



bushfire&natural
HAZARDSCRC

DEVELOPING A NATIONAL NATURAL HAZARDS RESEARCH AGENDA

North Australia Fire Managers Forum

Tuesday 20 June 2016



Australian Government
Department of Industry,
Innovation and Science

Business
Cooperative Research
Centres Programme

BUSHFIRE AND NATURAL HAZARDS CRC

- 1) From 1 July 2013 under Australian Government CRC Program
 - a) \$47m over 8 years;
 - b) Total funds \$130M (cash and in-kind)

- 2) Approximately 50 partners:
 - a) ~30 end user organisations
 - b) ~20 research organisations

- 3) Guiding Principles
 - a) National focus
 - b) Large scale of problem
 - c) Multi hazard
 - d) Filling a gap in knowledge
 - e) Sizable impact
 - f) Likelihood of adoption



SOME NATURAL HAZARDS IN AUSTRALIA

Hazard (risk)	Location
Cyclone	Northern Australia (WA, NT, Qld)
Large Wildfires	Southern and mid-Australia (Vic, NSW, Tas, SA, WA, ACT, Southern Qld)
Riverine Flooding	All Australia
Flash Flooding	All Australia
Storm surge & Tsunami	Coastal areas
Earthquake	SA, NSW, WA
Heatwave	All Australia

Chart 1.6 Proportion of population aged 65 and over

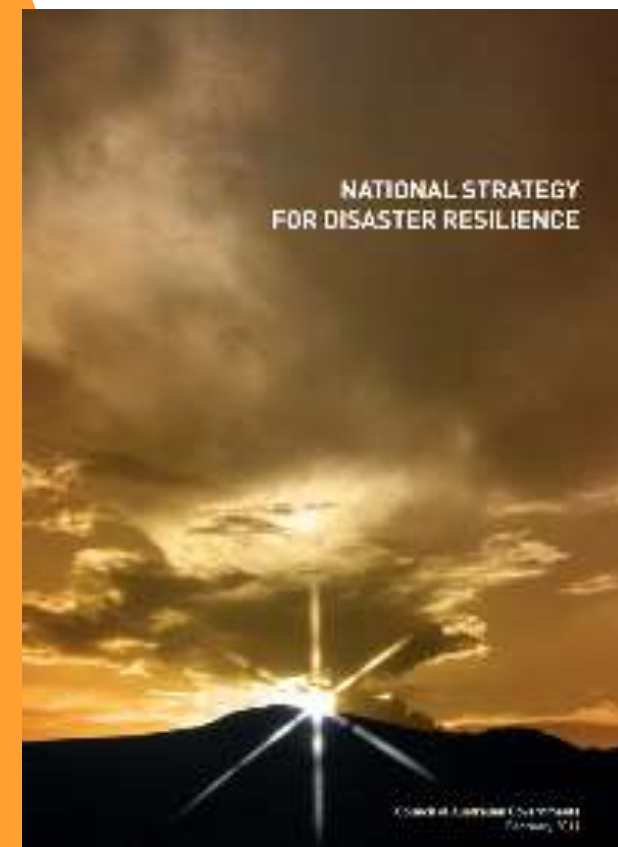
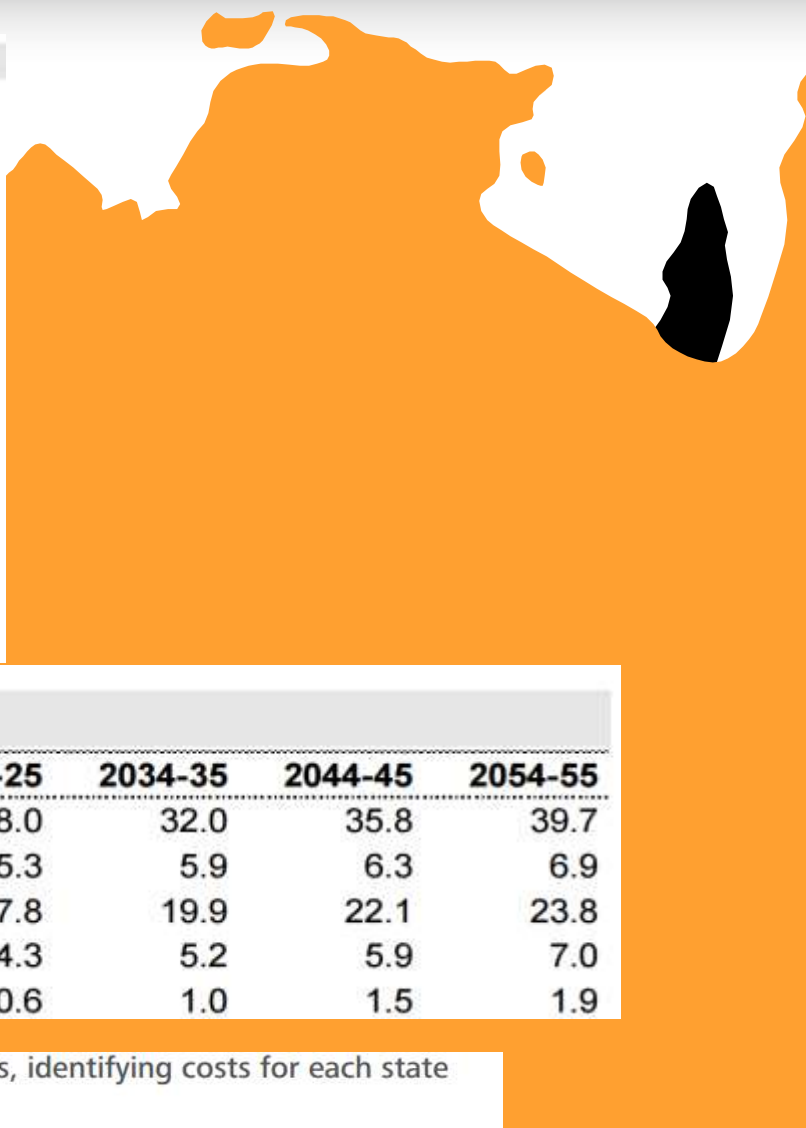
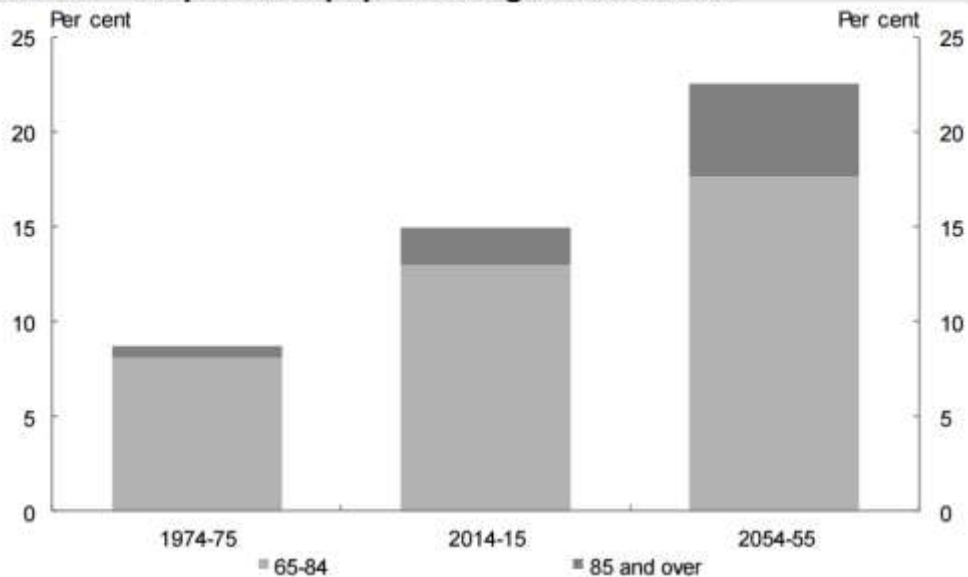
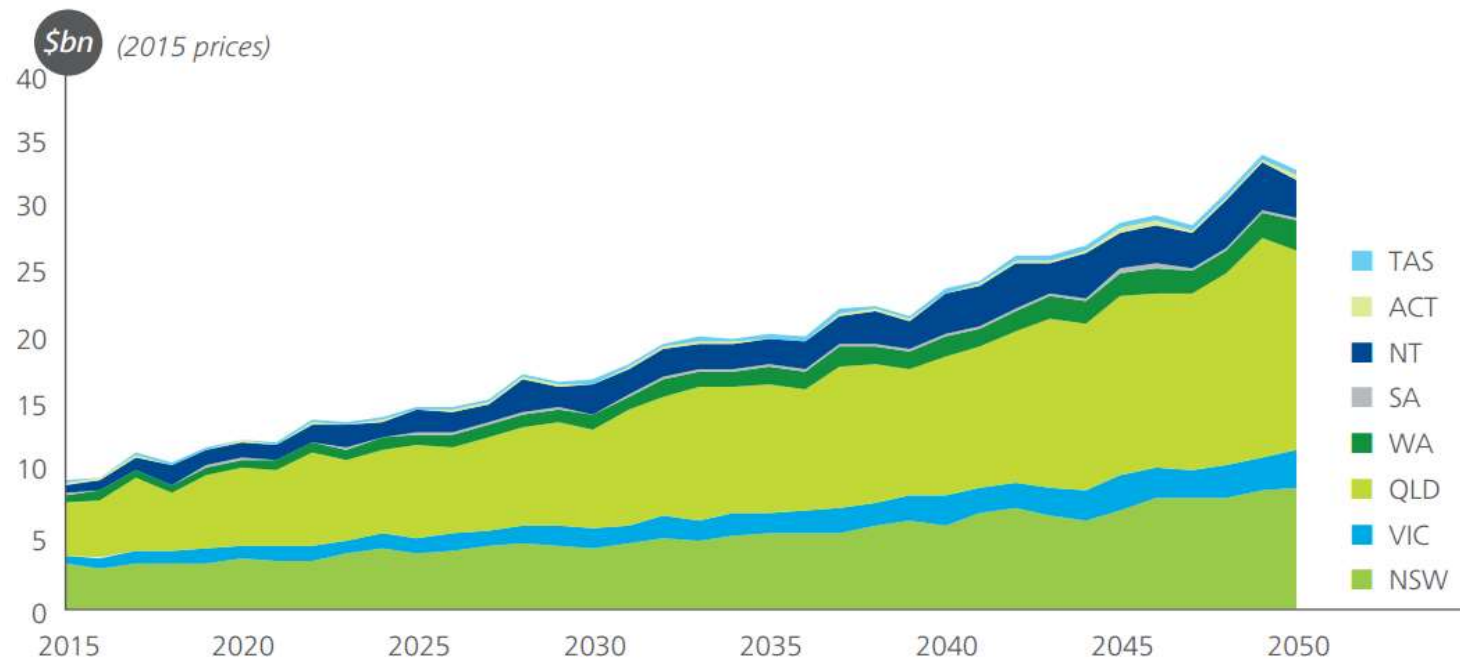


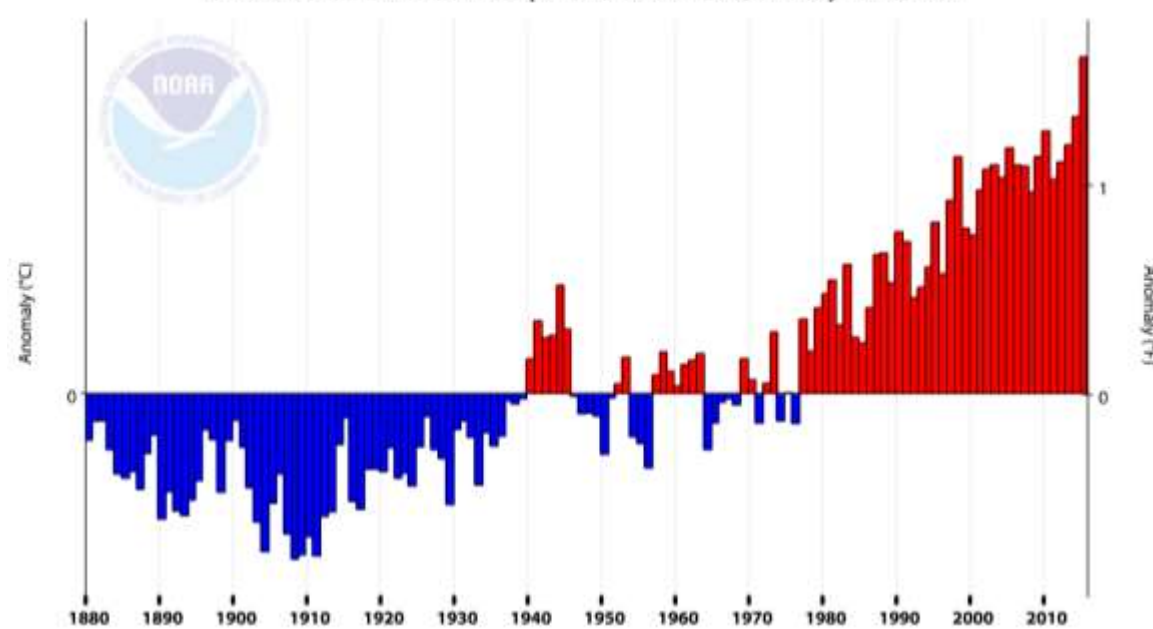
Table A.2 Demographic projections

	2014-15	2024-25	2034-35	2044-45	2054-55
Population (millions)	23.9	28.0	32.0	35.8	39.7
0-14	4.5	5.3	5.9	6.3	6.9
15-64	15.8	17.8	19.9	22.1	23.8
65-84	3.1	4.3	5.2	5.9	7.0
85 and over	0.5	0.6	1.0	1.5	1.9

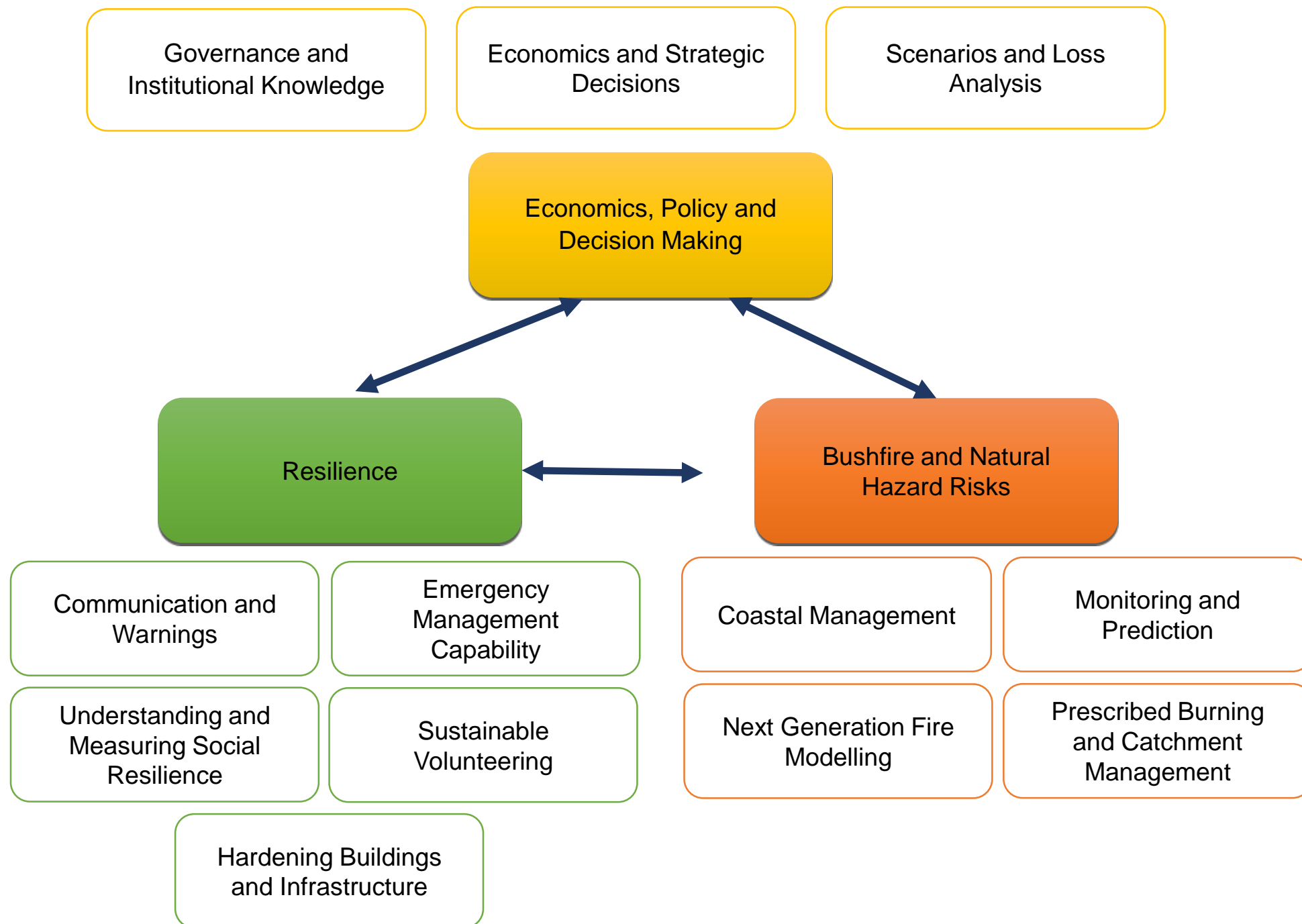
Chart ii: 2015–50 forecast of the total economic cost of natural disasters, identifying costs for each state



Global Land and Ocean Temperature Anomalies, January-December



RESEARCH PROGRAM – 2013 TO 2017



REFRESHING THE CRC RESEARCH PROGRAM

Understand current environment (Now)

- Quality and utilisation potential of current CRC program
- Publically funded natural hazards research

Consult stakeholders (Now – Dec 2016)

- Develop a national natural hazards research agenda
- Prioritise areas for future research

Seek research providers (July – Aug 2016)

- Seek expressions from research partners, and the wider research sector if required

Develop projects plans (Aug – Dec 2016)

- Research and end user representatives develop project

Start projects (July 1 2017)

- Contracting and finalisation of project plans

Theme	Lead organisations, networks or committees	2016 Workshop Date
Recovery	ANZEMC Recovery SC, Australian Red Cross	Oct 2015
Capability	ANZEMC Capability Development SC	March 1
Economics and mitigation	ANZEMC RAMMS	March 8
Infrastructure	AFAC Built environment technical group	March 17
Community Safety	AFAC Community Safety Group	April 12
Urban operations	AFAC Urban operations group	April 20
Rural Fire	FFMG, AFAC RLMG and PSG	May 5
Community engagement	ANZEMC CESC/ AFAC CETG	May 10
Land use planning	Planning Institute of Australia (PIA)	May 13
Flood	NFRAG	May 18
Finance and insurance	Willis Re	June 15
SES / Urban ops	AFAC SES Operations Groups	June 22
Volunteering	AEMVF, AFAC Volunteer Management TG	June 30
Weather	BoM	July 14
Remote sensing	Geoscience Australia	TBC
Diversity	TBD	TBC
Remote and indigenous	TBD	August
Data Management	Geoscience Australia (GA)	TBC
Warnings	TBC	TBC

A NATIONAL NATURAL HAZARDS RESEARCH AGENDA

A national natural hazards research agenda, consisting of succinct, high value problem statements across a spectrum of topics supporting natural hazards disaster resilience.

Broader than the BNHCRC research program and our ability to fund necessary research, it will

- Inform the 2017-2021 BNHCRC research program.
- Act as a guide to Australian research sector on high value areas of national strategic importance.

▲ THEME: EMERGENCY MANAGEMENT PRACTICE

Problem:

The traditional practice of the emergency management sector may become unsustainable and inadequate in the future environment. Expectations of the emergency management sector appear to be rising, while disasters have increasingly severe consequences. In order to create the sustainable emergency management practices that are essential for a resilient nation, there is a need to address a range of research areas to develop the practice to meet future needs.

Major questions of interest include:

1. Question 1
2. Question 2
3. Question 3

The historical practice of the emergency management sector looks to be inadequate in its current form to meet the challenges of the future environment. Expectations of the emergency management sector appear to be rising, while disasters have increasingly severe consequences placing increasing pressures on government, industry and personal budgets.

In order to create the sustainable emergency management practices that are essential for a resilient nation, there is a need to address a range of research areas to develop the practice to meet future needs.

The research areas in this theme include the predictive capability that is required to issue warnings, response and recovery practice, inter-organisational capability and interoperability, and statutory and institutional design.

Finally, there is a growing need to address issues around workforce planning for the emergency management agencies engaged in response and recovery, with increasing pressures on traditional volunteer models and productivity being an ongoing workforce issue.

KEEPING IN TOUCH

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