Exposing hidden-value trade-offs: sharing wildfire management responsibility between government and citizens

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Abstract. Developing resilient communities and sharing responsibility for hazard management is the key to Australia's 'National Strategy for Disaster Resilience'. There are, however, a wide range of conflicting views on the appropriate responsibilities of governments, citizens and communities that are not well recognised in the national policy discourse. What the ideas of resilient communities and shared responsibility mean for wildfire management and how these ideas might shape wildfire safety thinking and practice is therefore unclear and contested. This paper makes explicit some of the necessary, but often hidden, trade-offs between competing values that are implicit in assessments of where responsibility for wildfire management lies, and how it should be shared. After describing different ways in which responsibility is attributed and legitimated through legal and governance systems, this paper compares and contrasts potential legal and governance implications of four hypothetical scenarios for wildfire management, each of which portrays a contrasting set of extreme value trade-offs. The underlying purpose of the exercise is to encourage stakeholders to draw on the frameworks to explicitly acknowledge and debate the value trade-offs that are necessary, but most often unacknowledged, in more moderate decision-making about how to share responsibility for risk management between governments and citizens.

Introduction

A significant challenge facing wildfire management in Australia is the development of policies, institutions and activities that can support and foster resilient communities and shared responsibility. These goals are central to the vision for a disaster-resilient Australia set out in the National Strategy for Disaster Resilience (COAG 2011). According to the strategy, a resilient community is one where people understand their risks, take steps to protect themselves and work together in partnership with emergency services and other agencies to manage risks. The notion of shared responsibility emphasises that building Australia's disaster resilience is 'not solely the domain of emergency management agencies' (p. 3) but requires action by governments, communities, businesses and individuals.

Notwithstanding this high-level, national policy that shares cross-government support, what the ideas of resilient communities and shared responsibility mean for wildfire management, and how these ideas might shape wildfire safety thinking and practice, is unclear and contested. In the state of Victoria, for example, a recent review of the Fire Service Commissioner's Bushfire Safety Policy Framework found that stakeholders had widely varying understandings of shared responsibility

(FSCV 2012). The challenges of sharing responsibility between governments and communities in wildfire management were also highlighted in an analysis of public submissions to the Victorian 2009 Bushfires Royal Commission (McLennan and Handmer 2012*a*). This revealed a wide range of conflicting assessments of the responsibilities of governments (such as fire authorities, local government and land management agencies) and citizens or communities (including households and landholders), which are not well reflected in the national policy discourse on shared responsibility and disaster resilience.

The contribution of this paper towards confronting such challenges in wildfire management is to present a framework that makes explicit some of the necessary but often hidden trade-offs between competing values that are implicit in decisions about sharing responsibility in this field. It focuses on core but often hidden political values that underlie these decisions but which are seldom explicitly debated. It also exposes some of the assumptions that are likely to inform trade-offs between these values. This is done by comparing and contrasting possible legal and governance implications of four hypothetical scenarios for wildfire management responsibility, each of which portrays a contrasting set of extreme value trade-offs. The objective is not

to use this framework to predict what wildfire management would look like under each scenario, nor to present one particular scenario as inherently better than the others. Rather, it is to encourage stakeholders to draw on the frameworks to explicitly acknowledge and debate the value trade-offs that are necessary, but most often unacknowledged, in all decision-making about how to share responsibility between governments and citizens in the management of risks such as wildfire.

Sharing responsibility through legal and governance systems

Legal and governance systems have important roles in determining (and legitimating) how responsibility for managing risks such as wildfire is shared between government and citizens. The legal system is a powerful mechanism for attributing and formalising responsibilities, holding parties to account and enforcing sanctions and penalties when legal obligations are not met. Governance systems provide the structures and processes through which parties attempt to influence, negotiate and contest where responsibility lies, and ultimately make collective decisions about how it is shared. These two systems are, of course, not discrete but overlapping. Governance systems are comprised of 'the interrelated sets of norms, organisational and institutional actors' (Tierney 2012; p.344) through which public decisions are made about a particular field of management. This includes laws and legal actors concerned with the field of management. In turn, the legal system also structures and upholds the public decision-making institutions and processes that are central to governance systems.

What the concept of responsibility means, and thus what are the challenges for sharing it between governments and citizens, looks somewhat different through the conduct of legal and governance processes. Although responsibility is a precondition for legal liability in legal systems, the terms are not synonymous. Cane (2002) says responsibility 'is rarely an 'active ingredient' in legal rules … Indeed, as a first reaction one might be tempted to say that 'responsibility' is not a legal concept at all' (p. 1). Law attributes responsibility in the process of determining legal liability, that is, responsibility is a step in the process rather than the end itself, which is to determine who is legally liable for an act or its consequence. Responsibility can also mean different things in law. In criminal law, issues of responsibility turn on whether a person was acting with free will so that they were responsible for their actions: 'responsibility of personality' (Cane 2002). Tort law asks whether a person is responsible for the consequences of their act or omissions; that is causal responsibility. In administrative law, responsibility can refer to who is authorised or required to make a decision on what action to take.

A focus on responsibility in legal systems highlights how attributions of responsibility (e.g. determining accountability or liability) generally require that consequences can be attributed to the decisions or actions – or lack thereof – of identifiable agents (Bierhoff and Auhagen 2001; Tadros 2008). Further, agents are usually only deemed responsible if found to have had control over their decisions (freedom of choice) and their actions: capacity to act through access to adequate resources, political power, legal authority, skills, knowledge and so forth (Birnbacher 2001).

Further, legal responsibility is always attributed to individuals: the individual agents that made decisions or put actions into place leading to consequences must be identified. 'Group responsibility is 'collective' in the sense that it falls on the group as an abstract entity [but] … there can be no such thing as collective responsibility as there can be no abstract entities' (Cane 2002, p. 171). It follows that legal responsibility can only be shared between legal persons (governments, corporations or individuals) but not an abstract entity such as 'a community'.

A focus on responsibility in governance systems reveals a picture of responsibility that is somewhat broader, more malleable and more negotiable compared with legal settings. This is particularly so in the governance of risk in modern democratic political systems where a wide-scale shift has taken place over the last two decades from more government-centric systems to systems in which risk management is increasingly embedded in interactions and negotiations between government and non-government actors (De Marchi 2003; Renn 2008; Renn *et al.* 2011; Tierney 2012). There is increasing emphasis given to the premise that multiple legitimate viewpoints on risk can co-exist in society, and that risk management must therefore involve deliberation amongst parties that hold these multiple viewpoints. Alongside government agencies, these parties would include 'socially relevant' actors such as non-government and scientific organisations, and industry groups (Renn *et al.* 2011). This view supports a polycentric model of decision-making with 'multiple governing authorities at differing scales rather than a monocentric unit' (Ostrom 2010, p. 552). In this sense, governance 'embodies a non-hierarchically organised structure encompassing state and non-state actors bringing about collectively binding policies without superior authority' (Renn *et al.* 2011, p. 232). This suggests a more distributed and negotiated system for attributing responsibility, compared with the legal system.

Studies of responsibility in the context of governance also highlight the importance of informal (e.g. unwritten) political, moral and social responsibilities that may or may not reinforce more formal responsibilities laid out in law, regulation and policy (e.g. Gunder and Hillier 2007; Cerutti 2010). They show that the standards and expectations against which government and citizen obligations for risk management are determined are held not only in formal rules, but also in less formal and more dynamic social norms, institutions, and political and social discourses (e.g. Halpin and Guilfoyle 2004; Bickerstaff *et al.* 2008; Schneider 2008).

Thus, responsibility as portrayed within governance systems appears much more multifaceted, malleable, diffuse and negotiable than it appears in legal systems (Bickerstaff and Walker 2002; Pellizzoni 2004; Gunder and Hillier 2007). From this perspective, attributions of responsibility are shaped not only by instrumental and individualised assessments of agency, causality and capacity, but also by normative and collective assessments of legitimacy, trust, accountability, rights and fairness (e.g. De Marchi and Ravetz 1999; Bulkeley 2001; Bickerstaff and Walker 2002; Bickerstaff *et al.* 2008).

At first glance, it might appear that responsibility is a reasonably valueless concept in law and a much more normative or value-laden one in governance processes. However, the importance of values – and particularly of core political
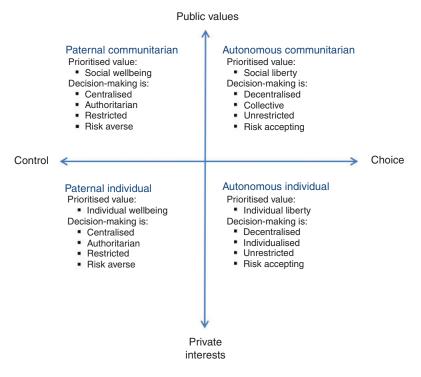
Fig. 1.   Four hypothetical extreme scenarios for sharing responsibility for wildfire management between governments and citizens.

values – similarly underpins the way responsibility is attributed, shared, contested and denied in both these systems. For example, the common law tends to favour unregulated, private decision-making, thus revealing a normative position that prioritises choice and private interests over control and public values. For example, Justices Gummow, Hayne and Heydon, in the High Court of Australia; said:

> Personal autonomy is a value that informs much of the common law … [E]xpressed in the most general way, the value described as personal autonomy leaves it to the individual to decide whether to engage in conduct that may cause that individual harm … 'On the whole people are entitled to act as they please, even if this will inevitably lead to their own death or injury' [*Stuart v Kirkland-Veenstra* (2009), *Commonwealth Law Reports*, vol. 237, p. 215, paragraphs 88–89]

Yet examples also abound where the law has been used to limit individual freedom, enhance the role of government and restrict private action for the benefit of the common good. In the context of emergency management and resilience this can include restrictions on development in flood- and fire-prone areas (Macintosh *et al.* 2013). However, although Parliament is the paramount law maker and can make laws to restrict personal autonomy for the public good, those laws must be interpreted by the courts. The courts have developed principles and presumptions that are applied when giving effect to the words of the legislature. Importantly, it is presumed that legislation is not intended to invade common law rights or to interfere with vested

property rights (Pearce and Geddes 2011). Thus it follows that the common law, including the law of statutory interpretation, retains a commitment to personal autonomy and freedom.

In order to clarify the issues and tensions with competing values and governance models, we have developed a framework of scenarios that suggests extreme positions that we use in order to consider the implication of value trade-offs for shared responsibility.

Trading off values to share wildfire management responsibility

The four scenarios depicted in Fig. 1 demonstrate two sets of value trade-offs that cut across ways of understanding the concept and implications of responsibility in legal and governance systems, particularly with respect to risk. These trade-offs constitute core points of distinction amongst major value orientations in political philosophy that underpin very different ways of conceptualising the sharing of responsibility between governments and citizens.

The first value trade-off, shown in Fig. 1 on the horizontal axis, is between control and choice (see also McLennan and Handmer 2012b). In political philosophy, control is valued relatively higher than choice in paternalistic orientations, which accept a high degree of government control over citizens 'for their own good' (New 1999). By contrast, libertarian and liberal orientations accept very little government control of citizen's actions and decisions, prioritising citizen's rights to freedom and liberty.[A] In the context of wildfire management, for example,

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[A]However, the concept of 'soft' or 'libertarian paternalism' has become influential in the United States in recent years under the moniker of 'nudge theory', see Thaler RH, Sunstein CR (2008) 'Nudge: Improving Decisions about Health, Wealth, and Happiness.' (Yale University Press: New Haven).

mandatory evacuation would be more towards the control end of the *x*-axis than the Australian 'Prepare, Stay and Defend or Leave Early' approach, which has avoided mandatory evacuation in preference for guiding households to make their own informed choices in the face of bushfire (wildfire) threat (McLennan and Handmer 2012*b*). Thus, management strategies that emphasise greater control over people's actions also tend to reveal greater risk aversion, whereas those that allow people to exercise greater choice are necessarily more risk tolerant in approach.

The second value trade-off, depicted on the vertical axis in Fig. 1, is between public values and private interests. Public values (similar ideas are that of the 'public good' and the 'common good') are described as 'collectively expressed, politically mediated preferences' (O'Flynn 2007), also as 'what has meaning for people' (Alford and O'Flynn 2009). Importantly, responsibility is often portrayed in social, legal and political discourses as a burden because it frequently requires private actors to restrain their actions to prevent harm to others in society (Bierhoff and Auhagen 2001; Birnbacher 2001; Bickerstaff and Walker 2002, p. 2177).

The need to make trade-offs between public values and private interests is particularly evident in classic collective action or public good problems (e.g. 'free riding'). These arise when individuals rationally pursuing their own best interests create a situation that leaves everyone collectively worse off in the end (see for example, Ostrom 1990). For example, it could be argued that it is in a person's best interest not to incur the cost of preparing their house to reduce risk from wildfire if effective fire protection is expected from public agencies regardless of any private actions taken. However, if everyone in a neighbourhood took this approach it would likely undermine the effectiveness of local fire-fighting efforts, increasing everyone's exposure to risk.

The hypothetical management scenarios depicted in the four quadrants of Fig. 1 represent extreme positions with respect to these two value trade-offs. Each scenario could be normatively justified on the basis of prioritising one of four core values: social wellbeing, social liberty, individual wellbeing or individual liberty. The *paternal communitarian* scenario, for example, prioritises control over choice and public values over private interests. Thus, its normative justification could be through a claim of maximising social wellbeing. Each of the remaining three scenarios does likewise. In the *paternal individual* scenario, control and private interests are prioritised in the value trade-offs, making individual wellbeing the core value. In the *autonomous communitarian* scenario, choice and public value are prioritised, justifiable by reference to social liberty, whereas in the *autonomous individual* scenario, choice and private interests are prioritised and the core value is individual liberty.

Below, we briefly describe what wildfire management might look like under each of these extreme scenarios. Our purpose is to expose the often hidden trade-offs in the prioritisation of core political values that underpin particular management approaches. This is turn has implications for the way responsibility is determined and legitimated in legal and governance systems. The shape and form of wildfire management is, of course, influenced not only by these value trade-offs but by a wide range of social, political, economic, institutional, technological and environmental factors. The situations described here should therefore be regarded as speculative examples of what wildfire management responsibilities could look like under the influence of each set of value trade-offs, drawing on the authors' knowledge of the Australian wildfire management setting. They are not intended as a definitive model or prediction of what wildfire management would look like, nor as a normative assessment of what wildfire management should look like, in each case.

Paternal communitarian scenario

If wildfire management was underpinned by the values prioritised in the *paternal communitarian* scenario (control and public value), responsibility would likely be vested in a government authority with the power to compel compliance. An underlying assumption here would likely be that governments are best able to protect the public interest. Prioritising the public interest may be justified by an appeal to the 'common good' or by the public role of government to use public assets for public, rather than private, benefit.

In this scenario, fire agencies would likely be fully funded by government with a clear priority to protect public assets; that is, those that are owned publically or provide vital lifelines to the community, rather than individual interests or assets such as private property. People could be compelled, under threat of legal penalty, to follow the advice of the fire agencies including a requirement to evacuate when directed to do so and to take steps to reduce any activity that threatens public safety and public assets. Agencies would undertake extensive risk-mitigation programs designed to reduce the risk to the public even at the expense of individuals; for example, prescribed burning to reduce fire hazards even if that burning has implications for private citizens, such as by damaging private fences or crops.

Benefits and disadvantages

The benefits of such an approach could include the elimination of free riding, with risk mitigation and response activities provided to every citizen or household equally either at no cost or subject to public compulsory funding (through taxation, property levies and so forth). Assuming that the chosen activities were effective, this scheme would maximise overall welfare (or 'utility' or 'value', depending on the theoretical framework applied). It would not depend on people knowing their risk and so could reduce the need for education or 'bringing people' on board. People would be required, on pain of legal penalty, to comply with directions; they would be told what to do and their responsibility would be to do what they are told. The obligation to comply with risk management would apply to all agencies so, for example, local government and roads authorities could be directed to reduce risks. The capacity would exist for very firm decision-making without potential for legal conflict once the decision has been made.

As with each of the scenarios, the disadvantages of a management approach underpinned by this value position would be significant and numerous. Such a regulatory extreme would require high transaction costs that would need to be funded by extreme levels of taxation or other compulsory

funding. The scheme would impose significant costs on people and businesses whose interests were 'forsaken' for the common good. At its extreme, such a view of risk could be blind as to distribution of costs and benefits within society. Provided public benefits exceeded private costs, actions could be deemed justified regardless of how the costs and benefits were distributed. The formal processes of government would decide what constitutes the public good based on its own assumptions, cost-benefit analysis, value judgements and ways of accounting for differences in values, and value trade-offs.

When compared to the other governance scenarios discussed in this paper, government accountability to the public would be relatively low, and decision-making is less likely to have a high degree of public legitimacy. This could create significant social conflict and dissatisfaction. Furthermore, in a multicultural society it could lead to cultural hegemony, with no room for a diversity of views or debate on what is publicly valued.

Paternal individual scenario

Under a *paternal individual* scenario where control and private interests were prioritised, there would similarly be a large amount of formal government control, with the explicit goal of acting for people's own good. At the extreme, the assumption would be that people are not capable of making their own best decision so they will be told what they should do for their own benefit. Importantly, this model assumes that the government is in a better position than an individual to decide what is in that individual's best interests, which runs against the grain of a fundamental principle in liberal societies.

Under this model, governments might impose a legal obligation upon people to take action to protect their own interests. There may be compulsory property insurance and people would be expected to comply with compulsory orders, whether to evacuate or to undertake hazard reduction activities. Fire brigades would exist to protect private assets but landholders might be legally required to directly fund or join their brigade and could be sanctioned if they did not. Public land and interests would be treated in the same way as private interests.

Benefits and disadvantages

This model would likely be justified by a belief that it would lead to less loss of life as people would receive and follow instructions on what to do. Agencies would provide support to vulnerable people because of the priority put on personal interests. As with the first scenario, long-term planning could be more effective as people would be compelled, and might therefore be expected to behave, as 'planned'. It would also remove the need for individuals to think and plan for their own response as the expected response would be determined for them and communicated to them.

Again, the disadvantages would be considerable. Individuals would have limited rights to make their own decisions. The costs of developing and then enforcing the necessary regulation would be extreme. To meet the necessary resourcing requirements, responsibility would need to rest with the state or province rather than local or municipal governments. However, a state approach may fail to take into account local contexts and could therefore result in increased risk in some areas.

The fact that government took on responsibility for advising people on what to do for their own good would establish that individuals are both reliant upon, and vulnerable to, actions by government. It could expose governments and government officials to significant legal liability and public scrutiny for incorrect decisions. There might be little incentive to take into account or make allowance for people who are unable to comply with directions on self-protection, for example for economic reasons, unless they were included on government-endorsed lists of vulnerable people. Public values, such as those associated with public land, including many environmental services, would likely be grossly undervalued.

As with the paternal communitarian scenario, accountability to the public would be low. Having government agencies telling people what is in their own best interests is unlikely to be socially accepted and the underlying assumptions and required actions may not enjoy a high degree of public legitimacy.

Autonomous communitarian scenario

In an *autonomous communitarian* scenario, where public values and choice were prioritised, communities would be free to make collective risk management decisions and determine their own priorities. This would create a highly localised, decentralised model of wildfire risk management, based on an assumption that interdependent, small, capable and organised communities existed in which collective decision-making and action could be effectively self-governed with minimal external imposition through law or regulation (Ostrom 1990).

In this scenario, fire services would likely be volunteer based, locally organised and locally run. They may not be funded by government but might apply for special project funding to undertake risk management activities that the community had determined as a priority. Local representative groups, including local government, would have a central role in canvassing and representing public values and taking part in risk management decision making. Civil society institutions such as churches and volunteer groups would have crucial roles in risk management (see Patterson *et al.* 2010). There would be minimal legislation compelling actions, but government actors could support communities to build capacity with access to risk information, skills and resources as required. Of the four scenarios, this one is most reflective of the Australian policy goals of increasing community resilience and self-reliance as outlined in the National Strategy for Disaster Resilience.

Benefits and disadvantages

A key benefit of this model is that it could encourage an active, engaged and informed citizenry. Where it worked well, it could increase local risk awareness, adaptive capacity, ownership of risk management and social capital. It would be capable of mobilising local resources, leadership and knowledge in ways that are not possible in more centrally managed models. Depending on local political dynamics, a higher degree of decision-making legitimacy may be possible than with the other scenarios. Further, when compared to the other models discussed here, it would be relatively cheap for government – a point not overlooked in criticisms of the neoliberal roots of self-reliance and resilience oriented policy in risk management (e.g. Welsh 2014).

Disadvantages include that it could create local conflicts. There could be disputes as to who is authorised to speak for the community or communities and how final decisions are to be made and recorded. Power imbalances within communities may see some people disenfranchised, particularly where 'elite capture' of risk management occurred. Particularly where social networks are insular, social norms could develop that increased people's wildfire risk, as they have been shown to do in other risk management contexts (e.g. Wolf *et al.* 2010). Conflicts could arise where people are part of diverse but overlapping communities, perhaps distinguished by age, sex, race, socio-economic status or other grouping of interest or value.

Thus, in heterogeneous communities there would be a need to develop local governance institutions and processes – be they formal or informal – that could balance competing priorities, values, interests and goals. Processes required to ensure that all points of view were heard, considered and debated could be complex and time consuming, which does not necessarily facilitate quick action or even optimal decision-making at times of crisis. It would also be difficult to hold communities formally accountable for their decisions and actions, and the outcomes of these in the event of a wildfire. It would also be problematic determining how to deal with outliers, that is, people who refuse to take part in or comply with community norms and decisions, or who make decisions that are in their own, rather than the community's, interest (e.g. free riding or taking precipitous action).

Depending on the level of government support, this model could increase risk for communities that had less capacity for collective action or greater exposure to hazards, with potentially significant equity implications. Further, there may not be recourse to address structural and systemic causes of risk and vulnerability in such a localised management model. Large-scale wildfires could easily overwhelm a local community's capacity to cope unless additional external support was available either through government agencies or via social ties of reciprocity or altruistic social norms that extended beyond local areas (e.g. Amato *et al.* 1984). There may not be sufficient specialisation of skills or access to people with risk management expertise to inform decisions, particularly in places where there is a high degree of mobility. As there may be no obligation upon central governments to fund mitigation or recovery, risk management could become significantly underfunded.

Autonomous individual scenario

In the *autonomous individual* scenario that prioritises choice and private interests, it would be up to individuals to make the best choices they can in line with their own wildfire safety interests and values (which may include acting for the community good). A core assumption underlying this model is that individuals are best placed to determine what is in their own best interests and should be allowed to make those decisions, subject only to a limitation that they must not actively restrict other's freedom to make their own choices. A further underlying assumption would be that people have access to the necessary risk information and awareness, and have no restrictions or limitations on their capacity to make free and informed decisions, including financial limitations.

In terms of wildfire management, everyone would be encouraged to make their own best decision on how to prepare their properties and how to respond to a present threat. People could make decisions to prioritise other factors, such as lifestyle (living in the virgin bush) over risk management (clearing a hazard abatement zone) but they would also be responsible for the consequences. A person who lost their home in a wildfire could not expect formal government assistance. However, they could choose to protect their property interests through financial insurance. As people are responsible and accountable for their choices and actions, there would be room for legal accountability if a person takes steps, or fails to take steps, to protect their own property and by so doing, exposes their neighbour to increased risk.

It would be up to individuals to determine whether they wanted to join or fund private fire brigades. Large private businesses such as forestry and insurance companies, and private fire-fighting contractors might provide the bulk of the available fire-fighting services. The service might be established as a member service, where it would turn out to assist members or subscribers but would not assist others. Insurance companies would have a central role as one of the primary options available for people to reduce risk. It might be up to vulnerable people to make their own arrangements for assistance or depend on their family to make the necessary arrangements, possibly with some government support. Hazard management and response would be market driven. People might pay more to live in a housing complex with fire protection and evacuation plans, for example, than for one that did not provide that level of 'service', depending on their personal assessments of the value of wildfire risk reduction.

Benefits and disadvantages

One of the potential benefits of this scenario would be that it allows people to determine their own degree of risk tolerance, and to base risk management decisions on their own values, interests and priorities. This would include the capacity to trade-off 'upside' and 'downside' risk of decisions about where and how to live according to their own value assessments (e.g. amenity of living in natural environments and wildfire risk). It would also enable very local decisions to be made, at the household level, based on local conditions. As with the previous scenario, a reduction in government involvement would also decrease government cost. The market would have a significant role in determining how priorities and resources are allocated, which could potentially lead to more efficient allocation of some resources.

Again, the disadvantages of this scenario would be significant. In particular, it would create a range of collective action and moral hazard problems that could increase risk to life as well as risk of financial loss. With respect to moral hazards, for example, people who were insulated from wildfire risk (such as those living in metropolitan centres) would have little incentive to insure against wildlife risk or to fund measures to mitigate risk, leaving the costs to those living with wildfire risk in rural and peri-urban areas. This could result in risk mitigation being underprovided overall, thus increasing wildfire risk for everyone who is exposed. In the event of a wildfire, only those that could afford assistance would receive it.

Private rights would be likely determined largely by tort law: where a neighbour's actions are impinging on another's freedom

or exposing them to risk, the remedy would be an action in nuisance or negligence rather than appealing to an authority to restrain the wrongdoer or to direct their behaviour. This would be prohibitively expensive for many residential property holders, leaving them exposed to any additional risks created by larger (and wealthier) private companies or individual land-owners (e.g. see *Vaughan v Byron Shire* (2009), New South Wales Land and Environment Court, case 88.). Public agencies would also focus on their private interests, so the state forests could use their assets to protect their forests but would have no obligation to come to the aid of, or mitigate risk for, neighbouring land owners.

Reflections

Which management scenario would we choose in Australia? The answer is clear – none of them. In 'real world' wildfire management, responsibilities need to be shared through some form of hybrid system in which control, choice, public values and private interests would all be prioritised and traded-off in different ways in different parts of the system and management cycle. For example, in the response phase, government control may be valued more highly because only governments will have the capacity for an immediate, coordinated and large scale response. In pre- and post-response phases, however, citizen choice is prioritised higher.

What is suggested here are hypothetical extremes; each with their own stated and unstated assumptions. The authors do not suggest any is appropriate. Rather, as McLennan and Handmer (2012b) have argued elsewhere, the sharing of responsibility for wildfire management has to rest somewhere along the continuum. However, comparing and contrasting these extremes exposes value trade-offs that are also made repeatedly in more moderate 'real world' management contexts in less extreme and, commonly, less explicit ways.

Which political values are prioritised, and what trade-offs are ultimately made between them, significantly shape the way responsibilities are attributed between governments and citizens in legislation, policy and programs as well as in public inquiries, the media and public opinion. Differences in the way values are prioritised in these various forums can lead to social conflict over the goals, design and outcomes of risk management programs, as well as over the allocation of blame and accountability following risk events. More fundamentally, they can also challenge the legitimacy of – and trust in – public agencies that have risk management responsibilities (Slovic 1999).

Acknowledging and debating core value trade-offs that are necessary in decisions about sharing responsibility between governments and citizens is therefore a challenging but critical part of developing risk management arrangements that are both effective as well as being accepted as socially and politically legitimate. This is essential to avoid situations where people are misled into thinking that because they use the same language (such as 'shared responsibility') and aim for the same goals (such as 'resilient communities'), they are coming from the same starting point or will assess the costs and benefits of various policy options in the same way.

As we have seen, Australian government policy is committed to developing resilient communities that share responsibility for hazard management and in particular managing the risks of wildfire. However, the key concepts that underpin this goal are contested. The extreme policy options presented here expose value trade-offs that are also made but in less extreme and less explicit ways in more moderate management approaches. It is intended that this will inform debate by demonstrating that any option for sharing responsibility for building resilient communities will necessarily involve compromise on some very fundamental issues. Resolving what 'shared responsibility' is and what resilient communities look like is not just a matter of definition but requires consideration of fundamental normative questions about how we (as individuals and collectively) see ourselves, governments and our relationships across society.

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