Abstract

Risk management is seen as the key to living with potentially catastrophic hazards, but the language of disaster risk management carries with it the implication that all risks can in fact be managed. This implies that if there is an adverse outcome, even accepting an inherent residual risk, there must have been a failure by those responsible. The concept of risk management raises the further risk of being blamed for failing to meet community expectations and that risk, too, needs to be managed. Power says:

… experts who are being made increasingly accountable for what they do are now becoming more preoccupied with managing their own risks. Specifically, secondary risks to their reputation are becoming as significant as the primary risks for which experts have knowledge and training. (Power, M., The Risk Management of Everything (Demos, London 2004) 14).

The ultimate expression of the secondary risk came with the conviction of six Italian scientists for manslaughter, over their failure to issue appropriate warnings regarding the risk of the 2009 L'Aquila earthquake.

This paper looks at the question of risk management from a legal and governance perspective. Drawing on developments in law and policy from Australia and around the world, this paper will explore whether disaster risk management is moving from reducing the risk to communities to reducing the risk to governments and emergency managers. Legal and policy reforms that may help to refocus disaster risk management to those vulnerable to hazards, rather than vulnerable to blame, will be identified.

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Risk management from a legal and governance perspective

In today’s ‘risk society’ (Beck 1992) the focus of governments and individuals has shifted from creating ‘social goods’ to avoiding ‘social bads’ (Mythen 2004, 123). To avoid the ‘social bads’ governments, the public sector and individuals are encouraged to manage their risks. Risk management principles are not “specific to any industry or sector” but are to be applied “… to a wide range of activities [and] … to any type of risk, whatever its nature, whether having positive or negative consequences” (Standards Australia 2009, p 1).

In the context of disaster and hazard management the focus has moved from hazards – floods, fires, earthquakes and storms – to risk and vulnerability. The latest Australian policy statement, the National Strategy for Disaster Resilience, recognises that hazards are an inevitable part of the Australian landscape. As the hazard event cannot be avoided, the focus must change from emergency management, risk management. The objective is to build resilient communities that share responsibility for risk management (COAG 2011):

Disaster resilience is the collective responsibility of all sectors of society, including all levels of government, business, the non-government sector and individuals. (COAG 2009).

The stated objective is to inform communities and encourage active participation in order that communities can understand their environment and hazards and plan to reduce the impact of natural hazard events (COAG 2011). But there is another, hidden implication.

The “preoccupation of modem society with the management of risk” leads to an expectation that “all risks can in fact be managed” (Rochford 2007). In that environment, the occurrence of an adverse event must represent failure by someone or some institution so that when a natural hazard does impact, with devastating consequences, the focus quickly shifts to who can be blamed for failing to properly manage the risk? (Quigley and Quigley 2013; McFarlane et al 2011). As Whittaker and Mercer (2004) have observed “A common feature in the aftermath of all major bushfire events in Australia invariably has been the apportioning of blame”. Eburn and Dovers (2012) have shown that litigation against the Australian fire agencies is not common when it comes to routine operations but “significant fire events, such as the 2009 Black Saturday fires, trigger litigation almost before the fires are extinguished” (p 291). Rochford (2007) argues:

An increasing perception of risk has resulted in a pervasive culture of risk management. This, in turn, has given rise to increased risk of litigation, as the expectation that risks will be managed professionally through mechanisms such as risk assessment leak from the commercial to the domestic realm... we do not take our notion of reasonable care from the common sense of the commuter on the Clapham omnibus or Bondi tram, but rather from the machinery of risk management, which rationalises and systematises our responses to risks. ... [R]isks that a reasonable person would consider insignificant become significant because the reasonable person is now exposed to the expectations imposed by strict liability regimes which employ risk management strategies (pp 272-274).

The culture of blame for emergencies is now the subject of very public and high profile cases. In the United Kingdom three incident controllers were prosecuted for, but ultimately acquitted of, the manslaughter of four fire fighters killed in a structural fire (Ellicott 2011; Hayes 2011; BBC 2012). At around the same time another UK incident controller was criticised by a coroner for adhering to the fire service’s operating procedures and declining to
commit fire fighters to a dangerous rescue, preferring to wait for the dedicated Police Mountain Rescue Squad (Leslie 2011).

These cases are not alone. In Australia emergency managers have been subject to severe criticism in post event inquiries (Doogan 2006, Teague et al 2009, Holmes 2012). Following the inquiry into the Queensland floods, three flood engineers were referred for possible prosecution but no further action was taken (Jerrard 2012). The emergency manager engaged on shore to manage the response to the grounding of the cruise ship the Costa Concordia was one of several staff convicted of manslaughter; though it was the emergency manager who received the heaviest penalty (the culpability of the ship’s captain is yet to be determined) (Batty 2013). The ultimate expression of this secondary risk, the risk to professional reputation (Power 2004) and professional livelihood, came with the conviction and imprisonment of six Italian scientists for manslaughter, over their failure to issue appropriate warnings regarding the risk of the 2009 L’Aquila earthquake (Koschatzky et al 2012; Shore 2012; Ashcroft 2012).

If one takes a systems view of accidents and failures, responsibility is not attributed to individuals. In a complex situation the effects of a number of actions and decisions, many stretching way back in time, converge at a key point to expose vulnerability (Leplat 1984; Leveson 2011; Alexander 2012). With respect to the grounding of the cruise ship Costa Concordia, which claimed 32 lives, there were many people involved in navigating the ship as well as issues arising from the way the company made decisions on policy, staffing and operations and tolerated if not encouraged risky behaviour such as sailing close to the shore to ‘salute’ those on land (Marine Casualties Investigative Body 2013; Alexander 2012). In his forensic examination of the disaster, Alexander (2013, p 11) argues that the disaster ‘was a systemic failure as much as an individual one’. A systems approach may ask ‘how did the system allow this to happen’ but a legal process, whether an action for compensation or criminal prosecution will necessarily look to an individual or individuals to be labelled as criminal or negligent.

In litigation over the Australian wildfires of 2003, the action was against the State of New South Wales but the State of New South Wales can only act through its staff. Although it was the State that was found to have been negligent, it was the actions and decisions of the individual incident controller that were subject to scrutiny and which were found to fall below the standard of reasonable care expected (Electro Optic Systems Pty Ltd & West v New South Wales [2012] ACTSC 184).

It follows that one risk is the risk of being blamed for a disaster. The consequences of that blame can range from legal liability and an obligation to pay compensation, loss of one’s job and career to loss of liberty and incarceration. If potential blame is a risk then, given risk management principles, are not “specific to any industry or sector’ and can be applied ‘to any type of risk” (Standards Australia 2009, p 1) then it is a risk that can be managed. Power (2004, p 14) says:

… experts who are being made increasingly accountable for what they do are now becoming more preoccupied with managing their own risks. Specifically, secondary risks to their reputation are becoming as significant as the primary risks for which experts have knowledge and training.
The danger will be that this secondary risk will attract more focus and attention than the primary risk – governments and others may be more concerned with managing their risk, to ensure that they are not blamed for the impact of a natural hazard, rather than with managing or reducing the risk to vulnerable populations.

There are a number of strategies to reduce the risk of blame or liability that governments can engage including blame avoidance by delegation, where governments allocate responsibility for risk management to others so that the government or minister cannot be blamed (Hood 2002). Hood (2002) identifies “the ‘ideal’ design for a regulatory regime is one in which standards are set by international experts, monitored by autonomous agencies and enforced by local authorities — leaving those politicians in the happy position of being able to blame everyone else rather than being blamed themselves when things go wrong” (p 20). As Hood notes, however, such strategies are “likely to be less credible in parliamentary than presidential regimes” (p 25).

In parliamentary regimes, such as Australia and the United Kingdom, the relevant Minister is responsible for the actions of the agencies within his or her portfolio. In Australia the key emergency response agencies are part of essential, central government agencies (Public Sector Employment and Management Act 2002 (NSW)) or, where they are independent authorities, they are subject to the direction and control of the minister (see for example Fire and Emergency Services Act 2005 (SA) s 7; Fire Service Act 1979 (Tas) s 11; Country Fire Authority Act 1958 (Vic) s 6A; Victoria State Emergency Service Act 2005 (Vic) s 8; Fire and Emergency Services Act 1998 (WA) s 5). The direct supervisory responsibilities of the elected Minister means that an Australian or other parliamentary government is less able to shift responsibility by pointing to failings by the Commissioners or Chief Officers. The coroner’s inquiry into the 2003 Canberra wildfires heard evidence that:

- Ministers are appointed to administer Departments and associated agencies. They are required to be pro-active and to accept responsibility. There has been a convention that if things go seriously wrong the Minister responsible may feel compelled to resign …(Doogan 2006, p 153).

The Coroner rejected the submission of the then Chief Minister, Attorney General and acting Minister for Emergency Services, Jon Stanhope, that as Minister he did not “… have control of the administrative units… such control resides with the Chief Executive of the administrative unit” (Doogan 2006, p 45). The Coroner made adverse findings against the Minister saying that “… in accordance with the conventions of the Westminster model of responsible government, which apply in Australia … the relevant Minister at the most critical time of the firestorm” was Mr Stanhope and in that role he “knew a potential disaster was on Canberra’s doorstep but did not nothing to ensure that the Canberra community was warned promptly and effectively” (Doogan 2006, p 166). The Minister, as well as the officers in charge of the emergency response, were subject to explicit, adverse criticism (Lucas-Smith v Coroner’s Court of the ACT [2009] ACTSC 40). The media reported the focus on personal blame arising from these fires, as the sample of news headlines, below shows:

- ‘Fire chief vows to stay put’ (Canberra Times, 23 February 2004);
- ‘Chiefs want their own lawyers’ (Canberra Times, 11 March 2004);
- ‘Fire chief angry over legal threat’ (The Courier-Mail, 17 January 2005);
- ‘Focus on precautions not blame shifting’ (The Advertiser, 26 January 2005);
• ‘Fire inquiry perceived as ’witch-hunt’, court told’ (*Canberra Times*, 24 May 2005);  
• ‘Fire claims aim to make governments accountable’ (*Canberra Times*, 21 July 2005);  
• ‘Government ’didn’t do enough’ after bushfire’ (*Canberra Times*, 21 July 2005);  
• ‘Bureau chiefs contributed to fire havoc, coroner told’ (*Canberra Times*, 11 July 2006);  
• ‘Bushfire report may criticise key figures’ (*Canberra Times*, 18 December 2006);  
• ‘Fire report focus on officials’ (*Canberra Times*, 18 December 2006);  
• ‘Stanhope must confront the truth’ (*Canberra Times*, 20 December 2006).  
• ‘Castle shattered by the report’ (*Canberra Times*, 21 December 2006);  
• ‘Findings hurt my reputation: Stanhope’ (*Canberra Times*, 21 December 2006);  
• ‘Resign? Worthy idea, fat chance’ (*Canberra Times*, 21 December 2006);  
• ‘Grieving parents want Stanhope to step down’ (*Canberra Times*, 23 December 2006);  

(Notwithstanding the pressure placed on the ACT Chief Minister following the 2003 fires, he remained in that position until his resignation in 2011. Following the ‘Black Saturday’ fires of post the 2009 it was the Chief Officers of Victoria’s Department of Sustainability and Environment, the Country Fire Authority and the Victoria Police that came in for the hardest criticism (Teague et al 2009, Volume II p 79). In that inquiry, and notwithstanding perceived failings by the Chief Officers, the Inquiry found that the Minister’s performance “was in accordance with the Commission’s expectations of ‘the Minister’” (p 84)).

If there is only limited ability to delegate risk to agencies, governments may seek to delegate responsibility or risk to those outside of government such as the private sector or, increasingly, individuals – “Privatization and outsourcing in principle offer risk-averse politicians a way to transfer liability” (Hood 2002, p 28). Quiggan (2007) argues that the transfer of risk from government to individuals “has been one of the most significant outcomes of the neoliberal era” (p 9) reflecting the philosophy that “individuals, households and businesses should manage all risks by themselves” (p 3). Rochford (2007, p 175) agrees, she says:

Mechanisms of contract are employed by neo-liberal governments to allow the government to retreat from a range of state activities, devolving responsibility to agencies, institutions or regions. Individuals are called upon to be responsible for the risks of global calamity - potential risks of genetic engineering are thrown back on the ‘informed consumer’, the risks of global warming are the sum of market forces based on individual decisions to consume, the risks of school funding crises fall back on school councils run by parents, and so on. Similarly, an individual must make an actuarial calculation in relation to other risks, such as the risk of injury, or future job prospects and unemployability, and property damage, as government is replaced by the market.

Kemshall (2006 p 95) says that neo-liberal governance encourages ‘responsiblezation’:

The responsible citizen knows what is expected and does it. These expectations are conveyed through a social policy infused with notions of responsibility – for one’s own health, pension planning, employment skill updating, lifelong learning and so forth. … Thus, the individual, not society, becomes the primary site of risk management and the ‘good’ citizen is the responsible and prudent one…” Social policy is no longer about the alleviation of individual needs or about the pursuit of a collective
good. Rather, it is about the prevention of risk and the displacement of risk management responsibility onto the ‘entrepreneurial self’ who must exercise informed choice and self care to avoid risks.

The Australian National Strategy for Disaster Resilience is ‘social policy infused with notions of responsibility’ – responsibility of government, the private sector, communities (however they may be defined) and individuals:

Disaster resilience is based on individuals taking their share of responsibility for preventing, preparing for, responding to and recovering from disasters. They can do this by drawing on guidance, resources and policies of government and other sources such as community organisations.

The broad policy is also reflected in the policy statement adopted by Australia’s fire and emergency services through the peak industry body, the Australasian Fire and Emergency Services Authorities Council (‘AFAC’). AFAC is explicit – in extreme conditions, on those days when the risk to life and property is highest, “there will be instances when agencies are unable to provide sufficient fire fighting resources to prevent loss of life and damage to property, infrastructure and community assets” (AFAC 2012, p 5). In those circumstances, on the days of catastrophic fire weather, people should not, and cannot expect a fire truck to turn out to protect their property (see for example, TFS 2013; NSW RFS 2009). In those instances their response to, and ability to survive, a wildfire will be determined by their own actions and resiliency. At the time of highest danger people must expect, and be prepared to be, on their own and responsible for their own decisions and actions.

Asking people to take responsibility for their response to a wildfire impacting upon there home in the circumstances where the fire authorities will be overwhelmed is to ask people to take responsibility for the response to a very low probability but very high impact event. With respect to house losses due to bushfire, one study reported that:

… the annual probability of building destruction has remained almost constant over the last century despite large demographic and social changes as well as improvements in fire fighting technique and resources… the average annual probability of a random home on the urban–bushland interface being destroyed by a bushfire to be of the order of 1 in 6500, a factor 6.5 times lower than the ignition probability of a structural house fire. [That is] … about a sixth of the risk of a structural fire and half the risk of a random person being killed in a traffic accident. (McAneney et al 2009, p 2819)

Even the risk of dying is not great. Bushfires killed 552 civilians (non fire-fighters) between 1901and 2008 (Haynes et al 2010). A further 172 civilians died in the Black Saturday fires of 2009 giving a total of 724 deaths in the 109 years from 1901 to 2009 inclusive, an average of 6.65 deaths per year. Compare these figures to the national road toll - in 2008 alone, 1,464 people were killed in road accidents (Department of Infrastructure etc., 2009), that is twice the entire number of people killed in bushfires in the preceding century.

The 2012 Report on Government Services (Productivity Commission 2012), using data supplied by AFAC, reported on the number of deaths in landscape fire over several years. Death by bushfire is a rare event “punctuated by large, irregular, events … such as the Black Saturday fires”. The number of deaths, reported as “landscape fire deaths” is shown below (Productivity Commission 2012, p 9.26):
Excluding the Black Saturday death toll, that is an average in ‘normal’ years of 0.125 deaths per million people or 1 bushfire death for every 8 million people. With “an increasing total population and a relatively stable pattern of deaths… the per capita risk of death by Australian bushfires has decreased” (ibid).

On most days a fire, even if one is burning in the vicinity, will not impact upon a particular home. On most days a well-informed and prepared homeowner can take effective measures to stay and defend their property (Gibbons et al 2012; AFAC 2012). On most days, when a fire is in the vicinity, the state fire agencies are very effective at turning out and controlling the fire and minimising its impact. Figures from Victoria’s Country Fire Authority show that between 2008 and 2011 (inclusive), fire crews (including volunteer crews) responded to a fire call within their targeted time plus one minute, in 94.5% of cases (CFA 2008; 2009; 2010; 2011; 2012)).

Assessing the risk of catastrophic losses from the perspective of the people in charge of responding to fire, the Minister, the Commissioners and Chief Officers, produces a very different picture of risk. The risk facing a homeowner, even in bushfire prone areas, is the risk of a low probability but personally catastrophic event. For head of a fire service, on the other hand, it is inevitable that at least some homes and lives will be lost to bushfire during his or her tenure. The consequences may not, however, be personally significant. Putting aside issues of emotional trauma and even compounded trauma that may lead to mental illness, there is, at least not necessarily, any dramatic and personal cost for them. They can go back to their homes and their lives even though they have witnessed death and destruction to others.

For emergency managers and governments, the real risk is ‘reaction’. Emergency services, fire brigades and governments cannot predict whether the community will see the outcome as success or a failure. There is no simple metric, such as the number of houses or lives lost, that define success or failure and what measure will be applied cannot be determined in advance (Keelty 2011). The situation is further complicated if there is an opportunity to use a tragedy for political advantage; for the opposition to call for the resignation of a Minister or Chief Minister or to promise that they would manage a future situation differently. Fire agencies therefore have to manage an unpredictable risk, the event is inevitable but the ‘consequence’ will vary depending on community outrage and reaction.

As noted above, even in a fire prone country like Australia, the emergency services do a very good job at responding to and containing most events. What is left is the residual risk – the probability of ignition can be reduced, agencies can respond with more advanced technologies and knowledge, people can and do prepare their properties, but the risk of death and destruction cannot be eliminated at least not at a cost that the community is willing or able to pay (Powerlines Task Force; Gill 2005). The discussion of ‘shared

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Table 1 Landscape fire death rate, per million people
responsibility’ can be seen as negotiating ownership of that residual risk. Citizens cannot defend themselves during catastrophic natural hazards – it is at that very time that they need government agencies with their greater resources to come to their aid to. Governments however, cannot respond in a way that the community expects. When the community needs them most is when they are unable to respond due to the overwhelming nature of the event. The risk to citizens is obvious; there is the risk of property loss and death. Governments face economic costs but individual ministers and chief officers are unlikely to die or suffer personal losses, but if they are blamed after the event they suffer a challenge to their personal identity and their careers.

That agencies and their staff fear being blamed is evidenced in many reports and post-event reviews (Malone 2013; Eburn and Dovers 2012; Wenger, Hussey and Pittock 2012; Nairn 2003). If governments cannot avoid blame by delegating authority to agencies then they can try to avoid blame by transferring the residual risk to home and property owners. If governments and agencies can persuade citizens that they own the residual risk – that they need to manage their risk by taking steps to prepare themselves and their property, to make their own response and evacuation plans and to look to the market, in particular the insurance market, to maintain their resilience, then governments and their agencies can reduce, or manage the risk, of being blamed for an adverse outcome.

Alternatives
Whether a desire to avoid blame is a conscious motivation in developing public policy is hard to test as policy makers would be unlikely to acknowledge such personal motivation, but anecdotally it does appear that one measure of success in emergency management is that the community does not blame the emergency managers and services after an event. Whether research could confirm, or deny that supposition is beyond the scope of the discussion here but it may well warrant further investigation. If, however, we accept for the sake of the argument that attempts to ‘share’ responsibility are, at least in part, motivated by a desire to avoid blame, then it does raise a concern that governments and their agencies are in fact looking to protect themselves rather than the community. This motivation may be well intentioned, in particular with those organisations that depend on volunteers and who need to ensure that their members are not criticised or blamed for their performance for fear that it will discourage volunteers and thereby deplete the emergency services workforce.

What follows are two suggestions for ways to remove or manage the risk of being blamed, in particular for the outcome of extreme events, that would, it is suggested allow communities and agencies to work together to address the risk of harm to communities. Neither of the suggestions are well developed nor fully justified, rather they are suggested as areas that need further investigation in order to help communities and agencies learn from past events rather than focus on who is to blame.

1. Review the lesson learned process
Currently, following major events such as the Black Saturday fires or the 2011 Queensland Floods, the Australian states and territories tend to rely on wide reaching inquiries often in the form of a Royal Commission with extensive power to call witnesses, to require the production of documents and to remove a persons right to refuse to answer incriminating questions. Royal Commissions may be held for many reasons, to advise parliaments on policy options but also to reveal corruption or malfeasance. Although not necessarily
intended for that purpose, post event Royal Commissions have been theoretically grouped with the latter class of case (Ransley 2013).

Inquiries, including coronial inquiries are not intended to be accusatorial or tools to allocate blame, but they often apply process that make them look like litigation and single out individuals for blame (Doogan 2003, Schapel 2007, Teague et al 2009). An approach has to be found to allow a genuine review of events in a safe, no blame environment.

**Exemplars**

There are exemplars of industries trying to learn lessons in a non-blame environment. The aviation industry has adopted a no blame investigation approach. Consistent with international obligations the "sole objective of the investigation of an accident or incident shall be the prevention of accidents and incidents. It is not the purpose of this activity to apportion blame or liability" (International Civil Aviation Organization 2001, [3.1]; *Transport Safety Investigation Act 2003* (Cth) s 12AD; *Transport Safety Investigation Regulations 2003* (Cth) r 5.3).

The medical profession is also trying to move away from blame and fault finding to a process of ‘open disclosure’ of medical errors (NSW Health u.d., Graham u.d). Individuals appearing before a Royal Commission or Coroner, appearing in a witness box and subject to examination and cross-examination may not feel supported by their employer and the manager of the system that allowed accidents and misadventure to occur. Fear of the accountability process, or fear that reports may be used ‘against’ their author, may lead to a decrease in reporting or recording of events and therefore hinder, rather than help, learning (Dekker 2009). The open disclosure process supports patients who may be affected by medical error or mishap, but also supports the practitioners involved (NSW Health 2007).

In the United States, the Wildland Fire Lessons Learned Centre is a standing institution that reviews accidents and near accidents to improve wildland fire safety.

The Wildland Fire Lessons Learned Center actively promotes a learning culture to enhance and sustain safe and effective work practices across the entire the wildland fire community. The Center provides opportunities and resources to foster collaboration among all fire professionals, facilitates their networks, provides access to state-of-the-art learning tools and links learning to training. (Wildland Fire ud).

The focus on collaborative learning, amongst peers who understand the complexity of the fire situation, encourages fire fighters to disclose their experience in a place where they are supported and error is identified as a learning opportunity rather than as ‘fault’.

These initiatives from emergency management and elsewhere indicate the possibility of reconsidering the mode of post-event investigations, away from complex, time-consuming and too often divisive inquiries, toward a more positive and informing style.

Another, possible new model of inquiry may be called for to avoid a lengthy ‘catch all’ process. Rather than appoint a Commissioner or even a team of Commissioners to review all aspects of an event, consideration could be given to establishing an independent inquiry panel, similar to the current Royal Commission model, supported by specialist panels to investigate issues that are raised by the particular event; for example issues of communications, inter-agency coordination, local government capacity, warning systems, land management, infrastructure management, policy and management failure and the
adequacy of the response, all of which are distinctly different issues requiring quite different forms of skills and investigative processes.

The overarching inquiry panel could undertake a rapid issues assessment calling on the community, experts and agencies. Such a broad survey, listening and issue-identification process would be followed by referral of specific issues to a relevant specialist panel to undertake a detailed investigation. Witnesses with evidence relevant to a particular issue could give evidence before the specialist panel that would be managed by trusted professionals with expertise in the area, rather than by lawyers with their adversarial approach. A compilation and synthesis process would complete the whole exercise.

This rather different format of post-event inquiry would also allow swift action to be taken where necessary and possible, while allowing more difficult matters to take longer as needed and could reduce the court room atmosphere and provide greater support for those that have to recall events including events where they may have contributed to decisions and actions that had very poor, even fatal, outcomes.

2. Remove the need to find someone to blame
Vulnerability is not simply a matter of choice by individuals deciding where to live; it is also a product of a number of features of each community. People may live in hazard prone areas because they are cheap, or because they are beautiful, or because they are close to work and amenities. Decisions on what land to release for development, what building codes (if any) to enforce as well as decisions about the level of investment in prevention and response are all decisions that are made long before any particular hazard intervenes. When a hazard reveals vulnerability, in particular when it reveals the limitations inherent in the ability to either prevent or respond to the hazard, it reveals the shortcomings of the political decisions made at an earlier time (Eburn, forthcoming).

People can expect the state and the emergency services to respond within a reasonable time and with reasonable resources in the normal course of events; equally the agencies can reasonably expect people to take reasonable care of their own interests in the normal course of events. For a routine, even large fire or other emergency, individuals can be left to accept responsibility for their decisions on whether or not to prepare their property or take other remedial action. Equally if the State fails to fulfil its obligations in preparing for and responding to a routine event, those that suffer losses may be able to seek compensation for the state’s unreasonable failing.

A catastrophic event is however different. During a catastrophic event, even if it is not unprecedented, the event will overwhelm both the state and individuals. The vulnerability of both stakeholders is a product of both collective and individual decision making. In that case it may be appropriate to consider a catastrophic insurance scheme where losses that reflect our social, collective decisions are paid for collectively. The scheme could be modelled on the 9/11 compensation scheme where the families of those killed, and those injured in the September 11 2001 terrorist attacks on New York and Washington were awarded compensation on condition that they waived the right to sue the airlines as well as the various defence, security and response agencies (Feinberg 2005).

Such a scheme would not be without its difficulties. Questions about how to fund it; to what sort of events it would apply; how to avoid the moral hazard of people electing not to take
steps to prepare themselves, choosing not to insure or electing to live in hazard prone areas; the risk of subsidising high risk choices and the like would need to be addressed (Lehmann 2013, King 2012, Postal 2013).

The principle benefit would be that after a catastrophic event there would be a public acknowledgement that the losses are not just those of the individual but reflect both costs and decisions that are imposed by society as a whole, including decisions about how to and where to live and how much to invest in emergency management. Further exploration of the issues involved in funding the recovery from major events is required to determine whether or not there is a feasible, financially sound way to provide catastrophic loss cover for all the community so that the temptation to look to the courts to find someone to blame might be avoided.

These suggestions, looking at reviewing the lessons learned process as well as studying how recovery can be financed to achieve socially desirable outcomes whilst avoiding hidden incentives to take risks will be the subject of further investigation at the Australian National University, supported by the Australian Bushfire and Natural Hazards Cooperative Research Centre. The research will learn lessons from, and deliver lessons to the broader international emergency and disaster management community.

Conclusion
It has been argued here that at least part of the motivation of moving to social policies “infused with notions of responsibility” is not to manage the risk of death and destruction due to fire, flood or other hazard, but to manage the secondary risk to governments, their agencies, employees and volunteers. The secondary risk is the risk that governments and their agencies will be blamed for adverse consequences in particular the adverse outcomes of catastrophic events.

Whilst it may be true that decisions made by governments, agencies and individuals contribute to vulnerability, it is also the case that those decisions, many made long in the past, reflect the political compromise that is essential when balancing risk against other important considerations such as economic development (see Eburn, forthcoming). Individuals and agencies may be appropriately blamed or criticised if they fail to respond to events that are within their normal operations and expectations but blame for failing to manage an event that is beyond the expectation, understanding or resources of all concerned is a counter productive exercise.

It has been further argued that in the Australian context, the move to privatise responsibility is really a symptom of negotiation over who should bear the residual risk for property loss and death. Rather than contest that risk some suggestions were made; they were first that we need to redesign the processes of after event reviews to properly focus on learning how vulnerability was exposed by the hazard and what can be done to increase resilience at all levels, rather than play for the emotionally satisfying (for some) and emotionally damaging (for others) (Thomson 2012) but ultimately unproductive ‘blame game’ (Hood 2002). Second it was suggested some form of social welfare in the form of a catastrophic insurance fund to reflect the fact that vulnerability to catastrophic events is the residual risk left from decisions made collectively at local, state and region levels and so it is appropriate to share that residual risks across the collective whole. How that could be funded, how moral hazards
could be avoided has not been discussed here but could, and should be the subject of further research.
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**Legislation**


Case law
