operate on a for-profit basis. We employ the term *business* rather than *private* sector to exclude not-for-profit companies, whose contributions lie outside the scope of this report.

To date there has been little research examining the role of the business sector in disaster management although many businesses large and small provide assistance during disasters. This paper summarises this research literature and examines some case studies of business sector partnerships in the emergency management context. In some instances the strengths of the business sector have been recognized, though the absence of established partnerships has limited more significant engagement (Victoria Bushfire Reconstruction and Recovery Authority, 2011). Based upon this review we propose an approach to improve integration of the businesses into preparation, response and recovery activities.

The underpinning research for this paper has been based upon a search of both the academic and grey literature using internet search engines.



BUSINESS SECTOR INVOLVEMENT

The business sector has been identified as an important participant in disaster management across prevention, preparedness, response and recovery space in order to reduce the burden that the community places on government following a disaster. The Australian Natural Disaster Resilience Strategy states:

'COAG acknowledges that businesses can and do play a fundamental role in supporting a community's resilience to disasters. They provide resources, expertise and many essential services on which the community depends'. (Council of Australian Governments, 2011; p. 5)

A former Administrator of FEMA states:

'The private sector, from Fortune 500 companies to your local grocery store, is an essential member of the team....Growing strong working relationships between emergency managers and the private sector is a good business decision for everyone – it helps us better serve survivors rebuild our communities and boost local economies'. (FEMA, 2011)

Successful organisations operating in competitive markets must be efficient in order to maximise profits, an incentive absent in the public sector. The business sector can in some instances provide additional capabilities that governments can draw upon. During the response to Hurricane Sandy, for example, the business sector was able to move eight times the amount of food into affected areas compared with the combined responses of government and other non-government organisations (Kaufman et al., 2015). Similar conclusions were made following Hurricane Katrina, where it was said that Wal-Mart (retail store) frequently outpaced FEMA by several days (Chandra et al., 2016). An evaluation of the effectiveness of the use on the business sector in Australian disasters has not been undertaken to date.

The business sector can also act in a more flexible manner than government, making fast decisions and acquiring, moving and disposing of resources rapidly. In this way the business sector can rapidly scale operations to suit a given need (Busch and Givens, 2013).

Engagement of the business sector is growing but is highly variable ranging from limited to high levels of involvement, with more businesses engaged in activities to support response operations compared with prevention, preparedness and recovery (Haski-Leventhal, 2013). The growth in business sector involvement follows the embracement of a global citizenship model by some corporations which places emphasis on corporate culture, brand and employee loyalty (White, 2012).

Examples of business sector capabilities include communication of preparedness messages; insurance; assistance with technology and communications; provision of logistics and engineering support; partnerships with private health care providers; removal of disaster debris; and provision of critical supplies and plant and equipment.



Partnerships between the public and business sectors need to be tailored based upon the needs and capabilities of the organisations involved. Some partnerships are formal in nature and involve regulation or contractual relationships whilst others are less formal. To be successful both parties need to recognise the value that the relationship creates. Key motivators for government and business sector to collaborate include creating public value through building resilience; information sharing to support each other's operations; quicker restoration of essential services; more efficient use of resources to avoid duplication of effort; the provision of assistance in emergency planning; and influencing decision making (FEMA, 2018).

Lessons from previous engagement of the business sector have underscored the need for coordination between the public sector and businesses; to ensure accountabilities and expectations are clear on both sides (Busch and Givens, 2013); and that there needs to be a willingness to embrace business sector capacity. For example during Hurricane Katrina relief supplies delivered by Wal-Mart were turned away because FEMA said they weren't needed (Richman, 2005). Better coordination reduces duplication of effort and more effective outcomes (Busch and Givens, 2013).

A continuum of options exists for the business sector to engage in disaster management. These include: direct delivery of goods or services to impacted communities on a for-profit basis; corporate social responsibility programs; for the purposes of maintaining business continuity; for the purposes of fulfilling regulatory obligations; and direct contracting to government of the business sector either in advance or in the aftermath of a disaster. Each option should not be viewed in isolation, as businesses and government can advance their shared objectives through multiple models of engagement. In what follows, these models are outlined together with associated case studies.

DIRECT PROVISION OF GOODS AND SERVICES FOR PROFIT

Though not studied in depth previously there are numerous organisations that provide goods and services on a for-profit basis to communities in a disaster management context. The most obvious of these is the provision of insurance to enable communities to re-build after disasters. Insurers operate a network of sub-contracted assessors, restorers and builders to provide services directly to insurance company clients. Recent examples in the United States have seen insurers also engage private firefighting organisations to protect homes. In this example such mitigation services were seen as a means of attracting further clients and were undertaken in collaboration with public authorities (Scism, 2017).

CORPORATE SOCIAL RESPONSIBILITY

Corporate social responsibility is defined as '*actions by corporations that provide some type of social benefit that they are not required to perform*' (Johnson et al., 2011). Johnson et al. (2011) in a study of US Fortune 100 companies concluded that most large corporations engage in disaster-related corporate



social responsibility activities for ethical, strategic or public relations reasons. Activities can be focused on both domestic and international disasters.

After the Black Saturday Bushfires the business sector contributed some \$2.6 million in pro bono contractor services to the Bushfire Reconstruction Authority. Companies involved represented logistics, professional services, engineering, project management and architectural professions. Industry associations such as the Farmers Federation; Insurance Council; Chamber of Commerce; Small Business Mentoring Service; Housing Industry Association; Planning Institute; and Masters Builders Association were also involved to coordinate support on behalf of their members. (Victoria Bushfire Reconstruction and Recovery Authority, 2011).

Private sector donations though sometimes substantial are typically significantly less than funding contributed by governments after major disaster events. For example in the aftermath of Hurricane Sandy the business sector contributed some \$500 million compared to the US Government provision of some \$60 billion (Chandra et al., 2016). Though no comparison is available for Australia the authors expect a similar result in Australia. Donations are said to vary significantly depending on a particular companies profit forecasts; what other companies are doing; how many disasters have already occurred; and impacts on local company operations (White, 2016).

In the context of building resilience the business sector can sponsor activities to improve community preparedness: for example, insurance companies in Australia support emergency services to engage with communities about key risks and how to better prepare. Other methods include businesses being directly encouraged to share emergency preparedness information with their employees; and businesses working with communities to build social capital.

Corporate social responsibility programs most often include sharing awareness about a disaster with employees, customers and business partners; providing support to employees directly impacted by a disaster; collaboration with community organisations; financial support through work place giving and appeals; offering skills and expertise; and corporate volunteering (Johnson et al., 2011; Haski-Leventhal, 2013).

Often the business sector contributes through partnering with community organisations to support wider community needs. These relationships can be established at the time of an event or be more formal and pre-existing in their nature. This model allows the sharing of information and best practices as well as access by community organisations to the resources and expertise of the business sector (Haski-Leventhal, 2013). The strengths of local community organisations are often their local networks and knowledge that allow for greater efficiencies and trust. Challenges, however, include differences in systems and cultures between organisations; the ability to obtain information regarding community needs to best inform the direction of efforts (Haski-Leventhal, 2013); and that the capacity of service delivery is restricted by the size of the community organisations workforce. Following the Black Saturday bushfires the Victoria Bushfire Reconstruction and Recovery Authority (2011) found that company



motivations were not always clear and that company priorities were subject to change which made it difficult to plan for continuity of services over long periods.

In other cases businesses directly donate skills, expertise or resources to assist. In Australia many examples exist including that of Linfox providing a warehouse to store donated items and containers to provide storage facilities after the Black Saturday Bushfires.

In the United States Johnson et al. (2011) cite numerous examples including Ford donating vehicles for use during wildfires and in-kind donations of drugs and medical supplies by pharmaceutical companies. During Hurricane Harvey, amongst many other examples, a boating retailer (Bass Pro Shops) donated 100 boats for government to utilise in the rescue effort; a furniture retailer (Gallery Furniture) turned two large stores into emergency shelters; and a hardware chain (Home Depot) whose staff directly volunteered in the clean-up efforts (Rampton, 2017).

Digitally-based initiatives also exist. Airbnb, for example, assisted to find temporary accommodation for displaced persons and the activation of the Facebook Safety Check feature to register the safety of individuals in disaster zones. The Victorian Government has entered into a partnership with Airbnb to support building community preparedness, improving warning systems and coordination of temporary accommodation.

The NSW SES has specifically targeted corporate social responsibility through the development of corporate volunteering initiatives. This program is marketed to businesses as an ability to build employee capabilities and teamwork. Initial memorandums of understanding have been established with Charles Sturt University, New England University and Evolution Mining.

To assist in coordinating business sector support during the recovery after the Black Saturday Bushfires, industry advisory groups were established consisting of a joint logistics group involving logistics companies, government agencies and community based organisations; and a bushfire reconstruction industry champions group that met with the Victorian Premier to explore ways to mobilise business sector support for the recovery (Victoria Bushfire Reconstruction and Recovery Authority, 2011).

BUSINESS CONTINUITY

Governments and the business sector working together to maintain business continuity is a win for both parties. The business sector has a significant incentive in ensuring the continuity of its assets and operations to maintain its revenue and reputation; from a government perspective the less time emergency managers spend on managing the results of broken supply networks, the more time they can focus on meeting other vital community needs.

Business continuity is clearly viewed by some businesses as a competitive advantage; for example Wal-Mart and Home Depot in the United States. After disasters these businesses are able to service the needs of their customers because they have forecasted the demand for products, maintained the



continuity of their supply chains and can utilise their advanced logistical capacities.

As many lifelines are operated by the business sector it is essential that the government support and encourage the business sector to have robust business continuity systems. Many large retail chains such as hardware stores and supermarkets have diverse community footprints where they are ideally located to understand and service the needs of local communities. This was true of Woolworths during flooding in Central Queensland in March 2018, where as part of the companies emergency relief plans 15 tonnes of fruit, vegetables, meat products and baby products were airfreighted into Mount Isa after the town's store shelves were emptied (Cooper, 2018).

United States experience shows that information sharing to ensure business continuity is a key motivator for both government and the business sector. To facilitate information sharing various networks exist at national, state and local government levels. At a national level FEMA has developed a National Business Operations Center that acts as means to exchange two-way information between Government and the business sector. During disasters, the Center provides real-time situational awareness and ground truthing on the needs of impacted communities. Participation in the Center is voluntary and open to both large and small businesses, chambers of commerce, associations, universities, think tanks and non-profits (FEMA, 2017). Further FEMA also has created a business sector role within its National Response Coordination Center. The role is filled on rotation by a business sector representative who assists to facilitate information sharing across the business sector. Similar models of public and business sector collaboration are also in place at state-levels.

REGULATED

A small number of examples exist in Australia where the business sector is regulated to provide services during a disaster. Examples include the Commercial Radio Code of Practice that includes obligations regarding emergency broadcasts and obligations of energy operators to provide services to people on life-support. Telephone companies are also regulated to provide free access to the 000 emergency number.

DIRECTLY CONTRACTED

Direct contracting occurs when the public sector procures goods from the business sector typically in exchange for a fee. Contracting can be pre-planned through the establishment of preferred provider relationships or at the time of the emergency. Contracting occurs based upon an identified capability need, where it is determined that the business sector is best placed to deliver. There are many examples of government agencies contracting in this manner. We now outline some of these.

After the 2009 Victorian Bushfires the Victorian Government contracted the construction firm Grocon to coordinate the clean-up of impacted areas. In the case of the Black Saturday Fires this involved working closely with Government to



coordinate the clean-up of some 2700 properties at cost price. The contract was let for a single 'managing contract' some three weeks after the disaster. The company hired specialist staff to manage liaison with affected community members (Carter, 2009). Stakeholders agreed that the approach taken by Grocon was a success and the centralised contracts allowed the completion of the project within a six month completion target. The major draw backs to the centralised contract were the limited community consultation and the use of non-local labour (Brown et al., 2011). A similar engagement also occurred between the Victorian Government and Grocon after the Wye River Bushfire in 2015. The concept of utilising public-private partnership arrangements to facilitate clean-up after disasters has now led to a panel of suppliers being selected by Emergency Management Victoria based upon a competitive procurement process. This arrangement is claimed to now facilitate timely response to significant incidents.

The Victoria State Emergency Service established contractual relationships with a series of water and geo-technical engineering firms to provide specialist advice to incident management teams in the event of flooding. The relationship was initially established in 2010 based upon an identified need to bolster intelligence resources. The concept grew from ad-hoc emergency procurement of specialist advice during floods to maturing into a panel of contracted organisations. Key advantages identified in using business sector consultants include additional surge and technical capacity; that the consultants learn how flood information is utilised by emergency services; and improved relationships between key stakeholders from the public and business sectors. To ensure the arrangement is effective business sector consultants need to be clear of their role and preferably trained in the fundamentals of emergency management (Sommerville et al., 2011). Overall the Victoria State Emergency Service has found that involving the business sector has resulted in superior outcomes (Tate and Achilles, 2017).

The National Aerial Fire Fighting Centre formed in 2003, is a collaboration between Australian states and territories that allows for a cooperative arrangement for the coordination and procurement of firefighting aircraft from the business sector to be used across Australia. This fleet compliments resources directly engaged by states and territories. The national fleet is co-funded by the Australian Government as well as States and Territories. A significant benefit claimed from the collaboration is that States and Territories are able to access surge capacity for aerial firefighting at peak times, as it is not practicable for each state or territory to maintain a standing surge capacity for all situations. The organisation also plays a role in ensuring there are national standards in the use of aircraft for firefighting. Such standards are considered vital in enabling the sharing of resources between states and territories (National Aerial Fire Fighting Centre, 2016).



APPROACH TO IMPROVING ENGAGEMENT WITH THE BUSINESS SECTOR

Effective preparedness for catastrophic disasters means bringing together a diverse group of organisations with specific capabilities to plan and prepare for future events. It is clear that the business sector should be considered a key player in the preparedness for, response to and recovery from disasters of any scale. The business sector can assist in providing additional capabilities and capacity to manage events that would otherwise overwhelm existing emergency management arrangements. Based upon this value proposition emergency managers should expend further effort to build public-private partnerships.

An initial step to foster partnerships would be for emergency managers to focus on establishing arrangements to share risk and situational information in an open and transparent manner. This could be done directly with businesses or through partnerships with existing business networks such as industry associations. Two way information sharing between emergency management organisations and business is vital in that it enables the business sector to best direct its resources for the purposes of corporate social responsibility and to make critical decisions to ensure continuity of business. Emergency management organisations can also gather information from businesses who have local networks to collect valuable situational intelligence; have knowledge of vulnerabilities within their supply chains; and ideas about how their capabilities maybe utilised to support response and recovery efforts. Such networks should also aim to foster sharing of information between businesses and business to business collaboration.

Where specific capability needs are identified that the business sector would be suited to provide, emergency management organisations should actively engage with business sector suppliers and/or peak bodies. Engagement should seek to understand the extent to which capabilities could be made available to support community needs and how a relationship would best work for both parties. To the extent necessary relationships should be formalised to ensure understanding of roles and responsibilities; arrangements for activation; and management of the specific business sector capabilities. Identified capability gaps should also be communicated to the market in an ongoing fashion to enable emerging suppliers to build relationships with the public sector.

To maintain arrangements emergency management organisations must enable the continued readiness of public-private partnerships through ongoing two-way communication, training, exercising and debriefing and evaluation of partnerships after disasters.

To best enable emergency procurement of significant capabilities it is important to integrate specialist government procurement agencies within the emergency management framework. These organisations are best placed to understand appropriate governance arrangements that would apply to emergency procurement and have existing relationships with major suppliers.



Emergency management organisations when structuring partnerships and procurement contracts should do so with awareness of risks involved. These risks include possible conflicts of interest; inflexible arrangements that do not allow for unforeseen circumstances; exclusive arrangements that minimise the ability of emergency managers to access alternate suppliers; and impacts on small local businesses that could be negatively affected if large external companies are utilised to undertake work they may otherwise have been able to perform.

Discussion must also be had about what level of the Australian national emergency management framework engagement with the business sector for formal partnerships should occur. From the perspective of a large multinational or national corporation the prospect of engaging with a single nationwide coordinating entity would be advantageous, rather than establishing individually negotiated agreements with individual states and territories. State and territory emergency management organisations could then focus on relationships with small to medium sized businesses that operate mainly within in their jurisdiction. Such a model would lead to the need for the Commonwealth to take a greater role in emergency management or for States and Territories to collaborate to expand national resource sharing arrangements.

Opportunities must also be taken to maintain ad-hoc relationships that are built between emergency managers and businesses during emergencies so that they can be further fostered and grown (Busch and Givens, 2013).

Further research is required to better understand the extent of involvement of the business sector in the prevention of, preparedness for, response to and recovery from disasters in the Australian risk space and to gain a greater understanding of business sector perspectives on assisting to meet community needs after disasters.



REFERENCE LIST

BROWN, C., MILKE, M. & SEVILLE, E. 2011. Disaster waste management following the 2009 Victorian bushfires. *Australian Journal of Emergency Management*, The, 26, 17.

BUSCH, N. E. & GIVENS, A. D. 2013. Achieving resilience in disaster management: the role of public-private partnerships. *Journal of Strategic Security*, 6, 1.

CARTER, B. 2009. Grocon goes gently with bushfires clean-up. *The Australian*.

CHANDRA, A., MOEN, S. & SELLERS, C. 2016. What role does the private sector have in supporting disaster recovery, and what challenges does it face in doing so? Available: <https://www.rand.org/pubs/perspectives/PE187.html> [Accessed 18/2/2018].

COOPER, L. 2018. Woolworths providing 77 tones of emergency supplies for flood-stricken Mount Isa. Available: <https://www.9news.com.au/national/2018/03/08/11/19/woolworths-plane-flies-emergency-supplies-mount-isa> [Accessed 8/3/2018].

COUNCIL OF AUSTRALIAN GOVERNMENTS 2011. *National Strategy for Disaster Resilience*. Canberra: Commonwealth of Australia.

FEMA. 2011. FEMA Administrator: Business Community is Critical Partner in Disaster Response And Recovery. Available: <https://www.fema.gov/news-release/2011/11/04/fema-administrator-business-community-critical-partner-disaster-response-and> [Accessed 22/2/2018].

FEMA. 2017. National Business Emergency Operations Center Fact Sheet. Available: <https://www.fema.gov/media-library/assets/documents/28983> [Accessed 18/2/2018].

FEMA 2018. *Introduction to Public Private Partnerships*.

HASKI-LEVENTHAL, D. 2013. *Natural Disaster Management in Australia: A Multi-Sectoral Approach*. Available: https://www.mgsm.edu.au/_data/assets/pdf_file/0003/149574/CSR-Reportoct14.pdf [Accessed 28/2/2018].

JOHNSON, B. R., CONNOLLY, E. & CARTER, T. S. 2011. Corporate social responsibility: The role of fortune 100 companies in domestic and international natural disasters. *Corporate Social Responsibility and Environmental Management*, 18, 352-369.

KAUFMAN, D., BACH, R. & RIQUELME, J. 2015. Engaging the whole community in the United States. *Strategies for supporting community resilience*. CRISMART, 41, 151-186.

NATIONAL AERIAL FIRE FIGHTING CENTRE. 2016. *Submission of the National Aerial Firefighting Centre to the Senate Environment and Communications References Committee Inquiry into the response to, and lessons learnt from, recent bushfires in remote Tasmanian wilderness*. Available: www.aph.gov.au [Accessed 22/2/2018].



RAMPTON, J. 2017. 25 companies helping with Hurricane Harvey relief that you should support. Available: <https://www.inc.com/john-rampton/25-companies-doing-their-part-to-help-with-hurrica.html> [Accessed 22/2/2018].

RICHMAN, S. 2005. Hurricane Katrina: Government versus the Private Sector. The Freeman [Online]. Available: <https://fee.org/articles/hurricane-katrina-government-versus-the-private-sector/> [Accessed 22/2/2018].

SCISM, L. 2017. As Wildfires Raged, Insurers Sent in Private Firefighters to Protect Homes of the Wealthy. Available: <https://www.wsj.com/articles/as-wildfires-raged-insurers-sent-in-private-firefighters-to-protect-homes-of-the-wealthy-1509886801> [Accessed 22/2/2018].

SOMMERVILLE, H., GISSING, A. & MUNCASTER, S. 2011. The role of flood intelligence in emergency response planning and implementation. NSW Floodplain Management Authorities Conference. Tamworth.

TATE, B. & ACHILLES, T. 2017. Improving flood intelligence in VICSES Incident Management Teams. Floodplain Management Australia Conference. Newcastle.

VICTORIA BUSHFIRE RECONSTRUCTION AND RECOVERY AUTHORITY. 2011. Legacy Report. Available: https://www.rdv.vic.gov.au/__data/assets/pdf_file/0013/1151104/VBRR-Legacy-Report.pdf [Accessed 22/2/2018].

WHITE, S. 2012. Corporate Engagement in Natural Disaster Response. Available: https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/120117_White_CorporateEngagement_Web.pdf [Accessed 22/2/2018].

WHITE, T. 2016. Thirty per cent of the entire state: Victorian floods, 2011. Incident Management in Australasia: Lessons Learnt from Emergency Responses, 141.