Directions in disaster resilience policy

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ABSTRACT

Currently, a range of common terms are being used differently within government and the emergency management community. This paper provides a foundation for an understanding of the term 'resilience' so that constructive discussion can emerge amongst those involved in disaster management policy and practice. In doing so, we provide a short review of how the term can be used differently within policy, as well as how it has come to be influential in emergency management policy.

Anyone who has changed sectors, organisations, departments or even jobs will know the feeling of initially being overwhelmed in a new context. You will also appreciate how a work environment can be awash with jargon; it takes a while to learn the lingo.

But this is not just a challenge for those who are new. Often new terms emerge (or old ones are renewed) to create confusion, even when we think we are talking about the same thing. And if a particular term has political support, it can become like a magnet to any and every competing agenda. Sometimes a term can take on so much baggage that it loses any semblance of its original meaning.

Over the past few months, we have found ourselves discussing disaster resilience. You would imagine that working in the same branch, with a focus on building disaster resilience, we might have been on the same page - but we were not. Yet, we found that the process of clarifying our understandings to be a generative exercise.

In this paper we seek to share our thoughts and shed some more light on resilience, a term that is quickly coming to represent a national policy agenda.

The meaning of resilience

In classical mythology, the symbol of resilience was the reed because of its capacity to both sway in the breeze and to withstand the fierce storms that would uproot mighty trees. Its origins come from the Latin word resilire which means to rebound, recoil or return to the original form. In English, resilience was first used in the 17th Century to refer to the quality of certain timbers to withstand severe loads without breaking.

Today, resilience tends to be used to either mean a capacity to 'bounce back' or, more conservatively, a tendency to resist change. In everyday speech, a resilient person is one who can weather the storms of life and emerge unscathed. However, over the years, resilience has also been adopted and used in a range of more specific ways.

Scholarly work provides several variations around the resilience theme. In Physics, it describes objects that are invulnerable to the impact of external forces, while in Chemistry it is the capacity of a metal to return to its original form. In Engineering, resilience is a measure of a material's capacity to withstand impact, as well as to absorb and release energy through elasticity (McAslan, 2009).

The Social Sciences also have different traditions around the use of the term. In Health, resilience can be used to describe immunity to sickness. In Psychology and Social Work, it refers to a capacity to function in immensely demanding settings, as well as the ability to cope with stress (Norris et al, 2009). And in Sociology, resilience is used to describe the capacity of groups to cope with stresses from changes in their environment (Platteau, 2000). Meanwhile, in Ecology, resilience has been used to measure the ability of an ecosystem to absorb change, continue to function and evolve (Klein et al, 2004). In Business Management terms, it is described as the capacity to use disruptive events to slingshot an organisation forward (Parsons, 2010).

More recently, within social sustainability theory, resilience has been defined as the capacity of individuals, groups and communities to identify and advocate for their needs, both now and for future generations (McKenzie, 2004). It has also been described as a form of adding to social capital (Chia, 2010), with resilience being a way through which communities can build their capacity (Prosser et al, 2010).

Clearly, there is plenty of scope for different approaches to what we mean by resilience, and given the differing academic backgrounds that policy makers bring to their work, this can make finding consensus around an agreed definition very challenging.

However, in the policy context, a single definition may not be that essential because narrowing the scope to one aspect risks losing the robustness of the concept as a whole. As McAslan (2009) observes, the term may be imprecise, but the differences in definition are not as wide as the literature often suggests and there is enough common ground around which to build policy.

That said, it is also important not to confuse a lack of a tight definition with a lack of conceptual rigour. This is because the assumptions that people and institutions use to understand a term can present barriers to policy development and point to very different policy outcomes.

For instance, if one's view of resilience is informed by the natural sciences, then resilience is about returning to the original form. If applied in the case of emergency management, this approach might emphasise replacing existing infrastructure – so if a storm washes away a bridge in Southern Queensland, then the policy priority would be to rebuild the same bridge quickly.

Courtesy: Civil Mining and Construction Pty Ltd

An example of the natural sciences view that emphasises replacing existing infrastructure. Here we have the replacement of timber bridges with new concrete bridges in southern Queensland.

But if one's view of resilience is informed by the social sciences or business systems thinking, then resilience emphasises the capacity to transform into an improved entity. Here, resilience is used to refer to reducing future risk by enhancing protection and building for recovery. In the case of the Southern Queensland storm, this would mean a new bridge would be built according to current best standards and to enhance infrastructure.

However, if one takes a socially sustainable view of resilience, then the emphasis might be on creating new capacity through consideration of future community needs, which could result in transformed infrastructure. Back to our case of the storm, any new bridge would need to be built to cater for what each community believes to be its current and future needs, including the significant growth in population and rising seas levels along the Southern Queensland coast.

So, what may be small distinctions in theory, once applied in the policy context, can result in significantly different policy objectives, capabilities and associated costs.

The international and domestic move toward disaster resilience

Recently, there has been a growing emphasis on disaster resilience in Australian emergency management policy, to the extent that it now matches a previous emphasis on dealing with disasters as they arise (Wilkins, 2010). This change has been driven at both international and domestic levels.

Internationally, the United Nations has advocated regional cooperation, communication and policy coherence as part of a focus on developing disaster resilient communities (United Nations, 2009), while APEC has called for greater mainstreaming of disaster risk reduction and broader long-term sustainable development (APEC, 2009).

On a national level, in 2009 COAG commissioned a National Disaster Arrangements Working Group to seek agreement around building a more disaster resilient Australia. In December 2009, COAG also agreed to adopt a whole-of-nation resilience-based approach to disaster management which recognises that the growing complexity of disasters extends beyond the emergency management community alone (Rothery, 2010). Thus, a national, coordinated and cooperative effort is being sought to enhance Australia's capacity to withstand and recover from disasters. This COAG decision represents a significant shift in national policy as well as government thinking around disasters and emergencies.

Further to this, MCPEM-EM[1] through the former AEMC[2] issued a National Disaster Resilience Framework. This has been done with a view to completing a whole-of-government National Disaster Resilience Strategy by the end of 2010. To support this, COAG agreed to establish a new National Emergency Management Committee (NEMC) to drive and coordinate national policies and capability development. The NEMC marks another important shift, as first ministers' departments will now play a more significant role, enabling a whole-of-government view of nationally significant emergency management issues, as well as the ability to influence and facilitate decisions beyond the remit of the traditional emergency management portfolio.

The establishment of our branch, indeed our division, is a further indication of the new way of thinking about national security and emergency management. The foundations of this new way of thinking came largely from work within the field of organisational resilience. More specifically, the PPRR model of emergency

[1] Ministerial Council for Police and Emergency Management – Emergency Management.
[2] Australian Emergency Management Council.

management (Prevention, Preparedness, Response and Recovery) has also been highly influential. This forms the base of an approach to emergency management that recognises the need for:

- *Prevention*: to hinder, deter and mitigate disasters, while maintaining readiness to deal with disaster events.
- *Preparedness*: to protect our people, assets, infrastructure and institutions from disaster events; and to establish, train and exercise arrangements to respond to, and recover from a disaster event.
- *Response*: to respond rapidly and decisively to a disaster event and manage its immediate consequences.
- *Recovery*: to return national and community life to normal as quickly as possible after a disaster event, through the restoration of social, economic, physical and environmental wellbeing.

The aim of current EM policy is to use this model to work towards a more disaster resilient Australia, that is one that aims to recognise current and future risk, reduce and manage those risks, and be better able to adapt to change and recover from disasters (COAG, 2009).

Disaster resilience, social sustainability and regional capacity

While we note the origins of disaster resilience within organisational resilience and the importance of clear conceptual models to assist in enhancing and assessing resilience within organisations (Gibson & Tarrant, 2010), we also note that a whole-of-government approach to disaster resilience through NEMC brings with it broader cross jurisdictional and cross departmental policy challenges. Not the least of which is the different understandings of resilience, which may be used by departments and policy makers.

For instance, one possible rationale for a resilience approach in policy is to foster greater self-reliance. This interpretation recognises that the growing costs associated with responding to disasters are increasingly difficult to meet in a context where repeatedly raising operating budgets is not an option. Those advocating this view might emphasise that a benefit of greater individual responsibility for preventative action will be to reduce total damage, loss and recovery costs. If this approach was applied in the context of a large bushfire along the coast of regional South Australia, a strict interpretation of funding eligibility might be applied to restrict costs by only providing for the replacement of public infrastructure.

Alternatively, another rationale for a resilience approach could be improving the capacity of communities to bounce back better from disaster events. This interpretation emphasises that government resource provision should prioritise support for efforts that enhance disaster resilience. Those holding this view might argue that payments should be targeted not to provide incentive for inaction, irresponsibility or failure to take up insurance. Again using the South Australian bushfire example, this interpretation of policy might prioritise funding for local communities that could show they had taken steps to enhance resilience and there would be limited support for rebuilding in areas that might have a high risk of fires in the future.

Yet another approach to using resilience within policy could be around building social sustainability. This interpretation prioritises the responsibility of government to support any citizen facing need, recognises that some vulnerable groups may not have infrastructure to rebuild, and stresses that no government action should contribute to further hardship. Those holding this view might also emphasise investment in improving natural, social, economic and community conditions. In the case of the SA bushfire, this policy interpretation might support claims for assistance irrespective of if the claimant took steps to understand and manage their risks, whether they were unable to afford preventative action, or if they had left their second or holiday home uninsured or unprotected.

As with the previous example, each of these different interpretations can result in significantly different costs and policy outcomes. However, what is important is not so much reducing these diverse approaches into consensus around a single interpretation of the term, rather it is having a common understanding that is robust enough to operate in different policy contexts. While the first approach to resilience may work in the conceptual space or within single organisations, the diverse requirements across departments, agencies, organisations, professionals, semi-professionals, volunteers and communities, all need to be supported by a more holistic approach.

The concept of disaster resilience is characterised by its complexity, interactivity and interconnectedness, while traditional policy thinking often addresses challenges by following a linear and reductionist process, working from problem to solution within tightly defined conceptual models. Traditional policy and program interventions such as model application, evaluation and regulation, are not sufficient alone to effectively achieve the level of behavioural change required by a socially complex policy challenge such as disaster resilience. Linear thinking is inadequate to encompass the interactivity and complexity inherent in building resilience (Rothery, 2010). Thus, we face the challenge of complementing organisational responses with the development of non-linear and holistic policy frameworks that are more capable of grasping the broader policy context and the interrelationships between the full range of factors.

Future directions

As a consequence, it is fundamental that disaster resilience is a collective responsibility of all sectors of society, who by working together will be more effective than any individual effort. A disaster resilient community is one that works together to understand and manage the risks that it confronts, but is also aware of the responsibility of all levels of government (COAG, 2009). Thus, an associated challenge will be that of coordinating a whole-of-government approach across federal, state and local governments.

A further challenge will be facilitating both 'bottom up' and high level engagement with this new policy imperative. There will also be challenges associated with ensuring that a 'Principle of Subsidiarity' (Wilkins, 2010, p.4), which supports greater local flexibility, does not undermine the use of standardised indicators to assess our national progress with resilience. If resilience is a constantly evolving and multidimensional trait of communities (Gibson & Tarrant, 2010), many aspects will be difficult, if not impossible to quantify, so we will need to develop creative and mixed method approaches to ascertain if resilience has grown.

In response to the above challenges, we would argue that Australia needs not only a new way of policy thinking, but new, compatible, policy approaches that integrate, rather than compete, with the existing policy priorities and emergency management arrangements. This will be the key challenge for those working in disaster resilience in coming years.

However, before such new steps can even commence, stakeholders need to be clear about the assumptions and interpretations they bring to the term disaster resilience. To this end, this paper hopes to facilitate constructive discussion amongst those involved in policy and planning for a more disaster resilient future for Australia.

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