



IMPLEMENTING DISASTER RESILIENCE POLICY IN THE AUSTRALIAN FEDERATION

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ABSTRACT

Australia committed to reorienting its disaster management system to emphasise disaster prevention, preparedness and risk mitigation when it adopted the National Strategy for Disaster Resilience (NSDR) (Commonwealth of Australia, 2011; 2013). Since then the notion of resilience has penetrated the Australian disaster management system to the extent that many, if not most, disaster management activities are now described in terms of resilience.

While there is broad consensus about the necessary elements of disaster resilience policy, these have generally been expressed in Australia as high level and principles-based. To build a more disaster resilient nation, it is therefore important to understand not only what needs to be done, but how to do it within the context of Australia's federal system and its disaster management arrangements.

This research investigated implementation of disaster resilience policy in Australia from the perspective of Social Capital, Community Competence, Information and Communication and Economic Development – policy domains identified as essential for creating community disaster resilience (Kulig *et al.*, 2013; Norris *et al.*, 2008). A combination of literature study and empirical methods was used to examine if, and how, policy objectives linked to these domains underpin the implementation of disaster resilience activities at different levels of government and in the business and community sectors.

The results point to a general need to plan disaster resilience implementation more thoroughly, including ensuring it is better informed by evidence. In addition, consideration should be given to the opportunities and limitations on disaster resilience outcomes posed by the characteristics and policy mechanisms of Australia's federal system.

Furthermore, not only do relevant policy objectives for supporting disaster resilience need to be more carefully identified, selected and applied, but more attention needs to be given to the principle of subsidiarity¹ to ensure successful implementation within our federal system.

¹ An organising principle that says that matters ought to be handled by the smallest, lowest or least centralised competent authority (Marshall, 2008). "Powers and responsibilities should be left with the lowest level of government practicable. Such a devolved system means there is greater local input into decision-making and states/territories can customise policies and services to suit local preferences" (Council for the Australian Federation, 2017)



INTRODUCTION

The Commonwealth Government plays a national leadership and coordination role in the Australian disaster management system, including implementation of the National Strategy for Disaster Resilience (NSDR). At the highest level this process is managed by the Council of Australian Governments (COAG), a key instrument of modern Australian federalism. When the NSDR was adopted in February 2011, Australian governments committed to the implementation of a suite of key national disaster resilience initiatives (Council of Australian Governments, 2011; Standing Council on Police and Emergency Management, 2011). Some of these were already in progress and were regrouped and rebadged under the NSDR. There was no additional funding provided for the NSDR.

Six years on, the language of resilience has become more mainstream within the disaster management lexicon and the disaster resilience message has penetrated the disaster management system at all levels. For example, all the states and territories and many local governments articulate disaster resilience goals in their policy documents and several jurisdictions have adopted state wide approaches to disaster resilience. For example, Victoria has recently adopted a state wide disaster resilience strategy (Victorian State Emergency Service, 2016)

The evidence base on disaster resilience has also grown. This is helping to resolve earlier definitional issues and providing indicators and instruments that will allow resilience to be measured more effectively (Arbon, 2014; Cohen *et al.*, 2013; Cutter *et al.*, 2010; Kafle, 2012; Parsons, 2016).

Exhortations to become more disaster resilient have generally not been accompanied by detailed guidance on how to implement disaster resilience policy. This research addresses this by examining the extent that evidence on good practice is guiding disaster resilience policy implementation in Australia.

Achieving a disaster resilient nation is a long-term objective. The changing emphasis of national disaster resilience policy was also highlighted by this research. This raised questions about its strategic direction for ongoing policy implementation.



BACKGROUND

AUSTRALIAN DISASTER MANAGEMENT ARRANGEMENTS

Each level of government has its own arrangements to govern their responsibilities and actions during a natural disaster. While these vary across jurisdictions, the emergency service organisations all have state and regional disaster and emergency coordination functions and facilities. The emergency services are largely state-run entities with some functions devolved to local government. Their workforces consist of a mix largely made up of volunteers and a smaller number of professional employees such as firefighters, ambulance and police. They have historically focused on acute disaster response, and the more immediate relief and recovery activities. Their role has become more varied over time and now extends to hazard monitoring, predicting the impacts of extreme weather events, and communicating hazard information and warnings to the community. They also manage and participate in a range of hazard risk reduction activities.

Non-government organisations, such as the Australian Red Cross, work alongside governments and the emergency services to provide welfare services and support during and in the aftermath of a natural disaster. These organisations often provide medium to longer-term recovery assistance in the affected area, usually in partnership with state, local government and existing non-government welfare agencies and service providers. The Australian Red Cross is also involved extensively in disaster preparedness. Its RediPlan (Australian Red Cross, 2009), which adheres closely to disaster resilience principles, supports communities and households to develop personalised emergency preparedness plans.

Non-traditional or informal forms of volunteering are an emergent area of capability in the Australian disaster management system. A growing trend in recent years indicates that fewer people, especially in younger age-groups, want to commit to an established volunteer organisation (Australia, 2016; Barraket *et al.*, 2013; Whittaker *et al.*, 2015), and prefer to volunteer in specific circumstances or events. This came to the fore in the aftermath of the 2009 Victorian Bushfires and the 2010-11 Queensland Floods when Volunteering Queensland received around 100,000 offers of help from community members. Hundreds of citizens mobilised to perform community led activities such as BlazeAid² in Victoria and to join the "mud army" which formed to assist in the Queensland clean-up (George, 2013; Barraket *et al.*, 2013).

Although businesses regularly donate to disaster relief and recovery appeals and provide other forms of material assistance following a disaster, the role of business in natural disasters within Australia's disaster management system is relatively undefined. Two possible exceptions are the insurance industry and the

Trusted Information Sharing Network (TISN)³. However, commercial and security considerations may constrain the open exchange of information that is needed to

² BlazeAid occurred after the Black Saturday in Victoria and was a community volunteer response to calls for assistance from farmers to repair their fences (Whittaker *et al.*, 2015).

³ Australia has a long-standing partnership with business in the area of organisational resilience under the National Critical Infrastructure Resilience Strategy (NCIRS) (Commonwealth of Australia, 2015a; Commonwealth of Australia, 2015b). This includes the Trusted Information Sharing Network (TISN), supported by the Commonwealth Government. The TISN is a platform for government and



support disaster resilience from the highest level to the grass roots. For example, the insurance industry, in spite of pressure from government and other stakeholders remains unwilling to disclose insurance premium pricing methodology. Furthermore, the extent to which the role of the critical infrastructure groups is integrated with disaster preparedness and risk mitigation functions at different scales is not clear. There is potential for business to contribute to disaster resilience in a range of other ways, particularly through improved inclusion in state, regional and local disaster plans, through more Public Private Partnerships and investment in risk mitigation (Hunt and Eburn, 2016 unpublished).

Funding for disaster assistance is provided mainly under the jointly funded Natural Disaster Relief and Recovery Arrangements (NDRRA). Commonwealth NDRRA funding is provided (on a reimbursement basis) when state expenditure reaches an initial threshold. The percentage of Commonwealth funding as a proportion of the total increases as the cost of state losses climbs above further thresholds.

Payments to individuals and families are provided by the Commonwealth Government under the *Social Security Act 1996 (Comm)*. The Commonwealth Government also provides support for disaster management via a number of national high level committees within the COAG structure including the Law, Crime, and Community Safety Council (LCCSC) and the Australian and New Zealand Emergency Management (ANZEMC) Committee. The LCCSC's members are relevant commonwealth, state and territory and New Zealand government ministers and a representative of the Australian Local Government Association. The ANZEMC is the corresponding senior officials' group. These high level committees and a network of sub-committees provide the policy platform for national disaster policy development and coordination. If a disaster of any form is of significant severity or magnitude the National Crisis Coordination Arrangements can be activated.

Funding in addition to that available under the NDRRA is provided through an assortment of programs that provide education and skills development, research funding, funding for national demonstration-type projects under the National Emergency Management Program (Commonwealth Attorney-General's Department) and funding to state and territory governments to disburse for disaster risk mitigation activities and volunteer training (Commonwealth of Australia, 2016-17).

The level of funding provided for post disaster recovery has been estimated at \$560 million per year compared with an amount of \$50 million per year allocated to prevention and risk mitigation (Deloitte Access Economics, 2013). This is inconsistent with the principles of disaster resilience. In spite of cost benefit analyses overwhelmingly supporting investment in disaster mitigation and calls for change from influential stakeholders, including recommendations from the Productivity Commission (Australian Government Productivity Commission, 2014), government has not indicated that it intends to address this disparity.

A CHANGING DISASTER RESILIENCE SYSTEM

Disaster resilience policy in Australia is changing. This may be in keeping with the Commonwealth Government's position that the states have the major responsibility for

private owners and operators of critical infrastructure to share information to prevent, prepare and mitigate risks to the continued provision of essential services.



disaster management (Commonwealth of Australia, 2014). From a different angle, it can be viewed in terms of a change in its position on federalism.

The six Australian colonies were persuaded in 1901 to adopt the Australian Constitution, which was designed to retain the sovereignty of the states. Specific powers were ascribed to the Commonwealth (primarily under Section 51) that would enable it to efficiently manage issues of national importance such as national security and economic development and trade. Since Federation, the overwhelming trend has been, toward an expansive interpretation of the Australian Constitution that has led to increasing centralisation of powers to the Commonwealth Government. (Australian Government, 2005).

The COAG is a key instrument of modern Australian federalism and ostensibly provides a platform for whole-of-government. In practice, it has tended to be dominated by the Commonwealth Government and as such, reinforces centralisation (Brumby and Galligan, 2015; Committee for Economic Development of Australia, 2014; Fenna, 2012; Head, 2007; Carling, 2008). During 2011-2013 the Standing Council on Police and Emergency Management (SCPEM), (the COAG sub-committee and LCCSC's predecessor), released communiques that routinely reported on the progress of the NSDR (Standing Council on Police and Emergency Management, 2011-2013). Since the inauguration of the LCCSC in December 2014, mention of disaster resilience has dwindled until the latest communiques make no reference to disaster resilience whatsoever (Law Crime and Community Safety Council, July 2014 - May 2017). Given the Commonwealth influence at COAG, this change reflects a shift in how it sees its role in relation to national disaster resilience policy and its implementation.

In contrast to the diminished prominence of disaster resilience in high level Commonwealth and whole-of-government documents, *Strategic directions for fire and emergency services in Australia and New Zealand 2017-2021* (Australasian Fire and Emergency Services Authorities Council, 2016) has a strengthened focus on disaster resilience. This imbues the emergency services with a significant leadership role in disaster resilience policy implementation in state, regional and local areas. Similarly, responsibility for disaster resilience education and knowledge management now rests with the Australian Institute of Disaster Resilience, and a national strategic research agenda for disaster resilience is being managed by the Bushfire and Natural Hazards Co-operative Research Centre.

This represents a move away from direct implementation of disaster resilience policy by the Commonwealth. Meanwhile, it has turned its attention to the NDRRA and its plans to introduce an up-front assessment of estimated damages and costs to replace the current reimbursement model. It also remains directly involved in approaches for developing and sharing disaster risk information. For example, via the National Emergency Risk Assessment Guidelines (Commonwealth of Australia, 2015c). These policy priorities, particularly when aimed at reducing NDRRA costs, may signal a willingness to increase future investment in disaster prevention, preparedness and mitigation. Unfortunately, this is not a simple matter of opportunity cost due to the way NDRRA funding is appropriated through the Federal Parliament. Therefore, any such expectation should be held with caution.



METHODS

Qualitative methods are predominantly used in this research including literature review and thematic analysis of information obtained from documents and interviews. Quantitative data from secondary sources is referenced as required. In keeping with a public policy approach, it draws from a range of disciplines, including but not limited to economics, sociology, political science, and international relations.

The terms of analysis are set out in the framework at Table 1. They consist of four policy domains, Social Capital, Community Competence, Economic Development and Information and Communication. These were adapted from a model of community disaster resilience developed by Norris et al (2008) and later expanded upon by Kulig et al (2013). The Norris model was chosen because it has been widely cited and can be applied to both individuals and groups operating at different levels in a system, including when a sudden shock is experienced, like a natural disaster.

Each of the domains includes a set of variables adapted and labelled as policy objectives to better capture the idea of policy implementation through operational practice. During the process of developing the terms of analysis, unifying themes for each of the domains were identified. These are trust, self-efficacy, economic sustainability and behaviour change. With such a large number of variables, using these themes helped to simplify and focus the analysis and provided a check for internal consistency throughout the process. Mechanisms to achieve the policy objectives were identified as policies, (which includes laws and regulations), institutions/organisations (which includes governance), and programs. This framework (Table 1) was used to guide the selection of journal articles and other documents as part of the design of the project and the choice of literature that was reviewed. This was widely sourced from academic and grey literature and from official websites relevant to disaster resilience policy and the Australian disaster management system.



TABLE 14 - DISASTER RESILIENCE POLICY IMPLEMENTATION – DOMAINS & POLICY OBJECTIVES				
Domain	Social Capital	Community Competence	Economic Development	Information & communication
Theme	<i>Trust</i>	<i>Self-efficacy</i>	<i>Sustainable development</i>	<i>Behaviour change</i>
Policy Objective	1.Networks 2.Non-adverse geography/place-based attachment 3.Community engagement 4.Leadership (internally focused)	1.Political partnerships 2.Stakeholder engagement 3.Leadership (externally focused)& empowerment 4.Community participation	1.Security 2.Economic diversity 3.Equity of resource distribution 4.Sustainability 5.Shared (equitable)risk allocation	1.Narratives 2.Responsible media/access to trusted information 3.Skills and infrastructure 4.Information flow between sectors

The research involved two components: The first was broadly based and examined elements of the Australian disaster management system using document study. Complementing this was a primary research component. It consisted of interviews with experts in five organisations implementing disaster resilience measures. It also included the study of documents relating to these organisations and activities, some of which are internal and unpublished. A total of 15 face-to-face, semi-structured interviews were conducted using questions designed to elicit information about how, and whether, the policy domains inform their activities.

The five activities are:

- The **National Flood Risk Information Project**, a Commonwealth Government NSDR initiative agreed by COAG in 2012 and managed by Geoscience Australia (Commonwealth of Australia) – 1 interview,
- The **Community Resilience Innovation Program**, managed by the NSW Government under the Federal and State jointly funded National Partnership Agreement – Natural Disaster Resilience (NSW Government)- 2 interviews,

⁴ Table 1 was adapted from the following sources:

- Norris et al (2008), Brown (1996), and Kulig (2013) in relation to the four adaptive capacities for disaster resilience and sub-scales of community engagement, leadership and empowerment, and non-adverse geography;
- The Productivity Commission (2003) and Australian Bureau of Statistics (2004) on social capital ;
- Handmer and Dovers (2013), in relation to information and communication as a “universal” policy instrument and the role of community participation;
- Richardson (2014) in relation to security as a principle for economic development as an adaptive capacity for disaster resilience;
- Hussey et al (2013) regarding intra governmental and administrative policy mechanisms,
- The links between stakeholder engagement and leadership and empowerment (Porteous, 2013).
- Fenner and Hollander (2013), Jordan A (1999) and McAllister et al. (2003) on principles of co-operative federalism.



- The **Lake Macquarie City Council Local Adaptation Plan for Flooding** (Lake Macquarie City Council, 2015) – 3 interviews,
- The **Rivers and Ranges Community Leadership Program**, a Not-For-Profit organisation established following the 2009 Victorian fires and later affiliated with the Victorian Government Regional Community Leadership Program Network (Rivers and Ranges Community Leadership Program) – 8 interviews, and
- The **Australian Business Roundtable for Disaster Resilience and Safer Communities**, managed and established by the Insurance Australia Group and a partnership between the insurance, building and building financing sector and the Australian Red Cross (Insurance Australia Group) – 1 Interview.



RESULTS

Evidence of one or more of the policy domains and objectives was found in each of the five disaster resilience programs and activities. There were no examples found of all the policy domains within one discrete activity. Exceptions were found where numerous diverse activities are funded under one program. For example, the Community Resilience Innovation Program (CRIP) in NSW and the Commonwealth National Emergency Management Program (NEMP). These programs offer a strategic coordinated approach to implementing disaster resilience programs which can create synergies that help sustain outcomes.

There did not appear to be a correlation between particular levels of government or sectors and the predominance of one policy domain over another. For example, it was expected that local level disaster resilience activities would have a comparative advantage in terms of building Social Capital and Community Competence over Economic Development. While the Rivers and Ranges Community Leadership Program did display highly developed knowledge and skills in these areas, they were also able to apply these attributes to partner with business to expand into programs aimed at building Economic Development within their catchment areas. It was assumed that governments, having more economic policy mechanisms at their disposal, would focus on economic over social outcomes. This was generally found not to be the case.

The NSW CRIP program was seen to be innovative and highly literate in relation to community development. Some of the CRIP outcomes include the establishment of working partnerships between emergency service organisations and community service/welfare organisations based on shared disaster resilience narratives. This is significant in light of calls for cultural change within the emergency services to develop more community inclusive disaster resilience approaches.

Some issues around the application of disaster resilience principles to Commonwealth managed nation-wide disaster resilience activities were raised by the research. For example, the aims of the National Flood Risk Information Project (NFRIP) align with the domains of Information and Communication, Social Capital (the need to establish trust within the project's stakeholder networks), and Economic Development (support for equitable risk allocation). Unfortunately, COAG's agreement to share information did not translate into a willingness by data custodians to provide the information (Hazelwood, 2016a; Hazelwood, 2016b). This proved to be a major obstacle to the successful implementation of the National Flood Information Portal, an element of the NFRIP.

There were indications that many disaster resilience programs with Information and Communication goals were designed based on assumptions that the provision of information, particularly from an authoritative source, will result in the recipients of this information taking the desired action. However, there is a lack of evidence to support this assumption (Commonwealth of Australia, 2010; Paton, 2003). This is a concern given that a major goal of disaster resilience behaviour change is to enable all sections of the community to take responsibility for learning about, and taking action to reduce their disaster risks.

Other results included evidence of a high level of commitment to many of the policy objectives across several domains in the development of the Lake Macquarie City Council (LMCC) Local Adaptation Plan for Flooding (the Plan). In particular, LMCC's support for community engagement, its organisational resilience and determination to



develop and implement the Plan via a hard won participatory process. This achievement has recently been recognised at both state and national levels as one of the only plans of its type in Australia (Lake Macquarie City Council, 2016).



DISCUSSION

It is not intended that these results be used as a basis for judging the effectiveness of specific disaster resilience projects or the ability of a particular level of government or sector to implement disaster resilience policy. The purpose is primarily to raise awareness among disaster resilience stakeholders of the need to consider the determinants of successful disaster resilience programs and how these can be incorporated into the design of implementation approaches.

These approaches should also take into account the interdependencies and feedback loops that characterise a federal system. Furthermore, roles and responsibilities need to be defined and negotiated for implementation to occur at the appropriate level and so that capacity building can be targeted effectively.

In its present form the framework that was used to guide the analysis presented some limitations when applied to government policy development because of its greater relevance to acute disaster management rather than the whole disaster resilience spectrum. It was also difficult to conceptualise all of the domains within a multi-level system of governance such as the Australian federation. For example, Social Capital and Community Competence are more usually seen as goals of local levels of activity and not at higher levels of the system

What the research does suggest, is that in the federal context, there is a fifth policy domain that cuts across the existing four and can explain the gaps. This is subsidiarity, which is often used synonymously with federalism. The policy objectives relating to subsidiarity are the division and sharing of powers, identification and negotiation of roles and responsibilities, co-ordination and cooperation, and devolution of activities with the authority that is needed to undertake these activities. Importantly, subsidiarity is also applicable to social organisation more broadly “Subsidiarity as a principle applies to the allocation of government functions but it also applies at a sociological level” (Grewal, 2014). As such, it is not confined to commonwealth versus states issues but is better conceptualised as a systems issue.

The argument for ensuring adherence to the principles of subsidiarity is strengthened by recent developments including the allocation of responsibility to the BNHCRC and the AIDR for the strategically important areas of research, and education and training. At the same time, the Commonwealth Government appears to be retaining core activities relating to mainstream disaster management including reform of the NDRRA as well as continuing direct involvement in supporting evidence based and uniform approaches to risk management communication.

While these developments may be a sound application of the principle of subsidiarity, this will depend on the details of the new arrangements. The changing configuration of roles and responsibilities may offer benefits, although it will be important to ensure that the feedback loop/s and capacity building that are necessary for healthy systems are not overlooked.

Open exchange of information, coordination and accountability must also be built in to the current approach to implementation to avoid weakening the disaster resilience message and fragmentation of disaster resilience effort.



CONCLUSION

Disaster resilience is a long-term objective. Accordingly, the changing emphasis of disaster resilience policy implementation raises questions about ongoing priorities and the roles and responsibilities of the various actors and vice versa.

This research highlighted aspects of disaster resilience good practice through the lens of Social Capital, Community Competence, Economic Development, Information and Communication and their related policy objectives. While information obtained from the five participating organisations demonstrated that there were instances where some of the good practice elements were not apparent, they each showed themselves to be exemplars in one or more of these four policy domains. Some gaps were also identified across the broader disaster management system. For example, information and Communication should not only address the provision of risk information but should also incorporate behaviour change strategies.

In terms of Social Capital, the need for better systemic and institutionalised connectivity and networking was identified, including in parts of the Federal system. Community Competence is synonymous with self-efficacy and it is only through authentic community and stakeholder engagement, combining top down and bottom up approaches, that this domain can be strengthened. In terms of Economic Development, the persistent imbalance between levels of funding for prevention, preparedness and risk mitigation compared with relief and recovery remains unresolved. Solutions to this persistent problem could include working with the private sector to encourage more opportunities for sustainable and innovative investment and funding models for disaster risk mitigation through public private partnerships, enhanced cooperation, information sharing, and more transparent insurance pricing.

Subsidiarity is at the nexus of disaster resilience policy and a compatible multi-level system of governance. Therefore, subsidiarity principles need to guide disaster resilience policy implementation to maximise its success in the Australian federal context.



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