



**Government  
of South Australia**

**SOUTH AUSTRALIA GOVERNMENT RESPONSE**

**TO THE**

**NATURAL DISASTER FUNDING ARRANGEMENTS**

**PRODUCTIVITY COMMISSION INQUIRY**

**MAY 2014**

# Contents

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Introduction.	Page 3
A profile of natural disaster hazards in South Australia.	Page 4
An imperative for reform.	Page 9
Current natural disaster funding arrangements.	Page 12
National Partnership Agreement on Natural Disaster Resilience.	Page 18
Australian Government Assistance to Individuals.	Page 25
State, territory and local governments.	Page 26
Assessing the current arrangements.	Page 33
Providing incentives to use insurance.	Page 34
Land use planning and restructure policies.	Page 36
Other reform options.	Page 38

## INTRODUCTION

The South Australian Government welcomes this inquiry by the Australian Government on the effectiveness and sustainability of Australia's natural disaster funding arrangements. The impact of natural disasters on community living standards, and the rising costs of disasters will become increasingly important over time as we prepare for more frequent and extreme weather events.

Whilst South Australia has not experienced a major disaster in recent years, the State's natural hazard risk profile highlights why South Australia is committed to the national disaster resilience reform agenda<sup>1</sup>. Understanding, managing and reducing disaster risk provides a foundation for building resilience to disasters. This principle has been adopted by all levels of government in Australia, and also on the international stage. The benefits of anticipating and planning for disasters rather than waiting for them to occur and paying for them afterwards apply across all levels of society; governments, households, the community and business.

The South Australian Government agrees with the Productivity Commission's view that disaster funding arrangements are a key driver of the incentive framework that influences the way governments and the community manage natural disaster risk. A significant number of programs cited in this submission have been initiated through co-funding by the Commonwealth and state governments under the *National Partnership Agreement on Natural Disaster Resilience (NPANDR)*.

The *Australian Emergency Management Arrangements* recognise that all levels of government are responsible for mitigation practice and policy, and for reducing the risks and costs of emergencies. It is vital that the Commission is mindful of not recommending a situation whereby financial pressures and obligations are shifted from the Commonwealth Government onto states and territories. All jurisdictions are facing budgetary pressures and

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<sup>1</sup> *National Strategy for Disaster Resilience*, Council of Australian Governments 2011.

shifting burdens to the States in the absence of the provision of more stable revenue streams would simply shift the fiscal burdens of delivering services to the states.

## **A PROFILE OF NATURAL DISASTER HAZARDS IN SOUTH AUSTRALIA**

### **POPULATION AND CLIMATE**

The population of South Australia is approximately 1.64 million (8% of Australia's total population) with 77% of residents living in the Greater Adelaide plains region. Over the past ten years, the population of Greater Adelaide has grown by 9.4% whilst the remainder of the state has grown by 5.1%. Migration has played a major role in this growth with approximately 21% of South Australia's residents born overseas. The population is expected to increase by 39% (or 2.2 million) by 2050.

Indigenous Australians represent 1.7% of the population with many living in remote areas. The natural hazard profile for those living in remote South Australian settlements is heatwaves, bushfires, isolation during floods and earthquake.

South Australia has always had a highly variable climate. In 2010/11 after one of the longest droughts on record we entered into one of the wettest years on record. The outlook for South Australia is a hotter, drier climate with more frequent and longer heatwaves, drought and increased bushfire risk. Rising sea levels are expected to accelerate coastal erosion and cause more extensive inundation. The frequency of severe thunderstorms is expected to decrease, however when they do occur, the intensity of thunderstorms will be greater. For Southern Australia, a heavy rainfall event that currently occurs every 20 years could become more frequent by mid-century occurring once every 15 years<sup>2</sup>.

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<sup>2</sup> The Science behind SE Australia's Wet, Cool Summer, 2012. Australian Government Climate Commission.

## **HAZARDS AND VULNERABILITIES**

In 2009, South Australia commenced a program to complete a state-wide Emergency Risk Assessment<sup>3</sup> and to produce a risk-based State Hazard Plan for each of the State's priority hazards. The first iterations were completed in 2013. This program achieved the NPANDR objective that states and territories undertake risk assessments to inform risk mitigation priorities. South Australia won a high commendation for this program at the Resilience Australia Awards in 2014.

There is now an expectation to progress the risk assessments into cost-effective risk treatment programs. A risk treatment initiative may be a pre-emptive measure, or a pre-determined measure to be implemented if and when a disaster strikes as a rebuilding 'betterment' initiative. South Australia in partnership with the Macquarie University is leading a national project to develop a method of assessing the benefits and costs of mitigation to assist prioritisation of risk treatments. South Australia is also involved in national programs to develop and evaluate community resilience measures being the long-term indicator of disaster mitigation effectiveness.

The following is an overview of natural hazard priority risks in South Australia.

### **Animal and Plant Disease**

South Australia's biosecurity status is increasingly threatened by growing international connections through global trade, the movement of plants, animals and people across the globe and by the uncertain impacts of climate change. Production of South Australian food and drink (including agriculture, horticulture, aquaculture, fisheries and manufacturing) is a \$10 billion industry.

As an example, Foot and Mouth Disease (FMD) or another major animal disease outbreak in Australia would seriously damage our agricultural industries and harm those dependent upon them. In the event of a large FMD outbreak, ABARES (2013) estimates revenue losses

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<sup>3</sup> South Australia Emergency Risk Assessments comply with the National Emergency Risk Assessment Guidelines.

of between \$49.3 billion and \$51.8 billion (in present value terms) over 10 years across Australia. These figures reflect direct costs of an outbreak. The downstream effects of these losses would be devastating to many other sectors of our economy and many communities. The national and state biosecurity continuum covers prevention, surveillance, preparedness, emergency response to, and recovery from, outbreaks of pests and diseases. Biosecurity modelling for pests and diseases indicates that investment in prevention can have an economic return to the nation of \$100 for every dollar invested while recovery will return approximately two dollars for every dollar invested<sup>4</sup>.

### **Bushfire**

Extreme fire weather has increased in many parts of South Australia over the past 30 years<sup>5</sup>. The outlook for South Australia is a hotter, drier climate with more frequent and longer heatwaves, drought and increased bushfire risk. In this environment fire suppression becomes more difficult and may not be achieved quickly. A longer duration of the fire season has been observed, with fire weather extending into November and March/April.

These conditions are placing greater expectations on governments to enhance fire-fighting capability, and on the community to better understand and plan for the risks that they face. For this reason, the SA Country Fire Service directs significant resources into community engagement and public education programs. The NPANDR and previous Bushfire Mitigation Program have been important drivers for shifting the focus to risk prevention strategies in State and local government and through local community initiatives.

Also a significant challenge facing emergency service organisations is the retention of volunteers. Traditional long-serving volunteers are being replaced by 'time sensitive' volunteers who are weighing up the amount of time required to volunteer with other competing demands. Accredited training has brought with it many benefits but these have needed to be balanced with increasingly 'time strapped' volunteers. The NPANDR has specifically targeted projects that focus on recruitment, training and retention of emergency

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<sup>4</sup> *Biosecurity Strategy for Victoria*, Department of Primary Industries Biosecurity Victoria. May 2009.

<sup>5</sup> *The Critical Decade, 2013*. Australian Government Climate Commission.

service volunteers.

## **Earthquake**

By Australian standards, Adelaide has the highest earthquake risk of all capital cities. Adelaide has experienced three damaging earthquakes in the past 120 years, the worst of which occurred during 1954 in metropolitan Adelaide and measured magnitude 5.5 on the Richter scale. Seismologists advise that given the local geology earthquakes up to Richter magnitude 7.5 could occur in South Australia.

Geoscience Australia modelling of a Richter magnitude 5.5 earthquake occurring in the late evening or early morning, with an epicentre near the Adelaide CBD, estimates 10 to 20 fatalities, 60 to 70 serious injuries and over 500 minor injuries along with structural damage to thousands of homes and businesses<sup>6</sup>. This is based on an overnight scenario. If the event occurred during working hours there would be a greater number of injuries and fatalities. The economic impact of this scenario is estimated at \$16 billion<sup>7</sup>.

There has been significant improvement in building standards over time. There has also been significant retrofitting of State assets that has reduced *insured risk*. A priority treatment in the South Australia Earthquake Hazard Plan is community education; how to protect yourself if an earthquake does strike, and to promote the benefits of business continuity planning. The latter was a significant learning from the Canterbury Earthquake experience.

## **Flood**

Flood is the most costly natural hazard in South Australia with a greater than average annual cost than storms or bushfires. Within the inundation areas of 1% AEP (1 in 100 year), it is estimated that greater than 20,000 homes are at risk from riverine, stormwater and coastal flooding. Of the Insurance Council of Australia's ten most hazardous flood-prone regions in Australia, the Brownhill and Keswick Creeks catchment in metropolitan Adelaide is rated at number six with 5,000 to 7,000 residential homes and businesses at risk.

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<sup>6</sup> *Earthquake, Impact Scenarios for Adelaide*, South Australia, 2011. Geoscience Australia.

<sup>7</sup> *Estimation of Earthquake Scenario Loss for Adelaide*, 2011. Risk Frontiers Macquarie University.

The outlook is that rising sea levels will accelerate coastal erosion and cause more extensive inundation from storm surge and increased flooding from coastal streams. The South Australian coastline has been subject to increasing levels of development over recent decades. Over the last 15 years, between 500 and 855 new residential dwellings per year constructed within 500 metres of the shoreline. Modelling of coastal inundation caused by a combination of sea-level rise (1.1 metre) and storm surge has identified between 25,000 and 43,000 residential buildings that may be at risk. Significant coastal infrastructure will also become increasingly exposed in the coming decades.

There are a number of mitigation programs in place currently to reduce this risk. The programs relate to land-use planning, flood mitigation infrastructure, and community education programs. The NPANDR and Stormwater Management programs have provided significant incentive for local government investment.

### **Extreme Weather**

Extreme weather is the second most costly of all natural disasters impacting on South Australia after floods; accounting for 35% of all disaster costs. The extreme weather elements of most concern to South Australia are extreme storm and extreme heat.

Research suggests that in South Australia, the frequency of severe thunderstorms will decrease, however when they do occur they will have greater intensity. The frequency of extreme maximum temperatures is also projected to increase. Over the past decade, the number of days per year above 35c in Adelaide has surpassed climate model projections<sup>8</sup> with several heatwave records broken in South Australia since 2009. The warmest year on record for South Australia was 2013.

The South Australian Heatwave Plan was developed with partial funding from the NPANDR. The Plan brings together government and non-government agencies to secure essential infrastructure, to help those most vulnerable, and to promulgate public health messages.

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<sup>8</sup> The Critical Decade: Extreme Weather, 2013. Australian Government Climate Commission.



## **AN IMPERATIVE FOR REFORM**

### **What are the costs of natural disasters in Australia?**

The Centre for Risk and Community Safety, RMIT University has received a *National Emergency Management Projects* grant auspiced by the South Australia Government to update the Bureau of Transport Economics (BTE) 2001 report 'Economic costs of natural disasters in Australia'. This 2001 report is the only comprehensive, national assessment of the economic impacts of natural disasters in Australia and represents analytic thinking as it was in 2000.

The project will update the statistical analysis to include relevant natural disasters from 1998-2013. A feature of the update will be a clear distinction between insurance claims, often used as a proxy for disaster costs, and the full economic cost of disasters. The project is due to be completed by the end of 2014.

In South Australia, a long-term profile of major economic loss can be attributed to earthquake, bushfire and storm<sup>9</sup>. Over the past decade the cost of Natural Disaster Relief and Recovery Arrangements (NDRRA) eligible measures from 2004-05 to 2012-13 has totalled \$71.6 million<sup>10</sup>. Approximately 90% of the cost relates to Category B infrastructure restoration and approximately 8% to Category A individual personal hardship measures. The overall economic cost of disasters in South Australia will be considered as part of the RMIT study; in relation to significant events that exceed \$10 million and/or a minimum number of fatalities.

### **What issues arise when attempting to measure the costs of natural disasters? What methodologies exist to measure these costs?**

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<sup>9</sup> Issues in Risk Science, Natural Hazards Risk Assessment: An Australian Perspective. Benfield Hazard Research Centre, London.

<sup>10</sup> This is total costs incurred on NDRRA eligible measures. The CW cost-share reimbursement is discussed on page 13.

## National

Several loss estimating tools exist such as the *Natural Disaster Loss Assessment Guidelines* that describe various purposes for estimated losses. These include post-event estimates for reconstruction programs, insured property losses and broader indirect losses and intangible losses. Also the *National Impact Assessment Model* (currently being piloted) that is an immediate post-event impact assessment framework for determining the size and scope of recovery programs.

There is however no current agreed standard method for determining the overall economic cost of natural disasters in Australia.

## South Australia

The NDRRA provides the framework for how South Australia captures the cost of natural disasters. There is currently no routine approach to capturing the full economic or social costs of natural disasters. The State Government agencies are required to provide the Department of Treasury and Finance with expenditure estimates and later actual costs on NDRRA eligible measures.

In relation to Local Government, a new guideline was developed in late 2013 to assist councils to capture the cost of eligible measures that may be reimbursed by the State after certain financial requirements are met. The measures are based on the NDDRA eligible measures. The new guidelines also reflect the NDRRA Determinations in respect of councils needing to undertake a preliminary assessment of essential public asset damage; obtain independent engineering assessments and undertake a competitive tender process; and identify betterment and community recovery initiatives.

The following issues have been identified within the South Australian context.

- The limited capacity of smaller councils to properly assess the full costs following a natural disaster.

- Several government agencies responding to a natural disaster event and certain costs not being accounted for as direct costs associated with the response and recovery effort.

### **Are there reliable projections of future natural disaster incidents and impacts in Australia?**

The Council of Australian Governments agreed in 2002 to develop and implement a national program of systematic and rigorous disaster risk assessment<sup>11</sup>. In response, the National Emergency Risk Assessment Guidelines (NERAG) based on the *ISO31000 Risk Management Framework* were developed, and subsequently adopted by all levels of government in 2010. The purpose of the NERAG is to improve the consistency and rigour of emergency risk assessments, increase the quality and comparability of information on risk and improve the evidence base on emergency risks in Australia.

The National Partnership Agreement on Natural Disaster Resilience 2013 – 2015 requires that *States amend, by 30 June 2015, state-wide risk assessments to ensure that they are consistent with the revised NERAG*. Over the past three years, South Australia has directed significant resources into conducting risk assessments at both State and regional (zone) levels that comply with the NERAG.

Thousands of person hours have been contributed by State and Local Government and Non-government personnel, and over \$3 million of *NPANDR* Commonwealth and State funds have been committed to the program that will inform major disaster mitigation investment decisions in the years ahead. The risk assessments model future risk likelihood and consequence scenarios utilising historical data, evidence-based research, climatic and demographic projections.

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<sup>11</sup> Natural Disasters in Australia: Reforming mitigation, relief and recovery arrangements, 2002. COAG.

## CURRENT NATURAL DISASTER FUNDING ARRANGEMENTS

### NATURAL DISASTER RELIEF AND RECOVERY ARRANGEMENTS

#### **What are the policy objectives of the NDRRA? Have these changed over time? Are current arrangements consistent with the achievements of these objectives?**

The intent of the NDRRA is to assist states with the fiscal burden of large scale expenditure on disaster relief and recovery payments and infrastructure restoration. Currently natural disasters covered by the arrangements are bushfire, flood, storm, earthquake, surge, landslide, tornado or meteorite. A primary objective is to enable communities to return to an appropriate level of functioning as quickly as possible.

The NDRRA provides an important safety net for jurisdictions when they experience a major emergency or disaster. The social and economic costs to the impacted community, as well as the broader state and national economy, would be far greater without this safety net assistance by the Commonwealth Government. The NDRRA also provides a “base-set” of eligible measures to support individuals, community and business after a disaster. The public does compare government assistance between events and across jurisdictions; and if government is perceived to serve some better than others depending on a person’s geographic location, this can exacerbate feelings of loss and grief.

*The Report of the National Commission of Audit: Towards Responsible Government 2014* recommends that the NDRRA be replaced by a grant to the affected state to be paid over a number of instalments. The rationale being that the Commonwealth should avoid attempting to duplicate the functions of the States through the existing claims-based process<sup>12</sup>.

In response to this suggestion, the payment of a grant rather than a cost-share arrangement is a policy shift away from the safety net model that is critical when a state is faced with a major disaster or catastrophe. Also a grant arrangement will still require the state to provide

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<sup>12</sup> *Towards Responsible Government: The Report of the National Commission of Audit*, pg 187. February 2014

accountability through an evidence-based claims process. Furthermore, it will potentially lead to the Commonwealth Government providing additional ad-hoc payments when a jurisdiction is faced with a catastrophic event. In comparison, the NDRRA provides a pre-determined and scaled approach for providing safety-net assistance from small disasters through to catastrophic events that is well understood by all jurisdictions.

**How effective are the eligibility criteria for NDRRA reimbursement in facilitating effective and sustainable natural disaster risk management, including mitigation of possible future disasters? How rigorously have these criteria been enforced? What level of oversight is provided?**

South Australia agrees that the NDRRA should be contingent on state and territory commitment to implementing appropriate risk management and mitigation strategies; such as the *National Emergency Risk Assessment Guidelines* and the *Enhancing Disaster Resilience in the Built Environment Action Plan*.

**Heatwave**

South Australia has raised with the Commonwealth on numerous occasions the concern that heatwave is not defined as an eligible event in the NDRRA. It is considered that heatwave fits the NDRRA definition of an eligible event being:

*“a serious disruption to a community or region caused by an impact of a naturally occurring rapid onset event that threatens or causes death, injury or damage to property or the environment and which requires significant and coordinated multi-agency and community response”.*

Heatwaves are becoming more significant within the emergency management arrangements as the South East of Australia experiences more frequent and extreme weather events. Heatwave is known as the ‘silent killer’ and the morbidity and mortality rates are higher than any other natural hazard in Australia. Heatwaves also impact essential infrastructure as shown in this picture of the Noarlunga railway line that buckled during the 2009 record

breaking heatwave.

In 2010, the South Australian Government won an *Australian Safer Communities Award* for its recently developed *South Australian Heatwave Plan*. The Awards recognised the “collaboration across agencies during the development of extreme heat planning has been exceptional with



evidence that the strategies have been successful in reducing morbidity and mortality during an extreme heat event<sup>13</sup>”. Whilst heatwave is known to endanger the community, it is also the most preventable risk when government and non-government agencies come together to help those most vulnerable, and to promulgate public health messages.

On these grounds, it is recommended that heatwave is included as an eligible measure under the NDRRA.

### **Are the thresholds for NDRRA reimbursement set at an appropriate level?**

South Australia’s first expenditure threshold is \$36m and the second expenditure threshold is \$62m. Since 2004/05, the South Australian Government’s total expenditure on NDRRA eligible measures is \$71.6m<sup>14</sup>. *NB: This cost in relation to total State expenditure is conservative because it relates only to NDRRA eligible measures.* During this same period, the Commonwealth NDRRA reimbursement to South Australia was \$5.07m that equates to 7% of the State’s total expenditure on NDRRA eligible measures.

South Australia has only exceeded the first threshold once in the past decade. Considering South Australia’s total expenditure of disaster relief and recovery activities, it can be concluded that the current thresholds are not overly generous. The Commonwealth Government’s current NDRRA funding arrangements are however considered adequate in

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<sup>13</sup> [www.em.gov.au](http://www.em.gov.au) – Australian Safer Communities Awards Booklet 2010.

<sup>14</sup> For the period 2004/05 to 2012/13.

terms of providing an important financial safety net to help alleviate significant burden on states and territories after major emergencies and disasters.

**Are the betterment provisions in the NDRRA effective in encouraging recovery that develops resilience and reduces the cost of future disasters?**

Since 2007, the NDRRA has included the *Betterment* provision for restoration or replacement of an *essential public asset*. The arrangements are that the State must inform the Commonwealth of its decision to restore the asset to a more disaster resilient standard and the reasons for doing so. The Commonwealth must then be satisfied with the cost effectiveness of the proposal and the increased disaster-resilience of the asset to mitigate the impact of future disasters. The Commonwealth then advises the State if the business case is accepted. The backdrop is a community rightly expecting that the asset be restored as a matter of urgency because it is an “essential public asset”.

Whilst all levels of government acknowledge the opportunity to mitigate future losses through this provision, preparing a satisfactory business case in a timely manner is challenging post-event. Furthermore, a state must reach the first threshold to claim the betterment provision. South Australia has reached this threshold once in the past decade.

The *betterment* concept is sound and strongly supported by South Australia. Given that this is a crucial element of the mitigation approach, it is strongly recommended that jurisdictions work together to develop a workable solution to the problems that have been raised.

**Is the approach of providing assistance under four categories the most appropriate way of administering Australian Government grants? Is the way the categories are defined sensible? Is the assistance provided under each of the four NDRRA categories set at an appropriate level?**

The four categories A, B, C and D are appropriate in that each has a principal intent being:

NDRRA	State Expenditure Trigger	Eligible measures
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Category		
Category A	State Expenditure on NDRRA eligible measures exceeds \$240k (small disaster criterion).	Personal Hardship and Distress program targeted at individuals.
Category B	State Expenditure on NDRRA eligible measures exceeds \$36m (first threshold) and \$62m (second threshold).  First threshold = 50/50 (state/CW) cost share.  Second threshold = 25/75 (state/CW) cost share.	Restoration and replacement of essential infrastructure and counter-disaster operations for the protection of the general public.  Grants to primary producers and small business.
Category C	State Expenditure on NDRRA eligible measures exceeds \$240k <u>and</u> by agreement of the Commonwealth Attorney General Department and the First Ministers Department and Premier.	Grants to primary producers and small business.  Community Recovery Fund.
Category D	Triggered on agreement of the Commonwealth Attorney General Department and the First Ministers Department and Premier (no specific expenditure threshold)	For extraordinary measures defined by the event.

This NDRRA framework is considered an easy to understand and an easy to apply model. South Australia strongly supports the NDRRA policy concept of the Commonwealth providing safety-net assistance to the states; and also the states and the Commonwealth working cooperatively to provide safety-net assistance to individuals, communities and small to medium business enterprises. Furthermore, this assistance creates a multiplier effect within the local economy.

It is important to note that the long term recovery program is very much contingent on the initial investment of supporting a community to return to a semblance of normality as quickly as possible. There is no doubt that the NDRRA is central to this objective.



**Are the payments to farmers and small businesses through NDRRA categories B and C justified? Are they set at appropriate levels?**

The NDRRA currently states that Category C recovery grants to primary producers and small businesses are aimed at covering the cost of clean-up and reinstatement. South Australia supports the NDRRA Category C recovery grants as they enable government to provide a short-term and rapid response after a disaster. South Australia supports the tiered approach and funding caps, being the maximum grant of \$10,000 (tier 1) and up to \$25,000 (tier 2) in exceptional circumstances. Based on feedback from eastern states administrators, we are supportive of the position that requires applicants to produce receipts if claiming up to the tier one limit of \$10,000. No receipts should be required if claiming less than \$5,000.

South Australia does not support the provision of loans and freight subsidies provided under Category B for the following reasons:

- Where there is no apparent market failure in the finance sector, viable businesses should be able to access a loan.
- The eligibility criterion states that loans require the “borrower to have no reasonable prospect of obtaining commercial finance”. This raises the concern of the business’ viability and ability to repay. In most cases, affected businesses do not want to incur further debt.
- Loans are cumbersome. They take too long to deliver, expose taxpayers to unnecessary risks of lending capital, require long-term resources to manage, and are costly to administer.
- Subsidies tied to specific purposes such as freight costs are inflexible (compared to recovery grants) and have an inflationary effect on costs providing limited, if any, real benefit.

Businesses typically require short term and responsive support from government following a disaster, rather than long term measures. Financiers are best placed to determine viability

and respond quickly under existing loan arrangements. South Australia is supportive of interest rate subsidies as a practical measure under Category B, which may be considered if the circumstances are warranted in the future.

**How frequently has Category D (exceptional circumstances) assistance been used? What is this assistance used for and how have decisions been made?**

South Australia has not claimed assistance under Category D. South Australia supports the continuation of this category because it is not feasible to identify all potential major impacts of disasters and this category allows flexibility on a case by case basis within the NDRRA framework.

**NATIONAL PARTNERSHIP AGREEMENT ON NATURAL DISASTER RESILIENCE**

**How effective have NPANDR funded projects been at promoting resilient communities and reducing the impact and costs of natural disasters? Is the focus appropriate? Have evaluations been undertaken of these projects and are these publicly available?**

South Australia considers that the NPANDR is an effective mechanism for promoting resilient communities and reducing the impacts and costs of natural disasters. The focus is appropriate as it reflects the National Strategy for Disaster Resilience by placing the emphasis on:

- Developing a program of natural disaster resilience to address key priorities identified in NERAG compliant emergency risk assessments.
- Communicating emergency risks to the public.
- Supporting emergency management volunteers.

**Accountability processes**

The NPANDR and associated Implementation plans provide a reasonable assurance framework for ensuring that funds are directed to cost-effective evidence-based risk

mitigation and resilience building initiatives.

In South Australia, a rigorous accountability process has been established to ensure funded projects achieve the agreed deliverables and within the agreed timeframes. Grant recipients must provide 6 monthly reports to the State administrative agency, and in turn the State is required to provide annual reports to the Commonwealth.

The lists of approved South Australia NDRP<sup>15</sup> projects are published on the SA Fire and Emergency Services Commission website.

### Encouraging return on investment

The South Australia NDRP program supports and encourages multiple-year projects to deliver sustainable outcomes, including evaluation of project objectives. Evaluation reports of projects conducted by grant recipients are not published as this may discourage honest evaluation. These reports are provided to the State Government NDRP administrator.

Emergency Management Australia encourages projects that demonstrate best practice to be published and shared through the new EMA Knowledge Hub. Thus far, there is little take-up of this initiative that should continue to be pro-actively encouraged and promoted by EMA.

**What limits have been placed on grant amounts by individual state or territory governments? What is the routine for setting individual grant limits? What have been their consequences (eg: have projects with large net benefits not received funding?).**

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<sup>15</sup> [http://www.safecom.sa.gov.au/site/emergency\\_management/natural\\_disaster\\_resilience\\_program.jsp](http://www.safecom.sa.gov.au/site/emergency_management/natural_disaster_resilience_program.jsp)

The South Australian Natural Disaster Resilience Program sets nominal funding limits for individual projects under the NDRP grant funding components:

- All hazard grants (\$100k)
- Volunteer support grants (\$80k)

The rationale for relatively low funding levels is to encourage broad community participation in resilience in accordance with the NSDR policy position. The State Assessment Panel is able to consider projects that exceed these limits where there is a large net benefit.

The South Australian Government provides a direct contribution to the NPANDRP of 25% cash. The program requires the prime beneficiary to also contribute to the cost of NDRP projects to leverage the fund. In general, State Government agencies must co-contribute at least 50% cash to a project, Local Government at least 33% cash, and Non-government and volunteer groups at least 20% cash. Applicants may include in-kind contribution for up to 20% of the cash component, and may apply for an exceptional circumstances waiver under certain conditions.

**What is the most efficient way of allocating funding – between states and within states under the national partnership?**

The South Australian Natural Disaster Resilience Program (NDRP) and the National Emergency Management Projects (NEMP) program are competitive grant programs that are consistently over-subscribed. A problem is that whilst the funding has remained constant, the disaster mitigation and resilience programs at national and state levels have expanded and matured in line with the national policy shift in emergency management.

If there was greater investment in disaster mitigation and resilience, in line with the COAG commitment to adopt a whole-of-nation resilience-based approach, the following state and national ‘top-down and bottom-up’ NDRP and NEMP structures may be feasible.

## State level

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The following structure considers the option of three funding streams under the NPANDR:

### NDRP Emergency Risk Mitigation Scheme (top-down focus)

The NPANDR requires *each state and territory to ensure their state-wide risk assessments are consistent with the revised NERAG when agreed*. The revised NERAG was endorsed by the Australian New Zealand Emergency Management Committee on 16<sup>th</sup> May 2014. The next phase of the process is for states and territories to identify the highest priorities for mitigation investments.

This scheme would be a top-down targeted program to fund priority risk treatments identified in State Hazard Plans. This would provide an incentive for Hazard Leader Agencies to meet the State Hazard Plan assurance criteria that applies to any funding bid, such as compliance to NERAG. The assessment process would identify those treatment programs that could be delivered across hazards, and also treatment initiatives that should be progressed to the *National Emergency Management Project* (NEMP) scheme to deliver a national consistent approach and/or economy of scales.

### State Strategic Project Fund (top-down focus)

In 2011/12, South Australia established this fund (2013/14 allocation of \$650k) drawn from the NPANDR for projects that deliver agreed national outputs such as the development of a *SA NSDR Implementation framework* and development of the *SA Vulnerable Persons in Disasters Action Plan*. The same approach has been taken at the national level with the NEMP funding a range of top-down agreed outputs.

An important function of emergency management is to create frameworks within which government, the not-for-profit sector and communities can work within. This is a stand-alone fund for the State Emergency Management Committee to fund these top-down

programs.

South Australia Community Resilience Grant Program (bottom-up focus)

The net effect of funding these top-down programs is a diminishing competitive fund for ground-up initiatives that help communities build resilience to natural disasters rather than relying on emergency services and government which is unrealistic.

This fund would be a stand-alone fund for bottom-up initiatives that engage the community, and support emergency service volunteers. The scheme's objectives would be drawn from the *NSDR Community Engagement Framework (2013)* and *National Emergency Management Volunteer Action Plan (2012)*.

## **National level**

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The following structure considers the option of two funding streams under the NEMP:

National Strategic Projects Fund (top-down focus)

The Australian-New Zealand Emergency Management Committee work program is ambitious as it strives to achieve the resolutions of COAG and the Law, Crime and Community Safety Council (formerly the Standing Council on Police and Emergency Management). The ANZEMC needs to access the *National Emergency Management Projects* fund to conduct this work. Whilst the NEMP is strictly a competitive program, a majority of approved projects fund top-down ANZEMC priorities.

Similar to the issue in South Australia, this demand from top-down priorities is creating a diminishing competitive fund for bottom-up initiatives. This would be a stand-alone fund for the Australia New Zealand Emergency Management Committee to fund these top-down programs.

### National Disaster Resilience Grant Program (bottom-up focus)

This fund would be promoted as a competitive fund for bottom-up initiatives that arise from state and territory risk assessments, and from non-government, community and volunteer organisations that are considered to be at the forefront of strengthening disaster resilience in Australia<sup>16</sup>.

The focus should not only be on 'funding' but also on 'maximising the return on investment'. Many projects would benefit from multiple-year (two or three year) funding to ensure effective implementation and evaluation. Furthermore, any project funded under the NPANDR or NEMP should be accessible across the broad sector to capitalise on this investment. The Commonwealth own the Intellectual Property on NEMP products and it has been difficult at times for states and territories to utilise these products.

### **How effectively does the National Emergency Management Projects program contribute to sustainable natural disaster mitigation and resilience?**

The National Emergency Management Projects fund was established in 2009 using a component of Commonwealth funding from the NDRP (\$2m<sup>17</sup>), and also withdrawal of the Commonwealth *State Support Package (SSP)* to states and territories (\$2m of the total \$4.6m SSP fund ). The remaining \$2.6m SSP savings were redirected to fund the national Crisis Coordination Centre. The State Support Package had previously funded the State Emergency Services to carry out emergency management activities on behalf of the state.

The intention of the NEMP is to target national capability gaps for reducing risk and increasing resilience. A concern is that the NEMP has an inherent bias towards new initiatives. This is partly a symptom of limited funding. For example, in 2013/14 sixty one projects were submitted of which eleven were funded. It is difficult to obtain multiple year funding to see new initiatives funded through to the evaluation and implementation phase.

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<sup>16</sup> *National Strategy for Disaster Resilience*, pg v. 2011

<sup>17</sup> NPANDR 2009 provided \$100m over 4 years with \$8m allocated to the NEMP.

This was evidenced this year when the Torrens Resilience Institute applied for *National Emergency Management Project* (NEMP) funding to evaluate and promote the recently developed national *Model and Tool to Measure Community Resilience*. Whilst this second phase was supported by all jurisdictions, it failed in its bid over two consecutive years because it did not make the high priority list. The Commonwealth Attorney General's Department decided to fund the second phase of the project from an alternative funding source. The concern was a potential sunk investment.

A concern has also been raised by states and territories that some projects are funded under the NEMP with an expectation that states/territories will provide the ongoing operational budget. An example is the *National Registration and Inquiry System*. It is extremely risky when national capabilities are developed before ongoing governance and funding of the program is agreed and secured.

**Is the amount of funding under the NPANDR adequate? Is the balance of Australian Government funding on mitigation and resilience activities relative to recovery activities appropriate?**

The principle focus of the natural disaster funding arrangements is 'responding' to disasters. Commonwealth funding for disaster mitigation and resilience activities has reduced in real-terms, whilst there has been a sharp rise in response, relief and recovery funding. This can be explained in part by the following.

The COAG Natural Disaster Reform Commitments of 2002 recommended that the NDRRA extend its focus beyond the individual to communities and businesses, and infrastructure betterment. This broadened the scope of NDRRA eligible measures that are supported by South Australia in the context of delivering holistic and sustainable recovery programs.

As discussed, funding arrangements such as the NPANDR provide an important driver for influencing how governments and the community manage natural disaster hazards and build resilience to residual risks. South Australia will receive \$4.2m Commonwealth funding over the two year life of the NPANDR for mitigation initiatives. This compares to relief and



recovery funding of \$5.7 billion to Queensland and Victoria between 2009 and 2013, and the Australian Government Disaster Recovery Payment (AGDRP) cost of \$169m in 2012/13 for four events in Queensland, New South Wales and Tasmania.

### **AUSTRALIAN GOVERNMENT ASSISTANCE TO INDIVIDUALS**

**What is the objective of the AGDRP? Does the scheme in its current form achieve those objectives? If not, what changes do you consider are needed?**

The AGDRP is activated when the impact of a disaster on individuals and families warrants Australian government assistance in addition to that provided under NDRRA. The payment is \$1,000 per adult and \$400 per child.

The intent of the NDRRA is to provide safety net assistance to governments and the community. In this context, states and territories raised with the Commonwealth the broad eligibility criteria of the AGDRP that extended beyond those directly impacted (damage to self or property) to those who were indirectly affected (loss of utilities and/or lack of access to/from a principal dwelling for 48 hours). Payment to those indirectly affected was not considered safety-net assistance, and was the most costly component of the AGDRP because the footprint is often widespread.

South Australia supports the recent decision by the Commonwealth Government to restrict the AGDRP criteria to those directly impacted. This will provide significant savings under the scheme that could be better targeted to disaster mitigation and resilience.

**Are there any unintended consequences from the AGDRP?**

The AGDRP does create a duplication of registration with the Commonwealth registering all affected people (AGDRP grant recipients) rather than those specifically requiring Commonwealth Government services. The Commonwealth already receives data on affected people from the states through its normal NDRRA reporting process.

## **Does the AGDRP overlap with state and territory assistance to individuals?**

The Report of the National Commission of Audit<sup>18</sup> recommends that in the context of Natural Disaster relief funding, the Commonwealth should avoid attempting to duplicate the functions of the states.

South Australia does consider that the AGDRP duplicates the NDRRA Category A grants that provide immediate Personal Hardship and Distress payments (PHD) to those directly impacted by a disaster. The PHD grants are publicised as a joint Commonwealth and state initiative.

South Australia considers that the *Disaster Recovery Allowance* that provides short term income to support employees, small business operators and farmers who experience a loss of income is a more beneficial direct response by the Commonwealth. The short term income enables recipients to stay in the community and assist with the recovery effort, and retains vital skills within the community. The NDRRA PHD grants are complementary to this scheme.

## **STATE, TERRITORY AND LOCAL GOVERNMENTS**

### **What are the governance and institutional arrangements relating to natural disaster mitigation, resilience and recovery in South Australia? What is the States views on how these arrangements could be improved?**

The South Australian *Emergency Management Act 2004* establishes strategies and systems for the management of emergencies in the State. The Act establishes the *State Emergency Management Committee* (SEMC) and the *State Emergency Management Plan* (SEMP). The SEMC provides leadership and oversight of emergency management planning in the State. The SEMP outlines responsibilities, authorities and the mechanisms to prevent, or if they occur manage and recovery from incidents and disasters within South Australia.

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<sup>18</sup> *Towards Responsible Government: The Report of the National Commission of Audit*, February 2014

## State Arrangements

The *SEMP* has established a *State Mitigation Advisory Group*, *State Response Advisory Group* and *State Recovery Committee* that each report to the SEMC. The executive officers come together with South Australian representatives of ANZEMC sub-committees as the *SA NSDR Implementation Steering Group* that also reports to SEMC. This group has developed a *South Australia NSDR Implementation Plan* that enables SEMC to oversee and track the NSDR program in South Australia.

The *SEMP* has also established the role of Hazard Leader and Functional Service. The Functional Service role has been in place for many years to ensure adequate preparedness and response for a specified hazard. Each Functional Service must maintain a Functional Service Plan that outlines the State's plan in relation to preparedness, response and recovery. The role of Hazard Leader role is more recent, being established in 2005 to provide greater emphasis on risk prevention. The Hazard Leader and Functional Service for a specified hazard or function may or may not be the same agency depending on the skill requisites.

Each Hazard Leader must undertake emergency risk assessments for their specified hazard<sup>19</sup> in consultation with key advisors and stakeholders, and develop a State Hazard Plan that describes the hazard, details the risk assessment, and prioritises risk treatment options. This process has been discussed already in the submission.

Each Hazard Leader has established a Hazard Advisory Group to bring together the necessarily skills, expertise and legislative responsibilities. For example; the State Flood Hazard Advisory Group includes the Coastal Protection Board that is a statutory authority established under the *Coast Protection Act*. The State Bushfire hazard advisory group<sup>20</sup> includes the DEWNR<sup>21</sup> that is responsible for fire management on public land.

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<sup>19</sup> The State Emergency Management Committee has identified 10 state level priority hazards.

<sup>20</sup> Known as the State Bushfire Coordination Committee.

<sup>21</sup> Department of Environment, Water and Natural Resources.

The South Australian Government has also established the *State Recovery Office* that partners with the emergency management sector and community organisations to help build resilience to disasters. The Office also provides State leadership for disaster recovery planning and operations after a major event.

### Zone (regional) Arrangements

The State's emergency management arrangements divide the state into 11 zones based on State Government boundaries. Each Zone must establish a Zone Emergency Management Committee (ZEMC) that provides an assurance role across prevention, preparedness, response and recovery. The ZEMC is typically chaired by local government, and each zone is required to undertake a zone emergency risk assessment and develop a Zone Emergency Management Plan that describes the local hazards, includes the zone emergency risk assessment, and the priority risk treatments. The ZEMCs work closely with Hazard Leaders, Functional Services and local key stakeholders and industry groups. In 2013, the Zone Emergency Risk Assessment Program won a commendation at the national Resilience Australia Awards.

It is considered that an improvement to the structure in South Australia may be to prescribe the role of Local Government, the Hazard Leader and Zone Emergency Management Committees into the State's emergency management legislation to emphasise the importance of risk planning and risk assurance. This is currently being considered by the South Australian Government.

### South Australian Climate Change Adaptation Framework

The State recognises that the predicted impacts of climate change will have implications for future natural disaster incidence and impacts, particularly flooding, bushfires, heat waves and sea level rise. South Australia is seen as a national leader in climate change adaptation and has been an exemplar in engaging the community to prepare for the impacts of climate change<sup>22</sup>. The State has committed to providing \$1.35 million over 3 years commencing 2012/13 (\$450,000 pa) in recurrent funding, with staffing of 3 FTE to implement the

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<sup>22</sup> South Australia won a National Resilience Australia Award for the program in 2014.

Adaptation Framework. In 2013, the South Australian Climate Change Adaptation Framework won the State Government award at the national Resilience Australia Awards.

The Framework provides a mechanism for regional leaders to work together to plan for the impacts of climate change, including natural disasters. Partners in regions invest their own funds and time to protect assets and services at the local scale. This in turn reduces the risk and exposure to government. It is estimated that the framework has leveraged significant external funding (a ratio of 3 to 1) with contributions from local government, Regional Development Australia and NRM boards. The bulk of the funding supports planning process at the regional scale, including one off grants to each region (up to \$50,000 each) to complete Integrated Vulnerability Assessments.

### **What processes are used to manage natural disaster risks in government activities?**

Aside from governance and institutional arrangements, South Australia has established statutory and policy directives, and codes of practice to manage natural disaster risk. The State also provides a range of mitigation grants beyond the NPANDR such as coastal protection grants, environmental protection grants and stormwater management grants.

The United Nations and World Bank have concluded that the most beneficial policy responses of government for disaster prevention include the following<sup>23</sup>:

#### Governments should make information more easily accessible.

People are guided in their prevention decisions by information on hazards. An output of the NPANDR is for *states and territories to communicate risk to the public through the publication of State-wide risk assessments*. This initiative is supported by each state and territory but it remains a complex area to ensure that risk information is communicated in a way that reaches those most vulnerable, and is correctly interpreted by the public. The South Australia Fire and Emergency Services Commission recently submitted a NDRP project proposal to conduct a social research

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<sup>23</sup> Natural Hazards Unnatural Disasters: The Economics of Effective Prevention, 2010.

survey to help inform the process.

#### Land Use Planning and Building Codes

Effective planning guides peoples decisions on where to live and what prevention measures to take. The topic is discussed further in this submission under the title 'Land Use Planning and Infrastructure Policies'.

#### Promoting collective action of public and private agencies

In Australia, the *National Strategy for Disaster Resilience* recognises that “disaster resilience is the collective responsibility of all sectors of society, including all levels of government, business, the non-government sector and individuals. If all of these sectors work together with a united focus and a shared sense of responsibility to improve disaster resilience, they will be far more effective than the individual efforts of any one sector”.

The National Strategy for Disaster Resilience has captured these themes and the NPANDR is an important driver for shifting policy and resources towards these objectives.

The State Emergency Management Committee is committed to learning from national and international Inquiries. Where relevant, the SEMC establishes time-limited taskforces to evaluate recommendations in the context of South Australia’s risk profile. The *SA Earthquake Inquiries Taskforce* is still meeting to analyse the findings of the Christchurch Earthquake. The *SA Flood Reform Taskforce* has identified fifteen high-level recommendations from recent flood inquiries across Australia and now undertaking a cost-benefit analysis.

### **How do states and territories undertake analysis and decision making when allocating funding across mitigation, resilience and recovery activities?**

#### Stormwater Management

The State funds many flood mitigation projects through the Stormwater Management Authority (SMA). Funding for mitigation works is informed by cost-benefit analysis and the

final decision making between projects is informed by councils request for funding (who must provide a significant co-contribution) and technical advice provided by State Government. A number of projects are leveraged through joint funding of the SMA and the NPANDR.

### Sea Flood Risk

The Coastal Protection Board (CPB) provides grants to councils to assist with identification of areas at risk of sea flooding, to develop strategies to address risk and to implement flood mitigation works. Demand for these grants exceeds available funds and the Board uses a prioritisation system to allocate funds. A number of projects are leveraged through joint funding of the CPB and the NPANDR.

The process of prioritisation would be enhanced through the availability of high resolution digital elevation models for low lying coastal areas that identifies current and future risks. A national program was in place to complete Digital Elevation Modelling (DEM) for low lying coastal areas across the nation. The program ceased however around the time of the Global Financial Crisis.

### All Hazard Risk Management

The State Emergency Management Committee has identified ten priority state hazards that have recently undergone a rigorous emergency risk assessment process. This process has identified risk treatment priorities for each hazard across prevention, preparedness, response and recovery. The challenge remains of how to prioritise risk treatments 'between' priority hazards.

As discussed, the South Australia Government in partnership with the Macquarie University is leading a national project<sup>24</sup> to develop a method of assessing the benefits and costs of mitigation to assist prioritisation of risk treatment options across prevention, preparedness, response and recovery.

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<sup>24</sup> Funded as a 2013/14 National Emergency Management Project.

### **Do state and territory governments have the capacity to fund natural disaster risk?**

The South Australian government funds natural disaster risk management through co-contribution of the NPANDR as well as a number of recurrent funding programs. For example; emergency service agencies, the Coastal Protection Board, the Stormwater Management Authority and the Natural Resources Management Boards.

Local councils provide significant funding to natural disaster risk management for local hazards such as flood, storm and bushfire. Natural disaster risk mitigation is a prominent focus of council's capital work programs and day-to-day activities.

The increasing vulnerability, discussed on page 4, highlights the growing challenges in disaster mitigation and community preparedness. This question may raise the question of which level of government is responsible for meeting this complex challenge. The *Australian Government Emergency Management Arrangements* identify that all levels of government are responsible for mitigation practice and policy, and for reducing the risks and costs of emergencies. Therefore, whilst it is a responsibility of state and territory governments to fund natural disaster risk, this needs to be complemented by Commonwealth and Local Government funding to reduce national spending on disaster response, relief and recovery.

### **How well are natural disaster mitigation and recovery coordinated across governments and agencies at the Commonwealth, state/territory and local levels? Is there evidence of duplication or overlaps?**

The *Australian Emergency Management Arrangements* provide a high level overview of the principles, structures and procedures that support all-hazard coordination of emergency management in Australia and its off-shore territories. This is an important document for realising the COAG 2002 vision of a world-class national framework for natural disaster management.



The arrangements describe the roles of the Commonwealth Government, state and territory governments and local government. Whilst the role of local government is determined within the state, the Arrangements do provide an agreed national model that helps to promote consistency across jurisdictions.

There is little evidence of duplication or overlaps; rather a national framework that has been established over the past decade in the context of the COAG resolution to fundamentally shift the focus beyond disaster response and reaction towards cost-effective, evidence based disaster mitigation<sup>25</sup>.

## **ASSESSING THE CURRENT ARRANGEMENTS**

**What should be the objectives of natural disaster funding arrangements? Are the level and balance of natural disaster mitigation, resilience and recovery activities appropriate? Is there a case for changing them, either in absolute or relative terms?**

### Natural disaster resilience and community preparedness

The natural disaster funding arrangements should reflect the objectives of the *National Strategy for Disaster Resilience*. The Australia-New Zealand Emergency Management Committee acknowledges that the workload and resource implications for Commonwealth, State and Territory governments' to implement the Strategy continues to be significant.

Whilst the NPANDR is just one aspect of the Strategy, it is none-the-less a critical aspect to ensure the implementation of the Strategy<sup>26</sup>. Whilst South Australia considers the NPANDR to be an effective mechanism, a concern remains that the broad natural disaster funding arrangements are principally focussed on 'responding' to disasters.

### Natural disaster response and recovery

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<sup>25</sup> Natural Disasters in Australia; Reforming mitigation, relief and recovery arrangements, August 2002. COAG

<sup>26</sup> Australia-New Zealand Emergency Management Committee meeting 4th October 2013.

The purpose of the NDRRA to provide safety net funding for states and territories, as well as for individuals, communities and business (SMEs) is an important principle to maintain. South Australia also supports the broad NDRRA recovery measures that were developed in consultation with all jurisdictions to enable holistic and sustainable recovery programs.

## **PROVIDING INCENTIVES TO USE INSURANCE**

### **What are the current arrangements for insurance for essential public assets owned or managed by state and territory governments?**

In 2011, a detailed report on the current arrangements for insurance of public owned assets in South Australia was submitted to the Commonwealth's Department of Finance and Deregulation in accordance with the NDRRA Determinations 2011. A subsequent review of all state and territory insurance arrangements by KPMG was published on the Department's website in 2012.

The following changes have been made to the arrangements for insurance of public owned assets in South Australia since the report was submitted in 2011.

- The property reinsurance limit has been increased from \$600m to \$750m.
- Terrorism cover is now purchased with a policy limit of \$250m.

### **What explains the disparities in natural disaster insurance coverage by state and territory governments?**

It is unclear what is meant by "disparities in natural disaster insurance coverage by state and territory governments", although to say that states do purchase different levels of catastrophic insurance. The primary reasons why different levels of reinsurance cover are purchased between states would most likely be the different size of asset pools being insured and the different peril exposures.

### **What impacts do the structure and design of NDRRA have on the incentives of state and**

## **territory governments to insure essential public assets?**

The South Australia government captive insurer purchases a level of catastrophe reinsurance commensurate with the assessed risk of exposure to natural disasters and the total value of assets being insured. Catastrophe modelling of the property portfolio is undertaken every three years to assist in determining the appropriate level of reinsurance cover. The decision on how much cover to purchase is not influenced by the existence of funding under the NDRRA.

### **Other comments – road infrastructure.**

One of the most significant assets lost in many natural disasters is roads, particularly following floods. In 2011, the South Australian Government captive insurer spent a considerable amount of time exploring traditional and non-traditional risk transfer options for roads. The conclusion from this work was that there was a very limited market for road insurance and, even if cover could be purchased, it would be at an uncommercial rate and not at a level of cover that would add much value. The same was found for alternative risk transfer options such as catastrophic bonds.

### **What impacts do the structure and design of the NDRRA have on the incentives of household and business to insure their property?**

The decision by households and business on how much cover to purchase is unlikely to be influenced by Personal Hardship and Distress grants provided under the NDRRA in South Australia. The grants provide a basic safety-net and are by no means compensation of loss. The following provides an example of the level of PHD payment to a family without insurance. The level of safety-net assistance to business is discussed on page 17.

The Emergency Grants are not means tested nor subject to insurance. A family who is directly impacted can receive \$700 and crisis accommodation during the immediate crisis period. The Re-establishment grant (up to \$11,000) is means-tested and payable to those without insurance. This Re-establishment grant reduces if a family receives an income in

excess of \$700 per week (\$37,000 per year). NB: There is a different set of income limits for individuals and also couples without children.

A benefit of the non-means tested Emergency Grants is that they are paid during the immediate relief phase when insurance is not forthcoming. The Emergency Grant and insurance are complementary.

## **ARE LAND USE PLANNING AND INFRASTRUCTURE POLICIES CONSISTENT WITH EFFECTIVE NATURAL RISK MANAGEMENT**

*A disaster exposes the cumulative implications of many earlier decisions, some taken individually, others collectively and a few by default<sup>27</sup>.*

South Australia is committed to the national action plan for *Enhancing Disaster Resilience in the Built Environment*<sup>28</sup>. A South Australian working group has been established under the State Emergency Management Committee to progress the Plan. A project officer appointed to the committee is funded from the *NPANDR State Strategic Project Fund*. The working group is due to complete an inaugural *South Australia Land-Use Planning and Building Codes Capability and Investment Plan* that aligns to the national action plan in October 2014.

### **What impacts do policies regarding land use planning and infrastructure have for natural disaster risk management for state and local government levels?**

Land use planning and infrastructure planning policies have a significant impact, primarily due to the influence of these policies in determining where development can occur, what type of development (or land use) can occur in particular areas and what conditions might be applied to development in particular areas. For example, requirements for higher finished floor levels of buildings in flood prone areas.

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<sup>27</sup> Natural Hazards Unnatural Disasters: The Economics of Effective Prevention, 2010. The United Nations and The World Bank.

<sup>28</sup> Endorsed by the Standing Council on Police and Emergency Management in 2012

These policies do not only affect current and future development, but past development practices that have not factored risk, or where the risk profile is changing such as coastal developments. Historical development may pose a greater risk, for example in the case of earthquake vulnerability, because planning systems are not retrospective.

**Is there a need for greater information provision and disclosure in planning decisions?**

The national Land Use Planning and Building Codes (LUPBC) Taskforce identified 'Collaborative Vendor Disclosure' as an important means of alerting prospective property buyers of the potential risks to the subject land of natural hazards. Currently jurisdictions across Australia supply this information inconsistently and the LUPBC Taskforce is working to address the issue.

**What impact to the current natural disaster funding arrangements have on land use planning, risk reflective asset pricing and infrastructure investment decisions at state and local levels?**

Commonwealth and State special purpose funding has leveraged local government's capacity to mitigate natural hazard risks. This has subsequently lessened the planning and building requirements attached to developmental proposals meaning the costs of individual developments are reduced.

**What reforms to land use planning and infrastructure investment would best support cost-effective risk management understanding of the changes to the risk profile?**

Improved data and understanding about the potential hazards in areas earmarked for development is essential in order for sound risk management policies to be developed. This information includes robust mapping or risk (bushfire, flood, landslide, sea-level rise and cyclone). An example of embedding good design practice into land-use and infrastructure is the recently built Henley Beach Surf Life Saving Club that has been designed to withstand projected sea-level rise.

There are good national and state initiatives in place to map current risk; such as the South Australia bushfire mapping program and the national Flood Information Portal project. There should be equal emphasis on emerging risks such as sea level rise. As discussed, the national program to undertake Digital Elevation Modelling of sea level rise was underway however ceased around the time of the Global Financial Crisis.

### **OTHER REFORM OPTIONS**

Whilst it is noted that drought is out of scope of natural disaster risk management arrangements, there are potential learnings and linkages to the recent drought policy reforms.

National drought policy focusses on building drought preparedness and recognises the key role of farmers in building resilience. Moreover, measures such as Farm Management Deposits and a national approach to farm business training will not only develop farmer preparedness and resilience to drought climate variability, but to a range of natural disasters that are within scope of this inquiry.