Changing the rules of the game: mechanisms that shape responsibility-sharing from beyond Australian fire and emergency management.

By Blythe McLennan and John Handmer,
Centre for Risk and Community Safety, RMIT University.

ABSTRACT

In this paper, we look beyond Australian fire and emergency management to compare ways that responsibility-sharing – broadly conceived – has occurred in other places and sectors where risks to community safety are faced. Responsibility-sharing occurs any time there is collective action, and formal and informal institutions provide the "rules of the game" that prescribe how responsibility should be shared amongst the parties involved. We reviewed a broad sample of risk research literature in order to examine by what mechanisms responsibility-sharing institutions have been shaped in other places and sectors where risks to community safety are faced. Our review revealed more alternatives for shaping responsibility-sharing institutions than are widely considered by policy and decision makers in Australian fire and emergency management. It therefore raises an important question about why certain mechanisms are chosen, prioritised, overlooked or resisted in this sector. An alternative way of conceiving and pursuing shared responsibility is also discussed. Ⓡ

Introduction

Within the Australian fire and emergency management sector, the concept of 'shared responsibility' is most commonly used to refer to the need for communities to be more self-reliant in the face of risks associated with natural hazards such as bushfire and flood. It reflects a strong recognition that public expectations and demands of emergency services in Australia may be unrealistically high, and that communities have a vital role to play in securing their own safety. However, this represents a specific understanding of a more general idea: one that is embedded in a particular context, place and time. A broader view that compares the goals and processes of sharing responsibility across a wider range of risk and safety contexts may therefore provide some valuable food for thought about confronting local challenges.

In this paper, we therefore look beyond Australian fire and emergency management to compare ways that responsibility-sharing – broadly conceived – has occurred in other places and sectors where risks to community safety are faced. Importantly, finding ways to share responsibility amongst multiple parties, and particularly between governments and communities, is a challenge faced across a wide range of sectors. Risk research literature abounds with studies that expose responsibility-sharing dilemmas in fields such as air pollution (Bickerstaff & Walker 2002), public health (Guttman & Ressler 2001), workplace safety (Gray 2009), food safety (Henderson, Coveney & Ward 2010), transportation (Sanne 2008), policing (Hughes & Rowe 2007), and new technologies (Black & Wishart 2008). We reviewed a broad sample of this literature in order to examine by what mechanisms responsibility-sharing was shaped. A more detailed account of the review and how it was undertaken is available elsewhere [McLennan & Handmer 2011b]. In this paper, we focus on conceptualising the idea of shared responsibility in a more general, context-independent way, presenting key results, and outlining broad implications from this cross-sectoral review for Australian fire and emergency management.

Responsibility-sharing institutions

To begin, we need to be clear about what we mean by 'shared responsibility'. We take a broader view than the understanding most common in Australian fire and emergency management.

In the context of risk, the concept of responsibility incorporates the notion that certain parties have an obligation (be this moral, social or legal) to undertake actions to manage risk, either their own or someone else's [McLennan & Handmer 2011a, 2012]. These obligations stem from the expectations, rules, and norms in society about the roles of various parties with respect to risk (see also Birnbacher 2001). They are forward-looking because they exist prior

to and irrespective of the event or conditions that give rise to them (Birnbacher 2001; Pulcini 2010). A party may be found to have failed to live up to the widely-held expectations, rules and norms that place obligations on them. When this happens, they are likely to be held accountable for the consequences once the risk is realised and the outcomes of risk management are not what people expected or desired. They are also likely to face some form of sanctions, formally or informally, for their perceived failure (Pellizzoni 2004; Witt 2001).

Responsibility-sharing therefore occurs when multiple parties have obligations with respect to the same goal, outcome or field of action. Another way to say this is that responsibility is shared any time there is collective action. Broadly speaking, collective action occurs when a group, whether of individuals or organisations, works together to achieve a mutual goal (Ostrom 1990; Sandler & Blume 1992). The notion is usually invoked when goals are not achievable through individual actions alone (e.g. in an uncoordinated way), but rather can only be achieved when a group coordinates to work together. The idea that increasing community bushfire safety in Australia requires collective action involving agencies and communities is not unfamiliar. For example, it was indicated strongly in the Victorian 2009 Bushfires Royal Commission's view of 'shared responsibility'. The Royal Commission stated, for example, that "individuals and communities also play an important part in contributing to community safety during bushfires, but they need support from the State and from municipal councils" (Teague, McLeod & Pascoe 2010, Vol. 2, p. 352). This emphasises the need for state agencies, municipal councils, individuals and communities to work together *[McLennan & Handmer 2012]*. Beyond bushfire, collective action is also central to many flood management activities. Take, for example, the construction of levees on multiple properties, for which property owners must work together in a coordinated way, usually through a coordinating entity that has some degree of government authority.

Yet the general concept of shared responsibility – and also the particular one widely held in Australian fire and emergency management – does not say anything about *how* such collective action ought to be undertaken. Exactly how should the parties work together? What relationships should they have with each other, and what particular obligations does each party have with respect to their mutual goal? Further, what are the standards for determining when one party or another has failed to live up to their obligations? In order that the parties can respond to such questions, collective action needs some kind of guidance: some "rules of the game" for people to follow. These rules are provided by institutions, usefully defined as "prescriptions that specify what actions (or outcomes) are required, prohibited or permitted and the sanctions authorized if the rules are not followed" (Ostrom & Ahn 2009, p. 28). Laws, policies and programs are all examples of formal institutions or "rules of the game"

that prescribe what is required, prohibited or permitted in collective action in various fields. These formal institutions are codified or written down and back up by some degree of formal authority. However, institutions guiding collective action can also be informal. Social norms and expectations, cultural values, and social relationships of reciprocity are all examples of informal institutions that are not written down nor formally authorised but which none-the-less influence the way people work together: often in powerful and significant ways. For example, a study by Brenkert-Smith (2010) shows how social interaction between neighbours in wildland-urban interface communities help to build informal social norms that support activities to reduce wildfire risk, such as periodic clearing of brush and undergrowth. Importantly, both formal and informal institutions are commonly backed up by sanctions. In the case of laws, these are legal sanctions, whereas in the case of social norms, the sanctions are also social, such as public shaming or social exclusion.

Many of the institutions that guide collective action prescribe how responsibility should be shared amongst some or all of the parties involved. *The Emergency Management Act 1986 (Victoria)* is one example of a formal, in this case legislative, institution that spells out the powers and responsibilities of various government parties with respect to "the organisation and management of resources for dealing with all aspects of emergencies"[1]. Informal institutions that shape how responsibility is shared for dealing with emergencies also exist in Australian societies. As historian Tom Griffiths (2010, p. 35.4) notes in the context of bushfire, Australian culture tends to define heroism as "staying and fighting". Griffiths highlights how "leaving early, in such a culture, might be seen to be cowardly" (p. 35.4). Such cultural beliefs can shape people's personal sense of their obligations to 'stay and defend' when a bushfire looms: individual households as much as fire-fighting volunteers. A second related example is social norms regarding the roles and responsibilities of men and women, which also shape how people plan for and respond to bushfire (Eriksen, Gill & Head 2010).

Importantly, different institutions concerning the same field of collective action do not always align in mutually reinforcing ways. So for example, the formal emergency management responsibilities laid out in different policies or pieces of legislation may conflict, as they do in Australia when it comes to the role and authority of the police in evacuations (Handmer & Tibbits 2005; Tibbits & Whittaker 2007). Formal and informal institutions may also collide, for example when local social norms discourage the clearing of trees around homes while fire agency policies support the maintenance of defensible space (Bushnell & Cottrell 2007). Formal and informal institutions regarding professional roles may also conflict in workplaces. One example from the field of workplace safety is misalignment between formal safety regulations that require near miss incidents

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1. From page 4 of version 044 of the Act, incorporating amendments as at 3 November 2011.

January 24, 2012: Melbourne, VIC. Members of the Metropolitan Fire and Emergency Services Board (MFB) tackle a grass fire at Westmeadows in Melbourne, Victoria.

to be reported and organisational cultures that may discourage 'dobbing in' workmates. Furthermore, existing institutions – both formal and informal – may be found ill-fitting for new, unfamiliar or rare risk scenarios. This was arguably the case with the Black Saturday bushfires. Because of their ferocity, the fires were found by the Royal Commission to have exceeded the scope and capacity of existing policies and procedures (Teague, McLeod & Pascoe Vol. 2, 2010). These examples show how conflict and ambiguity can easily arise over where responsibility lies in risk management and over how to determine when a party has failed to act in accordance with their obligations.

Changing and clarifying the way responsibility is shared, either generally or for specific conditions, therefore means *altering the institutions* (e.g. laws, regulations, workplace cultures or social expectations) that prescribe the obligations of the various parties engaged in collective action. We use the term 'mechanisms' to refer to any process that shapes some type of responsibility-sharing institution, be it formal or informal. Such mechanisms may be directed and intended (e.g. making a law, or implementing a program) or emergent and unintended (e.g. constructing a social norm, resisting a cultural value). While governments have a key role in shaping institutions, they are not the only parties that can bring about – either intentionally or unintentionally –institutional change. Political dynamics, overseas events and the media, for example, all have the potential to influence social expectations of the roles of fire and emergency management agencies and of the anticipated outcomes of risk management.

Mechanisms to share responsibility

In order to consider possible ways that conflicts and ambiguities regarding shared responsibility might be approached in Australian fire and emergency management, we therefore asked the question: By what mechanisms are responsibility-sharing institutions created or altered in the context of risk and community safety elsewhere? To answer this question, we reviewed studies in the risk research literature that described or proposed changes in risk management and community safety responsibilities [McLennan & Handmer 2011b]. The review was carried out as part of a research project being undertaken for the Bushfire Cooperative Research Centre[2]. In addition to fire and emergency management, the sectors covered by the review included public health, environmental risk, public security and policing, human services, social welfare, workplace safety, new technologies and transportation [see McLennan & Handmer 2011b, Appendix].

The review revealed seven broad types of mechanisms that have shaped, or been proposed to shape, responsibility-sharing institutions in a range of scenarios involving risk and community safety. These are listed below in Table 1. The examples given in this table are not a complete list of possible ways to shape responsibility-sharing, and hence the Table is not a 'shopping list' of alternatives. While we endeavoured to seek the widest possible range of mechanisms, we were limited by the scenarios, research goals and conceptual approaches of the reviewed studies. Further, we did not include mechanisms that have not yet been used in the context of risk and community safety, which might reveal innovative new approaches.

2. See http://www.bushfirecrc.com/projects/1-3/sharing-responsibility-component-mainstreaming-fire-and-emergency-management-across-pol.

Table 1: Overview of mechanisms for sharing responsibility [McLennan & Handmer 2011b]

Type	Examples	Influence on responsibility-sharing
Vision statements	• National strategies and policies • Statements of principle • Mission statements • Social and ethical codes • Non-binding declarations of rights	Steer and mobilise responsibility-sharing by outlining what it should achieve or look like (not strongly enforced or formally agreed to by the parties involved).
'Hard' laws and regulations	• Constitutions • Charters • New, amended or extended laws • Traditional regulation • Quasi-regulation (enforced)	Prescribe and compel responsibility-sharing through the use of legal obligations and authorised sanctions/ penalties.
'Soft' interventions	• Financial incentives and disincentives • Direct government delivery of public services • Quasi-regulation (voluntary) • Monitoring and evaluation systems • Informational/persuasive campaigns	Encourage responsibility-sharing by influencing decision-making, behaviour or access to services and resources.
Contracts & agreements	• Treaties and conventions • Legally-binding voluntary contracts • Public/private partnerships • Hybrid public/private administration • Voluntary non-binding agreements • Agreed declarations of intent • Social relationships of reciprocity	Establish relationships for responsibility-sharing and clarify what is expected of the parties involved (may be binding and subject to penalty or non-binding and without penalty).
Collective inquiry & decision-making	• Votes • Formal public inquiries – binding • Formal public inquiries – non-binding • Public consultation • Deliberative/collaborative decision-making • Participatory disaster/risk management	Collectively query and/or decide where responsibility lies and/or how to share it.
Organisations & associations	• New department, committee or overseeing body • Restructure of existing agencies/institutions • Government-initiated community or industry associations • Self-initiated civic or industry associations • Multi-party partnerships and collaborations • Policy networks • Interagency coordination and collaboration	Change or strengthen relationships amongst parties to facilitate responsibility-sharing, or create authority to influence responsibility-sharing.
Social norms	• Workplace/professional culture • Traditional knowledge/management regimes • Emergent organisation and leaders • Social movement/ protest	Establish informal, shared rules of engagement to share responsibility and/or impose social incentives and sanctions.

Each of the seven types of mechanism will be familiar to fire and emergency management stakeholders but not necessarily in the context of thinking about shared responsibility for community safety. Within each type, there will also be some examples that are very familiar and others that are far less so (see Table 2 for less familiar examples). Within the category of 'vision statements', the National Strategy for Disaster Resilience (COAG 2011) is one example of a policy strategy that is very well-known to Australian fire and emergency management. However, social and ethical codes, while common at the level of particular professional groups, have not been used at the larger-scale level of government-community relationships as they have been in other contexts. Similarly, there are less familiar examples of each of the other types of mechanisms.

Table 2: Less familiar examples of mechanisms to share responsibility (Note: inclusion in this table does not indicate a recommendation of 'best practice'.)	
Type of mechanism	**Less familiar examples**
Vision statements	Social and ethical codes – e.g. the vision for 'social co-responsibility' in Latin America and the Caribbean (UNDP & ILO 2009)
'Hard' laws and regulation	Charters – e.g. the Council of Europe's proposed charter of shared social responsibilities (Council of Europe 2011)
'Soft' interventions	Informational/persuasive campaigns co-designed with target groups – e.g. the 'Helping Each other Act Responsibly Together' campaign in Zambia to reduce HIV risk amongst young people (Underwood *et al.* 2006)
Contracts and agreements	Voluntary, non-binding agreements between government agencies and private parties – e.g. the UK Department of Health's 'responsibility pledges' (UK Department of Health 2011)
Collective inquiry and decision-making	Deliberative decision-making with stakeholders – e.g. the "ethical assessment" process used by the UK Committee on Radioactive Waste Management (Cotton 2009)
Organisations and associations	Community recovery coordination roles taken on by existing community organisations – e.g. cultural/religious groups' activities following Hurricane Katrina (Patterson, Weil & Patel 2010)
Social norms	Change in workplace/professional culture – e.g. Swedish railway technician workplace culture that negotiated conflicting commitments to workplace and public transportation safety (Sanne 2008)

There is inevitably overlap and interaction amongst the seven types of mechanisms. For example, the goal of collective decision-making could be to create a voluntary contract or agreement. The creation of a new department or organisation is often accompanied by the crafting of a new vision statement of some kind. Alternatively, policies and programs might aim to influence social norms as in the case of persuasive/ informational campaigns that seek to facilitate risk-reducing social norms. Multiple mechanisms are also often actioned together. For example, complex policy packages may involve a combination of legal, regulatory, organisational and program delivery mechanisms. In any particular risk management scenario, it is most likely that alterations to multiple institutions would be needed to bring about any lasting change to the way responsibility is shared. This type of change cannot be affected through a single, agency-directed mechanism.

Food for thought

Our review revealed more alternatives for shaping responsibility-sharing institutions than are widely considered by policy and decision makers in Australian fire and emergency management. It therefore raises an important question about why certain mechanisms are chosen, prioritised, overlooked or resisted in this sector. Of course, different types of mechanisms are more or less suited to different scenarios and conditions. It is doubtful, for example, that new legislation compelling evacuation from high-risk areas on days of catastrophic or code red fire danger would be politically or socially acceptable in Australia. Assessing the suitability of a given mechanism for a specific issue or scenario would require more in-depth examination than was possible within the scope of this review. Yet we can still ask the more general question: why are particular mechanisms on the radar in Australian fire and emergency management while others are not?

As outlined above, 'shared responsibility' is most commonly used in Australian fire and emergency management to refer to the need for communities to be more self-reliant in preparing for and responding to hazard events. Further, 'communities' are conceived primarily as households and individuals. In this context, the pursuit of shared responsibility by agencies is likely to prioritise efforts to change the behaviour of individuals and households in ways that promote their greater self-reliance. By far the most common approach taken by agencies to do this in the past has been through persuasive education and awareness programs, described by Elsworth *et al.* (2009) as "top down" (as opposed to 'bottom up") community bushfire safety programs (p. 18). However, persuasive programs aimed at changing people's behaviour are not the only approaches that might be pursued to share responsibility. Nor is greater community self-reliance the only way of conceiving the goal.

An alternative way of conceiving 'shared responsibility' could be to refer to the need to develop and strengthen responsibility-sharing institutions that cross some of the conventional divides in Australian fire and emergency management. This view is arguably more in line with the "whole-of-nation, resilience-based approach" called for in the Council of Australian Government's National Strategy for Disaster Resilience (COAG 2011). A similar view was indicated in a speech to the fire and

emergency management sector by the Secretary of the Commonwealth Attorney-General's Department, Roger Wilkins, AO. (Wilkins 2010). In his speech, the Secretary emphasised the need for coordination that transcends boundaries between: agencies and departments; public and private sectors; international, regional, national and local levels; professional and traditional skills groups; and professionals and volunteers. We suggest that boundaries between agency-directed and community-based initiatives be added to the list.

The pursuit of this different view of 'shared responsibility' would likely prioritise different mechanisms compared to the current situation in Australia. It might include changes to existing organisations and associations (and the creation of new ones), the formation of contracts and agreements, and engagement in collective decision-making processes. It would also likely involve more deep-seated changes to social norms. Within these types of mechanisms, communities and other non-government parties would have a greater role in shaping responsibility-sharing alongside agencies and other professional risk managers. In 'top down' community bushfire safety programs, for example, communities have predominantly been seen as targets of agency-led campaigns rather than co-implementers or goal-setters (although this is less the case for emerging 'bottom-up' community engagement and development strategies, see Elsworth *et al.* 2009). Where mechanisms such as contracts and agreements, and collective decision-making are prioritised more strongly, communities and non-government parties are more likely to have active roles in implementation and goal-setting.

This highlights a major distinction identified in our review of the mechanisms that have shaped responsibility-sharing in other contexts. On one hand, mechanisms such as vision statements, 'hard' laws and regulations, and 'soft' interventions focus more heavily on shaping responsibility-sharing to align with a pre-determined standard or goal. On the other hand, mechanisms such as contracts and agreements, collective inquiry and decision-making, organisations and associations, and social norms are more likely to include a process for determining or negotiating goals and standards. In the latter case, there is more scope for those who are at-risk to be involved in shaping responsibility-sharing institutions that structure collective action for community safety and risk management.

While we are supportive of this alternative view of shared responsibility, we do not mean to suggest that the more common view in Australian fire and emergency management that prioritises community self-reliance is necessarily incorrect or misguided. By contrast, given the claim that communities rely too heavily on fire and emergency management agencies in Australian society, the focus on community self-reliance may be well-founded. However, we do mean to suggest that this view may be overly *particular*. The dominance of a particular, more narrowly focused view of shared responsibility curtails the consideration of a wider range of possible ways to think about and shape responsibility-sharing in this sector. The more familiar mechanisms, such as persuasive education and awareness programs, may well be most appropriate to address some responsibility-sharing issues. However, reflecting on a wider range of alternative mechanisms could help fire and emergency management stakeholders and decision makers to consider the pros and cons of other, otherwise overlooked possibilities, which may be appropriate for addressing a wider range of issues. On a deeper level, it may also assist them to recognise and reflect on some of their own assumptions about what 'shared responsibility' means as a goal and as a process, about the nature of collective action in risk management, and about relationships between 'those-at-risk' and 'those-in-authority' *[see McLennan & Handmer 2012]*. Given the impetus of the National Strategy for Disaster Resilience, this broader reflection is particularly warranted in Australian fire and emergency management at the moment.

Acknowledgements

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About the author

Blythe McLennan is a Research Fellow with RMIT University's Centre for Risk and Community Safety in Melbourne. She is a human geographer and is currently working on a project with the Bushfire Cooperative Research Centre that aims to support the Australian fire and emergency management sector to make decisions about sharing responsibility for community safety and disaster resilience.

Professor John Handmer leads RMIT's Centre for Risk and Community Safety. He is Convener of the NCCARF Emergency Management Network, Principle Scientific Advisor for the Bushfire CRC and a convenor for the UN-IPCC report on extremes and managing disasters. He works on the social and economic aspects of emergency management.