

Submission to the Public Inquiry by the Productivity Commission

Natural Disaster Funding Arrangements

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About the authors

Jim McGowan AM, Adjunct Professor, School of Government and International Relations, Griffith University and Executive Director, SNJ Business Solutions was the Director-General of the Departments of Community Safety, Emergency Services and Justice and Attorney-General.

As Deputy Chair, State Disaster Management Group and DG, DCS, Jim led and co-ordinated the response to a range of disasters which had serious and widespread impacts across Queensland and the nation including Cyclones Hamish, Uliu and Yasi, the widespread flooding of Queensland in 2010-11, various other flooding and serious weather events, oil spills and other environment threats and bio security threats including the N1H1 virus and Equine Influenza.

Jim was the Queensland representative on the National Emergency Management Committee (now called the Australian and New Zealand Emergency Management Committee). During 2012-14, he presented at conferences/forums in the UAE, China, Japan, Indonesia, New Zealand and Australia on emergency management issues.

Jim McGowan was made a member of the Order of Australia (AM) in 2012 for services to public administration in Queensland.

Dr Anne Tiernan is an Associate Professor in the School of Government and International Relations at Griffith University. She is Director of postgraduate and executive programs in policy analysis and public administration in Griffith's School of Government and International Relations.

A/Prof Tiernan's research interests include: policy advice, executive governance, policy capacity, federalism, disaster management and intergovernmental coordination. She is author of several books including: Lessons in Governing: A Profile of Prime Ministers' Chiefs of Staff and The Gatekeepers: Lessons from Prime Ministers' Chiefs of Staff (both with R.A.W. Rhodes, Melbourne University Publishing, 2014), Learning to be a Minister: Heroic Expectations, Practical Realities (with Patrick Weller, Melbourne University Press, 2010) and Power Without Responsibility: Ministerial Staffers in Australian Governments from Whitlam to Howard (UNSW Press, 2007).

A/Prof Tiernan is Leader of the Crisis and Disaster Management program at Griffith University's Centre for Governance and Public Policy. In this capacity she has led major cross-disciplinary research projects addressing the efficacy of intergovernmental policy and funding frameworks for disaster management, disaster recovery, resilience and intergovernmental coordination in Australia and the region.

A/Prof Tiernan is a Member of the Public Records Review Committee of the Queensland State Archives and serves on the Board of Directors of St Rita's College Ltd. Between 2008 and 2012 she was a member of the Board of Commissioners of the Queensland Public Service Commission.

A/Prof Tiernan consults regularly to Australian governments at all levels.

Introduction

The School of Government and International Relations, Griffith University welcomes the Productivity Commission's inquiry into emergency management arrangements. It provides a "once-in-a-generation" opportunity to reframe the policy and funding frameworks for emergency management in a manner consistent with the *National Strategy for Disaster Resilience* (NSDR).

Griffith University has a significant and established track record in research intrinsically related to Emergency management issues. From flood modelling to policy capacity, our researchers have been at the forefront of working with decision makers to improve the disaster management system.

Griffith University researchers have worked closely with emergency management agencies across the range of natural hazards, including bushfire, cyclone, storm and riverine flooding to capture their experiences and learnings from an unprecedented string of natural disaster events. Our research-led, practitioner-engaged approach ensures the policy integration between the phases of emergency management, and captures the lessons learned from response and recovery activities to inform and enhance prevention and preparation policy objectives.

Griffith's policy and research expertise, combined with the appointment of experienced senior practitioners who have first-hand experience in dealing with man-made and natural disasters, and our established links with the Asia-Pacific region, ensures Griffith's place as a recognised leader in crisis and emergency management.

With this experiential base and public policy expertise, the authors of this submission would urge the Productivity Commission not to tinker with existing funding arrangements, but rather to undertake the a holistic assessment of existing public policy to facilitate the development of a contemporary, integrated and cost-effective regime for the management of natural disasters across Australia.

Emergency Management: A Public Policy Priority

Governments need to consider ways to mitigate and manage disasters, while also enhancing individual and community resilience. The impact and costs of natural disaster events will increase as a consequence of population growth, urbanisation, economic development and climate change.

The CSIRO 's 2007 "Climate Change in Australia" report outlines past climatic changes and projects potential impacts on Australia in the median and longer term.

"Australian average temperatures have increased by 0.9°C since 1950." (CSIRO, 2007. p 6). In terms of rainfall, there have been significant regional variations with "rainfall declines along the east coast, Victoria and south-west Australia ... In stark contrast north-west Australia has experienced an increase in rainfall." (CSIRO, 2007. p6)

Using scientific principles, historical data and climate modelling, the CSIRO report argues that the best estimates of;

"annual warming over Australia by 2030 relative to the climate of 1990 is approximately 1.0°C, with warmings of around 0.7-0.9°C in coastal areas and 1-1.2°C inland ...[and those for]... annual precipitation indicate little change in the far north and decreases of 2% to 5% elsewhere. Decreases of around 5% prevail in winter and spring, particularly in the southwest where they reach 10%." (CSIRO, 2007. pp 9-10)

The prospect of increasing exposure and vulnerability to natural disasters render the current policy settings both inappropriate and unsustainable. This scenario presents a major challenge for policy makers, scientists and emergency management specialists.

"With a disaster landscape where the past might no longer be indicative of the future, policy makers and mitigation specialists will need both foresight and guidance from ever more sophisticated climate models to take the necessary decisions to prevent and prepare for future disasters. This might require major investments in disaster mitigation measures and upgrading infrastructure as part of a climate change adaptation agenda..." (Ferris and Petz, 2012. p 38).

Australia's Emergency Management Arrangements

Under Australian constitutional arrangements, primary responsibility for disaster management falls to each state or territory. However in reality, the need for partnering arrangements across the three tiers of government when dealing with large-scale natural disasters has long been understood. Over time, this recognition has fostered a commitment to develop and maintain a national framework for disaster/emergency management, including nationally consistent arrangements to assist with community recovery needs.

Interest in the management of natural disasters by Commonwealth Government can be traced back to the establishment in February 1974 of the Natural Disasters Organisation (now Emergency Management Australia (EMA), in the federal Attorney-General's Department). Its role was "to coordinate Commonwealth physical assistance to states and territories in the event of a natural disaster." (Winkworth, 2007. p 57)

On Christmas Day of that year, Darwin was devastated by Tropical Cyclone Tracy. Recognition that the potential costs of natural disasters might exceed the capacity of individual states and territories and require assistance from the Australian Government resulted in Commonwealth and State negotiations about the level of and mechanisms for such assistance. As a consequence, the National Disaster Relief Assistance scheme was introduced to provide relief assistance and reconstruction grants to disaster affected communities. (Winkworth, 2007. p 57) This scheme was the predecessor of the National Disaster Relief and Recovery Arrangements (NDRRA).

In June 2001, the Council of Australian Governments (COAG) commissioned a review of Australia's approach to natural disasters. A High Level Officials Group report, "Natural Disasters in Australia: Reforming Mitigation, Relief and Recovery", recommended that all levels of government agree to a comprehensive five-year package to reform the way Australia manages natural disasters and achieve safer, more sustainable communities and regions in economic, social and environmental terms. (COAG, 2004, p vi) COAG gave in-principle approval to the report's recommendations.

COAG sought to more clearly define the roles and responsibilities of the three tiers of government in managing natural disasters, recognising that high levels of collaboration and coordination within and across all levels of government, and with non-government stakeholders, is required.

The Australian Government Disaster Recovery Payments (AGDRP) scheme was introduced on 28 November 2005 as part of the agreement to introduce new disaster recovery arrangements.

This broad policy intent was formalised in the "Australian Emergency Management Arrangements" which were agreed between the Australian and state and territory governments in 2007. (Australian Emergency Management Arrangements, 2009)

A range of natural disaster events including the hail storm in Sydney (1999), bushfires in Canberra (2003), tropical cyclone Larry in Queensland (2006), and the devastating 'Black Saturday' bushfires in Victoria (2009) heightened policy interest in the area of emergency/disaster management. These experiences progressively shifted the strategic policy objective towards community and organisational resilience to natural disasters. In December 2009, COAG agreed to adopt a whole-of-nation resilience-based approach to disaster management. It tasked the National Emergency Management Committee (NEMC) (now the Australian and New Zealand Emergency Management Committee (ANZEMC)) with responsibility for coordinating development of a *National Strategy for Disaster Resilience* (NSDR). The NDSR was formally adopted by COAG in February 2011.

National Strategy for Disaster Resilience (NSDR)

In February 2011, COAG endorsed the "National Strategy for Disaster Resilience: Building the Resilience of our Nation to Disasters". The statement accompanying the NSDR noted a national resilience-based approach to emergency management was necessary.

"Given the increasing regularity and severity of natural disasters, Australian Governments have recognised that a national, coordinated and cooperative effort is required to enhance Australia's capacity to withstand and recover from emergencies and disasters." (COAG, NSDR, 2011. p iv)

The NSDR represented move away from the traditional approach which was focused on the response to natural disasters by emergency services agencies to one of resilience where it is the **shared responsibility** of all sectors of the community including all levels of government to help prevent and mitigate disasters. (COAG, NSDR p iv) The notion of "shared responsibility" had featured in the recommendations of the Victorian Bushfires Royal Commission. It commented that 'shared responsibility' translated to increased responsibility for all including state agencies and municipal councils, communities, individuals and households, and that they all need to take greater responsibility for their own safety. (Victorian Bushfires Royal Commission, 2010. p 303)

While the NSDR marked a watershed in the thinking around natural disasters and emergency management, it remains an aspirational document. The policy and funding frameworks including the NDRRA remain largely unchanged.

"The new imperative is to drive the policy reform processes to give effect to its noble aspirations of building a resilient Australia. Policy and funding frameworks can promote the greater personal and community resilience though the development of a more cost effective and robust approach to how all Australian jurisdictions can respond to current and future challenges caused by the inevitable natural disasters which will impact on the nation." (McGowan, 2014. p 10)

Resilience Needs to be Defined

The NSDR (2011. p 4) did not define "resilience".

"Rather than define disaster resilience, the Strategy focuses on the common characteristics of disaster resilient communities, individuals and organisations. These characteristics are:

functioning well while under stress;

- successful adaptation;
- > self-reliance; and
- > social capacity."

The term "resilience" is used in so many ways and contexts that it has been rendered almost meaningless. The NSDR needs to be amended provide a definition to guide the policy development and funding arrangements and to give clarity as to its purpose and desired outcomes in an emergency management context.

The achievement of the goals of building resilience and improving individual and community understanding of risk requires the integration of the Prevention, Preparedness, Response and Recovery (PPRR) phases.

Each of the four phases should provide feedback loops for learning and operational improvement, but importantly too, for policy analysis, policy development and resourcing priorities with the broader objective of building resilience.

"Currently these feedback loops are poorly developed, as evidenced by the disproportionate funding allocations between the response and recovery phases, and the prevention and preparation phases. Further, within these phases, the relationships and interdependencies are not well understood." (McGowan, 2014. p 9)

The definition used by the National Academy of Sciences in the USA could be a useful starting point as it adds adaptation to the "new normal" post disaster context as a critical dimension of resilience.

"Resilience is the ability to prepare and plan for, absorb, recover from and **more successfully adapt** to adverse events. Enhanced resilience allows better anticipation of disasters and better planning to reduce disaster losses—rather than waiting for an event to occur and paying for it afterward." (National Academy of Sciences, 2012. p 1)

Prevention as the Major Policy Gap

Traditionally emergency management has been reactive, focussing on the response and critical relief and reconstruction functions. The international and national emphasis on building community resilience necessitates a review of this narrow approach.

The Australian Emergency Management Arrangements have generally served the nation well. The arrangements are well understood by all jurisdictions and emergency services agencies. Moreover,

they have been tested through a range of natural disasters particularly during the last decade. The strategic policy and funding arrangements are documented. National leadership and jurisdictional support occurs through COAG, the ministerial Standing Council on Police and Emergency Management, ANZEMC and the NSDR. The network of emergency management agencies is diverse, spanning those involved primarily in strategic policy and intergovernmental negotiations, to those at the front-line of operations and service delivery. The pattern of interactions is institutionalised through those emergency management arrangements and various intergovernmental and interagency forums, enabling these disparate groups to work together effectively during a disaster.

The environment is changing and with that change comes the need to review those disaster management frameworks. The impact and costs of natural disasters has increased dramatically over the last decade as evidenced, particularly, by the Victorian Bushfires in 2009 and the events of the summer of 2010-11 in Queensland. Community expectations of emergency services agencies and governments during these events and the recovery from them seem to increase after each event. Post event inquiries have exacerbated the expectations of and demands on governments. At the same time, the fiscal capacity of all tiers of government has become more constrained particularly since the Global Financial Crisis.

Without policy change, the economic costs of natural disasters will continue to rise, creating significant demands on the budgets of all tiers of Government, with potential long term impacts on productivity and economic performance.

The current arrangements are unsustainable in a future where climate change is likely to result in more frequent and more significant natural disaster events.

"In 2012 alone, the total economic cost of natural disasters in Australia is estimated to have exceeded \$6 billion. Further, these costs are expected to double by 2030 and to rise to an average of \$23 billion per year by 2050, even without any consideration of the potential impact of climate... Each year an estimated \$560 million is spent on post disaster relief and recovery by the Australian Government compared with an estimated consistent annual expenditure of \$50 million on pre-disaster resilience: a ratio of more than \$10 post-disaster for every \$1 spent pre-disaster." (Deloitte Access Economics, 2013. p 8)

The Natural Disaster Relief and Recovery Arrangements (NDRRA), the Commonwealth program that sets out the cost-sharing arrangement between the Commonwealth, States and Territories, is the key funding mechanism to cover the costs of recovering from natural disasters. The NDRRA are

contained in determinations issued periodically by the Federal Attorney General and cover bushfires, earthquakes, floods, storms, cyclones, storm surges, landslides, meteorite strikes and, tornadoes. They do not cover droughts, frosts, heatwaves, epidemic and events "where human activity is a significant contributing cause (for example, poor environmental planning, commercial development, personal intervention (other than arson), or accident". (NDRRA Determination 2012; pp 1-2)

The allocation of resources to response and recovery through the NDRRA by the Australian Government has grown significantly in response to disaster events. Approximately \$12 billion has been spent on events since 2009, primarily to provide partial reimbursement to states and territories for rebuilding essential public assets. (Productivity Commission, 2014)

Queensland's whose risk profile is affected by Tropical Cyclones, severe storms, flooding and storm surges which affect regional populations, has been the biggest recipient of NDDRA funds. The following table from Queensland's Reconstruction Authority (QRA) demonstrates the exponential growth in costs. The costs, including the contributions from the Queensland Government, have risen from \$40 million in 2002 to \$6.98 billion in 2011, with a total of \$14 billion in the period, 2009-2011.



Source: QRA, 2014.

The massive increases in NDDRA expenditure can be contrasted with the investments in mitigation under the Natural Disaster Resilience Program (NDRP). The NDRP allocated approximately \$100 million of Federal Government funding to state and territory governments over the four years from 2009 to 2013. The percentage of funds allocated to each state and territory was historically based on population and the costs of disasters with an adjustment to provide a minimum share to the Territories and Tasmania (Productivity Commission, 2012. p 253).

States and territories are required to contribute an amount equal to that provided by the Federal Government to each jurisdiction, bringing the potential resourcing for the program to approximately \$200 million over the four-year period. The funding is administered by each jurisdiction. The allocations to each jurisdiction are shown in the table below.

NDRP Allocations (2009-13)								
Jurisdiction	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
% Allocation	26%	16%	23%	12%	8%	5%	5%	5%

Source: Productivity Commission, 2012. p 253

To receive funding, those projects:

"must align with the priorities outlined in the Council of Australian Governments' National Strategy for Disaster Resilience. These include understanding and communicating disaster risk, supporting emergency management capabilities and reducing disaster risk to communities. Funding is available for a number of emergency management projects including natural disaster risk assessments, community education programs, disastermitigation infrastructure and early-warning systems." (Productivity Commission, 2012. p 253)

The contrast between the NDDRA costs to the Commonwealth of \$12 billion for the same period (2009-13) with the \$100 million to the NDRP for mitigation programs is striking.

"The policy imbalance is staggering when one considers that in the year in which \$6 billion was the estimated cost of the flooding and cyclonic events, Queensland's allocation of NDRP funds for disaster mitigation was about \$9 million." (J McGowan, 2012. p 359)

Despite evidence of the economic returns and resilience benefits that can be expected from investments In prevention and mitigation, the commitment to and investment in such strategies continues has been miserly. Research in the Australian context in 2002 showed that flood mitigation can provide a 3:1 return on investment through the avoidance of response and recovery costs. (Bureau of Transport Economics, 2002) In the USA there is research which claims a 7:1 return on disaster mitigation investment. (Rose, Porter et al. 2007)

The funding model for disaster management can be contrasted with the approach taken Australian Governments with respect to counter terrorism. The table below represents a simple risk and impact matrix.

Table. A Risk and Impact Model of Disaster Management and Investment Priorities

Threat	Risk	Impact	Investment Priority through Policy
Terrorism (human - induced)	Low (Medium?)	Localised to Widespread/	Mainly in Prevention and Preparedness
		Extensive Minor to Catastrophic	
Natural Disasters (physical phenomena)	High (Inevitable)	Localised to Widespread/ Extensive Minor to Catastrophic	Overwhelmingly in Response and Recovery

The impact of terrorism and natural disasters can be the similar, ranging from low and localised to catastrophic. However, in the case of counter terrorism where the risk is arguably lower, the investment priority is in the preparation and prevention phases. In the case of natural disasters, which are inevitable, more common and increasingly more costly, funding for disaster management is heavily weighted towards the response and recovery. (McGowan, 2012 p 358)

The former Commonwealth Attorney-General and Minister for Emergency Management, Hon Robert McClelland has speculated that State and Federal Budget processes which are frustrating other policy attempts to change the relative allocations between response and recovery towards prevention and preparation.

"Part of the problem is that your pre-disaster expenditure is a budget line item. In circumstances where spending money upfront but at a time when the Government is, understandably, trying to achieve a balanced budget, they don't want budget line items that involve...not insubstantial expense." (McClelland, Transcript ABC Radio, 2 April 2012)

The Australian Business Roundtable for Disaster Resilience and Safer Communities has also called for a commitment

"to long term annual consolidated funding for pre-disaster resilience and to identify and prioritise pre-disaster investment activities that deliver a positive net impact on future budget outlays." (Deloitte, 2013. p 51)

The United States has recognised the need to shift the focus to towards mitigation, with 15% of disaster Relief funding being required to be spent on mitigation (Wenger et al, 2013. p viii). The evidence in support of change in Government policy with significantly greater injection of funds Into mitigation and adaptation initiatives is overwhelming. This policy imbalance needs to be addressed. The Productivity Commission inquiry has an opportunity to contribute to a new policy and funding framework which recognises the importance of mitigation and adaptation strategies.

Reframing Recovery

The traditional narrow focus of "Recovery" from natural disasters that dominates Australian emergency management policy needs to be challenged. Experiences in Australia and internationally often treat the recovery phase as having too short a time horizon, focusing predominantly on relief and reconstruction. The policy focus in disaster management needs to shift from reducing vulnerability to building resilience and increasing awareness of the opportunities presented in the recovery phase.

Griffith University was engaged by the Regional Australia Institute (RAI) in 2012-13 "to examine the experiences and learnings arising from the communities that have experienced, first-hand, the challenges of recovering from and adapting to the impact of disasters." (RAI, 2013. p 2)

The project involved four case studies of regional communities which had been impacted by recent disaster events. Cardwell after Tropical Cyclone Yasi in February 2011; Carisbrook after the 2011 flash floods; Emerald after the 2010-11 floods; and Marysville after the February 2009 "Black Saturday" Bushfires.

The fieldwork was complemented through an international literature review of post-disaster

business recovery. The lessons from the case studies and literature review were drawn together to produce an issues paper and then a final report which recommended changes to policy and practice with respect to business recovery. The report highlights the inconsistency between many of the strategies to assist communities to recover from a natural disaster event and the objective shared by all tiers of government — to build an Australia that is more resilient to natural disaster events.

The report, From Disaster to Renewal; The Centrality of Business Recovery to Community Resilience was published in August 2013. It presents a major challenge for policy makers. It argues that;

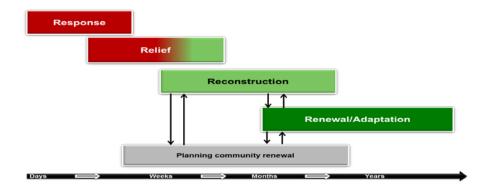
"Recovery arrangements need to be viewed within a resilience framework, which moves beyond relief and reconstruction to incorporating local renewal and adaption to the post disaster environment." (RAI, 2013 p 2).

The RAI report also challenges the traditional narrow focus of 'Recovery' from natural disasters on relief and reconstruction (RAI, 2013 p. 21). Policy and funding frameworks need to be rethought with a much longer-term focus.

"Building a resilient community requires thoughtful and strategic long-term investments in multiple aspects of the physical and social fabric of communities that contribute to resilience. ... disaster recovery is an integral part of that process because the ability of communities to recover after a disaster, and the way that they recover, is closely tied to becoming more resilient to subsequent trauma." (National Academy of Sciences, 2012. p 191).

Despite good intentions and because of the focus on relief and reconstruction activities, positive outcomes from the recovery experience are often not realised. Recovery needs to be an adaptive process between the experiences of the community, their evolving vision for their future and their ability to translate this vision into reality. Authorities have often ignored the importance of planning the community renewal processes and of the need to adapt to the "new normal".

The diagram below illustrates the concept of the different stages, timings and relationships in the recovery process.



Source: RAI, 2013. p 9

The theme of the "From Disaster to Renewal" report is that business recovery is central to community recovery and that the overarching objective of recovery should be to assist communities to adapt to their new social and economic environments post-disaster. (RAI, 2013. pp 4-7)

In attempting to differentiate for policy purposes between business recovery and economic recovery, it notes;

"Economic recovery is generally treated as a 'stream' of the recovery process. The lived experience of case study communities indicates that 'the economy' does not recover with the provision of counselling and the rebuilding of infrastructure. To conceive of economic recovery as a stream is to confuse the outcome with the process that creates it. The process of business recovery, and its critical interconnections with community recovery, enables broader economic recovery in a disaster affected region. This report therefore considers 'business recovery' to be a process with 'economic recovery' being the desired outcome in a disaster affected region." (RAI, 2013. p 4)

And further that;

"The lack of funding for small business recovery reflects a lack of appreciation of the critical interdependencies between business recovery and community recovery, particularly in rural settings where the majority of businesses are owned and operated by local residents." (RAI, 2013. p 6)

An excessive focus on building 'things' can result in over-expenditure on infrastructure that does not serve the long term needs of the community. The report noted that governments often focus

on building "things" in order to demonstrate their support for the local communities. However, unless carefully planned, there is a danger that these things can become a cost which can hinder economic recovery.

"The hotly debated new community centre in Marysville embodies this problem; many in the community feel it is unnecessary and a highly under-utilised asset. An excessive focus on building 'things' appears to have resulted in over-expenditure on infrastructure that does not serve the long term needs of the community as it is not integrated with longer term business recovery strategies." (RAI, 2013. p 10)

With a declining population and a cash-strapped local council, the maintenance costs have become problematic.

It is also apparent from the case studies that a "one size fits all solution" is inappropriate. The circumstances in Emerald, for example, with its mining base and larger and wealthier population and fundamentally different from small communities such as Marysville and Cardwell whose economies were largely based on their natural environmental assets. Different strategies which attempt to address those specific local circumstances are essential.

This proposition was supported in a recent international publication which argued that was building resilience requires the identification of "the economic base and social and economic drivers specific to the region..." (Weichselgarner and Kelman, 2014. p 8)

A community-led renewal planning process which recognises the specific local and regional context, together with significant support from government agencies, NGOs and industry experts is likely to be more effective than the current recovery processes in driving community recovery in both in terms of outcomes and costs to governments. An integrated national policy and funding framework needs to incentivise proactive investment and planning at the community level.

Disaster Relief Assistance

The origins of the policy and funding incoherence in part at least can be attributed to the overwhelming focus by all three levels of government on the National Disaster Relief and Recovery Arrangements (NDDRA) and the Australian Government Disaster Recovery Payments (AGDRP) to affected individuals ('hardship grants').

While these national arrangements together with similar assistance from state and territory governments have served communities affected by natural disasters well by providing certainty

and clarity as to the type and extent of the support from the various levels of government, it is timely to review their appropriateness and efficacy in the context of the NSDR.

"These arrangements were developed in an era in which the number and impact of disasters was considerably less than has occurred in the last decade. They are reactive in that they are triggered by an event and are consequently focussed on response and the initial recovery. This also reflects when political and media attention is strongest." (McGowan, 2014. p 10)

<u>Australian Government Disaster Recovery Payments</u>

In the immediate aftermath of a natural disaster, Governments rightly focus on the impact on individuals. "Hardship grants" are a priority and, in contrast to small business assistance, are provided with minimum bureaucracy.

Nevertheless there would be some benefit in reviewing the amounts and eligibility requirements for grants under the AGDRP to ensure that are used in cases of genuine hardship rather than to compensate for inconvenience. It is also important that individuals accept personal responsibility to mitigate their personal risks through preventative measures such as adequate insurance and good preparation for a disaster event. The role of local authorities and response agencies in land use and disaster management planning is also critically important.

The former Commonwealth Attorney-General and Minister for Emergency Management, the Hon Robert McClelland has argued that the current funding frameworks through the AGDRP have contributed to "a culture of entitlement".

"Part of the problem is that governments have contributed to the development of a culture of entitlement rather than a culture of prevention. This has occurred because the emphasis of government has been on being seen to provide assistance to individuals after they fall victims to a natural disaster rather than on developing strategies and working with communities to prevent those communities from falling victim to disaster in the first place." (McClelland, 2013. p 9)

McClelland has questioned whether the allocation of some of the individual hardship grants which are made regardless of assessed impact wouldn't be better used for preventative measures.

"The trouble is that politicians at all levels tend to focus and want to be seen after a disaster occurs because that's when it has most media attention ... we need to evaluate how efficient these payments are...Firstly to streamline them so that we target them to those in most need but secondly to look at shifting a substantial amount of that money into preventative measures..." (McClelland, ABC Radio. 2 April 2012)

He points out that \$840millon was provided in \$1000 payments to people affected by the 2010-11 floods and TC Yasi (McClelland; ABC Radio. 2 April 2012).

"Just 10% of that \$840million would have resulted in a tenfold increase in the funds for disaster mitigation programs in Queensland." (McGowan, 2012. p 359)

In relation to the AGDRP, the RAI report notes

"Hardship grants, unless carefully structured and targeted, have the potential to undermine the community resilience that sits as the core objective of the National Strategy on Disaster Resilience." (RAI, 2013. p 16)

The political difficulties in changing the rules around "entitlements" to those impacted by disasters are recognized. However, a more holistic approach to "Hardship" assistance would benefit individuals and local communities. It would involve targeted and structured packages as an integral component of a broader recovery strategy to assist the economic recovery of local businesses. Such packages might involve a combination of emergency assistance grants so necessary in the immediate aftermath of the event, together with "vouchers" and similar targeted forms assistance to assist both individuals and local businesses in the subsequent recovery period.

National Disaster Relief and Recovery Arrangements

There are also policy and operational limitations for the NDRRA. The "From Disaster to Renewal" report notes that the NDRRA;

"generally covers restoration of public infrastructure, (but) does not provide funding for the restoration of the natural environment. This reflects a lack of recognition of the importance of the natural environment component of business recovery. Environmental restoration works were seen as important as the reconstruction of hard assets to business. This is particularly the case where tourism based on the natural environment is a significant contributor to the local economy. Businesses in Cardwell and Marysville rely on the natural environment as the regional 'drawcard'." (RAI. 2013 p 13)

Unlike the AGDRP, the NDDRA arrangements are administratively complex particularly for small business owners and primary producers.

"The grant programs available in case study locations were often criticised for inflexible or insufficiently responsive rules and procedures. Problems included:

- Programs excluding businesses on the grounds of receiving other grants;
- Programs excluding businesses who got up and running quickly;
- Excessively difficult application processes;
- Unrealistic criteria that did not recognise the impact of disasters;

- Lack of flexibility to accommodate differing business models;
- > Delays in disbursement of funds; and
- > Onerous reporting requirements." (RAI, 2013. p 14)

The Australian Government's Commission of Audit has recommended the replacement of "the Natural Disaster Relief and Recovery Arrangements with a grant in the case of each major natural disaster, with the Commonwealth contribution based on a designated proportion (between 25 per cent and 33 per cent) of the estimated reconstruction costs." (National Commission of Audit, 2014) It is a simplistic notion that fails to recognise most fundamental principle of emergency management: the understanding of risk. A scheme based upon a proportion of the costs of a natural disaster does not recognise the different risk profiles and vulnerabilities of the Australian states. It would severely disadvantage the taxpayers of Queensland, the Northern Territory and to a lesser extent Western Australia. Moreover, it fails to appreciate that reconstruction costs are but one element of recovery and future resilience.

Betterment: A Specific Policy Imperative

The NDDRA Determination defines betterment in the following terms;

"betterment, in relation to an asset, means the restoration or replacement of the asset to a more disaster-resilient standard than its pre-disaster standard." (NDRRA Determination, 2012 p 4)

The 'betterment provisions' were included in the NDRRA Determination in 2007.

Prior to 2007, the intent of the NDRRA was the repair and restoration of those assets. This changes were prompted by criticism that NDRRA funds were been used to repair roads, bridges and other critical infrastructure only to have them damaged or destroyed in in the next flood, storm or fire. This was recognised that this was shortsighted and ultimately more expensive.

Despite the policy change, Government infrastructure and assets are still being rebuilt "like for like"; missing the opportunity to fundamentally rethink the vulnerability of key infrastructure. This point was acknowledged in the Productivity Commission's 2012 report, "Barriers to Effective Climate Change Adaptation".

"Essential assets are therefore typically restored to their pre-disaster standard, leaving them potentially vulnerable to future extreme weather events." (Productivity Commission, 2012. p 266)

It also noted that the policy change had not resulted in a significant number of betterment projects.

"The NDRRA's betterment provision appears to be used infrequently. As of May 2012, only one betterment proposal has been successfully developed and implemented under this provision of the NDRRA... Tumut Shire Council (New South Wales) received \$778 000 in betterment funding (representing one third of total project cost) to relocate the Adelong swimming pool that was damaged during a flood in 2010." (Productivity Commission, 2012. p 266)

The RAI report also noted the short-sightedness of the current approach.

"Despite multi-billion dollar recovery bills, it appears that the betterment provisions ...have not been widely accessed. Government infrastructure and assets are still being rebuilt like for like and, notwithstanding incremental improvements in design, this misses the opportunity to fundamentally rethink the vulnerability of key infrastructure and plan accordingly." (RAI, 2013. p 11)

It is acknowledged that there has been some progress in Queensland with the establishment of an \$80 million fund over 4 years for betterment projects with the Commonwealth Government matching the Queensland Government's \$40 million commitment. (QRA, 2013) However, this still constitutes a very limited commitment to 'betterment' compared to the total costs of restoring critical public infrastructure.

In 2011, Griffith University was engaged by the Queensland's Department of Community Safety (DCS), to develop a 'betterment' framework using a Cost Benefit Analysis (CBA) methodology and guidelines to enable the methodology to be applied by a wide range of potential users to different hazard types and to different categories of essential public assets. That work confirmed that benefits as being not only the direct costs or rebuilding or repairing the damage but a range of indirect costs such as the reduced costs of emergency responses or the interruption to businesses, social costs as a result to disruption to normal economic and social activities and losses to the environment or cultural heritage sites. (Fleming et al, 2014. p 9)

The report was presented to DCS in September 2011 for forwarding to the Attorney-General's Department for a formal review of the current guidelines. However, it has not been publicly released. The Productivity Commission's inquiry might benefit from accessing this work, particularly as the current guidelines seems to act as an obstacle to having 'betterment' proposals adopted.

Engineered properly, 'betterment' constitutes a more cost effective investment strategy through the avoidance of future response and recovery costs.

"From a policy perspective, the adapted CBA method provides decision makers with economic evidence that is sensitive to distribution and equity issues. The method promotes economic efficiency and the continuity of integral public assets." (Fleming et al, 2014. p 18)

After a disaster event, the default position should be to rebuild the infrastructure so that it is better able to withstand the next event rather that the current predisposition to restore assets to their previous state. 'Betterment' arrangements are consistent with building resilience and value for money objectives by governments.

Conclusion

The aspirations of the NSDR need to be matched by actions to give effect to its objectives. A resilient Australia requires policy and funding frameworks which are consistent with the strategic policy objective of promoting greater individual and community resilience which needs to be more clearly defined. Current policy and funding frameworks reinforce the traditional emphasis on response and recovery towards activities.

"The policy, support and funding arrangements need to be derived from the NSDR and based on the interaction of the prevention, preparedness, response and recovery obligations of all levels of government, local communities, the private sector and individuals." (McGowan, 2014. p 10)

These are difficult economic times for state and federal governments. Climate change together with population growth, increased urbanisation and economic development will inevitably increase the impact and cost of natural disasters in the decades to come. The current approach to emergency management is not sustainable. Australian governments at all levels can no longer afford to fund the increasingly costly response and recovery activities associated with natural disasters. A coherent and comprehensive policy framework with a more proactive approach to prevention is needed. In policy and practical terms, it is imperative to redirect some of these resources to promote community resilience through mitigation and adaptation strategies and to recognise the contribution of business recovery to community recovery objectives.

Again consistent with the concept of "shared responsibility" in the NSDR, local communities and individuals need to play their part to reduce their exposure to natural disasters by investment in mitigation and adaptation initiatives. This approach would facilitate the development of a contemporary and integrated model for disaster management across Australia.

The authors of this submission, Adjunct Professor Jim McGowan AM and Associate Professor Anne Tiernan from the School of Government and International Relations, Griffith University, would welcome to opportunity to meet with officers of the Productivity Commission should further clarification of the issues raised in this submission be sought.

References

Australian Government "Australian Emergency Management Arrangements"; Attorney-General's Department, Canberra, 2009.

Australian Government "Natural Disaster Relief and Recovery Arrangements Determination, 2012", Attorney-General's Department, Canberra, 2012.

Bureau of Transport Economics (BTE), "Benefits of Flood Mitigation in Australia". Report No. 106, Canberra, 2002.

COAG; "Natural Disasters in Australia: Reforming Mitigation, Relief and Recovery", Canberra, 2004.

COAG; "National Strategy for Disaster Resilience: Building the Resilience of our Nation to Disasters". Attorney General's Department, Canberra, 2011

CSIRO; "Climate Change in Australia, Technical Report", Canberra, 2007.

Deloitte Access Economics; "Building our nation's resilience to natural disasters." a paper for Australian Business Roundtable for Disaster Resilience and Safer Communities, June 2013.

Ferris and Petz; "The Year that Shook the Rich: A Review of Natural Disasters in 2011" Brookings Institution, London School of Economics, 2012.

Fleming, C., Manning, M. and Smith, C. (in press – accepted 13 May 2014). "Evaluating betterment projects". Disasters.

McClelland, Hon Robert. Transcript ABC Radio "The World Today", 2 April 12

McClelland, Hon Robert. "Enhancing Commonwealth Leadership of National Resilience Strategy". M Clark and G Griffin (editors) Next Generation Disaster and Security Management, University of Melbourne, 2013.

McGowan, J. "A Missed Opportunity to Promote Community Resilience?-The Queensland Floods Commission of Inquiry", Australian Journal of Public Administration Vol 71 No. 3 September 2012.

McGowan, J. "Promoting resilience: a contemporary and integrated policy and funding framework for disaster management." Australian Journal of Emergency Management, Vol2 9, No 2 April 2014. p 10)

National Academy of Sciences; "Disaster Resilience: A National Imperative", Washington. 2012.

National Commission of Audit; "Towards Responsible Government", March 2014. http://www.ncoa.gov.au/report/phase-one/recommendations.html).

Productivity Commission, "Barriers to Effective Climate Change Adaptation", Report No. 59, Final Inquiry Report, Canberra, 2012.

Productivity Commission: Terms of Reference; Natural Disaster Funding, 2014, http://www.pc.gov.au/projects/inquiry/disaster-funding/terms-of-reference)

Regional Australia Institute: *"From Disaster to Renewal; The Centrality of Business Recovery to Community Resilience"*, 2013 http://www.regionalaustralia.org.au/wp-content/uploads/2013/08/From-Disaster-to-Renewal.pdf

Queensland Reconstruction Authority; http://www.qldreconstruction.org.au; May 2014

Queensland Reconstruction Authority; http://www.qldreconstruction.org.au/the-queensland-betterment-fund-building-resilience;; February 2013.

Rose, Porter, Dash, Bouabid, Huyck, Whitehead, Shaw, Eguchi, Taylor, McLane, Tobin, Ganderton, Godschalk, Kiremidjian, Tierney, and West. "Benefit-Cost Analysis of FEMA Hazard Mitigation Grants". 2006 Manuscript 22398.

Victorian Bushfires Royal Commission, "Victorian Bushfires Royal Commission: Final Report", Victoria, July 2010.

Weichselgarner and Kelman: "Geographies of Resilience"; Progress in Human Geography, http://phg.sagepub.com/, Feb 2014.

Wenger, Hussey and K and J. Pittock: "Living with floods: Key lessons from Australia and abroad", National Climate Change Adaptation Research Facility (NCCARF), Gold Coast, 2013

Winkworth, G. "Disaster Recovery: A Review of the Literature"; Institute of Child Protection Studies, Canberra, August 2007