Communications, Community Engagement and Recovery

Research Advisory Forum / **Hobart 2019**

Fiona Dunstan / SA Country Fire Service

@bnhcrc @bnhcrc

bushfire&natural HAZARDSCRC

Australian Government
Department of Industry, Innovation and Science

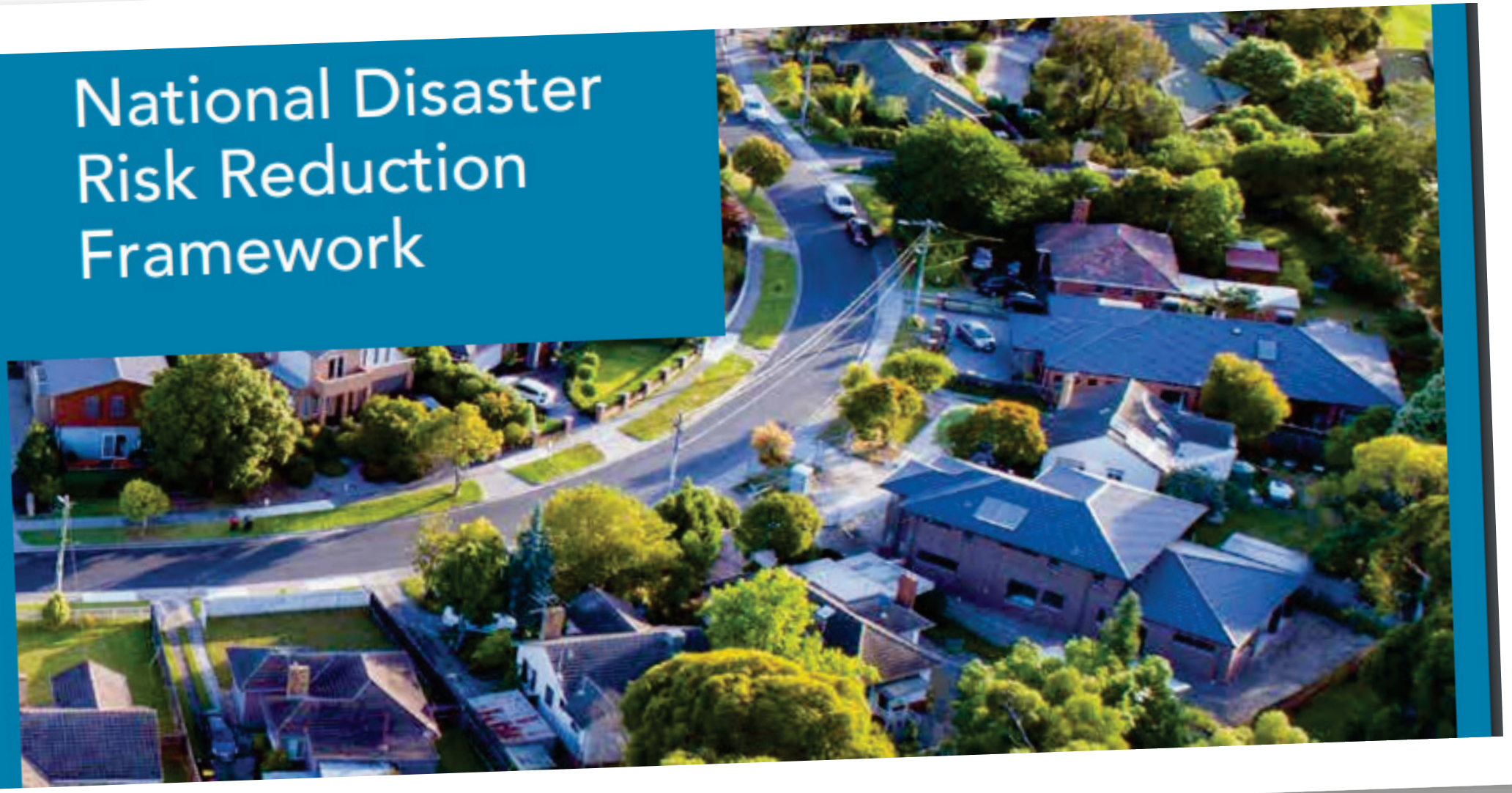
Business Cooperative Research Centres Programme

Disaster Resilience

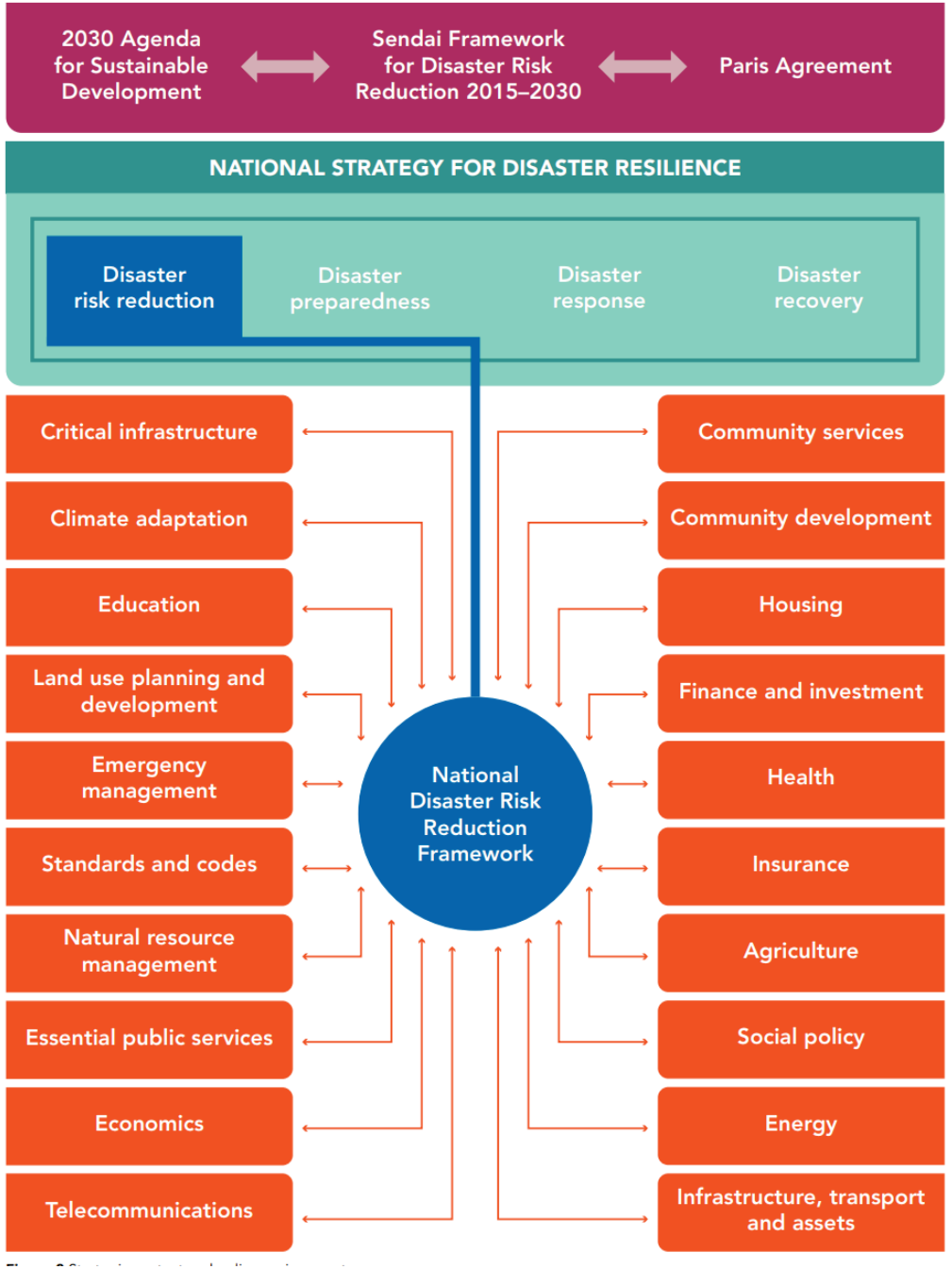
The ability to anticipate and resist the effects of a disruptive event, minimise adverse impacts, respond effectively post-event, maintain or recover functionality, and adapt in a way that allows for learning and thriving.

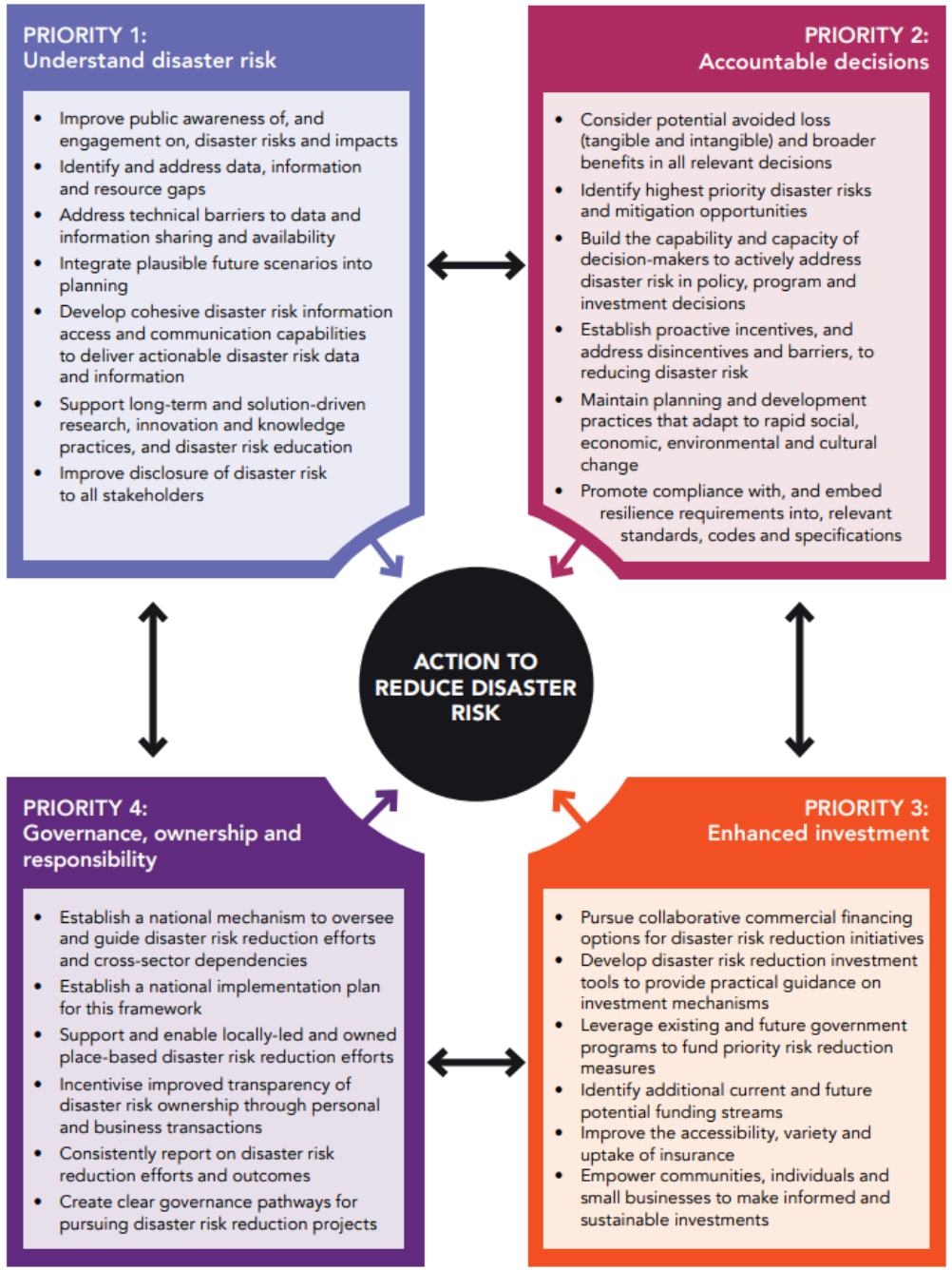
2019 New Zealand National Disaster Resilience Strategy

National Disaster Risk Reduction Framework



National Disaster Risk Reduction Framework





Priority 1 – Strategies for action: 2019-2023

STRATEGY A

Improve public awareness of, and engagement on, disaster risks and impacts

Greater awareness of the potential long-term and highly uncertain direct and indirect impacts of disasters on all sectors requires formal and informal education and community-driven engagement. An improved understanding of the systemic nature of disaster risk and what that means for all sectors, including communities, is critical.

STRATEGY B

Identify and address data, information and resource gaps

New data sets and information relating to all components of disaster risk should be collated to contribute to a more comprehensive understanding of disaster risk. Information gaps at the intersection of disaster risk and climate science should be addressed and resourcing needs identified.

STRATEGY C

Address technical barriers to data and information sharing and availability

Technological advancements, including smart infrastructure, should be leveraged to create improved disaster risk information. Clarification on liability, copyright, privacy and intellectual property issues is needed to facilitate improved data sharing and release.

STRATEGY D

Integrate plausible future scenarios into planning

Scenario-based risk and vulnerability assessment can provide a structured and rigorous method to factor future climate and disaster risks into decision-making, in the context of a variety of social, environmental, demographic and economic changes. It is designed to inform both straightforward and complex decisions, including management of residual risk, and is a useful method for navigating future uncertainties.

STRATEGY E

Develop cohesive disaster risk information access and communication capabilities to deliver actionable disaster risk data and information

Existing knowledge and technological capabilities can be better utilised and connected, and existing data better analysed and integrated with future scenarios, to improve the availability of useful disaster risk information. Useful disaster risk information should improve understanding of the systemic nature of disaster risk, consider interactions between all components of disaster risk, and inform management of residual risk. Links between policy, research, operational expertise and formal education should be strengthened to support and contribute to these capabilities.

STRATEGY F

Support long-term and solution-driven research, innovation and knowledge practices, and disaster risk education

Greater policy-research connection and innovation is needed to ensure necessary evidence bases are available to inform efforts to identify, prioritise and reduce disaster risks. A greater variety of knowledge practices, including Indigenous knowledge practices, should also be better integrated in research and knowledge application. Diverse ways of understanding and reducing disaster risk are needed to address disaster risk in all of its components.

STRATEGY G

Improve disclosure of disaster risk to all stakeholders

Information about disaster risks and their implications for all sectors of society should be disclosed to better enable all sectors to reduce risks within their control. This should include information about residual disaster risk.

Knowledge and Intent

There is a significant drop at recognition of personal risk from these hazards. This will be partially driven by a perception that these hazards have a lesser geographic reach compared to storms and heat.

Natural hazard behaviour change model

% of Australian population at each stage of model for each hazard

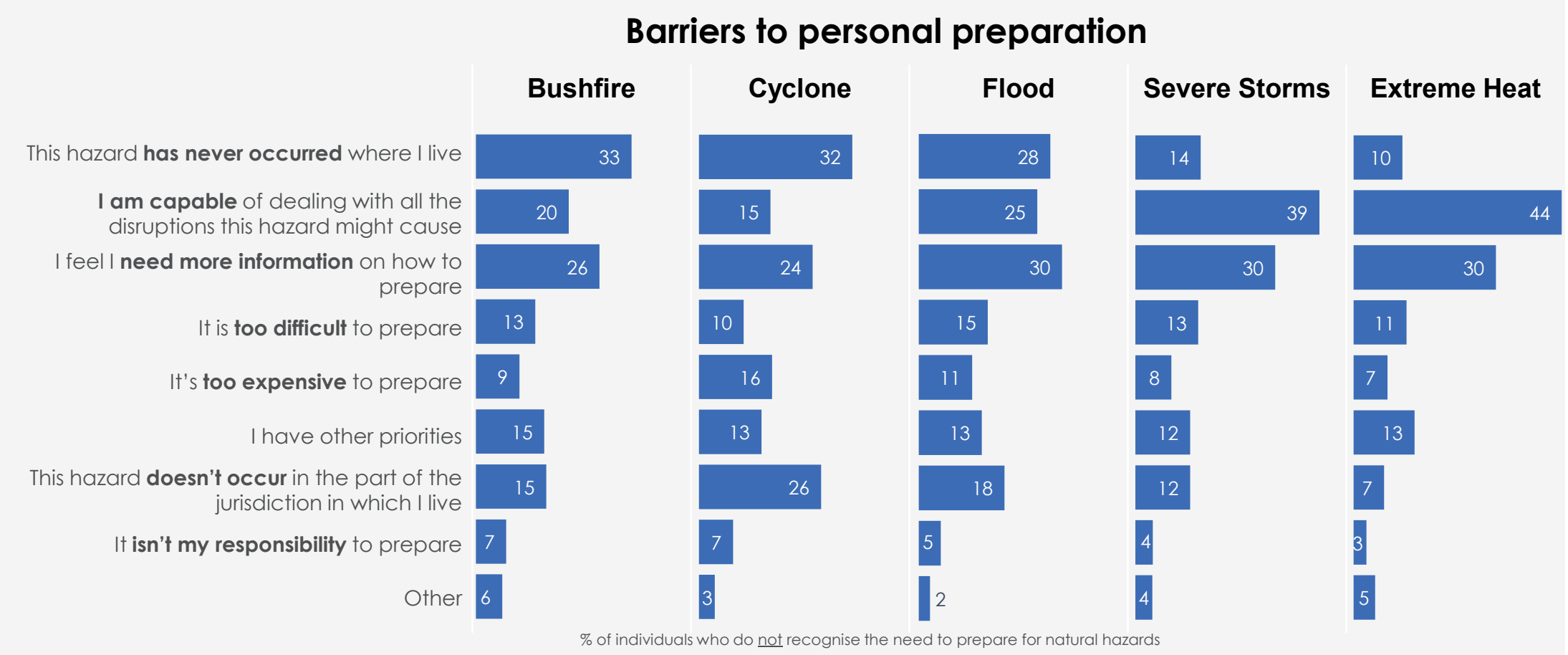
	Bushfire	Cyclone	Flood	Severe Storms	Extreme Heat
Risk recognition	91	27	61	73	77
Personal risk recognition	40	19	28	69	69
Knowledge on how to respond to warnings	38	17	26	64	65
Decision to prepare	33	14	20	52	55
Future intention to prepare	21	8	9	34	39

More general hazards with a greater geographic impact.

There is a significant drop in those who recognise each hazard as a **personal** risk for bushfire, cyclone and flood.

Preparation Barriers by Hazard

Recency and exposure to past incidents is tied to attitudes to preparation for bushfire, cyclone and flood. Those who don't prepare for storms and extreme heat feel they are capable of dealing with any potential disruptions. There is a an appetite for more knowledge in preparation across all hazard types.



Balancing

- Changing demographics
- Community Expectations
- Localised and personalised
- Competing and realigning priorities
- Actual vs available information
- Personalisation of risk
- Cascading events
- Technology
- Partnerships and letting go!

What Have We Learnt

- Black Saturday
- Cyclone Yasi
- Grenfell Tower
- Hazard fatality research
- Long term impacts of disasters

What Are We Learning

- Changing climate
- Challenging traditional command and control
- Embracing communications and engagement
- Prioritising public information warnings
- Maturing of the Sector
- Diversity and inclusion

Current Challenges

PRIORITIES

COMMUNITY

LEADERSHIP

DIVERSITY

FUNDING

PP & R[R]R

Sector Wide Strategies

- Resilience
- People Centred
- Community approaches
- Role of young people (DRANZEN)
- Development and adoption of national positions
- Willingness to embrace change

- **NEW** National Multi Hazard Scaled Warnings Framework
- **NEW** Australian Fire Danger Ratings System

Current State

Bushfire Scaled Advice and Warnings Framework

Fire Danger Ratings

Bushfire Warnings

Australian Tsunami Warning System

Other hazards – various arrangements for each jurisdiction

Social Research

Public Facing Fire Danger Ratings

Multi-Hazard Warnings Fire, Flood, Cyclone, Severe Weather & Extreme Heat

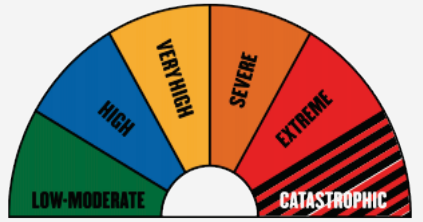
Future State

National Multi-Hazard 3- Tiered Warning System

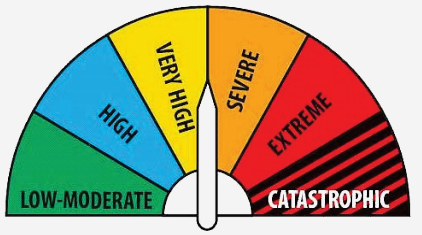
National Warnings Frameworks Fire, Flood, Cyclone, Severe Weather & Extreme Heat etc…

Implementation 2022

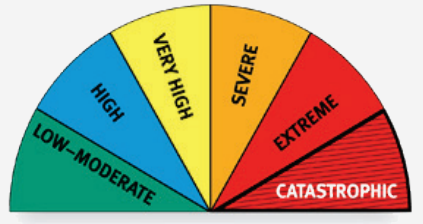
Current National Fire Danger Rating System



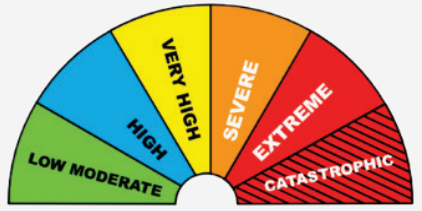
ACT



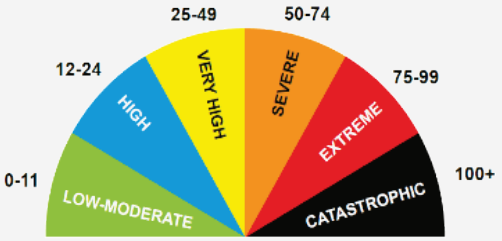
NSW



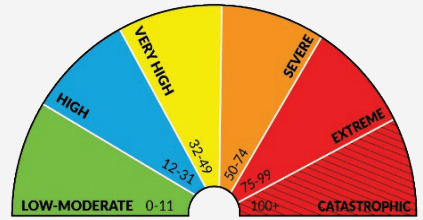
SA



QLD



TAS



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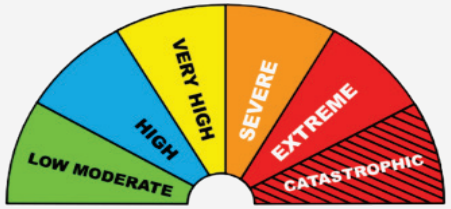

WA

VIC

Current Warning Systems

1. 2. 3.

Core of three levels

A core three-tier system involves an **initial notification** level, a **preparation** focused level and final level indicating that **urgent action** is required.

4.

All clear/ Reduced Threat

An additional level to indicate when the **danger has passed** and the community can resume their usual behaviour.

Hazard icons shown as examples

ACT

NSW

SA

QLD

TAS

NT

WA

VIC

Community Centred