

## **Acknowledgements**

The National Disaster Risk Reduction Framework is a multisector collaboration led by the National Resilience Taskforce within the Australian Government Department of Home Affairs.

The framework was co-designed with representatives from all levels of government, business and the community sector. Over 100 participants from a diverse range of over 80 organisations came together at a three-day intensive 'policy sprint' in June 2018 to develop key components of the framework.

The National Resilience Taskforce worked closely with an inter-jurisdictional Steering Committee to develop, refine and undertake further broad consultation on the framework.

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Department of Home Affairs PO Box 25 BELCONNEN ACT 2616

## **Foreword**

In Australia, we are all too familiar with the devastation and disruption that natural hazards such as bushfires, cyclones and flooding can cause.

Over the last decade we have made great progress towards being more resilient to natural hazards and in reducing disaster risk. However, with the driver of a changing climate there is growing potential for some natural hazards to occur at unimagined scales, in unprecedented combinations and in unexpected locations.

Many natural hazards are becoming more frequent and intense. More people and assets are exposed and vulnerable to these hazards. The essential services we rely on – power, water, telecommunications, the internet and finance – are also exposed to these impacts. As a result, the cost of disasters is increasing for all sectors of society – governments, industry, business, not-for-profits, communities and individuals. These costs include not only direct costs but the indirect ones, including costs from all the flow-on effects that disasters have.

Across all sectors, we are already working together to enrich Australia's prosperity, wellbeing, economic growth and international standing. By taking collective action now to reduce disaster risk, we can ensure Australia continues to sustainably enjoy the benefits of global change.

Investment in reducing disaster risk can deliver benefits beyond avoiding loss and suffering. Disaster risk reduction can unlock economic opportunities. Broader social and economic benefits can also be realised even without a hazard occurring. This can be true of investment in disaster risk reduction by all sectors across the built, social, economic and natural environments.

We are better positioned now than ever before to take a comprehensive approach to addressing the causes of disaster risk, rather than only dealing with the symptoms. We can give urgent priority to this sophisticated program of work. This will ensure Australian communities can endure more frequent and intense natural hazards. It will also ensure Australian communities can thrive and prosper following these events.

Responding to these opportunities and challenges, the National Disaster Risk Reduction Framework outlines a national, comprehensive approach to proactively reducing disaster risk, now and into the future.

## Introduction

As Australians see the growing potential for natural hazards to trigger devastating disasters, we rightfully expect that all sectors of society will work together to limit these impacts.

In 2011, for the first time in Australia, the Council of Australian Governments' National Strategy for Disaster Resilience (NSDR) established a national resilience-based approach to disaster management. Australia's resilience to disaster impacts is critical to our continued wellbeing and prosperity. However, our capacity to be resilient to disasters diminishes as disaster risk, and potential impacts, grows.

In 2015, the Sendai Framework for Disaster Risk Reduction 2015 – 2030 (the Sendai Framework) was adopted by Australia and other members of the United Nations at the third UN World Conference on Disaster Risk Reduction. Through the Sendai Framework, countries around the world recognise the importance of not only managing disasters, but managing disaster risk.

The Sendai Framework states that to strengthen resilience, countries must prevent new and reduce existing disaster risk. It also outlines four global priorities for action to reduce disaster risk: understanding disaster risk; strengthening disaster risk governance to manage disaster risk; investing in disaster risk reduction for resilience; and enhancing disaster preparedness for effective response, and to 'Build Back Better' in recovery, rehabilitation and reconstruction.

The Paris Agreement and the 2030 Agenda for Sustainable Development (including the Sustainable Development Goals) were also agreed on in 2015. Both agreements highlight the importance of climate adaptation and disaster risk reduction. The United Nations Office for Disaster Risk Reduction recognises that progress in implementing the Sendai Framework supports the global community in meeting the Sustainable Development Goals.

Reducing disaster risk is critical to supporting communities and economies to be resilient when a shock occurs. Recognising this, in early 2018 the Australian Government invited all states and territories, local government, and key private sector representatives to work together to co-design and develop this framework.

The framework outlines a coordinated approach to reducing disaster risk. This is one critical component to enable resilience. It is designed to leverage the great work and progress made across all sectors since the release of the NSDR in 2011 to better understand and reduce disaster risks, improve resilience, and bolster the capability and capacity of communities to withstand natural hazards.

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. More than ever, limiting the impact of disasters now and in the future requires a coordinated effort across and within many areas including land use planning, infrastructure, emergency management, social policy, agriculture, education, health, community development, energy and the environment.

## **Drivers for action**

#### NATURAL HAZARDS ARE MORE FREQUENT AND INTENSE

Many natural hazards are becoming more frequent and more intense, driven by Australia's changing climate. The Bureau of Meteorology/CSIRO's 2018 State of the Climate report describes the effect of Australia's changing climate, including warming temperatures, rising sea level, more severe fire weather, and increased rainfall in Australia's north and decreases in the south. It is predicted that these changes will continue, while new natural hazard threats will emerge. There is growing potential for cumulative or concurrent, large-scale natural hazards to occur.

#### ESSENTIAL SERVICES ARE INTERCONNECTED AND INTERDEPENDENT

Australians depend on reliable and affordable food, water, energy, telecommunications, transport networks (including road, rail, aviation and maritime), and financial services. These functions also depend on each other. The networks that ensure the sustained delivery of food, water and energy involve complex interactions between infrastructure, people, the environment, money and technology. A failure in any of these elements could have wide-ranging consequences across communities, businesses, governments and economies.

#### PEOPLE AND ASSETS ARE MORE EXPOSED AND VULNERABLE

As cities and regional centres expand to accommodate growing populations, the buildings and infrastructure needed to support our future communities will be exposed and vulnerable to natural hazards. The 2015 Intergenerational Report highlights that our population is growing and ageing. Our overall standard of living has improved, yet socioeconomic differences among communities remain, and people and assets continue to be located in at-risk areas such as coastal zones, floodplains and areas where bushland meets cities and towns.

#### DISASTER IMPACTS ARE LONG TERM AND COMPLEX

The impacts of disasters can be long term, complex, and intangible. Collectively, we are only now beginning to fully understand indirect, flow on and cumulative effects of disasters. We do know that disasters can trigger long-term challenges across a range of areas, including reduced education and workforce participation, increased crime, and physical and mental health and wellbeing. These impacts are often felt disproportionately by vulnerable or susceptible groups. Factors such as health and wellbeing, economic resources, social capital and knowledge influence a person's ability to prepare for, respond to, and recover from disasters.

#### THE COSTS OF DISASTERS ARE GROWING

In 2017 Deloitte Access Economics, reporting to the Australian Business Roundtable for Disaster Resilience and Safer Communities, found that over the past 10 years disasters have cost the Australian economy around \$18 billion per year. Assuming current development patterns and population growth continue, this is forecast to reach \$39 billion per year by 2050. This forecast does not account for the effects of a changing climate, which are expected to magnify these costs; nor does it account for losses that cannot be quantified but are no less important to people. Deloitte Access Economics found in 2015 that the intangible costs of disasters – including increased family violence, mental health impacts, chronic disease, alcohol and drug use, short and long-term unemployment, changes to school academic outcomes, and crime – are at least equal to, if not greater than, tangible costs.

#### MOMENTUM TO ADDRESS FINANCIAL IMPACTS OF A CHANGING CLIMATE IS BUILDING

There is significant momentum building across sectors to address climate and disaster risks. The release of the 2017 Taskforce on Climate-related Financial Disclosure report increased market understanding of climate risk and demand for services to help identify and manage that risk. The Australian Prudential Regulation Authority and Australian Securities and Investment Commission have stated that climate-related physical and economic transition risks are foreseeable and material financial risks that should be addressed by company directors alongside all other financial risks. Mainstream investors are divesting from stock in exposed industries, credit rating companies are reassessing credit ratings to factor in climate-related risks and several banks have commissioned analysis of their mortgage books based on location. The Investor Group on Climate Change, in its 2018 Investing in Resilience report, predicts that the ability to differentiate investment opportunities by climate risks will be a key financial metric within the next 3-5 years. These developments provide additional reasons to take action to reduce disaster risk and position Australia for the future.

## **Purpose**

The National Disaster Risk Reduction Framework ('the framework') guides national, whole-of-society efforts to proactively reduce disaster risk in order to minimise the loss and suffering caused by disasters.

## Scope

This framework is designed to guide Australia's efforts to reduce disaster risk associated with **natural hazards**. It translates the first three Sendai Framework priorities into action for the Australian context; though the strategies outlined in this framework are applicable to disaster preparedness and recovery efforts, the fourth priority of the Sendai Framework is largely progressed through other national strategies, primarily the Australian Disaster Preparedness Framework.

The framework establishes a 2030 vision, goals and priorities broadly aligned to the Sendai Framework and the 2030 Sustainable Development Goals, and outlines foundational strategies for action to meet these across the five years from 2019 – 2023. The framework will be reviewed and updated at the end of this five-year period to ensure its relevance and accuracy across the remaining years to 2030.

It is not exhaustive nor prescriptive, and should be holistically applied across and between four key environments: built, social, natural, and economic.



### BUILT ENVIRONMENT

Physical and social infrastructure assets such as transport, energy and telecommunications, water utilities, housing, cultural and commercial precincts, and other assets.



#### SOCIAL ENVIRONMENT

Socioeconomic and demographic trends, social networks and relationships, cultural practices, technology, innovation, wellbeing, essential services such as health and education, and lifestyles.



#### NATURAL ENVIRONMENT

Natural assets such as wetlands, rivers, land, forests, oceans, other complex natural ecosystems, agriculture, and water sources.



#### **ECONOMIC ENVIRONMENT**

Public sector, private sector and individual economic activities; workforce participation; credit, debt, and finance; and small, medium, national and multinational business.

## The fundamentals – natural hazards, disaster risk, climate risk and resilience

The United Nations Office for Disaster Risk Reduction defines disaster risk as the potential loss of life, injury, or destroyed or damaged assets that could occur to a system, society or a community.

This framework recognises that disaster risk is a product of hazard (a sudden event or shock), exposure (the people and things in the path of potential hazards), vulnerability (the potential for those people and things to be adversely impacted by a hazard) and capacity (the ability for those people and assets and systems to survive and adapt).

It focuses only on natural hazards: shocks caused by a natural process or phenomenon that may cause loss of life, injury, damage and disruption. Natural hazards include bushfires, floods, cyclones, storms, heatwaves, earthquakes and tsunamis.

Natural hazards trigger disasters when they impact what people value.

The United Nations Office for Disaster Risk Reduction recognises climate change is an underlying driver of disaster risk. Climate change can increase disaster risk in a variety of ways, including by altering the frequency and intensity of natural hazards, affecting vulnerability to natural hazards, and changing exposure patterns. These impacts are outlined in reports such as the

Fifth Assessment Report of the Intergovernmental Panel on Climate Change (2014), the National Climate Resilience and Adaptation Strategy, and Bureau of Meteorology/ CSIRO State of the Climate 2018 Report.

The United Nations Office for Disaster Risk Reduction defines disaster resilience as the ability to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard. As disaster risk increases, the capacity of communities and systems to be resilient is diminished. This framework focuses on reducing disaster risk as one key component of enabling resilient communities and economies in Australia.

#### Sendai Framework Outcome 2030

The substantial reduction of disaster risk and losses in lives, livelihoods and health, and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

#### 2030 Vision for Disaster Risk Reduction in Australia

In Australia, we are enabled and supported to actively reduce disaster risk and limit the impacts of disasters on communities and economies. All sectors of society understand and respond to social, environmental, technological and demographic changes which have the potential to prevent, create or exacerbate disaster risks. All sectors of society:

- make disaster risk-informed decisions,
- are accountable for reducing risks within their control, and
- invest in reducing disaster risk in order to limit the cost of disasters when they occur.

#### 2030 Disaster Risk Reduction Goals

Take action to reduce existing disaster risk

Minimise creation of future disaster risk through decisions taken across all sectors Equip decision-makers with the capabilities and information they need to reduce disaster risk and manage residual risk

#### Framework Priorities



Understand disaster risk 2

Accountable decisions

3

Enhanced investment

4

Governance, ownership and responsibility

### **Guiding Principles**

## Shared and defined responsibilities

All sectors have shared but defined responsibilities to reduce disaster risk.

#### **Cultural change**

All sectors cultivate a culture of disaster risk reduction awareness and action.

#### Integrated action

Efforts to reduce disaster risk must be integrated across sectors, not progressed in silos.

#### Inclusive engagement

All sectors connect with diverse stakeholders to ensure inclusive decision-making leading to more effective solutions.

Practical change at local, state and national levels

#### **Continual improvement**

All sectors continuously learn and innovate to improve practices and share our lessons, data and knowledge widely.

#### Data-driven decision making

Data and information informs implementation planning and execution.

#### Leadership

Commitment is required at all levels and in all sectors to effectively reduce disaster risk.

#### PRIORITY 1: Understand disaster risk

- Improve public awareness of, and engagement on, disaster risks and impacts
- Identify and address data, information and resource gaps
- Address technical barriers to data and information sharing and availability
- Integrate plausible future scenarios into planning
- Develop cohesive disaster risk information access and communication capabilities to deliver actionable disaster risk data and information
- Support long-term and solution-driven research, innovation and knowledge practices, and disaster risk education
- Improve disclosure of disaster risk to all stakeholders

#### **PRIORITY 2:** Accountable decisions

- Consider potential avoided loss (tangible and intangible) and broader benefits in all relevant decisions
- Identify highest priority disaster risks and mitigation opportunities
- Build the capability and capacity of decision-makers to actively address disaster risk in policy, program and investment decisions
- Establish proactive incentives, and address disincentives and barriers, to reducing disaster risk
- Maintain planning and development practices that adapt to rapid social, economic, environmental and cultural change
- Promote compliance with, and embed resilience requirements into, relevant standards, codes and specifications



**ACTION TO REDUCE DISASTER RISK** 

#### **PRIORITY 3: Enhanced investment**

#### PRIORITY 4: Governance, ownership and responsibility

- Establish a national mechanism to oversee and guide disaster risk reduction efforts and cross-sector dependencies
- Establish a national implementation plan for this framework
- Support and enable locally-led and owned place-based disaster risk reduction efforts
- Incentivise improved transparency of disaster risk ownership through personal and business transactions
- Consistently report on disaster risk reduction efforts and outcomes
- Create clear governance pathways for pursuing disaster risk reduction projects

- Pursue collaborative commercial financing options for disaster risk reduction initiatives
- Develop disaster risk reduction investment tools to provide practical guidance on investment mechanisms
- Leverage existing and future government programs to fund priority risk reduction measures
- Identify additional current and future potential funding streams
- Improve the accessibility, variety and uptake of insurance
- Empower communities, individuals and small businesses to make informed and sustainable investments





Figure 2 Priorities and strategies at a glance







# National Priority 1 Understand disaster risk

Relates to Sendai Framework priority 1: understanding disaster risk

#### **FIVE-YEAR OUTCOMES**

Legal liability of decision-makers relating to disaster risk information is further understood and acted upon Australia is supported with enduring and cohesive national capabilities that enable the creation, capture and sharing of useful disaster risk information Meaningful disaster risk information is freely disclosed, shared and integrated into risk planning across sectors

To be reduced, all components of disaster risk and impacts must be understood by all sectors: vulnerability, capacity, exposure of persons and assets, hazard characteristics, and the environment.

Across all sectors, there is an urgent and growing demand for trusted and authoritative disaster risk information and services to inform operational and strategic decisions.

This information must be matched by investments in the capabilities and technology required to meet these demands. Disaster risk can be unintentionally created or exacerbated when decisions are made without understanding future consequences, including climate change impacts.

It is our collective responsibility to efficiently equip decision-makers in all sectors with the information and capabilities they need to make decisions that reduce disaster risk. Change will come from improved access to reliable information and capability development, and through greater public awareness of direct and indirect disaster risks and impacts.

A wealth of disaster risk data, information and knowledge already exists. Over the last five years states and territories have developed a sophisticated understanding of state-wide risks and have released these findings. Some states have developed state-wide infrastructure strategies and critical infrastructure resilience strategies informed by a comprehensive understanding of natural hazards, exposure and resilience. Industries and other non-government sectors have also invested significantly in improved natural hazard and disaster risk information.

However, much existing data relates to historical natural hazard patterns and while useful, it cannot be relied on as a sole predictor of future risk. This is due to the rapidly changing nature of many natural hazards and the uncertain speed of climatic changes.

Despite progress, disaster risk data and information is not always available to those who need it and it does not adequately integrate climate science. More needs to be done to properly connect and leverage existing data, information and services that are not accessible or affordable. Also, we need to better understand and address key data and information gaps and overcome barriers to sharing it.

To make sensible long-term decisions and prevent new risks being created, we need to understand possible future disaster risks and impacts. All sectors seek trusted, credible and consistent approaches to developing and using scenarios and risk forecasting methods; the right information is needed at the right level.

## 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 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.

Greater policy-research connection and innovation is needed to ensure

#### 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.

# National Priority 2 Accountable decisions

Relates to Sendai Framework priority 1: understanding disaster risk; priority 2: strengthening disaster risk governance to manage disaster risk; and priority 3: invest in disaster risk reduction for resilience

#### **FIVE-YEAR OUTCOMES**

Public, private and community sector decision-makers are working towards addressing disaster risk along with other risks Decision-making processes and models, including cost benefit analyses, adequately address current and future disaster risks Priority disaster risks are identified and actively mitigated

Integrated and robust frameworks are used to assess and reduce disaster risk in all environments, but particularly infrastructure, land use and development planning

Greater understanding of disaster risk has limited value unless actively applied. Decisions made today must respond to identified immediate and long-term disaster risks and related challenges.

All types of decisions – from where to build infrastructure or where to invest funds to where to buy a home, where to place services or how to design public assets – have the potential to reduce, create or prevent disaster risk.

Decisions and trade-offs made in all sectors matter, whether those decisions relate to a multi-billion dollar infrastructure investment, small business continuity planning, or residential property purchases. Reducing disaster risk through better decision-making requires informed trade-offs and accountability for those decisions.

The obligations of decision-makers to actively address disaster risk within their areas of responsibility are becoming increasingly explicit. For example, in 2017 Infrastructure Australia released national guidelines requiring that all project proposals consider climate risk.

To enable Australians to act on their respective responsibilities, decision-makers must use improved risk information to manage the potential for decisions to create or exacerbate disaster risk. They also need tools and methods to appropriately and consistently assess a broad range of opportunities and associated costs, and prioritise risk reduction efforts accordingly.

To improve resilience in the built environment, further attention is needed to remove disincentives and strengthen planning and development practices while ensuring the sustainable needs of Australia's growing population are met. Earlier work to implement the Enhancing Disaster Resilience in the Built Environment Roadmap should be leveraged to help deliver this.

## Priority 2 – Strategies for action: 2019-2023

#### STRATEGY A

Consider potential avoided loss (tangible and intangible) and broader benefits in all relevant decisions

Measured assessment of disaster risk and impacts should be undertaken for investments of all types, across all sectors. To appropriately determine the costs and benefits of reducing existing and future disaster risk, opportunities and losses should be quantified. Those that cannot be quantified should be accounted for in a consistent manner. These methods should be able to consider unexpected and unknown risks, as well as flow on risks and impacts.

#### STRATEGY B

Identify highest priority disaster risks and mitigation opportunities

It is often not possible to reduce all identified risks. Efforts and resources should be targeted to reduce risks with the greatest potential impact.

Highest priority risks and vulnerabilities and appropriate mitigations should be identified using consistent principles and strategic risk assessment methods. Consideration of residual risk should be a key component.

#### STRATEGY C

Build the capability and capacity of decision-makers to actively address disaster risk in policy, program and investment decisions Use sector-specific professional development and guidance materials to build the capability of decision-makers to use improved disaster risk information to appropriately identify and address current and potential future disaster risks and impacts within their area of responsibility.

#### STRATEGY D

Establish proactive incentives, and address disincentives and barriers, to reducing disaster risk Current and future policy, legislative, regulatory, cultural, knowledge, behavioural and financial settings should be adjusted to enable and support decision-makers to actively reduce risk within their area of responsibility. This should be pursued while ensuring the sustainable development needs of Australia's growing population are met.

#### STRATEGY E

Maintain planning and development practices that adapt to rapid social, economic, environmental and cultural change

Infrastructure, land use and development planning and practices must be integrated, strategic and adaptive to avoid creating new disaster risk.

#### STRATEGY F

Promote compliance with, and embed resilience requirements into, relevant standards, codes and specifications Leverage existing mechanisms for reviewing standards, codes and specifications to minimise disaster risk being built into the urban environment and regional landscape, recognising that preservation of life must remain a priority.

# National Priority 3 Enhanced investment

Relates to Sendai Framework priority 3: investment in disaster risk reduction for resilience

#### **FIVE-YEAR OUTCOMES**

Existing and future disaster risk reduction investments target high priority locally and nationally significant disaster risks Where possible, investment in disaster risk reduction is designed to maximise broader outcomes including increased productivity, improved connectivity, and social inclusion

Investments in disaster risk reduction and resilience limit future disaster recovery costs

The total economic cost of disasters is increasing along with the cost of disaster recovery. Current federal and state government spending on direct recovery from disasters is already around \$2.75 billion per year and indirect recovery costs may be borne by many sectors across multiple years.

Much of the work needed to reduce disaster risk and contain this growing cost will require upfront financial investment.

All sectors must invest in reducing disaster risk, through both funding and financing, to limit the cost of disasters in the future.

Existing stresses or pressures in the natural and social environments may cause natural hazards to disproportionately impact vulnerable communities. Investing in disaster risk reduction across each of natural, social, built and economic environments can reduce our vulnerability to disasters and help achieve broader social and economic benefits.

Investment in risk reduction and resilience can deliver a triple dividend:

- Avoid loss and suffering
- Reduce future disaster costs
- Unlock economic opportunities and broader economic and social benefits to be realised even in the absence of a natural hazard.

All levels of government, communities and the private sector already make significant investments to reduce disaster risk but are now actively seeking a return on that investment in terms of immediate outcomes and avoided losses.

This presents a significant opportunity for public and private sectors to work together to identify and leverage the broader economic value and opportunity created by investments in disaster risk reduction and resilience. In particular, there is a need to focus on:

- (1) Finding or developing financing and funding pathways to address existing high priority risks across all environments, and
- (2) Identifying financing mechanisms and pathways to pursue disaster risk reduction measures in planned projects, particularly infrastructure and development projects.

## Priority 3 – Strategies for action: 2019-2023

#### STRATEGY A

Pursue collaborative commercial financing options for disaster risk reduction initiatives Commercial financing and investment models such as loans, equity contributions, guarantees and Public-Private Partnerships can be applied to disaster risk reduction projects. These models can deliver financial returns on investment, unlock economic opportunities, and deliver not only avoided losses but broader sustainability and productivity outcomes.

#### STRATEGY B

Develop disaster risk reduction investment tools to provide practical guidance on investment mechanisms Investment literacy and capability should be improved across all sectors to ensure potential investment opportunities can be properly identified and leveraged by decision-makers across governments, the private sector and communities.

#### STRATEGY C

Leverage existing and future government programs to fund priority risk reduction measures Governments at all levels should collaborate to align and leverage existing and future funding streams to create clearer funding pathways for disaster risk reduction projects. Significant existing investment in infrastructure across all environments, climate adaptation and energy security can also be leveraged to deliver disaster risk reduction outcomes.

#### STRATEGY D

Identify additional current and future potential funding streams

All sectors should leverage improved disaster risk information to proactively identify current and future risk reduction funding needs and establish funding pathways to meet these needs.

#### STRATEGY E

Improve the accessibility, variety and uptake of insurance

All sectors should work to diversify the variety of insurance products, better communicate these products, and address barriers to insurability – for example, by supporting assessment of asset conditions.

#### STRATEGY F

Empower communities, individuals and small businesses to make informed and sustainable investments Communities and individuals can own their role as informed and active investors in disaster risk reduction, subject to their capacity, capability and financial position, to their own benefit and the benefit of their broader networks and economies. This requires communities to be supported to understand disaster risks and impacts relevant to what they value and the choices they make. It is essential to identify what support may be needed by those with limited capacity and capability to act as an informed investor.

## National Priority 4

## Governance, ownership and responsibility

Relates to Sendai Framework priority 2: strengthening disaster risk governance to manage disaster risk

#### **FIVE-YEAR OUTCOMES**

All sectors and communities understand the extent to which they have a responsibility to reduce disaster risk Mechanisms are in place nationally to identify and reduce disaster risk arising from cross-sector interdependencies Transferred ownership of disaster risk through commercial exchanges is transparent and acknowledged

All sectors and communities are engaged in a national mechanism to connect and guide efforts to reduce disaster risk

To be effective, action to reduce disaster risk must be transparent, sustainable, accountable and undertaken in partnership.

Disaster risk reduction is a shared responsibility. However, it is not equally shared and it can often be unclear where certain responsibilities lie.

Disaster risk reduction requires strong governance that not only responds to the uncertain and changing nature of disasters and a changing climate, but to the interrelated and complex distribution of responsibility for identifying, managing and reducing disaster risk. It is critical that governance mechanisms include all relevant stakeholders and clearly identify roles and responsibilities.

In the same way that disaster risk can be inadvertently created or exacerbated by decisions made across all sectors, the impact of disaster risk can knowingly or unknowingly be transferred to others. Disaster risk governance mechanisms play a critical role in ensuring any transfer of risk from one sector or entity to another is informed and understood by all relevant stakeholders.

To improve disaster risk reduction outcomes, there is significant potential for a nationally-owned and multi-stakeholder led coordination mechanism. Such a mechanism could bring together relevant cross-sectoral expertise to support effective implementation and monitoring of disaster risk reduction efforts across the country. It would provide an important link between local and national efforts.

## Priority 4 – Strategies for action: 2019-2023

#### STRATEGY A

Establish a national mechanism to oversee and guide disaster risk reduction efforts and cross-sector dependencies This mechanism should be partnership-based, agile and dynamic. It could comprise multiple components and forums, and should create and leverage partnerships that support coordination, collaboration and advice between all sectors to reduce disaster risk.

#### STRATEGY B

Establish a national implementation plan for this framework

The implementation plan should include initiatives at a national and jurisdictional level, as well as place-based locally-led initiatives and sector-specific initiatives. It should also be leveraged to clarify roles and responsibilities for reducing disaster risk and improving resilience.

#### STRATEGY C

Support and enable locally-led and owned place-based disaster risk reduction efforts

Where disaster risks are location-specific, governments and other relevant sectors should support local ownership and delivery of place-based disaster risk reduction and resilience measures.

#### STRATEGY D

Incentivise improved transparency of disaster risk ownership through personal and business transactions All sectors should explore opportunities to ensure there is appropriate transparency of disaster risk and potential impacts in transactions where disaster risk may be shifted from one party to another.

#### STRATEGY E

Consistently report on disaster risk reduction efforts and outcomes

To minimise duplication of effort and allow success to be shared and leveraged, all sectors should regularly share and report on work being undertaken to identify, prioritise and reduce disaster risks and losses.

#### STRATEGY F

Create clear governance pathways for pursuing disaster risk reduction projects

Aligning decision-making practices across sectors and levels of government, where possible, would allow a clearer line of sight from identifying disaster risks to prioritising and taking action to reduce them. In the first instance, this will require disaster risk reduction to be incorporated into existing governance arrangements across all sectors. This should apply to various types of decision-making in all sectors and environments. It will also help to clarify the movement of disaster risk, including residual risk, among sectors.

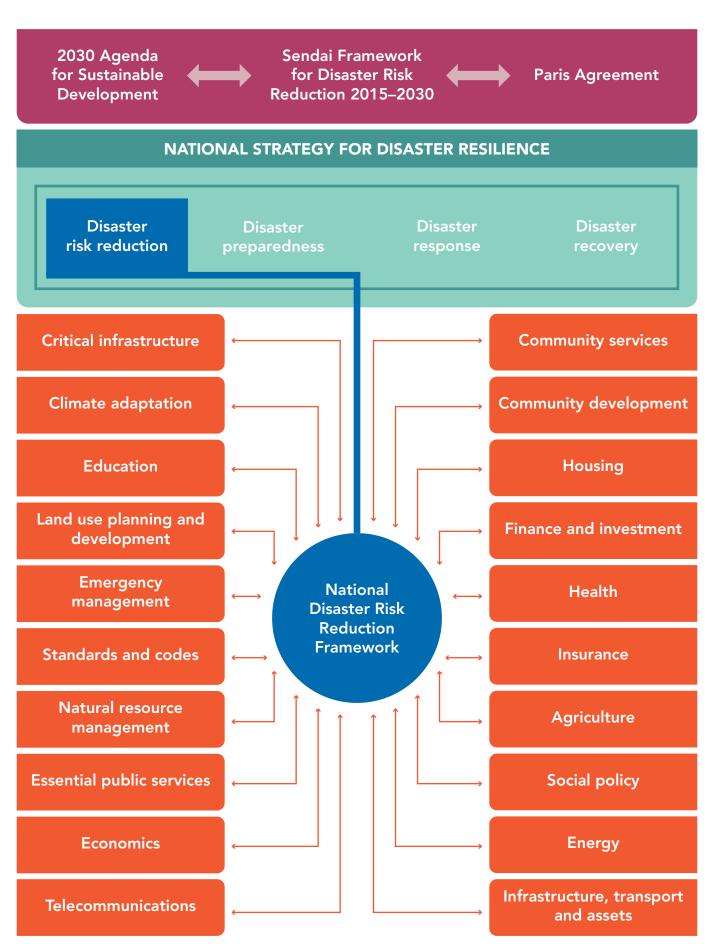


Figure 3 Strategic context and policy environment

This figure outlines how the National Disaster Risk Reduction Framework is situated within the broader disaster resilience policy context, and demonstrates the breadth of the disaster risk reduction 'world' within this broader context. Arrows represent interactions. The diagram is indicative, rather than exhaustive.

## **Implementation**

### Who is the Framework for?

The framework is designed to be implemented by decision-makers within all sectors at national, state and local levels.

The framework should not prompt the question 'who will do this?', but rather: How can my sector, organisation or community implement this framework within our areas of responsibility?

What national or cross-sectoral actions or initiatives may be required to implement it, and what role can my sector, organisation or community play in progressing these?

Figure 3 (see page 20) outlines examples of sectors with a role to play in reducing disaster risk.

Figure 4 below demonstrates the different types of decision-making that this framework should inform, and indicates the relevance of these types of decision-making to various sectors of society.

Decision types	Individual	Communities	Governments	Industries	Business	Not-for-profit sector
Investment and spending	<b>✓</b>	<b>V</b>	<b>~</b>	<b>✓</b>	<b>~</b>	~
Public policy			<b>✓</b>			<b>~</b>
Development/ land use decisions	~	~	V	V	~	
Legislation/ regulation			V			
Program and resource decisions		V	~	V	~	~

Figure 4 Types of decision-making relevant to this framework and the indicative relevance to various sectors

## Implementation plan

The framework will be supported by a five-year national implementation plan to be developed in conjunction with all levels of government and non-government sectors.

The national implementation plan, to be released in 2019, will detail initiatives to be undertaken by all sectors of society to reduce disaster risk and limit the impacts of disasters on communities and the economy.

## Measuring success

The five-year outcomes listed under each of the National Priorities set a collective measure of success for each framework priority in the short term. In the long term, the success of the framework will be measured against nationally relevant targets of the Sendai Framework, including the reduction of disaster mortality, number of people affected by disasters, direct economic loss, damage to critical infrastructure and disruption of basic services.

Acknowledging that disasters have growing potential to undermine economic and social development, the success of the framework should also be measured against relevant Sustainable Development Goals, particularly those relating to the reduction of poverty, health and wellbeing risks, education, protection of the natural environment including marine and coastal ecosystems, development of resilient infrastructure and increased number of sustainable cities.

## Glossary

#### Climate risk

Climate risk refers to how climate change could impact social, economic and natural environments. Climate risk is made up of two primary types of risk, physical and transitional, which also give rise to secondary risks including liability.

#### Physical:

The physical risks associated with rising aggregate global temperatures. For example, this could be direct impacts to the built environment from increasing intensity and frequency of extreme weather events.

#### Transitional:

These are associated with activities that may (or may not) occur in the processes of adjusting towards a lower-carbon economy.

#### Liability:

Liability risks can arise when a person or entity may be held responsible for not acting sufficiently on physical or transitional risks, causing damage to others.

#### Community

A social group with a commonality of association and generally defined by location, shared experience or function, and with a number of things in common such as culture, heritage, language, ethnicity, pastimes, occupation or workplace.

#### **Decision-makers**

Individuals, groups, organisations or entities who make investment, spending, policy, program, legislative, regulatory, resource allocation, planning or lifestyle decisions.

#### Disaster

A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic or environmental losses and impacts.

#### Disaster mitigation

The lessening or minimising of the adverse impacts of a hazardous event.

#### Disaster risk

The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community.

#### Disaster risk reduction

Disaster risk reduction is aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development.

#### **Financing**

The investment of capital or money for a specific purpose.

#### **Funding**

The provision of financial resources, whether through a supply of money or commercial resources, for a specific purpose.

#### Nationally significant

Considered to have significant national and cross-jurisdictional effect, impact or influence.

#### Natural hazards

A natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.

#### Residual risk

The disaster risk that remains even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained. The presence of residual risk implies a continuing need to develop and support effective capacities for emergency services, preparedness, response and recovery together with socioeconomic policies such as safety nets and risk transfer mechanisms, as part of a holistic approach.

#### Resilience

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.

#### Sectors

All sectors of society including government, industries, business, not-for-profits, communities and individuals.

#### **Systems**

A complex network or networks of interconnecting and related rules, structures and mechanisms that work towards a common goal.

#### Vulnerability

The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, community, assets or systems to the impacts of hazards.

