



THE FIRST NATIONAL ACTION PLAN

To implement the
National Disaster Risk Reduction Framework



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FOREWORD BY THE AUSTRALIAN GOVERNMENT MINISTER FOR AGRICULTURE, DROUGHT AND EMERGENCY MANAGEMENT

In 2019-20, Australia suffered a devastating and catastrophic bushfire and disaster season. The unprecedented bushfires alone claimed 33 lives, destroyed 3,000 homes and an estimated 13 million hectares, and severely impacted many of our local communities and economies.

In the midst of these disasters, Australian communities pulled together to save lives and look after each other. Now, in rebuilding, improving disaster and climate resilience and preparedness is a major focus for the Australian Government so we can reduce the risk of future disasters to the life, property and wellbeing of Australian communities all over the country.

In February this year I made a statement to the Australian Parliament thanking our emergency service workers and volunteers for their tireless efforts. I also noted this as a turning point. We need to change the way we think about our vulnerability and resilience to natural hazards. We must address our risks before disasters strike, and prepare for future changes to climate we know are happening, so that we never see suffering on the scale of this season ever again.

Australian communities and our way of life will be impacted in ways we have not experienced before. Our world-leading researchers have told us that we can expect more climate extremes into the future. Events such as drought, bushfires, floods and storms will become more severe.

The essential services we depend on are increasingly interconnected and interdependent. This means that people and assets are more exposed and vulnerable, testing our capacity to cope.

The *National Disaster Risk Reduction Framework* (the Framework) sets out how Australia can prepare for this future. The Framework is closely

aligned with Australia's commitments under the *Sendai Framework for Disaster Risk Reduction 2015–30*, the global blueprint for action to reduce disaster risk.

The Framework describes what governments, industry, communities and individuals – working together – must do differently to maintain our prosperity and strengthen our resilience. Disaster resilience and risk reduction is a shared responsibility, but often not equally shared. While individuals and communities have their roles to play, they do not control many of the levers needed to reduce some disaster risks. Governments and industry in particular must take coordinated action to reduce disaster risks within their control to limit adverse impacts on communities.

On 13 March 2020, the Council of Australian Governments endorsed the Framework and tasked emergency management ministers to develop a National Action Plan to implement the Framework. Leaders also agreed to pursue three disaster risk reduction strategies by improving the resilience of the telecommunications network, adapting the built environment and improving national natural hazard data and intelligence. These decisions affirm the Framework as the guide for coordinated action across all sectors of the economy to reduce disaster risk.

In addition to resilience and risk reduction initiatives already underway in each jurisdiction, implementation of the Framework is supported by a \$261 million Commonwealth-State funding package to support risk reduction initiatives in line with the

Framework. These commitments illustrate the determination and unity across all governments to reduce disaster risk and build a more disaster-resilient Australia.

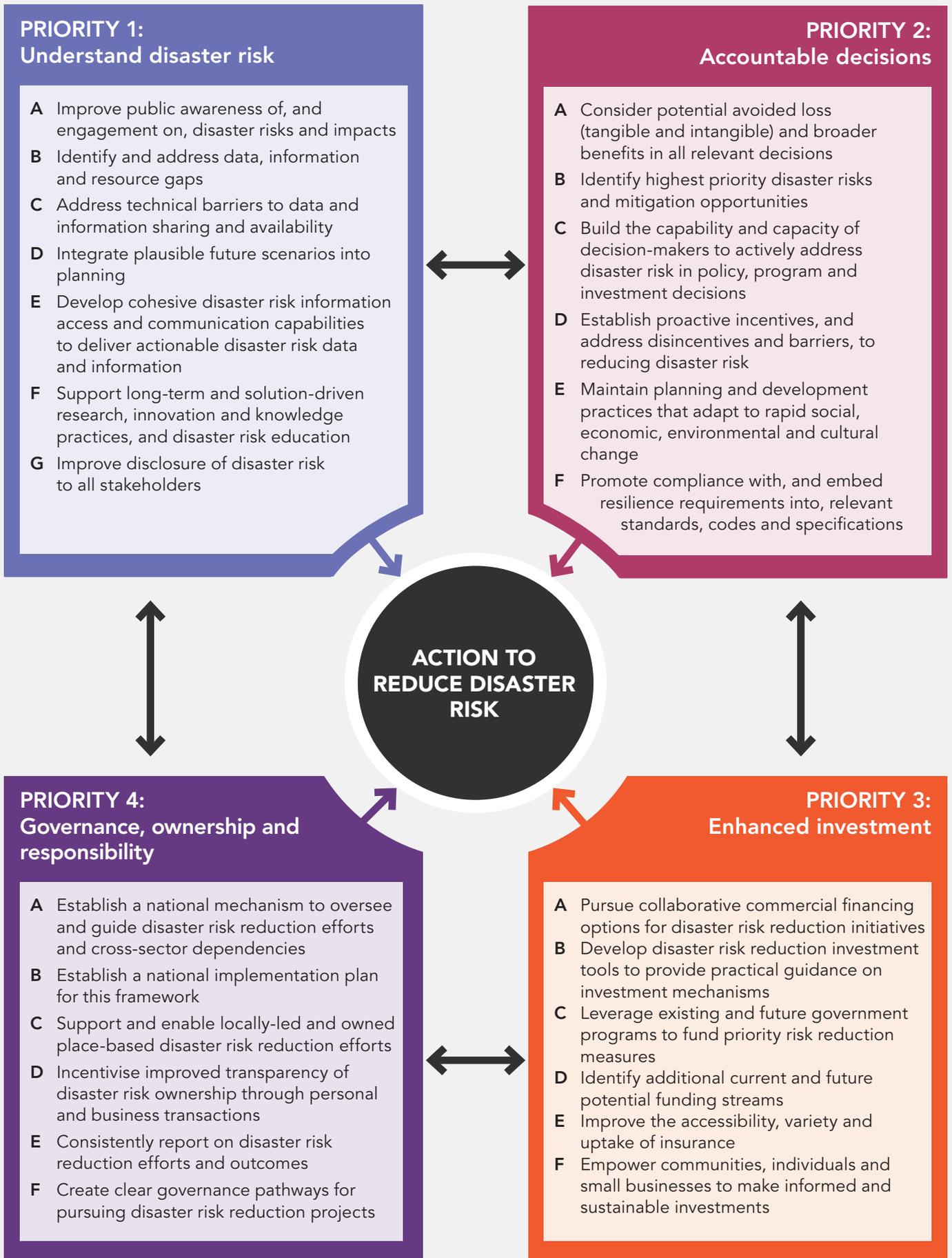
This is the first National Action Plan and highlights the actions the Australian Government is taking to enable the nation to reduce disaster risk now and into the future. There is also an array of important work underway in jurisdictions and sectors in relation to disaster risk reduction that is detailed in the appendices to this document. The National Action Plan will be reviewed and updated annually in consultation with stakeholders and will reflect our growing understanding about how best to progress the systemic changes needed to reduce disaster risk.

I acknowledge the Ministerial Council for Police and Emergency Management for its support to the Department of Home Affairs in developing this first National Action Plan.

Finally, I would like to thank all others involved in developing the first National Action Plan for their time, effort and expertise. Stakeholders across many sectors of our society have been instrumental in developing this National Action Plan into a truly national effort.

David Littleproud
Minister for Agriculture, Drought
and Emergency Management





PRIORITY 1: UNDERSTAND DISASTER RISK

Strategy	Title	Domain	Lead agency	Timeframe
All Priority 1 Strategies	New National Climate and Disaster Intelligence Capability	Commonwealth	Department of Home Affairs & Department Agriculture Water and Environment (with the assistance of Bureau of Meteorology, Geoscience Australia and the CSIRO)	Current
F	The National Environmental Science Program (NESP)		Department of Agriculture, Water and the Environment	Current – June 2027
A	Regional Land Partnerships			Current – June 2023
D	World Heritage Climate Vulnerability and Adaptation assessments			Planned
F	Climate Science Advisory Group		Department of Agriculture Water and the Environment and the Department of Industry, Science, Energy and Resources	Future
B	Electricity Sector Climate Information Project		Department of Industry, Science, Energy and Resources	2018-19 – 2021-2022
C	Open Geocoded National Address File			Current
F	Bushfire Natural Hazards Cooperative Research Centre			Current – 30 June 2021
A	Special Research Initiative – Health Threats in Environmental Change			National Health and Medical Research Council
C	Australian Flood Risk Information Portal		Geoscience Australia	Current
B	Foundation Spatial Data Network	Council	Australia New Zealand Land Information Council - the Spatial Information Council	Current
A	Assessing climate risks in the regulated financial sector	Australian Government regulators	Australian Prudential Regulation Authority	Current (due 2020)
F	Council of Financial Regulators (CFR) climate change working group		Australian Prudential Regulation Authority, Australian Securities and Investment Commission, Reserve Bank of Australia and Treasury	Current
G	Listed company disclosure and governance of climate change related risks and opportunities		Australian Securities and Investments Commission	Current

PRIORITY 1: AGGREGATED AUSTRALIAN GOVERNMENT FUNDING: \$815 MILLION

FUTURE AREAS OF WORK

Public Awareness:

The Australian Government will continue to work with partners to improve public awareness of the systemic nature of disaster risks particularly in the priority areas of land use and development, building and infrastructure and finance.

Data & Information:

The Australian Government will lead the national effort to make authoritative climate and disaster data and information available and accessible. This will include the work of the Australian Data and Digital Council, in consultation with the Ministerial Council for Police and Emergency Management to improve national natural hazard data and intelligence to enable the development of new information products such as a national fire map. Building these services is foundational to understand disaster risk, and supports accountable decision making and enhanced investment.

Risk Disclosure:

Some hazard risk information is not disclosed due to legal and other concerns. The Australian Government will work to identify the relevant stakeholders who can take action to improve the disclosure of climate and disaster risks, which touch many Australians' lives and underpin our economy.

Research & Learning:

Government, research institutions and the private sector will continue to work together to address gaps in knowledge and coordinate and harmonise research to understand high priority disaster risks and vulnerabilities. This includes improving our ability to future-cast hazards, rather than relying on historical data, as well as understanding how underlying vulnerability affects disaster risk.

PRIORITY 2: ACCOUNTABLE DECISIONS

Strategy	Title	Domain	Lead agency	Timeframe
C	Guidance for Strategic Decisions on Climate and Disaster Risk	Commonwealth	Department of Home Affairs, CSIRO & Department of Agriculture, Water and the Environment (with Department of Industry, Science, Energy and Resources)	2020
B	Reef Restoration and Adaptation Program		Australian Institute of Marine Science	Current
B	Bushfire Mitigation			Current
F	Compliance Framework through Estate Engineering, Governance and Integrity System (EEGIS)		Department of Defence	Current
A	Defence Estate Climate Adaptation Partnership			Current (first half of 2020)
C	Climate Compass – Climate Risk Framework for Commonwealth Agencies		Department of Agriculture, Water and the Environment	Current
E	Infrastructure Investment Program			Current
B	Strengthening telecommunications emergency resilience		Department of Infrastructure, Transport, Regional Development and Communications	Current
C	Organisation for Economic Co-operation and Development (OECD) Report - Policies to strengthen resilience and manage risk		Department of Agriculture, Water and Environment and OECD	Current
E	Healing and Rebuilding from the 2019 – 20 Bushfires		Department of Industry, Science, Energy and Resources	Planned
F	Improving Building Resilience	COAG	Australian Building Codes Board	Current
C	Development of climate change financial risk guidance	Australian Government regulators	Minister for Agriculture, Drought and Emergency Management	Planned 2020-21
C	Climate change financial risk vulnerability assessment		APRA, Reserve Bank of Australia and Australian Securities and Investment Commission	Planned 2020-21

PRIORITY 2: AGGREGATED AUSTRALIAN GOVERNMENT FUNDING: \$207 MILLION

FUTURE AREAS OF WORK

Mainstreaming Disaster and Climate Risk:

Government, research institutions and the private sector will work together to promote the mainstreaming of disaster resilience requirements into standards and codes, particularly in the priority areas of land use and development, building and infrastructure and finance.

Costs and Benefits:

Avoided losses (tangible and intangible) and broader benefits should also be mainstreamed into routine cost benefit analysis for investment decisions. The Australian Government will continue to work with partners to build capability of decision makers to appropriately determine the costs and benefits of reducing existing and future risk.

Priority Risks:

The Australian Government will work with partners to identify risks with the greatest potential impact on the nation to guide investment and mitigation efforts, using consistent principles and methods. Leaders at COAG identified improving the resilience of the telecommunications network as one priority.

Incentives and Barriers:

Decision makers can sometimes be limited by legislative, cultural, behavioural and financial settings. The Australian Government will work to identify its role in establishing incentives and addressing barriers to reducing disaster risk within its control.

PRIORITY 3: ENHANCED INVESTMENT

Strategy	Title	Domain	Lead agency	Timeframe
C	Disaster Risk Reduction Funding*	Commonwealth, States and Territories	Department of Home Affairs, State and Territory governments	2019-20 to 2023-24
C	National Water Grid Authority	Commonwealth	Department of Infrastructure, Transport, Regional Development and Communications	Current
C	Future Drought Fund		Department of Agriculture, Water and the Environment	From July 2020
A	Resilience Investment pilot project and vehicle	Cross-sector	Insurance Australia Group, National Australia Bank, CSIRO, Department of Home Affairs, and member agencies of the Australia-New Zealand Emergency Management Committee Mitigation Risk Sub-Committee	Current

PRIORITY 3: AGGREGATED AUSTRALIAN GOVERNMENT FUNDING: \$417.5 MILLION*

* The national aggregated figure for Priority 3 is \$548 million when the co-contribution of \$130.5 million from states and territories for the Disaster Risk Reduction Funding initiative is included

FUTURE AREAS OF WORK

Disaster Risk Reduction Investment Tools:

The Australian Government will seek to identify how it can support increased investment literacy across all sectors to ensure investment opportunities are leveraged to reduce disaster risk.

Funding Streams:

Funding streams outside the emergency management sector can be leveraged to deliver disaster risk reduction outcomes. The Australian Government will continue to identify existing and future government programs to fund priority risk reduction measures.

Insurance:

The Australian Government and insurance sector are playing an active role in improving the accessibility, variety and uptake of insurance. The Australian Government will continue to support the recommendations of key insurance enquiries.

Small Business and Community:

The Australian Government will work with key partners to support communities, individuals and small businesses to own their role as informed and active investors in disaster risk reduction, particularly in a recovery context.

PRIORITY 4: GOVERNANCE, OWNERSHIP AND RESPONSIBILITY

Strategy	Title	Domain	Lead agency	Timeframe
E	Monitoring, Evaluation and Learning framework (MEL) to support the National Disaster Risk Reduction Framework	Commonwealth	Department of Home Affairs, States and Territories	2020
A	Australia New Zealand Emergency Management Committee	Commonwealth, States and Territories	Department of Home Affairs	Current
A	Trusted Information Sharing Network for Critical Infrastructure Resilience	Commonwealth	Department of Home Affairs	Current
C	Strategy for long term recovery and strengthened resilience		National Drought and North Queensland Flood Response and Recovery Agency	Proposed – future
A	Asia-Pacific Ministerial Conference on Disaster Risk Reduction 2020		Department of Foreign Affairs and Trade (in collaboration with other Commonwealth agencies)	Planned
F	National Climate Resilience and Adaptation Strategy		Department of Agriculture, Water and the Environment	Current
C	Urban Water Reform			Current
F	Australian Government Disaster and Climate Resilience Reference Group		Department of Home Affairs & Department of Agriculture, Water and the Environment	Current
F	Communications Sector Group			Current
C	City Deals		Department of Infrastructure, Transport, Regional Development and Communications	Current
F	National Freight and Supply Chain Strategy and National Action Plan			Current

PRIORITY 4: AGGREGATED AUSTRALIAN GOVERNMENT FUNDING: \$261 MILLION

FUTURE AREAS OF WORK

Transparency of Disaster Risk Transactions:

The Australian Government will seek to identify how it can support transparency of disaster risk and potential impacts in transactions where disaster risk may be shifted from one party to another.

Stakeholder Engagement:

The Australian Government will continue to engage with all sectors to continually evolve our understanding of the work being done to minimise risk in Australia. The Government will advocate for the involvement of organisations outside the traditional emergency management sector to be involved in the implementation of the National Disaster Risk Reduction Framework.

Governing the built environment:

COAG leaders have tasked the Building Ministers' Forum to consider how to adapt the built environment to future climate and hazard conditions. Governing this sector is crucial to avoid producing and transferring future risk.

APPENDIX A

National Action Plan Initiatives – Commonwealth, States, Private Sector



COMMONWEALTH NATIONAL PRIORITY 1 UNDERSTAND DISASTER RISK

Understanding disaster risk is essential for action on other priorities. It requires all sectors to better understand what makes us vulnerable, our capacity to cope, how people and assets are exposed to hazards, and about the hazards themselves and the environment.

Understanding the root causes of our vulnerability means that in future, we can build on this foundation to make more accountable decisions, enhance our investment in disaster resilience and improve our governance and decision making frameworks.

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
All Priority 1 Strategies	New National Climate and Disaster Intelligence Capability	<p>Australia will implement a new national climate and disaster intelligence capability to capture, create, share and explain climate and disaster risk information.</p> <ul style="list-style-type: none"> It will span foundational data, and hazard, exposure and vulnerability information. It will position Australia to have authoritative information to assist all decision makers across all sectors to understand the causes and effects (impact, harm and suffering) of disaster and how to reduce these. <p>Necessary data and information for this capability, include but is not limited to that available through the <i>Foundation Spatial Data Framework</i> (FSDF) (refer below), national hazard, exposure and vulnerability information such as the probabilistic hazard assessments (earthquake, tropical cyclone and tsunami), National Exposure Information System and vulnerability models refined through the Bushfire and Natural Hazards CRC for severe wind, flood and earthquake, as well as several information products using the Digital Earth Australia (DEA) platform. DEA uses spatial data and images recorded by satellites orbiting our planet to detect physical changes across Australia in unprecedented detail. Products include:</p> <ul style="list-style-type: none"> DEA Hotspots (used in: national bushfire monitoring. DEA Hotspots provides timely information about hotspots to emergency service managers across Australia.) DEA Waterbodies (used in: understanding the severity and spatial distribution of drought, identifying potential water sources for aerial firefighting during bushfires.) Water Observations from Space (used in: understanding where water usually occurs across the continent and to plan water management strategies.) National Intertidal Extents Digital Elevation Model (used in: identifying areas of coastal erosion, planning for extreme events such as storm surges and flooding, and improving models of how sea level rise will affect the Australian coastline.) 	Commonwealth	Department of Home Affairs & Department Agriculture Water and Environment (with the assistance of the Bureau of Meteorology, Geoscience Australia and CSIRO)	2020	The cost of the pilot will be met from within the existing resources of the Department of Home Affairs. (\$1.7 million for pilot project 2018-2019)	Existing national hazard, exposure and vulnerability information
D	World Heritage Climate Vulnerability and Adaptation assessments	Assessing vulnerability of world heritage properties and providing practical guidance to world heritage site managers on appropriate approaches to adaptation planning that build resilience to future climate change impacts such as marine heatwaves, extreme weather events and changed fire regimes.	Commonwealth	Department of Agriculture, Water and the Environment	Planned – Contract is expected to begin in mid-2020 and finish by mid-2021.	–	Work underway

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
F	The National Environmental Science Program (NESP)	NESP is a long-term investment by the Australian Government to support evidence-based environmental management, policy development and decision making through environment and climate research. Multiple partners (including research institutions, state agencies and NGOs) in six themed NESP hubs bring great depth and breadth of expertise, including significant research capability and delivery of applied climate science projects relevant to disaster recovery and climate adaptation planning. The second phase of the program, NESP 2, was announced on 27 March 2020 and research applications close on 30 June 2020. Research consortia have been invited to bid for one of four thematic research hubs with locally delivered and led regional nodes where appropriate, to ensure national representation and true on ground partnerships with research end users. The new program is designed to promote collaboration and build national research depth to respond to complex environmental challenges like managing the risks of a changing climate. Recognising the importance of improving Australia's climate resilience, 'Climate Adaptation' is a cross-cutting mission across all Hubs. To be coordinated by the future 'Climate systems' hub, the climate adaptation mission will improve the evidence base for adaptation decision making for climate resilience.	Commonwealth	Department of Agriculture, Water and the Environment	NESP 1: \$145 million over six years from 2015 to 2021 NESP 2: Research activities are expected to commence from mid-2021 and must cease by 31 December 2026. The remaining six months of hub funding through to June 2027, will be devoted to final reporting and evaluation activities. All hub activity must cease by 30 June 2027.	\$145m- Current Program \$149m - new phase of the program has just been announced (NESP 2).	–
A	Regional Land Partnerships	The Regional Land Partnerships initiative is the Australian government flagship Natural Resource Management (NRM) program under Phase 2 of the National Landcare Program and runs from 1 July 2018 to 30 June 2023. It consists of a national network of procured service providers that manage regional natural resources management planning and on-ground project delivery in concert with their local communities across the country. Service providers are required to update regional NRM plans by 2021 as required in the Statement of Work and these will cover the majority of Australia. Plans include consideration of climate modelling as well as support improved management of soils, biodiversity, native vegetation on-farm and adaptation to climate change.	Commonwealth	Department of Agriculture, Water and the Environment	Current – June 2023	\$450m over 5 years to June 2023	Continuation of funding for the program. Service Providers remain viable.
F	Climate Science Advisory Group	The Climate Science Advisory Group will provide high level advice on and coordination of Australia's climate science efforts. The Group will oversee the implementation of the strategic actions recommended by the National Climate Science Advisory Committee's 2019 report Climate Science for Australia's Future, endorsed by Ministers Andrews and Ley. These strategic actions will enable Australia's science effort to respond to the growing demand from businesses and government for science to help them understand and manage climate risks. Committee membership includes the Australian Chief Scientist, CSIRO and BoM, peak business users of climate information and the states and territories.	Commonwealth	Department of Agriculture Water and the Environment and the Department of Industry, Science, Energy and Resources	Future - Work is planned to begin in late 2020	–	Ministers Andrews and Ley agreed to the establishment of the group as part of the recommendations of the <i>Climate Science for Australia's Future</i> report in September 2019, however bushfire recovery and pandemic responses have delayed appointments to the Committee and pushed back its meeting schedule.

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
B	Electricity Sector Climate Information Project	<p>This project aims to improve climate and extreme weather information for the electricity sector.</p> <p>The Independent Review into the Future Security of the National Electricity Market (known as the Finkel Review) recognised the increasing risks extreme weather events pose to the security and reliability of Australia’s energy system. The key objective of this project is to support decision-makers in the National Electricity Market (NEM) to access and use tailored climate information to improve long-term climate risk planning, for example in network infrastructure planning.</p> <p>This project will identify and address priority climate information gaps that key NEM planners and decision-makers recognise as critical to their decision-making. The key outputs of the project will include:</p> <ul style="list-style-type: none"> • Climate Risk Assessment Framework for use by the electricity sector and guidance on how to use the climate risk assessment framework. • Standardised methodology for deriving climate data suitable for implementation into existing models and guidance on how to use the standardised methodology. • Knowledge-brokering, stakeholder engagement and capacity building activities within AEMO and the electricity industry to build climate risk knowledge within the sector. 	Commonwealth	Department of Industry, Science, Energy and Resources	Over three years, from 2018-19	\$6.1 million	–
C	Open Geocoded National Address File	<p>The Geocoded National Address File (G-NAF) is Australia’s authoritative, geocoded address file. G-NAF is one of the most ubiquitous and powerful spatial datasets containing more than 13 million Australian physical address records. The records include geocodes (latitude and longitude map coordinates). G-NAF does not contain any names or personal information. Updated versions of the G-NAF are published on a quarterly basis via data.gov.au. Decision-makers can use this authoritative spatial data alongside other disaster-related data to understand and assess disaster risk (particularly for specific areas and addresses) and to effectively manage residual risk, in-line with the objectives of the National Disaster Risk Reduction Framework.</p>	Commonwealth	Department of Industry, Science, Energy and Resources	Current - The initial term of the open G-NAF agreement between the Commonwealth and PSMA Australia was extended for a second term from 1 August 2019 to 31 July 2024.	\$6.2 million for 2019-2020	The Government has agreed to ongoing funding for the open G-NAF initiative.
F	Bushfire Natural Hazards Cooperative Research Centre	<p>The Bushfire and Natural Hazard Cooperative Research Centre is conducting research that supports the development of cohesive, evidence-based policies, strategies, programs and tools to build a disaster-resilient Australia. The CRC’s national research program includes working with communities to improve disaster resilience and reduce the human, social, economic and environmental costs from bushfires and other natural hazards. Their research program is structured into three major themes:</p> <ul style="list-style-type: none"> • Policy and economics of hazards • Resilience to hazards • Understanding and mitigating risks 	Commonwealth	Department of Industry, Science, Energy and Resources	Current – 30 June 2021	\$47 million for 8 years until 30 June 2021 – note all money does not directly support resilience activities	–

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
C	Australian Flood Risk Information Portal	The Australian Flood Risk Information Portal (the portal) enables flood information, currently held by different sources, to be accessible from a single online location. The portal includes a database of flood study information and metadata (the Australian Flood Studies Database). The portal provides access to authoritative flood maps and flood studies, as well as information about surface water observations derived from the analysis of satellite imagery. The cost of the National Flood Risk Information Project 2012- 2016 was \$12 million. Geoscience Australia maintains all key products from this project.	Commonwealth	Geoscience Australia	Current	The cost of this measure will be sourced from existing Geoscience Australia budget.	This initiative was a result of the 4 year National Flood Risk Information Project established after the National Disaster Insurance Review in 2010-11 to raise consumer awareness to flood risk. AFRIP is populated with information supplied by the jurisdictions which exposed major hurdles in sharing data and information due to poor procurement of flood studies. The resulting copyright and licencing conditions restricted the ability for those studies to be hosted in the portal, and further to be used and reused by others. The open procurement of hazard and risk information remains an outstanding issue and will need to be addressed to implement the Framework.
A	Assessing climate risks in the regulated financial sector	Australian Prudential Regulation Authority is embedding the assessment of climate risk into its ongoing supervisory activities, with internal supervisory assessments currently being conducted (due 2020). APRA will publish aggregated insights from these assessments.	Australian Government regulators	Australian Prudential Regulation Authority	Current (due 2020)	–	–

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
F	Council of Financial Regulators (CFR) climate change working group	Through the CFR, APRA, ASIC, the RBA and Treasury engagement with domestic and international bodies is coordinated and aligned, including with groups such as the Australian Sustainable Finance Initiative (ASFI), International Association of Insurance Supervisors (IAIS), Sustainable Insurance Forum (SIF), Central Banks and Supervisors Network for Greening the Financial System (NGFS), Basel Committee on Banking Supervision and International Organisation of Pension Supervisors (IOPS).	Australian Government regulators	Australian Prudential Regulation Authority, Australian Securities and Investment Commission, Reserve Bank of Australia and Treasury	Current	–	–
G	Listed company disclosure and governance of climate change related risks and opportunities	ASIC is assessing the development of climate change related disclosure practices by Australian listed companies. ASIC has encouraged listed companies with material exposure to climate related risks to adopt the recommendations of the G20 Financial Stability Board's Taskforce on Climate Related Financial Disclosures. ASIC has previously updated its regulatory guidance for stakeholders and issued a public report on disclosure practices.	Australian Government regulators	Australian Securities and Investments Commission	Current	–	–
B	Foundation Spatial Data Framework	ANZLIC's Foundation Spatial Data Framework (FSDF) provides a common reference for access to foundation spatial data (includes: geocoded addressing; administrative boundaries; positioning; place names; land parcel and property; imagery; transportation; water; elevation and depth; and land cover and land use). The FSDF has been developed into a web service called the Location Information Knowledge Platform (the LINK) – a cloud-based tool that provides links to hundreds of Commonwealth, state and territory jurisdictional spatial datasets.	Council	The Australia and New Zealand Land Information Council (ANZLIC) (secretariat provided by Department of Industry, Science, Energy and Resources implementation provided by the Intergovernmental Committee on Surveying and Mapping (ICSM), with Geoscience Australia providing a coordination and oversight role for implementation)	Current	The cost of this initiative is met from existing resources within the Commonwealth, state and territory government agencies involved in the FSDF.	This initiative depends on ongoing collaboration across Commonwealth, state and territory government agencies via ANZLIC and ICSM.
A	Special Research Initiative – Health and environmental change	NHMRC has announced plans for a \$10 million special research initiative on health and environmental change to boost research capacity and capability. The initiative aims to improve Australia's preparedness and responsiveness to human health threats from changing environmental conditions and extreme weather events. Parameters for this competitive grant opportunity are currently being developed.	Commonwealth	National Health and Medical Research Council	Current	\$10 million	–

COMMONWEALTH NATIONAL PRIORITY 2 ACCOUNTABLE DECISIONS

Raising awareness about disaster risk and supporting decision makers to take account of it are key areas of focus over the next 12 months to help reduce the exposure, vulnerabilities or impacts that natural hazards can have on communities.

This is a sample of initiatives taken across the Commonwealth to help build awareness, capabilities and practices of decision makers in disaster risk assessment and management to promote accountable decision making and enhanced investment.

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
C	Guidance for Strategic Decisions on Climate and Disaster Risk	The Australian Government has developed <i>Guidance for Strategic Decisions on Climate and Disaster Risk</i> to build the capability and capacity of decision makers and risk managers in the public, private and community sectors. The Australian Government is collaborating with representatives from all sectors to develop short flyers to make the guidance more easily interpreted and implemented for multiple stakeholders. These stakeholders can use this guidance to reduce their climate and disaster risks and build the resilience of their assets and services.	Commonwealth	Department of Home Affairs, CSIRO & Department Agriculture Water and Environment (with Department of Industry, Science, Energy and Resources)	2020	Approximately \$55,000	–
F	Improving Building Resilience	Improving Building Resilience through exploring the role and opportunities for the National Construction Code (NCC) in adapting the built environment in the face of intensifying natural hazards, changing exposure, and vulnerability profiles. Working collaboratively with building code development agencies including those from Canada, USA and New Zealand and potentially Emergency Management Australia, Geoscience and the Australian Institute for Disaster Recovery, to support research and identify future climate risks and adaptation solutions for building codes to enhance community resilience.	Council of Australian Governments (COAG) Building Minister's Forum	Australian Building Codes Board	Current - Work program agreed annually by the Building Minister's Forum, outputs progressively implemented in NCC.	–	–
B	Bushfire Mitigation	Defence has a current policy in place requiring assessment of bushfire risk and development of bushfire management plans. Annual bushfire mitigation work schedules are derived from bushfire management plans. Bushfire management plans are subject to 5 year rolling reviews. The plans are focused on identifying key risks and developing associated mitigation strategies. The key policy objectives are to protect human life, protect Defence and civilian property and assets, support ADF training and promote environmental sustainability.	Commonwealth	Department of Defence	Defence maintains a national rolling program of bushfire management plan reviews and updates.	Defence spends approximately \$20m per annum on bushfire management plan review and bushfire mitigation works across 400-plus properties that comprise the Defence estate. The cost is met within the existing Defence budget.	–

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
F	Compliance Framework through Estate Engineering, Governance and Integrity System (EEGIS)	The Estate Engineering, Governance and Integrity System provides a compliance framework to support infrastructure projects meet relevant national codes, standards and defence policy. The Manual for Fire Protection Engineering is a key compliance document within the EEGIS and was rewritten following the release of the National Bushfire Management Policy Statement for Forests and Rangelands to ensure consistency with the endorsed national approach.	Commonwealth	Department of Defence	Current–EEGIS implementation has a 5 year maturity pathway which commenced 2019 – compliance standards will be maintained in a rolling 5 year cycle.	The cost of this measure will be sourced from existing Defence budget.	–
A	Defence Estate Climate Adaptation Partnership	In June 2018 the Department of Defence and the former Department of the Environment and Energy established an MOU in collaboration with NCAARF and CISRO to assist Defence to integrate climate risk adaptation into decisions for the Defence domestic estate. The outcome has been the development of specific business processes. The objective of these business processes is to provide responsible officers suitable guidance to mitigate future possible climate risk impacts when planning, designing and constructing new infrastructure, or redeveloping existing infrastructure. The business processes will be available for use in the first half of 2020.	Commonwealth	Department of Defence	Current – Business processes are being trialled in infrastructure projects. Expected completion June 2020. These will remain in a 12 month review cycle as additional risk factor modelling is incorporated.	\$200,000 spent on MoU. Ongoing costs for implementation of MoU recommendations from within existing Defence budget.	–
C	Climate Compass – Climate Risk Framework for Commonwealth Agencies	Climate Compass is a framework designed to help Australian public servants manage the risks from the changing climate to policies, programs and asset management. It includes step by step instructions, guidance and information to develop an understanding of climate change risks. Climate Compass builds on the best climate change adaptation research and science over the past decade. It reflects the current leading practice guidance for climate risk management and planning for long-term, uncertain, pervasive change. Climate Compass was developed as a collaborative project between CSIRO and the former Department of the Environment and Energy under the 2017–18 work plan for the Australian Government Disaster and Climate Resilience Reference Group. A first draft was presented to the Resilience Reference Group in October 2017. It was then tested by five agencies, and amended in response to feedback. The final Climate Compass was endorsed by the Resilience Reference Group in September 2018.	Commonwealth	Department of Agriculture, Water and the Environment	Current	–	–
F	Infrastructure Investment Program	The Infrastructure Investment Program (IIP) provides funding for delivery of land transport infrastructure. The IIP is supported by robust planning and design guidelines developed by state and territory transport agencies and their peak organisation, Austroads. A key consideration in the development of business cases for transport infrastructure projects process is resilience when responding to risks such as floods, droughts, bushfires, cyclones, and high temperatures.	Commonwealth	Department of Infrastructure, Transport, Regional Development and Communications	Current (ongoing)	It is Australian Government policy that all projects receiving an Australian Government contribution of \$100 million are assessed by Infrastructure Australia, an Australian Government funded independent body that is part of the infrastructure and transport portfolio.	–

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
B	Strengthening telecommunications emergency resilience	The Australian Government is strengthening telecommunications emergency resilience in bushfire and disaster prone areas so that communities can stay connected during emergencies. There are four measures: improving the resilience of regional and remote mobile phone base stations, portable communications facilities to allow quicker service restoration, a program to deliver public information about access to telecommunications in emergencies, and enhanced telecommunications for country and rural fire authorities and evacuation centres.	Commonwealth	Department of Infrastructure, Transport, Regional Development and Communications	Current	\$37.1 million (including \$10 million from the Mobile Black Spot Program)	–
C	Organisation for Economic Co-operation and Development (OECD) Report – Policies to strengthen resilience and manage risk	The OECD Committee for Agriculture has an ongoing focus on risk management and resilience in agriculture. This work includes: developing guidelines for the design of tools to optimise risk management outcomes for farmers and analysis to examine existing disaster risk management policies in selected countries, with a particular emphasis on ex-ante measures to reduce exposure to disasters and facilitate a quicker recovery. Overall, the OECD’s work in this space aims to ensure that broader agricultural policy settings contribute to strengthening farmers’ incentives to plan for shocks, in particular for natural hazards.	Commonwealth	Department of Agriculture, Water and Environment and OECD	Current	Australia provides an annual financial contribution to the OECD for membership. This contribution, along with the contributions made by other members, funds the OECD’s ongoing work, which is budgeted for and undertaken on a biennial basis.	The continuation of this work requires the allocation of funding through the Committee for Agriculture’s Programme of Work and Budget and voluntary contributions.
E	Healing and Rebuilding from the 2019-20 Bushfires	At a future Building Ministers’ Forum, building ministers will consider how to adapt the built environment to future climate and hazard conditions.	Commonwealth	Department of Industry, Science, Energy and Resources	Planned	–	–
B	Reef Restoration and Adaptation Program	<p>The Reef Restoration and Adaptation Program aims to create an innovative toolkit of safe, acceptable and cost-effective interventions to help the Reef help itself in resisting, adapting to, and recovering from disturbances, including the impacts of climate change.</p> <p>The \$150 million research and development (R&D) phase of the Program will develop, test and risk-assess novel interventions to help keep the Reef resilient and sustain critical functions and values. The R&D program aims to reduce uncertainty, improve understanding of the Reef system, and quickly narrow a set of optimal interventions.</p> <p>The R&D activities will place Australia as the global leader in coral reef adaptation and restoration. It will open opportunities to partner internationally and export our know-how to other countries whose reefs face similar challenges.</p>	Commonwealth	Led by the Australian Institute of Marine Science	Current	\$150 million, with \$100 million of this contributed through the Reef Trust partnership with the Great Barrier Reef Foundation and \$50 million in-kind from research partners.	The program is designed to deal with the inherent uncertainty associated with such a new endeavour, and strike an appropriate balance between risk, time and investment.
C	Development of climate change financial risk guidance	Australian Prudential Regulation Authority will develop a climate change Prudential Practice Guide, including an industry consultation. This guidance will set out Australian Prudential Regulation Authority’s views on better practice and outline prudent practices in this area (2020-2021).	Australian Government regulators	Australian Prudential Regulation Authority	Planned 2020-21	–	–
C	Climate change financial risk vulnerability assessment	Australian regulators will work together to develop an assessment of the impacts of a changing climate, including extreme weather events, beginning with the banking industry (2020-2021).	Australian Government regulators	Australian Prudential Regulation Authority, Reserve Bank of Australia and Australian Securities and Investment Commission	Planned 2020-21	–	–

COMMONWEALTH NATIONAL PRIORITY 3 ENHANCED INVESTMENT

Public and private sectors will work together to pursue collaborative financing options to invest in risk reduction initiatives that bring broader social and economic benefits. Work is being done to address insurance affordability by understanding and reducing risk in the built environment.

Greater understanding of disaster risk and accountable decisions will help disaster risk reduction to be mainstreamed in other funding. These initiatives underway across public and private sectors will help create more confident investment decisions in disaster risk reduction, using new and existing funding streams.

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
C	Disaster Risk Reduction Funding	Collectively, the Australian and State and Territory Governments are set to invest \$261 million over the next five years to reduce the risk and limit the impact of disasters on Australian communities and economies. Targeted towards priority local, state and national initiatives, the funding is aimed at reducing existing disaster risk, minimising the creation of future risk and equipping decision-makers with the capabilities and information needed to reduce disaster risk and manage residual risk.	Commonwealth, States and Territories	Department of Home Affairs, State and Territory governments	2019-20 to 2023-24	\$261 million (over 5 years)	–
C	National Water Grid Authority	The National Water Grid Authority (NWGA) plays a key role in shaping Australia’s national water infrastructure policy, using world’s best science and an investment framework to identify, plan and deliver the next generation of Australia’s water infrastructure. The NWGA’s work will help secure a reliable national water supply to grow Australia’s regions and agriculture, increase water security and help build resilience in the face of a changing climate. As part of its work, the NWGA will consider the impact of natural disasters such as prolonged droughts and more intense flooding on future water access, security and reliability.	Commonwealth	Department of Infrastructure, Transport, Regional Development and Communications	Current	\$186.8 million	–
C	Future Drought Fund	The Future Drought Fund is a long-term investment fund that will provide a sustainable source of funding to help Australian farmers and communities become more prepared for, and resilient to, the impacts of drought. Beginning with an initial investment of \$3.9 billion that will grow over time to \$5 billion, the Fund makes \$100m available each year, commencing in the 2020-21 financial year, to enhance the public good by building resilience to inevitable future droughts. The Drought Resilience Funding Plan 2020-2024 provides the framework for spending under the Fund. It sets out clear funding principles and a vision, aim, strategic priorities and objectives covering economic, environmental and social resilience.	Commonwealth	Department of Agriculture, Water and the Environment	From July 2020	From July 2020, \$100 million will be invested annually in projects across Australia to strengthen drought resilience.	Future Drought Fund programs proposed to give effect to the Drought Resilience Funding Plan are currently under consideration by government.

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
A	Resilience Investment pilot project and vehicle	<p>Through cross-sector collaboration the pilot aims to finance a range of resilient infrastructure projects (built, social and natural) in a pilot location that reduce disaster risk and collectively build community resilience to disruption from natural hazards and climate change.</p> <p>To enable this investment from both the private and public sectors, a range of criteria and measurement frameworks will need to developed/built on/ adapted.</p> <p>The pilot will adopt a local, place-based approach. Cross-sector collaboration is key to ensure that the interventions are aligned with local values and meet community priorities.</p> <p>The resilience investment pilot project and vehicle will help to inform, and be informed by, aligned initiatives that enable investment in resilience outcomes.</p>	Cross-sector	Insurance Australia Group, National Australia Bank, CSIRO, Department of Home Affairs, and member agencies of the Australia-New Zealand Emergency Management Committee Mitigation Risk Sub-Committee	Current	Working group members will collaboratively source/generate the resources and funds to deliver on roadmap activities. This funding will also be derived from outside of member organisations dependent on what is developed.	Adequate resource and funding allocated to develop required frameworks, tools to deliver minimum viable resilience investment vehicle (RIV). Continued support and focus of all partners and relevant stakeholders, which will be challenging during COVID-19.

COMMONWEALTH NATIONAL PRIORITY 4 GOVERNANCE, OWNERSHIP AND RESPONSIBILITY

Public and private sectors will together deliver new initiatives to build links between government, industry, not-for-profit and community stakeholders. Together we will work towards ensuring a broader, more inclusive engagement from across society.

All sectors and communities should be engaged in reducing the impact that disasters have on Australians. These types of initiatives will help to strengthen engagement between government, industry, not-for-profit and community stakeholders, and provide clearer roles and responsibilities to reduce disaster risk.

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
E	Monitoring, Evaluation and Learning framework (MEL) to support the National Disaster Risk Reduction Framework	The Australian Government is collaborating with representatives from state and territory governments, the private sector and the not-for-profit sector to develop monitoring, evaluation and learning (MEL) arrangements for the NDRRF. The MEL arrangements will ensure processes are in place to track the effectiveness of the collective national effort to reduce disaster risk, as well as learn about what is and isn't working to effect the systemic change required to reduce disaster risk. It will provide guidance for the evaluation of initiatives funded and implemented by the Australian Government and State and Territory Governments under the disaster risk reduction funding package, as well as the work being implemented through other funding mechanisms that support the goals of the NDRRF. Findings could also help inform Australia's international development assistance cooperation in disaster and climate risk reduction work, and support us to achieve our commitments against the Sendai Framework for Disaster Risk Reduction 2015–30.	Commonwealth	Department of Home Affairs, State and Territory Governments	2020	\$129,870	–
F	Communications Sector Group	The Communications Sector Group brings telecommunications infrastructure owners and operators together with the Government to share information and identify opportunities to mitigate communications vulnerabilities.	Commonwealth	Department of Infrastructure, Transport, Regional Development and Communications	Current	The cost of the secretariat role played by government are met from within the existing resources of DITRDC.	–
A	Australia New Zealand Emergency Management Committee	The Australia-New Zealand Emergency Management Committee (ANZEMC) is the peak government committee responsible for emergency management. ANZEMC is responsible for influencing and advocating for national policies and capabilities that reduce disaster risk, minimise the potential for harm and uphold public trust and confidence in emergency management arrangements.	Commonwealth, States and Territories	Department of Home Affairs	Current	–	–
C	City Deals	City Deals bring together the three levels of government to align planning, investment and governance in the cities where Deals have been agreed. City Deals involve a range of commitments including, in some locations, support for climate and disaster risk reduction initiatives. For example, through the Darwin City Deal, a series of heat mitigation strategies will be trialled through green infrastructure and cooling initiatives, informed by the work of a CSIRO-led Darwin Living Lab. In Townsville, an intergovernmental water security taskforce convened as part of the Townsville City Deal provided several recommendations to improve the security of Townsville's water supply, which are now being implemented by the Australian Government, Queensland Government, and the Townsville City Council.	Commonwealth	Department of Infrastructure, Transport, Regional Development and Communications	Current	\$261 million	Budgeted by the Commonwealth for all City Deals (including Western Sydney) subject to pending movements of funds request.

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
C	Strategy for long term recovery and strengthened resilience	This strategy provides a blueprint that all who are committed to North and North West Queensland can follow—government and non-government alike. The aim of the strategy is to guide investment in actions that support the long-term recovery of communities affected by the 2019 monsoon trough event and aims to strengthen their resilience. Five strategic priorities have been identified to direct and prioritise efforts and investment to achieve the resilient future that individuals, communities and businesses want.	Commonwealth	National Drought and North Queensland Flood Response and Recovery Agency	Proposed – Future	–	Yet to be published
A	Asia-Pacific Ministerial Conference on Disaster Risk Reduction 2020	The APMCDRR is the largest gathering in the Asia-Pacific to progress disaster risk reduction efforts. Participants include ministers, government officials, representatives of the private sector, non-for-profits, civil society, and vulnerable groups.	Commonwealth	Department of Foreign Affairs and Trade (in collaboration with other Commonwealth agencies)	Planned	–	The Australian Government and the United Nations Office for Disaster Risk Reduction postponed the 2020 APMCDRR, due to be held in Brisbane in June, given the impact and uncertainty surrounding the spread of COVID-19. Options to reschedule the conference are being considered.
F	National Climate Resilience and Adaptation Strategy	The National Climate Resilience and Adaptation Strategy outlines the Government’s vision for a climate resilient future. The Strategy articulates how Australia is managing the risks of a variable and changing climate. It identifies a set of principles to guide effective adaptation practice and resilience building. The Strategy also notes the roles and responsibilities for climate change adaptation in Australia.	Commonwealth	Department of Agriculture, Water and the Environment	Current	–	–
F	National Freight and Supply Chain Strategy and National Action Plan	The National Freight and Supply Chain Strategy sets an agenda for coordinated and well-planned action across all levels of government and industry to meet Australia’s freight challenges for the next 20 years. The strategy integrates all transport modes. One of the actions is a pilot project to identify the tools and information required to assess the resilience of our freight and supply chains.	Commonwealth	Department of Infrastructure, Transport, Regional Development and Communications	Current	The Plan and the Strategy captures initiatives from all Australian Governments	–
A	Trusted Information Sharing Network for Critical Infrastructure Resilience (TISN)	Australia’s primary national engagement mechanism for business-government information sharing and resilience building initiatives on critical infrastructure resilience. The TISN provides a secure environment for critical infrastructure owners and operators across eight sector groups to regularly share information and cooperate within and across sectors to address security and business continuity challenges.	Commonwealth	Department of Home Affairs	Current	Currently funded through Department of Home Affairs	–

STRATEGY	ACTION ITEM	DESCRIPTION	DOMAIN	LEAD AGENCY	TIMEFRAME	FUNDING <i>(provided where available)</i>	DEPENDENCIES/ SENSITIVITIES
C	Urban Water Reform	Cities and towns face major water security challenges from climate change (prolonged droughts, more intense floods). If no action is taken, this will result in lower economic activity and increased costs through greater damage to infrastructure and degraded urban environments. This initiative will identify and implement governance, regulation, planning, pricing and information reforms to ensure long-term urban water security.	Commonwealth	Department of Agriculture, Water and the Environment	Planned	–	This initiative depends on ongoing collaboration across Commonwealth, state and territory government agencies and with the water sector.
F	Australian Government Disaster and Climate Resilience Reference Group	The Resilience Reference Group drives the integration of climate and disaster risks in Australian Government policy, programs and assets. Senior officials for all Australian Government departments and four science agencies meet at least quarterly to progress this reform. The Resilience Reference Group is co-chaired by the Department of Agriculture, Water and the Environment and the Department of Home Affairs. It has a work program and is supported by the Officer Group on Climate and Disaster Resilience.	Commonwealth	Department of Home Affairs & Department of Agriculture, Water and the Environment	Current	–	–

QUEENSLAND NATIONAL ACTION PLAN INITIATIVES

ACTION ITEM	DESCRIPTION	LEAD AGENCY	TIMETABLE	FUNDING <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Queensland Emergency Risk Management Framework	QERMF provides a standardised approach to disaster risk management in Queensland and is underpinned by a multidisciplinary approach and uses operational geospatial intelligence to undertake exposure and vulnerability analysis which can directly inform the State's multi-tiered disaster management planning. It also includes a number of State Level Assessments (Heatwave, Earthquake, Tsunami) with an additional study under way for severe wind. This includes Climate Projections.	Queensland Fire and Emergency Services	Current	Internal agency funding	Stakeholder engagement	1, 4
Queensland Strategy for Disaster Resilience	QSDR provides an overarching framework to empower Queenslanders to factor-in resilience measures and activities as they anticipate, respond and adapt to changing circumstances.	Queensland Reconstruction Authority	Current	Internal agency funding	–	2, 4
Resilient Queensland 2018–21 – Delivering the Queensland Strategy for Disaster Resilience	Resilient Queensland was launched in May 2018 as the statewide, whole-of-government engagement and implementation plan to strengthen Queensland's resilience to natural disasters. It provides a practical blueprint for better coordination of government policy, information management, project delivery and stakeholder collaboration across government, business, industry, the community and the not-for-profit sector for the people of Queensland. Initiatives being progressed under Resilient Queensland include the Statewide rollout of regional resilience plans and action plans by 2022, which will apply a locally-led, regionally-coordinated, and state-facilitated model to support the coordination and prioritisation of future resilience building and mitigation projects across Queensland and link these to tangible funding opportunities over time. Additionally, the Queensland Resilience and Adaptation Pathways Transformation Approach (QRAPTA) project will examine how the CSIRO Resilience and Adaptation Pathways Transformation Approach (RAPTA) may guide improved whole of government integration towards resilience.	Queensland Reconstruction Authority	Current	Internal agency funding	Queensland Strategy for Disaster Resilience	All priorities
Brisbane River Strategic Floodplain Management Plan (SFMP)	The Brisbane River SFMP (April 2019) provides the framework for a consistent approach to managing flood risk across the Brisbane River floodplain. It is a significant regional plan that considers current and future flood risk, disaster management, mitigation infrastructure, community resilience, building guides, land use planning and landscape management.	Queensland Reconstruction Authority	Current	Combination of internal agency, Australian and Queensland government funding	–	1, 4
Queensland Disaster Resilience Fund	The QDRF is a Queensland Government commitment of \$9.5 million per annum, commencing 2018-19 for an initial four years, to support local governments, state agencies and non-government organisations deliver disaster resilience and mitigation projects.	Queensland Reconstruction Authority	Current – from 2018-19	Queensland Government funding	–	3
Queensland Betterment Fund	The Queensland Betterment Fund (50/50 Commonwealth/State) was activated in 2013, 2015 and 2017 following significant disaster events, to increase the resilience of Queensland's communities and essential public assets to natural disasters, and to reduce further expenditure on recovery. Of the 2013 and 2015 Betterment projects completed and impacted by subsequent natural disaster events up to April 2017, 96 per cent remained undamaged or sustained only superficial damage, avoiding restoration costs of more than \$104 million within a period of a just a few years. In the wake of the North and Far North Queensland Monsoon Flood event in January-February 2019, which caused more than \$1 billion in damage to public infrastructure, a new \$100 million betterment fund was agreed. It is currently in delivery.	Queensland Reconstruction Authority	Current	\$100 million Category D DRFA (50:50) State/ Commonwealth	Category B REPA works	3

QUEENSLAND NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	LEAD AGENCY	TIMETABLE	FUNDING <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Bushfire and Heat Resistant Guidelines	The Bushfire and Heat Resistant building guideline is being developed specifically for Queensland Homes. This guideline is targeted at supporting Queenslanders located in fire-prone areas to retrofit their homes and gardens to increase their resilience to bushfires.	Queensland Reconstruction Authority	Current	Internal agency funding	Lessons from 2019-20 Bushfire Seasons	1, 2
Flood Warning Infrastructure Network Project	The Flood Warning Infrastructure Network Project will analyse existing flood warning infrastructure, working with the Bureau of Meteorology, councils and other selected stakeholders for the 39 councils affected by the Monsoon Trough to identify high priority locations requiring additional flood warning infrastructure capability including repairs of and/or installation of new infrastructure.	Queensland Reconstruction Authority	Current	\$2 million Category D DRFA (50:50 Commonwealth/ State funding) Exceptional Circumstances Monsoon Trough package	–	1, 3
State Planning Policy and supporting guidance	The State Planning Policy is a statutory instrument for land use planning and development. This instrument is implemented into local government planning schemes requiring risk associated with natural hazards, including the projected impacts of climate change, are avoided or mitigated. The SPP is designed to protect people and property and enhance the community's resilience to natural hazards.	Queensland Department of State Development, Manufacturing, Infrastructure and Planning	Current	Internal agency funding	Timeframes for amendments to the SPP are statutorily determined.	1, 2, 4
State Infrastructure Plan	SIP (first released in March 2016) outlines the Queensland Government's strategic direction for the planning, investment and delivery of infrastructure in Queensland. It provides a framework for planning and prioritising infrastructure investment and delivery, that supports growth, economic development and employment. The SIP Part A (Strategy) is due to be updated in 2021 and is expected to have a focus on critical infrastructure and supporting economic recovery and resilience.	Queensland Department of State Development, Manufacturing, Infrastructure and Planning	Current	Internal agency funding	–	4
Queensland Climate Transition Strategy	QCTS outlines the Government's intention to achieve three key commitments to address the effects of climate change: a) Powering Queensland with 50% renewable energy by 2030 b) Doing its fair share in the global effort to arrest damaging climate change by achieving zero net emissions by 2050 c) Demonstrating the commitment to reducing carbon pollution by submitting an interim reduction target of at least 30% below 2005 levels by 2030.	Queensland Department of Environment and Science	Current	Internal agency funding	–	2
Queensland Climate Adaptation Strategy 2017-2030	QCAS is a coordinated and collaborative response to understand and adapt to Queensland's climate risks.	Queensland Department of Environment and Science	Current	Internal agency funding	–	All priorities
Emergency Management Sector Adaptation Plan for climate change	The plan builds on existing disaster management arrangements and other state government planning in Queensland to establish key directions for action and inform future planning by the sector in alignment with the Queensland Climate Adaptation Strategy (Q-CAS) and other relevant sector strategies.	Queensland Fire and Emergency Services	Current	Internal agency funding	–	All priorities

TASMANIA

NATIONAL ACTION PLAN INITIATIVES

ACTION ITEM	DESCRIPTION	LEAD AGENCY	TIMETABLE	FUNDING <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Improve Knowledge of Flood Risk	Multiple projects, jointly funded under NDRRA, including Tasmanian Flood Hazard Map, LiDAR capture to provide all Tasmanian communities with a topographical model to assist with flood planning and detailed flood studies for priority communities.	Tasmanian Government	Current	–	–	1
Unharmful Pilot	Piloting Unharmful in Tasmania to develop a vulnerability profile for Tasmania for now, 2050 and 2100 as well as a project report and a business case for implementation as an ongoing capability.	Tasmanian Government	Current	–	–	2
Review Governance Structures	State Emergency Management Committee strategic framework under review to better align with Sendai Framework and relevant national frameworks.	Tasmanian Government	Current	–	–	4
RiskReady	Online portal that aims to improve community resilience to natural hazards by providing access to property-specific natural hazard information in a simple, understandable format. The website will also provide high-level advice on how to reduce the risk of property damage, and directs users to the relevant government agency for more information, including detailed risk mitigation and preparedness advice.	Tasmanian Government	Current	–	–	1
Tasmania's Climate Change Action plan 2017-2021	Tasmania's Climate Change Action plan includes measures to understand Tasmania's future climate plus measures to reduce climate impacts and build local climate resilience. In line with the Action Plan the Tasmanian Government is working with others to: <ul style="list-style-type: none"> • Understand Tasmania's future climate • Advance renewable energy capacity • Reduce transport emissions • Grow a climate ready economy • Build climate resilience • Support community action 	Tasmanian Government	Current	–	–	1
Strategic Directions Framework	The Strategic Directions Framework of the State Emergency Management Committee is being reviewed to better align governance structures and processes with the Sendai Framework and relevant national frameworks.	Tasmanian Government	Current	–	–	4
Tasmanian Planning Scheme	State Planning Provisions include consistent state-wide planning rules and zoning provisions to indicate appropriate land use and development, plus clear pathways to deal with land use issues, such as natural and other hazards.	Tasmanian Government	Current	–	–	2
Natural Heritage Strategy 2013-2030	Measures to strengthen environmental biosecurity, take a more holistic risk-based approach to marine conservation and plan for and respond to climate change.	Tasmanian Government	Current	–	–	2
Tasmanian Wilderness World Heritage Area Management Plan	Focuses on protection and preservation in the face of fire, biosecurity, climate change and other threats.	Tasmanian Government	Current	–	–	2

VICTORIA

NATIONAL ACTION PLAN INITIATIVES

ACTION ITEM	DESCRIPTION	LEAD AGENCY	TIMETABLE	FUNDING <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Translation of Victorian Future Climate Projections for risk assessments	Victoria has worked with CSIRO to produce statewide local scale (5km) future climate projections (Victorian Climate Projections 2019), but the future climate projections require further interpretation to understand the risk of increased natural hazards in the future. This project is scoping the next steps to translate the data into a format that can be easily integrated into current operational frameworks of risk and hazard assessment. The scoping study will investigate how climate information is currently used in hazard modelling and the path to assess the feasibility of integrating future climate projections into these assessments.	Victorian Department of Environment, Land, Water and Planning	Current	The cost of the scoping will be met from within the existing resources of DELWP.	–	1
Impact Assessment Project	Development of a new comprehensive model for disaster impact assessment across all hazards, to better inform response, relief and recovery planning and activities.	Emergency Management Victoria	Current – From June 2019	\$422,000	–	1
Emergency Management Common Operation Picture (EM-COP)	EM-COP is an information and communications system which delivers state-of-the-art critical information management and interoperability across Victoria's EM sector. As a result, EM-COP improves quality and timeliness of the information used to support critical decision making before, during and after an emergency event. The project is ongoing, and continues to address critical information management and interoperability issues across the sector, creating safer and more resilient communities through accessing timely and accurate information to inform decision making.	Emergency Management Victoria	Current	Phase 1, completed in June 2017, had a total project cost \$5.1 million	–	1
Victorian state-wide System-Based Adaptation Action Plans	<p>The Victorian Government is developing state-wide system-based Adaptation Action Plans (AAPs) for seven systems vulnerable to climate change or essential to ensure Victoria is prepared. The systems include:</p> <ul style="list-style-type: none"> • Built Environment • Education and Training • Health and Human Services • Natural Environment • Primary Production • Transport • Water Cycle <p>AAPs will support the identification and prioritisation of actions to address key climate risks, including climate hazards and disaster risks. The first AAPs will be developed by October 2021, with new AAPs then developed every 5-years until 2046.</p>	Victorian Department of Environment, Land, Water and Planning in coordination with the Department of Education and Training, Department of Health and Human Services, Department of Jobs, Precincts and Regions and the Department of Transport	2021	The cost of the work will be met from within the existing resources of Victorian Government.	–	2

VICTORIA NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	LEAD AGENCY	TIMETABLE	FUNDING <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Victoria's Emergency Management Planning Reforms	<p>Victoria's Emergency Management Planning Reforms is the development of integrated plans at the state, regional and municipal levels. For the first time, the plans will span mitigation, response and recovery. The planning approach is centred on a clear understanding of risk driven by community values, consequences and capability. The focus on consequences and capability moves to an all emergencies view rather than a hazard and agency based approach, and necessitates close collaboration with communities and all agencies.</p>	Emergency Management Victoria	Current	The cost of this project will be met from within the existing resources of EMV.	–	2
Coastal Protection Infrastructure Upgrade Program	<p>The Coastal Protection Infrastructure Upgrade program aims to upgrade critical coastal protection assets to increase resilience against storms, flooding and erosion and reduce economic losses for coastal communities that are dealing with the effects of climate change.</p> <p>This program strategically uses hard engineering solutions at high priority, targeting high risk sites to reduce damage to Crown land, assets and services from erosion, sea level rise and storm surges, exacerbated through the impacts of climate change. These assets can include groynes, revetments and sea walls.</p> <p>Projects are selected using a decision-making framework which enables the most cost-effective risk reduction solutions to be selected.</p> <p>The program is delivering 27 coastal protection projects at locations across the Victorian coastline including; seawalls at Gippsland Lakes, San Remo, St Leonards; revetments at Port Fairy, Barwon Heads, Parkdale, Geelong, Ocean Grove; and, groynes at Cowes East, Brighton, McCrae and Portarlington.</p>	Department of Environment Land Water and Planning	2016/17 – 2019/20	\$15 million (over 4 years)	–	3
Reducing Bushfire Risk Program	<p>The Reducing Bushfire Risk (RBR) program aims to deliver bushfire risk mitigation on public land by supporting early detection and rapid suppression of fires; improving egress and access for isolated communities; improving firefighter safety on public land; building capacity and diversity in our workforce, and building fire sector capacity and diversity in the contractor workforce.</p> <p>Some of the specific works undertaken to address the objectives of the RBR program include the delivery of the fuel management program on public land, consistent with risk reduction objectives and improving strategic fire access roads, building new bridges and crossings, and upgrading fire towers.</p> <p>Fire sector contractor capability is strengthened by engaging local contractors and machinery operators to deliver the majority of the roading and hazardous tree works, while growing and aligning firefighter capability and capacity to respond to risks and enhancing the diversity of the bushfire management workforce means that the workforce can better serve the community.</p>	Department of Environment Land Water and Planning	2017/18 – 2020/21	\$250 million (over 4 years)	–	3

VICTORIA NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	LEAD AGENCY	TIMETABLE	FUNDING <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Safer Together	<p>The Safer Together program is a risk-based approach to bushfire management where land managers and fire agencies work together and with local communities, to find the best mix of strategies to reduce bushfire risk locally. The intent of this approach is, working as one fire management sector, to measure all bushfire management strategies against risk reduction goals, so that the benefits of investment in reducing bushfire risk are maximised.</p> <p>The Program invests in:</p> <ul style="list-style-type: none"> a) improved development and use of modelling tools and application of research into practice. b) enhanced data and models to measure and improve understanding of the effectiveness of fuel management activities across private and public land. c) programs of work to strengthen community engagement and shared responsibility for bushfire management, particularly in high risk or at-risk communities. d) projects that strengthen interoperability and joint systems for: <ul style="list-style-type: none"> • tenure blind planning • increased delivery of fuel management on private land • piloting joint agency delivery models. e) local government led projects to plan and deliver local works to reduce bushfire risk, strengthen partnerships across Victoria and build community resilience. 	Department of Environment Land Water and Planning	2017/18 – 2020/21	Two-year budget of \$23.4M for 2017 to 2019 and a further two year budget of \$25.7M for 2019 to 2021.	–	3
Powerline Bushfire Safety Program	<p>The Powerline Bushfire Safety Program (the Program) is the Victorian Government’s response to the recommendations of the Victorian Bushfires Royal Commission (VBRC).</p> <p>The Program has made significant progress to substantially reduce the risk of electricity assets starting bushfires by:</p> <ul style="list-style-type: none"> • upgrading Victoria’s electricity network with world-leading safety technology • changing safety settings • undergrounding and covering powerlines in the highest bushfire risk areas throughout regional and rural Victoria. <p>At 30 June 2019, the state-wide relative bushfire risk of the network had been reduced by 32.5 per cent. By end of June 2023, the installation of new safety technologies (Rapid Earth Fault Current Lines and Auto Circuit Reclose’s) will be complete and this will provide a relative risk reduction of 48 per cent. As bare wire conductors are removed from the network over the next 20 to 30 years, the relative bushfire risk is will be reduced by up to 60 per cent on average.</p>	Department of Environment Land Water and Planning	2017/18 – 2020/21	\$750 million (over 10 years) Victorian government invested \$250 million (\$ 2011) to implement this program of works, with an additional \$500 million (\$ 2011) invested by Victorian electricity distribution businesses.	–	3

VICTORIA NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	LEAD AGENCY	TIMETABLE	FUNDING <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Solar Homes Program	<p>The Solar Homes program is a \$1.3 billion commitment to support 770,000 Victorian households install solar photovoltaic (PV) systems, solar hot water, or solar batteries to reduce their energy bills over 10 years. To date, nearly 70,000 households have accessed the benefits of the Solar Homes program.</p> <p>Through this program the Victorian Government is empowering households to take control of their energy and make sustainable long-term investments with financial assistance from Government.</p> <p>The uptake of solar PV and batteries under this program can increase the resilience of households and communities in the face of natural disasters that impact on the reliability of energy services, through the generation and storage of energy at the household level.</p>	Department of Environment Land Water and Planning	2019-2028	\$1.3 billion (over 10 years)	–	3
Sector Diversity Inclusion Program	<p>The Sector Diversity Inclusion Program is the development and implementation of a framework that creates a more diverse and inclusive emergency management sector, through engagement with marginalised and under-represented groups and a focus on education and awareness.</p>	Emergency Management Victoria	Current	\$310,000	–	4

WESTERN AUSTRALIA NATIONAL ACTION PLAN INITIATIVES

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Develop strategies and plans to maximise use of social technology in disaster risk reduction	Community-focused resilience	State	Proposed - future	–	–	1
Develop local strategies to engage the community across the Prevention, Preparedness, Response and Recovery (PPRR) spectrum	Community-focused resilience	Local	Current and proposed - future	–	–	2, 4
Identify opportunities to include emotional resilience in community disaster preparation planning	Community-focused resilience	State	Current and proposed - future	–	–	1, 4
Review state, district, and local EM structures to include perspectives from a wider range of community voices	Community-focused resilience	State	Proposed - future	–	–	4
Develop resources to engage communities in identifying and planning for disaster risk reduction	Community-focused resilience	State, Local, Community	Current and proposed - future	–	–	All priorities
Develop mechanisms for sharing risk information across all sectors within the state and nationally	Risk data and information sharing	State	Proposed – future	–	–	1, 4
Implement systems and processes for lessons management and information sharing across WA organisations and nationally	Risk data and information sharing	State	Current and proposed - future	–	–	1, 2
Identify and understand systemic impact of services disruption on vulnerable and at-risk persons, and incorporate this understanding into disaster risk reduction activities	Vulnerable/at-risk persons and communities	State, Local	Proposed - future	–	–	1, 4
Develop incentive structures for active land management	Preservation of heritage and natural environment	State, Local	Current and proposed - future	–	–	3

WESTERN AUSTRALIA NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Develop information for those at risk (e.g. elderly, CALD, people with disabilities) to plan and prepare on an individual level	Vulnerable/at-risk persons and communities	Local, Community	Proposed - future	–	–	1, 4
Develop and leverage community and social networks to assist at-risk persons to reduce disaster risk	Vulnerable/at-risk persons and communities	Local, Community	Proposed - future	–	–	1, 4
Implement education campaigns on vulnerabilities in the built environment (e.g. utilities, transport) to natural disaster, and personal strategies for mitigation if they are impacted	Fostering individual responsibility	State, Local, Community	Proposed - future	–	–	1, 4
Develop risk information sharing processes that enable individuals to make risk-based decisions	Fostering individual responsibility	State, Local	Proposed - future	–	–	2, 3
Develop “independent households” – how to be more self-sufficient – information packages and support for both individuals and communities	Fostering individual responsibility	State, Local	Proposed - future	–	–	3, 4
Improve individual understanding of commercial risk mitigation options (e.g. insurance)	Fostering individual responsibility	State, Community	Proposed - future	–	–	4
Develop (or expand on existing) tools and programs to support small and medium business with business continuity planning	Business continuity and resilience	State, Local, Community	Proposed - future	–	–	
Develop a value for money risk reduction guide for small to medium businesses	Business continuity and resilience	State, Industry	Proposed - future	–	–	4
Include natural disaster risk in species management plans	Preservation of heritage and natural environment	State, Local	Proposed - future	–	–	1

WESTERN AUSTRALIA NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Identify points of failure in supply chain at the community, local government, and state levels.	Security of Supply Chains and Infrastructure	State, Local, Community	Proposed - future	–	–	
Plan for supply chain continuity, including interstate and international links, secondary impacts, and upline/downline impacts.	Security of Supply Chains and Infrastructure	State	Proposed - future	–	–	2, 4
Map and understand interdependency of essential services (e.g. power, banking, telecommunications)	Essential services: alternatives & supply security	State	Proposed - future	–	–	1
Renewables and resilience strategy – identify resilience of renewables/innovative power sources to different disasters and locations	Essential services: alternatives & supply security	State	Proposed - future	–	–	1, 3
Develop plans for utilisation of redundancies in essential services (maximise value of risk reduction preparation)	Essential services: alternatives & supply security	State, Local	Current and Proposed - future	–	–	3
Develop strategies to align environmental considerations to disaster risk reduction	Preservation of heritage and natural environment	State	Proposed - future	–	–	2, 3
Maximise local heritage and environment groups assisting with risk reduction	Preservation of heritage and natural environment	Local, Community	Proposed - future	–	–	2, 4
Develop project risk management planning guidelines to address disaster risks (building and infrastructure projects) for funding models	Funding models and allocation	State	Proposed - future	–	–	2

AUSTRALIAN CAPITAL TERRITORY NATIONAL ACTION PLAN INITIATIVES

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Refresh of the Territory Wide Risk Assessment (TWRA)	The TWRA provides a strategic analysis and comparison of natural disaster risk in the ACT. Refreshing the current 2017 TWRA will help guide and support the ACT's plans to address existing and emerging natural disaster risks.	Justice and Community Safety Directorate	June 2020 -	\$75,000		1, 4
Disaster Risk Reduction Activity Survey	The ACT will survey all stakeholders responsible for disaster risk reduction and build a consolidated multi-year program that aligns with the Framework and the National Partnership Agreement for Disaster Risk Reduction.	Justice and Community Safety Directorate	June 2020-	–	ACT Implementation Plan – National Partnership on Disaster Risk Reduction	1, 2, 3, 4
Essential Public Infrastructure Resilience Project – government communications	This project will strengthen the resilience of essential public infrastructure in the ACT by addressing risks identified during power outage exercises conducted in 2020.	Chief Minister, Treasury and Economic Development Directorate	Jan – Jun 2020	\$300,000		1, 3
Essential Public Infrastructure Resilience Project – transport	This project will strengthen the resilience of the ACT's traffic network by addressing risks identified during power outage exercises conducted in 2020.	Transport Canberra and City Services	July 2020 -	\$600,000 over forward years	Availability of hardware	1, 3
Regional Fire and Residual Risk Plan	An identified priority for the ACT under the Strategic Bushfire Management Plan is to develop a Regional Fire Plan. This plan will help guide improving fuel and access management over the forward years.	Environment Planning and Sustainable Development Directorate	July -	\$200,000	ACT Strategic Bushfire Management Plan	1, 3, 4
Disaster Risk Reduction Activity Reporting	The ACT will develop a new reporting process to ensure emergency management officials and the government are kept informed of disaster risk reduction activities.	Justice and Community Safety Directorate	July -	–		1

SOUTH AUSTRALIA NATIONAL ACTION PLAN INITIATIVES

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Implementation of South Australia's Disaster Resilience Strategy	State Emergency Management Committee has undertaken a state strategic risk assessment for the EM sector to inform future strategic priorities for SEMC including emerging risks, consequences and community resilience (SEMC Strategic Plan F1.1). It also developed a consequence management policy aligned to the Catastrophic Disaster and Consequence Management Program (Seismos). Lead agencies are developing Strategic Risk Mitigation Plans for the strategic risks.	South Australian Fire and Emergency Services Commission (SAFECOM)	Current	Internal Agency Funding	–	1
South Australia's Climate Change Strategy	South Australia's Climate Change Strategy is under development by the Department of Environment and Water. It is an integrated government strategy for tackling climate change. It sets out government priorities and actions over the next five years to accelerate efforts to build resilience and adapt, continue an orderly transition to net zero emissions and to harness climate smart economic growth opportunities. The strategy is a key implementation mechanism to achieve the government's five policy directions outlined in Directions for a Climate Smart South Australia. Emergency Services in SA have committed to six key initiatives included in SA's Climate Change Strategy.	South Australian Department for Environment and Water	Current	–		4
Visualising the bushfire risk	<p>The 'Visualise the Bushfire Risk' project's goal is "Improving bushfire risk management by providing individuals, planning bodies and government policy makers with Geographic Information System (GIS) and data visualisation and scenario analysis tools".</p> <p>The project seeks to create an online tool for policy makers, regulatory authorities, local governments and individual homeowners to understand their hazard risk (bushfire, flood, extreme heat and others) when undertaking any new construction.</p>	South Australian Fire and Emergency Services Commission (SAFECOM)	Current	–		2
State Level Emergency Risk Assessment	State Emergency Management Committee has undertaken a state strategic risk assessment for the EM sector to inform future strategic priorities for SEMC including emerging risks, consequences and community resilience (SEMC Strategic Plan F1.1). It also developed a consequence management policy aligned to the Catastrophic Disaster and Consequence Management Program (Seismos). Lead agencies are developing Strategic Risk Mitigation Plans for the strategic risks.	South Australian Government	Current	Internal Agency Funding	–	1, 4
State Control Centre	A new purpose-built Emergency Services Command Centre boosting South Australia's command and control capabilities for the CFS, SES and MFS, and strengthening the State's response to emergency situations. The new Headquarters is earthquake-resilient and will feature backup power, water and wastewater storage and technology redundancies. The executive and senior management teams of the MFS, CFS, SES and SAFECOM will be co-located in a common headquarters along with more than 300 other employees as well as volunteers. The CFS State Operations Support brigade will also operate a State Ready Reserve Strike Team from the site.	South Australian Fire and Emergency Services Commission (SAFECOM)		\$14 million initially	–	2

SOUTH AUSTRALIA NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
<p>The expansion of the Hornsdale Power Reserve (South Australia’s big Tesla battery)</p>	<p>The expansion of the Hornsdale Power Reserve (South Australia’s big Tesla battery) will increase output by 50 per cent from 100 to 150 megawatts with the South Australian Government committing \$15 million and the Australian Renewable Energy Agency contributing \$8 million.</p> <p>It will also expand the battery’s storage capacity to 193.5 megawatt hours, allowing it to operate at full power for more than an hour.</p> <p>The expansion will enable a much faster response to system disturbances and store more power for peak demand.</p> <p>Combined with the gas and pumped hydro projects that are coming online, this expansion is important to the future integration of renewable energy to the South Australian grid.</p> <p>The expanded battery can be used to replicate some of the features of a traditional coal or gas power station which will support further renewable energy expansion in South Australia. It will also support increased power flow across the interconnector which links South Australia to Victoria.</p>	<p>South Australia Government</p>	<p>Current</p>	<p>\$23 million</p>	<p>–</p>	<p>3</p>

NEW SOUTH WALES NATIONAL ACTION PLAN INITIATIVES

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Improve Community Capability and Preparedness – Get Ready Program	The Get Ready NSW program focuses on building local, all hazard disaster preparedness. It is designed to improve individuals' and communities' understanding of local hazards; increase collaboration and connectedness within communities; and to increase their capacity to prepare for and recover from disasters.	New South Wales Government	Current	Jointly funded	–	1
Improve Community Capability and Preparedness – Community Resilience Innovation Program (CRIP)	CRIP supports a broad range of community-led projects designed to increase all-hazard disaster preparedness and build community capacity and resilience.	New South Wales Government	Current	Jointly funded	–	1
NSW Disability Inclusive Disaster Risk Reduction (ARC linkage partnership with University of Sydney)	Delivered in partnership with the University of Sydney, this research project will provide critical data on the inclusion of people with disability in emergency preparedness, their level of preparedness, functional capabilities and support needs in emergency situations.	New South Wales Government	Current	Jointly funded	–	1
Improving risk assessments and prioritisation at local, regional and state levels – State Level Emergency Risk Assessment (SLERA) Implementation	To better understand the types of natural hazards that pose a significant risk to NSW and test how prepared and disaster resilient we are as a state, an ongoing program of risk assessments will be reviewed and implemented to inform emergency management decisions and approaches. This is underpinned by the Emergency Risk Management Framework.	New South Wales Government	Current	Jointly funded	–	1
Utilising enabling technologies – enhanced information sharing	Enhancement of emergency management digital capabilities to support improved access to data, systems and processes to maximise the effectiveness and efficiency of emergency services, and supporting enhanced information exchange with disaster affected communities.	New South Wales Government	Current	Jointly funded	–	1
State Exercise Program	Delivering the State Exercise Program at state, regional and local levels to test planning, capability and capacity against the impacts of severe to catastrophic scenarios.	New South Wales Government	Current	Jointly funded	–	2
Implementing Lessons Management Framework	Building a safer, stronger, more resilient NSW by learning from experience and sharing lessons and knowledge.	New South Wales Government	Current	Jointly funded	–	2
Invest in priority risk mitigation projects	Grants Schemes for Bushfire and Floodplains to support management of fire and flood risk.	New South Wales Government	Current	Jointly funded	–	3
Critical Communications Enhancement Program	Delivering an enhanced Government Radio Network (GRN) to improve emergency and day-to-day operational communications for a wide range of NSW Government agencies, including public safety, law enforcement and essential services. The enhanced GRN will support network users to more easily share information (interoperability) and coordinate responses to critical incidents leading to better outcomes for frontline personnel and the NSW community.	New South Wales Government	Current	Agency funded	–	4
Resilience NSW	Resilience NSW will be the lead disaster management agency for NSW, responsible for all aspects of disaster recovery and building community resilience to future disasters. Resilience NSW will oversee and coordinate emergency management policy and service delivery with a focus on social, economic, infrastructure and natural environment outcomes.	New South Wales Government	Current	Agency funded	–	4

NEW SOUTH WALES NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Cross-sector emergency management training	Enhancing the capability in the areas of emergency preparedness, response and recovery through the delivery of multi-agency training programs across the emergency management sector, including emergency services employees and volunteers, functional areas, and non-government organisations at the state, regional and local levels.	New South Wales Government	Current	Jointly funded	–	1, 4
Regional Disaster Preparedness Program	Improve emergency management stakeholder capability and preparedness at the regional and local level and to mitigate key risks to communities within each region. The program will increase council capability to respond to and recover from disaster events, strengthen community and business preparation, strengthen emergency management plans, and priority investments to mitigate risks to critical infrastructure.	New South Wales Government	Current	Jointly funded - preparing Australia Package	–	1, 4

NORTHERN TERRITORY NATIONAL ACTION PLAN INITIATIVES

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Identifying and Reducing Wildfire Risk In Remote Communities	Bushfires NT has launched an initiative to engage a project officer to provide a report of the status, risk level, prioritisations and recommendations to reduce the risk of fire to remote communities.	Northern Territory Department of Environment and Natural Resources	Current	\$160k	–	1
New Bushfires NT Headquarters	The new Headquarters will locate at one site, improving the coordination of fire season planning, mitigation and response. The facility will support Bushfires NT respond to and manage bushfire emergencies through an improved and integrated Incident Control Room and will provide a combination of incident control, training, volunteer information and support, and community and information: The new Headquarters will feature modern office accommodation, appliance bays, operational and support areas, infrastructure and service connections for future expansion, solar panels and sectioned air-conditioning to reduce operational costs and greenhouse gas emissions.	Northern Territory Department of Environment and Natural Resources	Current	\$6.796M	–	1, 2, 3
Territory Emergency Management Council Strategic Plan	The Territory Emergency Management Council (TEMC) is responsible for emergency management in the Northern Territory across PPRR. The TEMC works to a three-year Strategic Plan in meeting its priorities across PPRR. This initiative seeks to incorporate the priorities of the National Disaster Risk Reduction Framework as a portion of the TEMC Strategic Plan to produce outcomes aimed at reducing the risks from natural disasters.	Department of the Chief Minister and Northern Territory Emergency Services	Current	\$171k	–	1, 2, 3
Flood Planning Tool	Operational flood response and risk assessment typically utilise flood intelligence and flood extent mapping where available. Flood extent mapping is currently undertaken for planning purposes according to predetermined design floods. These maps rarely align to actual flood events. The initiative proposes to create a single platform to streamline the delivery of advanced flood warning and management information by integrating existing hydrological and hydraulic models with real-time and forecast rainfall data. This will produce flood extent mapping in real time specifically related to each event, improving town planning, planning in emergencies and the identification of assets at risk.	Northern Territory Department of Environment and Natural Resources	Proposed	–	–	1, 2
Flood Infrastructure Risks	The Northern Territory Strategic Flood Warning Infrastructure Plan recently completed as part of the National Flood Warning Infrastructure review identified communications failure as the key risk to the Northern Territory Flood Warning Network. DENR has an initiative to propose the installation of instruments capable of dual communications at key locations to provide redundancy in the event of communication system failure to ensure the continued flow of critical flood warning data during a flood event.	Northern Territory Department of Environment and Natural Resources	Proposed	–	–	3
Northern Territory Hazard Risk Assessment	The Department of the Chief Minister proposes to engage a consultant to undertake an analysis of the risk to the Northern Territory of natural and other hazards and recommend treatments.	Department of the Chief Minister	Proposed	–	–	1

NORTHERN TERRITORY NATIONAL ACTION PLAN INITIATIVES (CONTINUED)

ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) (provided where available)	DEPENDENCIES	NDRRF PRIORITY
Managing Vulnerability at an Individual/Community Level	Vulnerability mapping to determine the vulnerabilities at an individual/household/family and community level, how this can be recorded and shared to better respond to the needs of the community during an emergency or disaster.	Northern Territory Department of Health	Proposed	–	–	1
Development of Vulnerable Client Guidelines	Working group established to develop the Northern Region vulnerable client guidelines to be used during an incident.	Northern Territory Department of Health - Top End Health Services	Current	–	–	2
Health Service Capability and Capacity Mapping	Project to capture the medical and public health capability and capacity in the Northern Region (TEHS) to improve health incident management teams' planning and response to emergencies. The platform on which this information will be held, how to record any impact to the infrastructure and/or health service delivery during an incident. Allowing the IMT to better determine where additional services and/or surge capacity of health services (medical/public health) needs to be focused, to deliver services where they are needed during an emergency or disaster.	Northern Territory Department of Health - Top End Health Services	Proposed	–	–	2
Increased capacity for water sampling during natural disasters	Currently the Northern Territory has all water potability testing undertaken at the Berrimah Farm Science Precinct by the Department of Primary Industry and Resources (DPIR). DPIR will investigate business continuity arrangements, supply chain weaknesses and operational and ensure there are contingencies and resilience built in to the system during disaster response.	Northern Territory Department of Primary Industry and Resources	Proposed	–	–	3
African Swine Fever	Develop phase 2 of a functional simulation exercise for emergency responders across all agencies in the Northern Territory to respond to African Swine Fever in the feral population. ASF has recently been confirmed in Timor Leste, and is a high risk for Australia's pork industry and natural environment.	Northern Territory Department of Primary Industry and Resources	Proposed	–	–	1
Land Use Planning for Future Growth	Detailed catchment modelling for riverine and stormwater to support the development planning for future growth areas under strategic plans (e.g. Area Plans) outside of flood impacted areas.	Northern Territory Department of Infrastructure, Planning and Logistics	Current	–	–	2
Land Use Planning Flood Information Repository	A repository to store flood modelling at catchment levels to support land use planning.	Northern Territory Department of Infrastructure, Planning and Logistics	Proposed	–	–	1

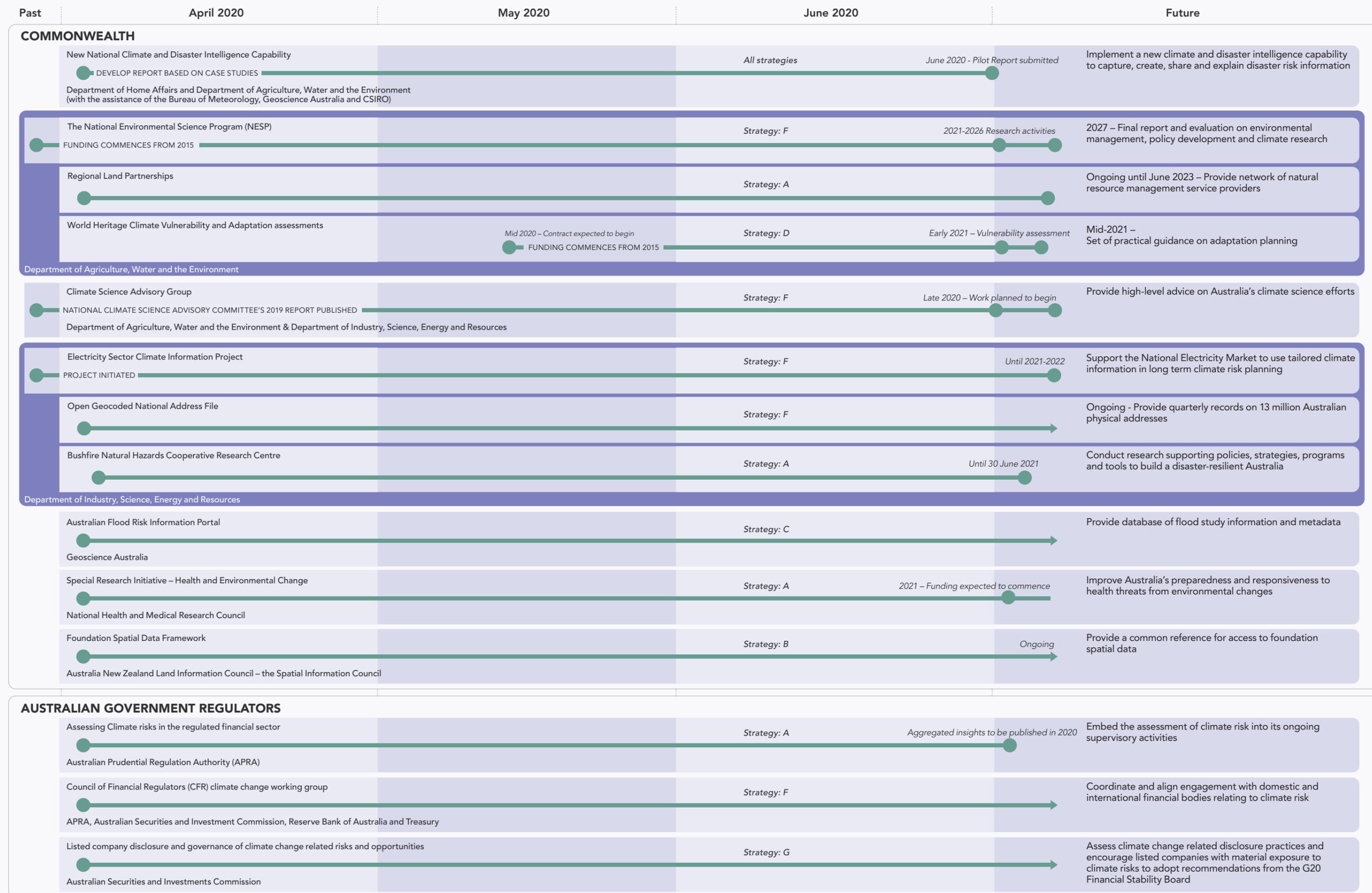
PRIVATE SECTOR NATIONAL ACTION PLAN INITIATIVES

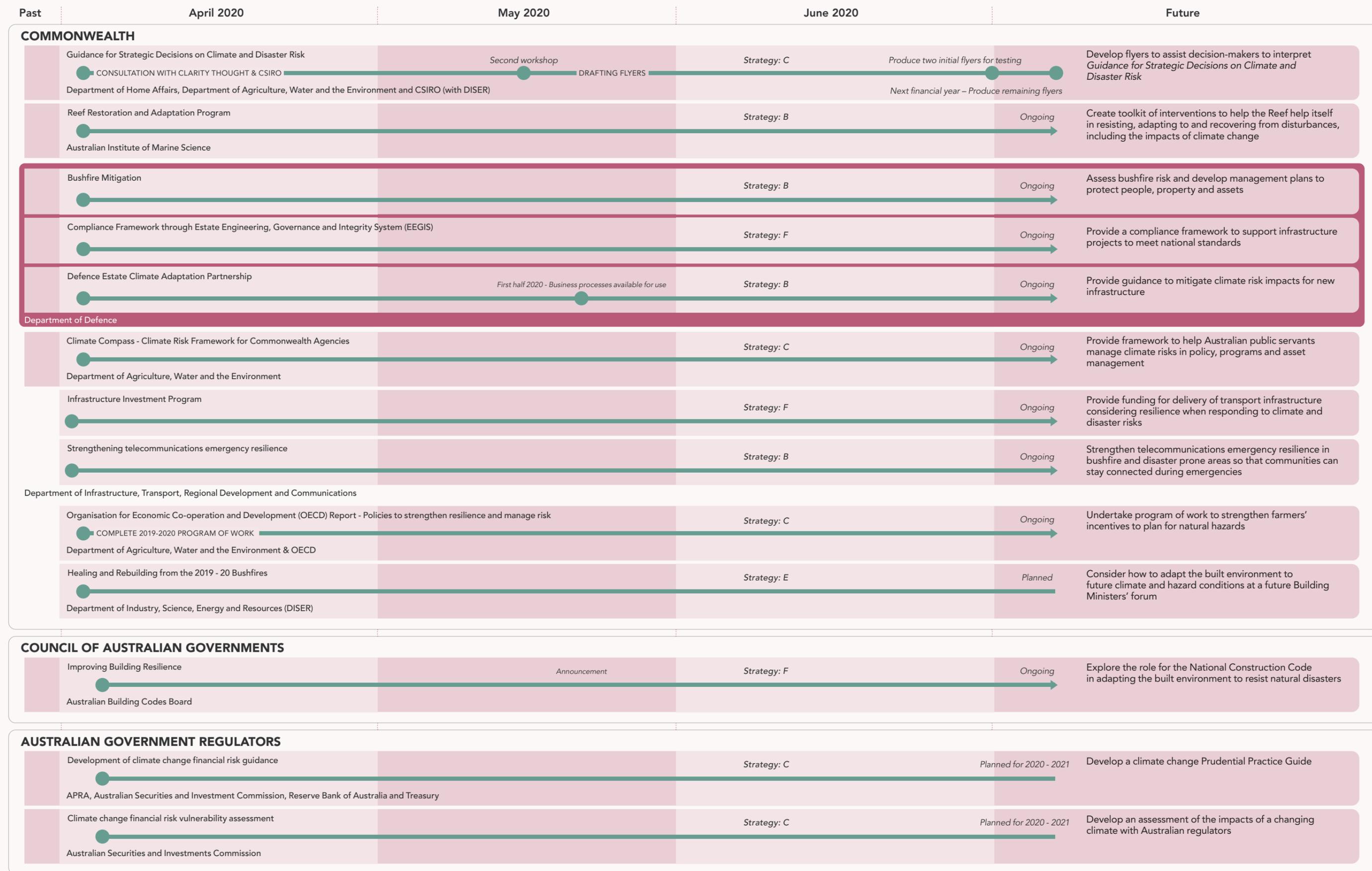
ACTION ITEM	DESCRIPTION	AGENCY RESPONSIBLE	TIMETABLE	FUNDING (\$) <i>(provided where available)</i>	DEPENDENCIES	NDRRF PRIORITY
Influencing resilience-based decision making	The ABR is working to identify options to leverage its collective knowledge and programs with strengths in financial and insurance services, telecommunications, critical infrastructure and humanitarian support to influence resilience-based decision-making.	Australian Business Roundtable for Disaster Resilience & Safer Communities (ABR)	Current	–	–	2
Impact of climate change on the total cost of disasters triggered by natural hazards in Australia	The ABR plans to update previous economic modelling of the costs of disasters triggered by natural hazards in Australia to reflect the impact of climate change.	Australian Business Roundtable for Disaster Resilience & Safer Communities (ABR)	Planned	–	–	1
Climate Measurement Standards Initiative (CMSI)	An industry-lead collaboration to develop open-source technical business and scientific standards for climate physical risk projections of future repair and replacement costs of residential and commercial buildings and infrastructure in Australia.	CMSI (steering group comprised from Industry, including Investor Group on Climate Change, and science community)	Current	Initial seed funding	Ongoing housing and take up of standard	1
Assessing the costs of climate change	Undertake cross sectoral analysis of key climate risks for the financial system	Investor Group on Climate Change	Future	Currently unfunded	–	1
Building Resilience: investors integrating physical risk and resilience into portfolio management	Strategic goal by 2022 for all Investor Group on Climate Change members to have undertaken or committed to undertake an assessment of physical risks across their portfolio, and have implemented or committed to implementing a portfolio-level response to increased resilience.	Investor Group on Climate Change	Current	–	Having the tools and frameworks for investors to undertake climate risk assessments and measure resilience	3
Investor Group on Climate Change Physical Risk and Resilience Working Group	A dedicated working group of institutional investors focussed on climate change investment risks from the physical impacts of climate change and resilience.	Investor Group on Climate Change	Current	–	–	All
Coalition for Climate Resilient Investment	A financial sector-lead global coalition across the investment value chain, to address climate resilience challenges. Aim to transform infrastructure investment by integrating climate risk into decision-making, driving a shift toward a more climate resilient economy for all countries.	Industry collaboration (including Global Adaptation Commission, WEF, global investment firms and selective Governments, Investor Group on Climate Change and other investor organisations)	Current	Seed funding from members	–	3
Australian Sustainable Finance Initiative	The Australian Sustainable Finance Initiative (ASFI) is a collaboration formed to help shape an Australian economy that prioritises human well-being, social equity and environmental protection, while underpinning financial system resilience and stability.		Current	Seed funding from members	–	4

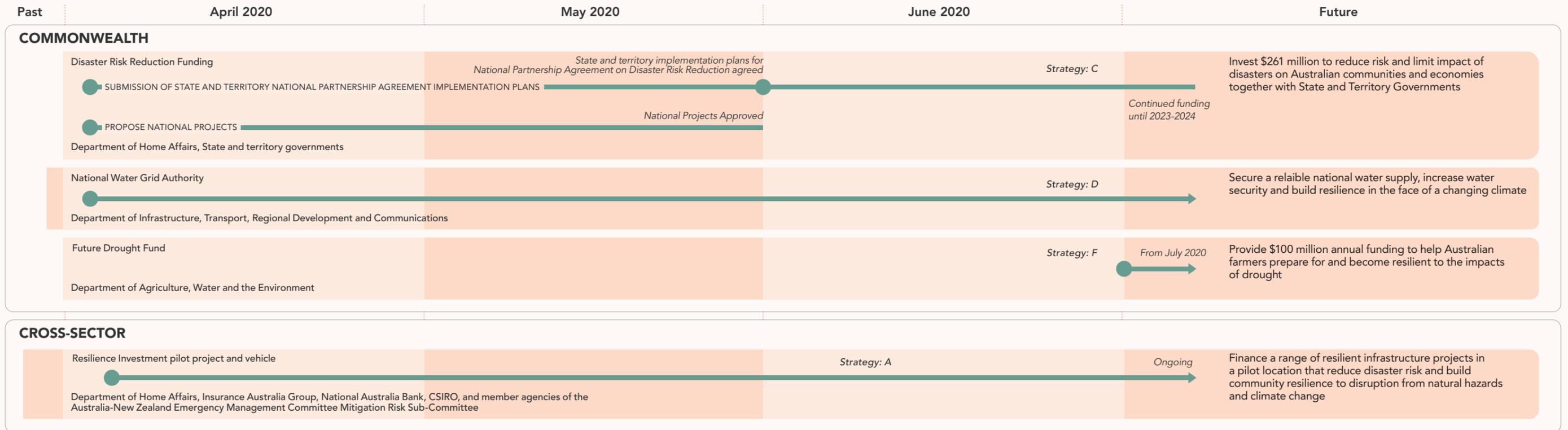
APPENDIX B

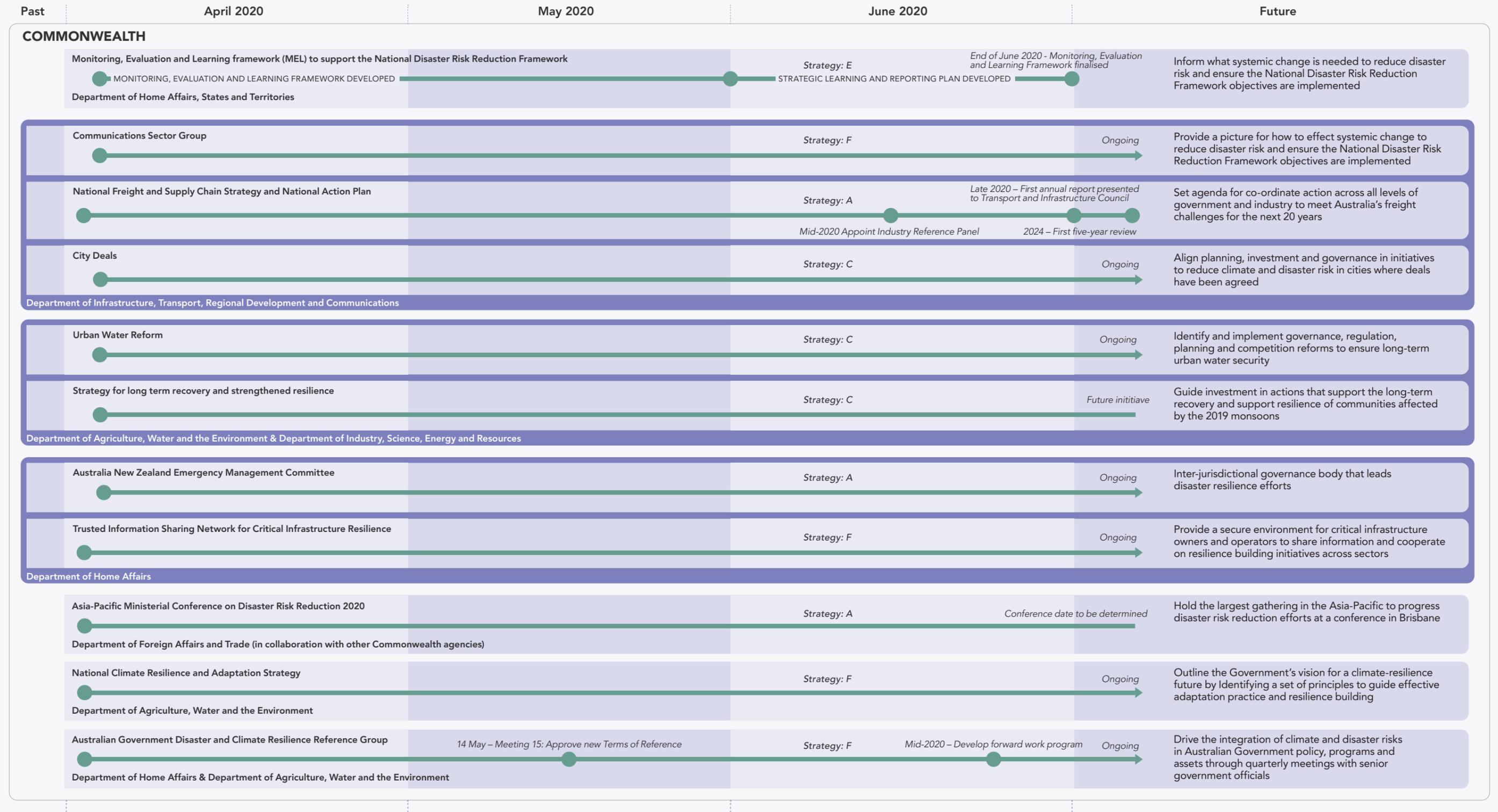
National Action Plan Initiatives – Milestones

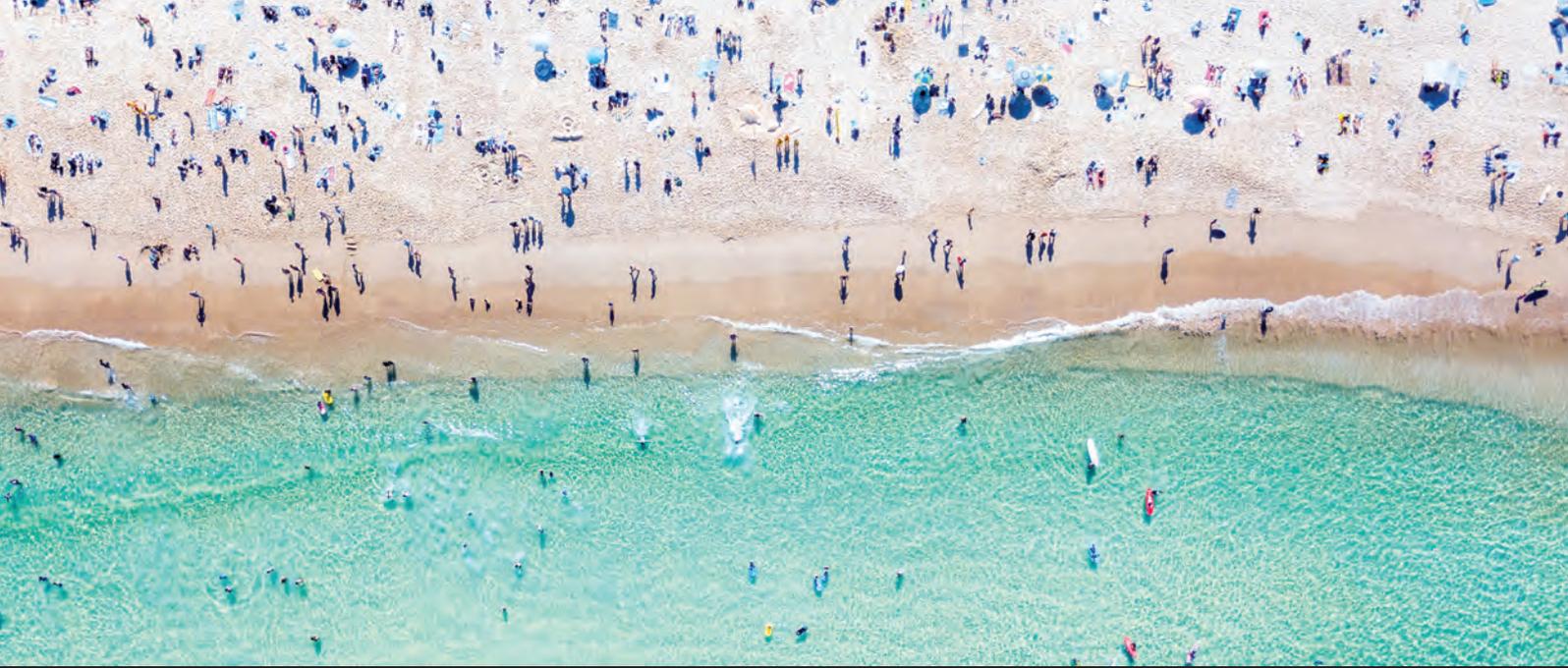












THE FIRST NATIONAL ACTION PLAN

