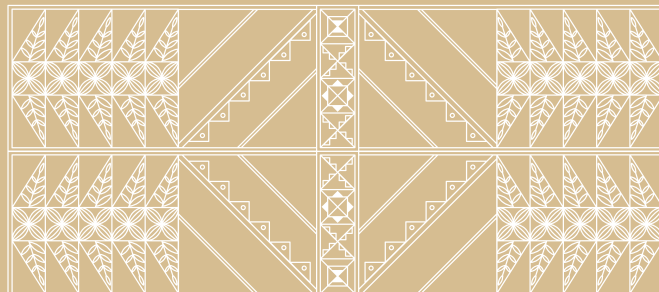
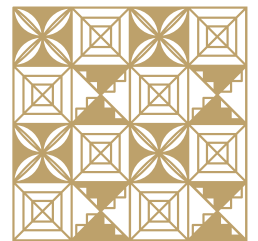
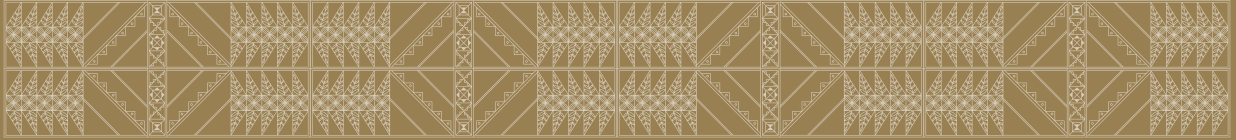


# Disaster Risk Management Policy Framework 2023-2030

National Emergency Management Office –  
Ministry of Meteorology, energy, Information,  
Disaster Management, Environment, Climate  
change and Communications (MEIDECC)





# Foreword

The Government of Tonga has established the Disaster Risk Management (DRM) Act 2021, which replaced the Emergency Management Act 2007, calling for a more proactive approach to DRM.

The DRM Act covers all aspects of DRM activities in Tonga including mitigation, preparedness, response and recovery. It provides clearer mandates, roles and responsibilities of government Ministries, Departments and Agencies, as well as for all DRM stakeholders. The vision is that investing in DRM before disasters strike will not only reduce the potential loss of lives, livelihoods and assets, but also provides increased returns on investments and co-benefits such as environmental sustainability and inclusive communities.

The DRM Act, 2021 is a significant reform that introduces a shift for the Government of Tonga and the entire Tongan society from a traditional emergency response focus to comprehensive disaster risk management approach. The DRM Act mandates the Ministry of Meteorology, Energy, Information, Disaster Management, Climate Change and Communications (MEIDECC) to develop a DRM Policy Framework to support implementation of the DRM Act and provide clear policy guidance for government and all DRM stakeholders clear direction for their respective DRM responsibilities. The DRM Policy will be followed up by the DRM Plans at National, District and Village Level.

The vision of the Policy is to increase the resilience of communities and assets through proactive disaster risk management. This policy defines 25 DRM Policy

Objectives for Tonga and presents implementation arrangements to achieve these objectives.

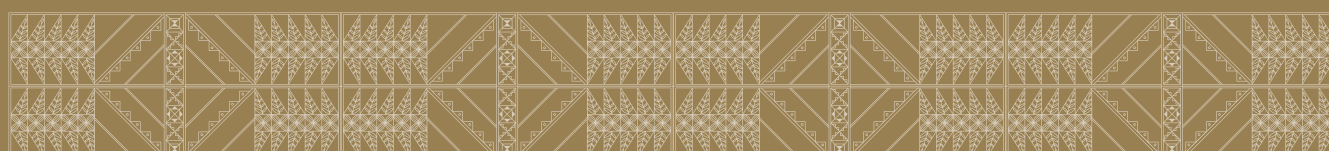
Disasters are familiar to all Tongans. Tonga's exposure and susceptibility to hydrometeorological hazards place it as one of the highest risk countries in the world. The country lies in the Pacific "Ring of Fire" and is approximately 45 kilometres from the Tonga Trench, which generates significant undersea tectonic activities. We are still recovering from Tropical Cyclone Gita which hit Tonga in 2018 and the Hunga Tonga-Hunga Ha'apai Volcanic Eruption and subsequent Tsunami in January 2022 which not only impacted Tonga but shook the whole world with its powerful eruption and tsunami waves. Tonga lies only around 45km from Tonga Trench where there are a lot of undersea tectonic activities. The Government of Tonga is committed to mitigating the risks that Tonga is facing through more effective risk reduction and preparedness activities, which will not only minimize damages and losses but also significantly reduce the cost of response and recovery to future disasters.

I encourage all stakeholders involved in disaster risk management to work together to coordinate our response and recovery efforts more effectively and invest more in ex-ante risk reduction and preparedness activities. Through these efforts, we can enhance our institutions and systems to make Tonga a safer and more resilient country for all.

Minister for MEIDECC

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# Abbreviations and acronyms

<b>AAL</b>	Average annual losses	<b>NC</b>	National Communications
<b>BUR</b>	Biennial Update Reports	<b>NDC</b>	Nationally Determined Contributions
<b>CSO</b>	Civil Society Organisation	<b>NDRMC</b>	National Disaster Risk Management Committee
<b>DFAT</b>	Australian Department of Foreign Affairs and Trade	<b>NDRMO</b>	National Disaster Risk Management Office
<b>DRFS</b>	Disaster Risk Financing Strategy	<b>NEF</b>	National Emergency Fund
<b>DRM</b>	Disaster Risk Management	<b>NEMO</b>	National Emergency Management Office
<b>ENSO</b>	El Niño Southern Oscillation	<b>NGO</b>	Non-Governmental Organisation
<b>FRDP</b>	Framework for Resilient Development in the Pacific	<b>NIIP 3</b>	National Infrastructure Investment Plan 3
<b>GBV</b>	Gender-Based Violence	<b>NPU</b>	National Planning Unit (under the Prime Minister's Office)
<b>GDP</b>	Gross Domestic Product	<b>PCRAFI</b>	The Pacific Catastrophe Risk Assessment and Financing Initiative
<b>GoT</b>	Government of Tonga	<b>PCRIC</b>	Pacific Catastrophe Risk Insurance Company
<b>HT-HH</b>	Hunga Tonga-Hunga Ha'apai	<b>PMO</b>	Prime Minister's Office
<b>IDA</b>	Initial Damage Assessment	<b>SAMOA Pathway</b>	Small Island Developing States Accelerated Modalities of Action
<b>JNAP2</b>	Joint National Action Plan 2 on Climate Change and Disaster Risk Management	<b>SDGs</b>	Sustainable Development Goals
<b>KPI</b>	Key Performance Indicator	<b>SFDRR</b>	Sendai Framework for Disaster Risk Reduction 2015-2030
<b>M&amp;E</b>	Monitoring And Evaluation	<b>SOPs</b>	Standard Operating Procedures
<b>MEIDECC</b>	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications	<b>SPC</b>	The Pacific Community
<b>MHEWS</b>	Multi-Hazard Early Warning System	<b>TGS</b>	Tonga Geological Survey
<b>MHDRA</b>	Multi-Hazard Disaster Risk Assessment	<b>TSDF II</b>	Tonga Strategic Development Framework II
<b>MoF</b>	Ministry of Finance	<b>UNDRR</b>	United Nations Office for Disaster Risk Reduction
<b>MIA</b>	Ministry of Internal Affairs	<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>MLSNR</b>	Ministry of Land, Survey and Natural Resources	<b>WAL</b>	Waste Authority Limited
<b>MoF</b>	Ministry of Finance		
<b>MIA</b>	Ministry of Internal Affairs		
<b>Mol</b>	Ministry of Infrastructure		



# Glossary

This section defines key terms used throughout this policy.

Wherever possible, the definitions are drawn from the DRM Act.

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<b>Adaptive social protection approach</b>	Social support and financial assistance to those affected by disasters that is adjusted based on the needs and circumstances of those affected and targeted to vulnerable groups using monitoring and evaluation.
<b>Area-based approach</b>	An approach to development activities that uses an area, rather than a sector or target group, as a primary entry point for intervention. It is particularly appropriate if residents in an affected area face complex, inter-related, and multisectoral needs. The use of the recovery, rehabilitation, and reconstruction activities after a disaster to increase the resilience of countries and communities by integrating disaster risk reduction measures into the restoration of physical infrastructure and the revitalization of livelihoods, economies, and the environment.
<b>Build back better Critical services</b>	Services that if unavailable during an emergency period, would put the population or the emergency response itself at risk, including emergency management, hazard monitoring, early warnings, water, electricity, telecommunications, transportation, and fuel supply.
<b>Cluster</b>	A group of governmental and non-governmental organizations and other stakeholders that, established under section 43 of the DRM Act, work together to coordinate their response efforts during a disaster, to ensure a more efficient and effective response by reducing the duplication of effort, improving information sharing, and facilitating decision-making. May also work on non-emergency DRM issues.
<b>Damage</b>	Total or partial destruction of physical assets and infrastructure in an area affected by a disaster. A damage assessment aims to identify the extent and type of physical damage caused by the disaster and provide information to support recovery and reconstruction efforts.
<b>Disaster</b>	A serious disruption of the functioning of a community or society causing widespread human, material, economic and/or environmental losses that exceed the ability of the affected community or society to cope using its own resources.
<b>Disaster resilience</b>	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform, and recover from the effects in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.
<b>Disaster risk management</b>	The systematic process of using administrative decisions, organization, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural and climate-related hazards. This includes the use of structural and non-structural measures to avoid (prevention) or to limit (mitigation and preparedness) adverse effects of hazards.

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<b>Disaster risk reduction</b>	The development and application of policies, strategies, and practices to minimise vulnerabilities and exposure to disaster risks throughout society.
<b>Emergency</b>	<p>A serious, unexpected, and often dangerous situation requiring immediate action.</p> <p>A service rendered for the public good by:</p> <ul style="list-style-type: none"> <li>(a) Ministry of Health</li> <li>(b) Ministry of Police in the maintenance and preservation of law and order</li> <li>(c) A concessionaire under the Electricity Act</li> <li>(d) Tonga Water Board</li> <li>(e) Tonga Broadcasting Commission</li> <li>(f) All licensed telecommunications operators</li> <li>(g) Ministry responsible for Civil Aviation in the operation of any airport</li> <li>(h) Ministry responsible for Marine and Ports or the Ports Authority in the operation of any port</li> <li>(i) Private Security Services</li> <li>(j) Persons employed by Government Ministries to perform security activities<sup>1</sup></li> </ul> <p>The essential services for the purpose of this DRM Policy also covers the critical emergency services provided by NEMO, TMS and other departments under MEIDECC during an emergency, as well as essential services (e.g., counselling, shelter, basic supplies) provided by non-government organizations and civil society organizations.</p>
<b>Event</b>	<p>For the purpose of this policy, refers to the occurrence of a hazard in the Kingdom, including the following:</p> <ul style="list-style-type: none"> <li>• A cyclone, flood, drought, storm, storm surge, tornado, tsunami</li> <li>• Earthquake or volcanic eruption</li> <li>• Health related events such as infestation, plague, or epidemic<sup>2</sup></li> </ul>
<b>Hazard</b>	A dangerous phenomenon, substance, human activity, or condition that may cause widespread human, economic or environmental loss or impact.
<b>Island DRM Plan</b>	Refers to the DRM plans that shall be prepared for the six island groups in Tonga as per the DRM Policy: (i) Tongatapu, (ii) 'Eua, (iii) Vava'u, (iv) Ha'apai, (v) Niuatoputapu, (vi) and Niuafu'ou.
<b>Losses</b>	Changes in economic flows arising from the disaster that can continue long-term until the achievement of full economic recovery and reconstruction; for example, loss of rental income from commercial property or the unplanned expense of running a shelter.
<b>Mainstreaming</b>	Ensuring that the objectives and priorities of DRM are reflected in all development activities, including policy development, research, advocacy and dialogue, legislation, resource allocation, and planning, implementation and monitoring of programs and projects.

<sup>1</sup> Defined in the Order in Public Places Act

<sup>2</sup> Other events defined in the DRM Act are outside the scope of the DRM Policy.

<b>Mitigation</b>	Structural and non-structural measures undertaken to limit the adverse impact of natural and climate-related hazards.
<b>Multi-hazard Early Warning System (MHEWS)</b>	The set of capacities needed to provide timely and meaningful information to enable a relevant stakeholder that is likely to be impacted by an imminent hazard to respond appropriately.
<b>Preparedness</b>	Measures implemented in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.
<b>Recovery</b>	Restoration and improvement of facilities, livelihoods, and living conditions of disaster-affected communities, including efforts to reduce disaster risk.
<b>Response</b>	Actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety, and meet the basic subsistence needs of the people affected.
<b>Risk</b>	The probability of harmful consequences or losses resulting from interactions between natural or climate-related hazards and vulnerable conditions.
<b>Risk-informed development</b>	A risk-based decision-making process that enables development to become more sustainable and resilient. It requires development decision-makers to understand and acknowledge that all development choices involve the creation and management of risks.
<b>Sustainable</b>	Related to growth that is inclusive and environmentally sound for today's population and continue to meet the needs of future generation, is efficient with resources, and planned carefully to deliver both immediate and long-term benefits.
<b>Vulnerability</b>	The conditions determined by physical, social, economic, and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.
<b>Vulnerable groups</b>	Groups that may be impacted by disasters disproportionately including people with disabilities, the elderly, children, women, internally displaced people, poor people, and other minority groups in Tonga.

# Executive summary

The vision of the Disaster Risk Management (DRM) Policy is “To increase the resilience of Tonga’s communities and assets to natural and climate-related hazards through proactive disaster risk management.” The implementation of the Policy will be oriented around four guiding principles, the first of which is that “DRM is the responsibility of all.”

To assist stakeholders with the Policy’s implementation, the Policy document provides critical information and policy guidance, beginning with a detailed description of the context in which the Policy will be implemented, which considered lessons learned from recent disasters.

The context for implementation includes physical, policy, and financial dimensions. Physically, Tonga and its population, livelihoods, and economic activities are highly exposed to hazards due to its geographical location, geology, and topography. These facts help explain why the DRM Policy is be a national priority.

The policy dimension includes international, regional, and national elements, reflecting the cross-cutting nature of DRM policy, by its nature, as well as Tonga’s integration with the region and the world. The Policy explains these policy instruments, which are as diverse as the Sendai Framework for Disaster Risk Reduction 2015-2030, the Tonga Strategic Development Framework (2015 – 2025), and the country’s District and Village DRM Plans.

The financial dimension of the context both constrains and enables the implementation of the Policy. As the Policy explains, Tonga has already launched (and will continue to establish) a number of innovative financial instruments designed to help the country confront the financial challenges associated with the risks to which it is exposed.

The DRM Policy includes a detailed list of policy objectives (POs) in both cross-cutting areas such as governance, finance, and disaster risk data

management and the four stages of DRM, namely: Mitigation, Preparedness, Response, and Recovery. These POs illustrate practical outcomes that together, and over time, will contribute to building the disaster resilient Tonga that is the vision of the Policy.

Under Governance, PO1 aims for clear roles and effective coordination among all DRM stakeholders, while under Finance, PO7 envisions adequate financing of ex-ante DRM measures so that exposure and vulnerability are reduced over time. Under Mitigation, PO14 seeks a risk-informed approach to land use decisions and building plans.

Defining effective implementation arrangements is key to successful implementation of the DRM Policy, especially given the principle that all are responsible for DRM. Consequently, the Policy explains the governance structure of the DRM Policy as envisaged in the DRM Act 2021. It establishes that MEIDECC through the NDRMO will lead administration of the Policy, monitor implementation and results annually, be responsible for reviewing and updating the Policy, and will guide Ministries, Departments and Agencies to prepare detailed DRM implementation plans based on the Policy.

Lastly, the DRM Policy establishes a monitoring and evaluation framework and defines key performance indicators (KPI) that will be used to monitor progress on implementation of the DRM Policy. Ensuring that all island groups have DRM plans that are aligned with the DRM Policy and are reviewed every five years (KPI for PO3) or that multi-sectoral recovery plans and budgets are approved within 6 months of significant disasters (KPI for PO23), among other outcomes, will contribute to Tonga reaching the important resilience goals established in the DRM Policy. Collectively, achieving these results will preserve and improve the quality of life of all Tongan citizens, even in the face of the challenges and risks it may face in the years to come.





# 1

## Context

The context for Tonga's Disaster Risk Management (DRM) Policy includes its physical environment, vision for the future, policy frameworks relevant to DRM, and financial situation. This first section explains these factors by presenting Tonga's disaster risk profile (1.1), as well as information on the country's vision and the scope of the policy (1.2), and on the policy context (1.3) and financial context (1.4) for the DRM Policy.

### 1.1 Disaster risk profile

Tonga is one of the countries in the world most at-risk from several natural hazards, primarily tropical cyclones, seismic activity causing earthquakes and tsunami, coastal floods, and volcanic activity. Since 1980, tropical cyclones have accounted for 75% of the natural disasters affecting Tonga.<sup>3</sup> Tonga and its population, livelihoods, and economic activities are highly exposed to hazards due to its geographical location, geology, and topography.

Our community and infrastructure are concentrated in low-lying coastal areas, including the capital of Nuku'alofa, which is the centre of economic and social activity. The economy is largely based on the service and agriculture sectors, which are highly vulnerable to natural hazards and climate change. Agriculture accounted for 1.2 percentage points of Gross Domestic Product (GDP) growth in 2019. The tourism sector accounts for more than 20 percent of total employment in Tonga and is particularly vulnerable to shocks, including the COVID-19 pandemic, recent cyclones,

and the Hunga Tonga-Hunga Ha'apai (HT-HH) volcanic eruption and subsequent tsunami.

Risk models (or catastrophe models) can be built to provide a view on the possible level of losses for all possible events which may impact Tonga. Generally, a risk model will be built for each type of natural hazard (e.g., tropical cyclone). The most utilised risk models created for the region were established under the Pacific Catastrophe Risk Insurance Company (PCRAFI) project. These models derived an estimation of average annual losses (AAL)<sup>4</sup> to buildings, infrastructure assets, and significant crops from simulated future tropical cyclone and earthquake (including tsunami) events.

For Tonga, the risk model estimates the AAL to be US\$6 million from earthquakes and tsunami and US\$15.5 million from all hazards combined. Considering all risks mentioned, there is a 2 percent probability every year that direct damages will exceed US\$140 million and a 1 percent probability that it will exceed US\$225 million.<sup>5</sup>

<sup>3</sup> Centre for Research on the Epidemiology of Disasters (CRED) – Emergency Events Database (EM-DAT).

<sup>4</sup> AAL are assessed on the replacement value of assets but do not include content losses and business interruption losses.

<sup>5</sup> Pacific Catastrophe Risk Assessment and Financing Initiative. (2011). Country Risk Profile: Tonga.

The key hazards affecting Tonga are described below.



## Tropical cyclones

The risk of tropical cyclones in Tonga is high,<sup>6</sup> since the country is located south of the equator in an area prone to frequent tropical cyclones with damaging wind, rain, and storm surge, particularly during the Pacific cyclone season (November to April). The country experiences an average of 2.6 tropical cyclones per year<sup>7</sup> and over the next 50 years has a 40 percent chance of experiencing wind speeds due to tropical cyclones which exceed the 100-year return period<sup>8</sup> leading to severe damage to buildings, infrastructure, and crops.

The impact of climate change on cyclones is uncertain; however, they are projected to increase in intensity but decrease in frequency. Sea-level rise due to climate change will aggravate coastal flood risk from tropical cyclones and other phenomena, even if the tropical cyclones themselves do not change.

**Tropical Cyclone Gita** in 2018 affected 80 percent of the population, with damages and economic losses of approximately US\$164 million, equivalent to 38% of GDP. The most affected sectors were housing, agriculture, and commerce and industry. These impacts reduced GDP growth from a predicted 3.4 percent to 0.3 percent in 2018.

**Tropical Cyclone Harold** hit Tonga at a category 4 intensity, with sustained winds greater than 150 km/h. A preliminary assessment suggested that the cyclone created financial need of US\$24 million to cover the initial phase of the response and expected damages and losses of US\$124 million (equivalent to 23% of GDP). This cyclone hit Tonga during the COVID-19 pandemic in April 2020, highlighting the importance of considering compound risks.



## Tsunami

The risk of tsunami in Tonga is high. There is at least a 40 percent chance that Tonga will experience a potentially damaging tsunami in the next 50 years.<sup>9</sup> Since 1950, twelve recorded tsunamis have originated in Tonga. Of these, nine were caused by earthquakes and three by volcanic eruptions, including the HT-HH event.<sup>10</sup> While an exceedingly rare event, the most destructive tsunami scenario modelled as part of the Tongatapu multi-hazard risk disaster assessment (MHDRA) would cause excessive damages, primarily in Nuku'alofa. Sea-level rise is expected to further increase Tonga's exposure to tsunami.



## Flooding

Floods can cause damage to buildings and agriculture, disruption of infrastructure, injuries, and loss of lives. Pluvial flooding caused by heavy rainfall is a significant risk in certain parts of Tonga, especially Tongatapu.<sup>11</sup> According to the Tongatapu MHDRA, losses from pluvial flooding are expected to be the second highest among all hazards amount to AAL of TOP47 million.<sup>12</sup> Large inundation areas in Nuku'alofa result from low elevation and insufficient drainage systems. Numerous built-up localized areas in Nuku'alofa are also subject to flooding.<sup>13</sup> In contrast, the Vava'u island group has steeply sloped terrain that produces high runoff downstream causing flooding in low-lying areas and mudslides in villages. The pluvial flood risk in the outer islands is less well understood.

Coastal flooding, usually the result of storm surges, has a medium risk in Tonga. In the next ten years, projections show at least a 20 percent probability

<sup>6</sup> ThinkHazard did not assess Tonga's risk to tropical cyclones. Based on past disaster and future climate projects, the risk of tropical cyclone is likely high in Tonga. ThinkHazard also ranked the risk of tropical cyclones as high in Fiji, a nearby country. Source: ThinkHazard, Cyclone Risk in Fiji.

<sup>7</sup> M. Tu'uholoaki, A. Singh, A. Espejo, S. Chand, H. Damlamian, Tropical cyclone climatology, variability, and trends in the Tonga region, Southwest Pacific.

<sup>8</sup> Pacific Catastrophe Risk Assessment and Financing Initiative. (2011). Country Risk Profile: Tonga.

<sup>9</sup> ThinkHazard, Tsunami risk in Tonga.

<sup>10</sup> National Centers for Environmental Information, Global Historical Tsunami Database.

<sup>11</sup> Asian Development Bank (ADB) (2023), Multi Hazard Disaster Risk Assessment, Tongatapu Interim Hazard Assessment Report—Pluvial Flooding and Coastal Inundation.

<sup>12</sup> The loss ratio (losses as a percentage of the total asset value) for pluvial flooding is four percent over a 10-year return period and 7.1 percent over a 200-year return period. Source: Arup (2021), Multi Hazard Disaster Risk Assessment, Tongatapu Interim Hazard Assessment Report—Pluvial Flooding and Coastal Inundation.

<sup>13</sup> ADB (2023), Multi Hazard Disaster Risk Assessment, Tongatapu Interim Hazard Assessment Report—Pluvial Flooding and Coastal Inundation.

that Tonga experiences potentially damaging coastal flooding, translating into an AAL of TOP2.8 million in Tongatapu.<sup>14 15</sup>

Climate change is highly likely to increase the risk of both pluvial and coastal flooding due to increases in heavy rainfall and sea level rise, though the magnitude of these changes is uncertain.

### Volcanic eruptions

Tonga is home to 21 known volcanos (including submarine and terrestrial), seven of which have erupted in the last 20 years. Two percent of the population lives less than 30 km from a volcano. The unprecedented impact of the HT-HH volcano in 2022 highlighted that the risk of volcanic hazards in Tonga is higher than previously understood. More than 84% of the population were affected by the HT-HH volcanic eruption and subsequent tsunami.

The HT-HH volcanic eruption and tsunami on January 15, 2022, caused economic damages of T\$208 million based on current asset valuation. This equated to around 18.5% of GDP. Under a ‘build back better’ approach where damaged assets were rebuilt in a more resilient manner, significantly higher costs would be incurred. This figure does not consider losses from short-term and medium-term disruptions in the tourism, commercial, and agriculture sectors and reduced infrastructure use resulting from the event, nor the longer-term costs of household displacement.



### Earthquakes

The risk of destructive earthquakes in Tonga is very high resulting from the country’s location on the boundary of the Pacific Plate and the Indo-Australian Plate along the “Pacific Ring of Fire”. The Tonga-Kermadec Ridge is the world’s most seismically active subduction boundary. Since 1950, twelve recorded earthquakes over magnitude 7.0 on the Richter scale have had epicentres in Tonga, nine of which led to tsunamis.<sup>16</sup> Earthquake modelling suggests that the Tonga and Kermadec Trenches could cause earthquakes of up to 9.3 magnitude.<sup>17</sup>

In the next 50 years, there is at least a 20 percent probability that Tonga will experience a damaging earthquake.<sup>18</sup> Over this period, earthquakes are expected to cause T\$92.6 million of AAL<sup>19</sup> in Tongatapu alone.<sup>20</sup>

### Droughts

Droughts in the South Pacific typically result from La Niña events, part of the El Niño Southern Oscillation (ENSO) phenomenon. The last three major droughts in Tonga occurred in 1983, 1998, and 2006 and all have been directly linked to El Niño events. Droughts can lead to water scarcity, which can negatively impact human health, ecosystem health, and agricultural productivity. Projections show that droughts and increased aridity are likely to increase in Tonga.

### Extreme heat

The risk of extreme heat in Tonga is medium. Over the next five years, there is a 25 percent chance that Tonga will experience at least one period of prolonged extreme heat (between 28 and 32 degrees Celsius, as measured using the Wet Bulb Globe Temperature) and this risk is likely to continue increasing with climate change.<sup>21</sup>

<sup>14</sup> ThinkHazard, Coastal flood risk in Tonga.

<sup>15</sup> ADB (2023), Multi Hazard Disaster Risk Assessment, Tongatapu Interim Hazard Assessment Report—Pluvial Flooding and Coastal Inundation, available: <https://www.adb.org/sites/default/files/project-documents/50028/50028-001-tacr-en.pdf>.

<sup>16</sup> National Centers for Environmental Information, Significant Earthquake Database.

<sup>17</sup> A.M. Schaefer, J.E. Daniell, F. Wenzel (2015), M9 returns—towards a probabilistic pan-Pacific Tsunami Risk Model, available: <https://aeos.org.au/wp-content/uploads/2015/12/128-Schaefer-Andreas.pdf>.

<sup>18</sup> ThinkHazard, Earthquake risk in Tonga.

<sup>19</sup> Average annual losses refer to the replacement cost of assets that have been damaged or destroyed by a disaster. Estimates are taken from ADB (2023), Multi Hazard Disaster Risk Assessment, Tongatapu Risk Assessment Summary Report, Page 1.

<sup>20</sup> In Tongatapu, earthquakes are associated with a loss ratio of 18.7 percent over a 200-year return period. Source: ADB (2023), Multi Hazard Disaster Risk Assessment, Tongatapu Interim Hazard Assessment Summary Report.

<sup>21</sup> ThinkHazard, Extreme heat risk in Tonga.



## Communicable disease outbreaks

Like all countries, Tonga is at risk of communicable disease outbreaks. Limited health infrastructure and the rise of non-communicable diseases make Tongans vulnerable to such outbreaks. Between 2014 and 2021, the country experienced outbreaks of Zika virus, Chikungunya, Typhoid Fever, Dengue Fever, Measles, and COVID-19.



## Other hazards

Tonga is exposed to other hazards such as wildfires, but they present low risk. Other hazards that could impact Tonga are listed in the DRM Act 2021.



## Compound risks

Compound risks expose the citizens of Tonga simultaneously to consequences of multiple disasters. The collective effect of multiple risks can be greater than the sum of the effects of the individual risks. In 2020, Tonga faced the simultaneous and magnifying effect of the COVID-19 pandemic and Tropical Cyclone Harold (April 2020). The HT-HH event in January 2022 and subsequent COVID-19 community transmissions in February 2022 hampered the response efforts. These events heightened Tonga's financial and economic vulnerability, and--combined with the global recession--magnified the effects and increased the cost and complexity of domestic and international emergency response and recovery. This experience highlighted the importance of having in place prearranged financing mechanisms and establishing shock-responsive systems for cost-effective response and speedy recovery.



## 1.2 Vision and Scope



To increase the resilience of Tonga's communities and assets to natural and climate-related hazards through proactive disaster risk management

This DRM Policy lays out the approach of the Government of Tonga (GoT) to DRM. It presents policy objectives and implementation guidance aimed at strengthening Tonga's DRM and supporting the country's overall development objectives. The guidance is aligned with relevant legal, institutional, and regulatory frameworks.

The purpose of the DRM Policy is defined in the Disaster Risk Management Act 2022 (Part IX, section 89) as follows.

**Tonga's DRM Policy shall provide:**

- National priorities and objectives for disaster risk management and disaster risk reduction in the Kingdom;
- Legal and institutional arrangements for disaster risk management in the Kingdom;
- Key guiding principles for disaster risk management and disaster risk reduction;
- Key entities responsible for disaster risk mitigation, preparedness, response, and recovery for the Kingdom, based on a risk management process; and
- Any other issue which the Ministry determines appropriate.

**This DRM Policy is intended to provide Tonga clear direction for the future by:**

- Articulating DRM policy objectives for natural disasters and health-related emergencies;
- Outlining its disaster risk management financing options;
- Detailing implementation arrangements, including clarifying stakeholder roles and responsibilities; and
- Providing a monitoring and evaluation (M&E) framework.

**The DRM Policy should be referred to by, and provide guidance to, the following stakeholders:**

- All government MDAs who have direct and regular responsibilities for DRM,
- Cluster systems in Tonga,
- All stakeholders responsible for DRM as listed in Annex B,
- Proponents of any proposed developments and infrastructure investments,
- Communities and villages carrying out DRM activities, and
- Development partners supporting DRM activities in Tonga.



## 1.3 Policy context



A number of international, regional, national, and subnational policy instruments frame and inform Tonga's DRM Policy, as described in this section.

### 1.3.1 International

Tonga is a signatory country to, or has endorsed, various international policies, conventions, and treaties. Those especially relevant to the DRM Policy and its implementation include the following.

- **Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR).** This global agreement seeks to prevent, reduce, and respond to disaster risks.<sup>22</sup> The framework sets out priorities<sup>23</sup> and targets and provides best-practice guidance to countries to reduce disaster risks. *Responsible agency: United Nations Office for Disaster Risk Reduction (UNDRR)*
- **Sustainable Development Goals (SDGs).** The SDGs articulate 17 objectives that are a 'blueprint' for global peace and prosperity.<sup>24</sup> The SDGs include actionable targets, most of which are to be achieved by 2030. Achieving the SDG targets depends on the successful implementation of SFDRR.<sup>25</sup> The United Nations New Urban Agenda supports the SDGs (particularly SDG 11 – sustainable cities and communities), by providing standards and principles for the planning, construction, development, management, and improvement of urban areas.<sup>26</sup> *Responsible agency: UN Division for Sustainable Development Goals (DSDG)*
- **United Nations Framework Convention on Climate Change (UNFCCC) (1992) and Paris Agreement.** The UNFCCC is comprised of a legal framework and principles supporting the global response on the threat of climate change.<sup>27</sup> In line with the Paris Agreement (2016), UNFCCC requires Parties including Tonga to submit and regularly update several documents.<sup>28</sup> Tonga has submitted Nationally Determined Contributions (NDCs)<sup>29</sup> which includes ambitious mitigation and adaptation targets as well as National Communications (NCs)<sup>30</sup> and the Biennial Update Reports (BURs).<sup>31</sup> Tonga submitted the Joint National Action Plan 2 on Climate Change and Disaster Risk Management (JNAP 2) 2018-2028 to the UNFCCC in 2021. *Responsible agency: Secretariat of the UNFCCC*
- **New Urban Agenda:** This agenda presents the blueprint for our shared and sustainable urban future, as agreed upon and adopted at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador, on 20 October 2016. It was the first internationally agreed document detailing implementation of the urban dimension of the SDGs. *Responsible agency: UN-HABITAT*

<sup>22</sup> UN member states (including Tonga) adopted the agreement in 2015 and is the successor agreement to the Hyogo Framework for Action 2005-2015. UNDRR, Sendai Framework for Disaster Risk Reduction 2015-2030.

<sup>23</sup> The four priorities are: i) understanding disaster risk reduction, ii) strengthening disaster risk governance to manage disaster risk, iii) investing in disaster reduction for resilience, and iv) enhancing disaster preparedness for effective response, and to build back better in recovery, rehabilitation and reconstruction.

<sup>24</sup> The SDGs are part of the 2010 Agenda for Sustainable Development, adopted by UN member states (including Tonga) in 2015.

<sup>25</sup> Targets that are particularly relevant disaster risk management are included in SDG 11: Make cities and human settlements inclusive, safe, resilient, and sustainable; SDG 4: Quality education (especially building and upgrading education facilities); and SDG 9: Industry, innovation, and infrastructure (especially developing sustainable, resilient, and inclusive infrastructures).

<sup>26</sup> The New Urban Agenda was adopted at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in 2016. The Kyoto Protocol, which was signed in 1997, was the first implementation of measures under the UNFCCC. The Kyoto Protocol was superseded by the Paris Agreement, which entered into force in 2016.

<sup>27</sup> The Convention was adopted in 1992, and entered into force in 1994. The 198 countries that have ratified the Convention are called Parties to the Convention.

<sup>28</sup> Some discretion is applied to reporting for least developed country Parties and small island developing States, including Tonga. Documents are supported by research and analysis undertaken for the UN's Intergovernmental Panel on Climate Change (IPCC) Assessment Report.

<sup>29</sup> NDCs reports how a Party plans to reduce its emissions and adapt to climate impacts. The inclusion of adaptation targets is optional. NDCs are required to be submitted every five years.

<sup>30</sup> An NC report's a Party's national inventory of anthropogenic emissions and describes the steps taken or envisaged to implement the Convention. NCs are required to be submitted every four years.

<sup>31</sup> A BUR provides updates of a Party's national inventory of anthropogenic emissions, information on mitigation actions, and needs and support received. BURs are required to be submitted every four years, but are voluntary for least developed country Parties and small island developing States, including Tonga.



**Agenda for Humanity.** The Agenda for Humanity is the outcome document of World Humanitarian Summit, Istanbul, 23-24 May 2016, which brought together 9,000 participants representing 180 Member States, including 55 Heads of State and Government, hundreds of civil society and non-governmental organizations, and partners including the private sector and academia. The Agenda for Humanity is a commitment from the global humanitarian sector which sets out five major areas for action and change that are needed to address and reduce humanitarian need, risk, and vulnerability, and 24 key transformations that will help achieve them. Tonga's DRM Policy also supports and aligns with other international conventions and treaties that should be considered in planning implementation, including the International Convention on the Elimination of All Forms of Racial Discrimination, Convention on the Rights of the Child, and Convention on the Rights of Persons with Disabilities.<sup>32</sup> These were ratified by Tonga in 1972, 1995, and 2007, respectively.

### 1.3.2 Pacific region

Several regional instruments frame and inform Tonga's DRM Policy.

- The Pacific Community (SPC) Framework for Resilient Development in the Pacific (FRDP) (2016) provides a regional policy context for Tonga's DRM Policy. The FRDP provides guidance<sup>33</sup> to Pacific region stakeholders on strategic issues such as:
  - Strengthening climate adaptation and disaster risk reduction;
  - Improving disaster preparedness, response, and recovery; and
  - Supporting low-carbon development.

Tonga has also endorsed the Framework for Pacific Regionalism (2014),<sup>34</sup> the Small Island Developing States Accelerated Modalities of Action (SAMOA Pathway) (2014),<sup>35</sup> the Pacific Roadmap for Sustainable Development (2017),<sup>36</sup> and the 2050 Strategy for the Blue Pacific Continent (2019).<sup>37</sup>

### 1.3.3 National and Sub-national

The DRM Policy is guided by key national and sub-national laws, policies, plans and strategies. The key instruments are outlined below and explained in more detail in Appendix A.

#### Legislation

**Disaster Risk Management Act 2021.** The overarching legislation for DRM that promotes a more proactive and inclusive approach to mitigating, preparing for, responding to, and recovering from disasters. It sets out key requirements of the DRM Policy, including for transparency of the policy and the delegated authority for policy approval.

**Emergency Fund Act 2008.** Sets out fund utilization, primarily for post-disaster response and recovery but also potentially for early action. It informs the post-disaster financing policy guidance of the DRM Policy.

<sup>32</sup> The Pacific Framework for the Rights of Persons of Disability is also an important regional framework.

<sup>33</sup> Including government, civil society, the private sector, development sectors, local government, science and technology sectors, academia, and traditional leaders and community groups.

<sup>34</sup> The Framework for Pacific Regionalism outlines the vision, values, objectives, and approaches to achieve deeper Pacific regionalism, and defines a process through which regional priorities will be identified and implemented. Source: Pacific Islands Forum Secretary, The Framework for Pacific Regionalism (2014).

<sup>35</sup> The SAMOA Pathway details sustainable development commitments of SIDS, including supporting sustainable, inclusive, and equitable economic growth, promoting sustainable energy and tourism, mitigating the impacts of climate change, and supporting disaster risk reduction. Source: United Nations, SIDS Accelerated Modalities of Action (SAMOA) Pathway.

<sup>36</sup> The Pacific Roadmap for Sustainable Development (2017), provides guidance to Pacific countries working towards achieving the 2030 Agenda and the Sustainable Development Goals, and other global and regional sustainable development commitments. Source: Pacific Islands Forum Secretary, Pacific Roadmap for Sustainable Development.

<sup>37</sup> The 2050 Strategy for the Blue Pacific Continent sets out the region's approach for how countries can collectively overcome ongoing challenges related to climate change and disasters, economic development, and geostrategic competition. It builds on other regional frameworks and strategies, as well as the Boe Declaration on Regional Security. Sources: Pacific Islands Forum Secretary, 2050 Strategy for the Blue Pacific Continent (2019); Pacific Islands Forum, Boe Declaration on Regional Security (2018).

**Meteorology Act 2017.** Outlines GoT's functions, powers, and responsibilities for meteorological services; and informed policy guidance on people-oriented and free early warning services in the DRM Policy.

**Building Control and Standards Act 2016.** Regulates structures for which a building permit is required, and the proposed development aligned with Tonga's building regulations and codes. The building permit requirements are reflected in the DRM Policy and the national building code and building code regulations should be referred to in unison.

**National Spatial Planning and Management Act 2020.** Outlines requirements for spatial plans (at national, regional, district, village, or site-specific level) that include risk mitigation principles; planning and development consent procedures; and environmental impact assessment requirements. The DRM Policy highlights a risk-informed approach to development and this legislation has informed key policy guidance accordingly.

**Public Health Act 2016.** Allows the Minister of Health to declare a Public Health Emergency Order when there is a public health outbreak. Empowers officials to deal with water quality and sanitation issues, which is important following disasters in case of disease outbreak.

**Food Act 2020.** Establishes the National Food Emergency Committee, which is responsible for making decisions if there is an emergency related to food.

**Communications Act 2015.** Governs the licensing of all internet and radio providers, and regulatory framework for communications in Tonga.

**Family Protection Act 2013.** Ensures protection of all persons including children (e.g., gender based violence in post-disaster situations).

## Policies, Plans and Strategies

**Tonga Strategic Development Framework (2015 – 2025).** Prioritizes resilient development as one of the key national objectives underpinning sustainable development in Tonga. The framework encourages and 'whole of country' integrated approach to climate change and DRM to be considered in every level of development planning and in the execution of programs, projects, and activities.

**Climate Change Policy (2016).** The policy provides a clear vision, goal, and objectives to direct responses to climate change and disaster risk reduction. It is intended to provide an overarching context and guiding framework for the development of a resilient Tonga which recognises that climate change is a critical issue and requires a 'whole of Tonga' approach.

**Tonga Housing Recovery and Resilience Policy (2020).** Sets out how Tonga can strengthen its approach to post-disaster housing recovery and ensure housing recovery contributes to strategic national development goals. The policy intends to improve the timeliness, fairness, and efficiency of housing recovery programmes. It prioritizes risk reduction and promotes self-recovery through technical assistance and training.

**Disaster Risk Financing Strategy (2021).** Sets out the government's "layered" approach to post-disaster financing and calls for investments in risk reduction for more proactive DRM. Developing a DRM Policy is a key action of the strategy's implementation plan to help establish proactive risk reduction priorities and strengthen the evidence base for effective interventions.

**Joint National Action Plan 2 (2018).** A strategic action plan for climate change adaptation and disaster risk management initiatives in Tonga, which sets out six policy objectives and targets and an implementation strategy for the country to achieve its vision of a resilient Tonga by 2035. It is aligned with the Climate Change Policy (2016) and is consistent with the Tonga Strategic Development Framework (2015 – 2025).

**National Disaster Management Plan and Emergency Procedures.** Details government's policy and management strategies for the design, development and implementation of effective DRM programs and





activities, including operational procedures. This plan will need to be updated to reflect how the National Disaster Risk Management Office (NDRMO) will implement the DRM Policy at an operational level.

**National Infrastructure Investment Plan 3 (2021).** Details GoT's priority infrastructure investments – all investments should refer to the DRM Policy to guide risk-informed development across all sectors, including DRM investments such as emergency operations centers and warehouses in outer islands.

**Strategic Roadmap for Emergency Management (SREM).** Provides a roadmap to build safer communities through excellence in emergency DRM, with a focus on strengthening the foundations of trust, leadership, and teamwork across the emergency sector and DRM sector. The document will be updated to align with the DRM Policy.

**District and Village DRM Plans.** These will be revised and/or developed over time to help implement the DRM Policy at the sub-national level.

## 1.4 Financial context



Adequate financial resources are needed to support all aspects of DRM in Tonga. To reach this goal, existing sources need to be maintained and additional financing mobilized, especially for disaster risk reduction, preparedness, and resilience building. The financing arrangements already in place for DRM are outlined below, as well as potential areas for strengthening the DRM financing.

**International sources.** Multilateral financial institutions and bilateral development organisations provide funding for DRM-related purposes. This support takes the form of program-specific grants, in-kind assistance, and contingent financing that is mobilized following eligible events (e.g., World Bank Catastrophe Deferred Drawdown Option – Cat DDO and the Asian Development Bank Contingent Disaster Financing). These funds are normally programmed as contingent budget support based on agreed and completed policy reforms and drawn down after an eligible event. The country can also access international climate funds such as the Green Climate Fund, the Adaptation Fund, and the Global Environment Facility.

**Disaster Risk Finance Strategy.** The Disaster Risk Financing Strategy 2021-2025 provides a framework for disaster and disaster-related financial risk management – with a focus on post-disaster financing instruments. This Policy provides clear guidance and direction for the GoT to set up institutional arrangements and financial resources for both Government and non-government DRM stakeholders to access DRM funding and contribute to its implementation.

**National Emergency Fund (NEF).** The NEF was established via the Emergency Fund Act 2008 and is GoT's initial mechanism for financing emergency response and recovery through a budget allocation of at least TOP5 million. The purpose of the NEF is to provide timely and efficient relief and reconstruction in any emergency, and potential support to anticipatory action in case of an approaching hazards.

**Climate Change Trust Fund (CCTF).** The CCTF was established in 2021 under the Tonga Climate Change Trust Fund Act 2016. The CCTF provides supplementary and financial support to adaptation and mitigation efforts and supports reductions in greenhouse gas emissions.

**Budget allocations.** Ministry budgets for DRM activities, which are funded by specific projects or national budget allocations. When needed, a national contingency fund equivalent to 5 percent of the national budget or budget reprogramming are used to provide additional budget to ministries for disaster response and recovery purposes.

**Parametric insurance.** GoT purchases parametric insurance coverage from the Pacific Catastrophe Risk Insurance Company (PCRIC). The insurance cover is based on a parametric trigger, meaning that the payment of insurance is triggered by the occurrence of a specified event (such as a certain wind speed for a tropical cyclone).

# 2

## Guiding principles for Disaster Risk Management

Guiding principles are meant to orient the Tonga's collective effort to build resilience against disasters. Based on consultations with stakeholders, the following guiding principles have been identified.

### **Guiding Principle 1: DRM is the responsibility of all**

While recognizing that the GoT has the primary role for DRM initiatives, implementation of the DRM Policy is a shared responsibility of all stakeholders including all of government, the private sector, civil society, clusters, communities, churches and faith-based organizations, and individuals. A 'whole of society approach' to DRM supports the legitimacy and ownership of DRM, strengthens the adoption and implementation of actions, and helps ensure all stakeholders understand and work to reduce risk. Whole-of-government coordination is also critical for integrated implementation of DRM activities.

### **Guiding Principle 2: DRM should contribute to equity, inclusion, and transparency**

DRM measures should be people-oriented by empowering inclusive, accessible, and non-discriminatory participation – and “leave no one behind”. They should consider the needs of, and leadership opportunities for, diverse and vulnerable groups – including people of all abilities, ages, genders, and socio-

economic status. DRM initiatives will be mindful of the cultural and religious beliefs of communities and draw on traditional knowledge. DRM measures also promote transparency by adhering to policy objectives with clear reporting on progress towards meeting DRM policy objectives.

### **Guiding Principle 3: Developments should consider future risk and be adaptable to changing conditions**

The DRM Policy sits within a dynamic disaster landscape, in which new hazards are emerging and known hazards are being exacerbated by climate change. Tonga's DRM approach must be able to manage unexpected events and remain flexible to allow updates or changes when new information about disaster risk becomes available. A risk-informed approach is needed to address future uncertainties and plan for multiple and simultaneous natural, climate and health-related hazards.

Future developments and investments must also be more resilient to disaster and climate risk so that the impacts of future disasters can be mitigated. In addition, investments in protection measures such as seawalls, slope protection, flood mitigation and evacuation centres/routes are needed; along with investments in strengthening and retrofitting of critical facilities and housing to mitigate the impact of seismic hazards.

### **Guiding Principle 4: Build back better physically, socially, and culturally**

Post-disaster reconstruction and recovery periods must be used as opportunities to improve physical, environmental, and economic conditions and to create a more resilient Tonga over the long term. Building back better also implies organizing recovery processes in ways that build social capital and strengthen the resilience of communities. For Tongans, this includes honouring cultural traditions and acknowledging the role that religious practice plays in healing and the roles that religious communities play in the recovery process following disasters.

# 3

## Policy guidance

This section provides policy objectives under seven policy priority areas, which aim to support effective DRM in Tonga. The objectives build on lessons learned from recent disasters and insights provided by a range of stakeholders – including government, non-government, private sector, and community representatives. This guidance should be considered by all policy stakeholders. The policy guidance is presented as follows:

- Section 3.1 outlines policy objectives for three cross-cutting themes: governance, finance, and disaster risk data.
- Section 3.2 outlines policy objectives for each of the four stages of the DRM cycle: risk reduction and mitigation, preparedness, response, and recovery.

### 3.1 Cross-cutting priorities



Governance, finance, and disaster data are cross-cutting priorities, which should be considered during each phase of the DRM cycle (see section 3.2). Policy objectives for the cross-cutting issues are outlined below.

#### 3.1.1 Governance

Effective governance is required to deliver comprehensive, coordinated, and equitable DRM measures. Governance includes institutional arrangements, legal and policy frameworks, and monitoring and evaluation protocols.

**Policy objective 1: The roles and responsibilities of all stakeholders in DRM are clear and effective coordination is promoted**

Effective DRM requires all stakeholders to understand their individual and collective roles and responsibilities. Effective implementation also depends on coordination mechanisms including the Clusters and DRM committees to help ensure coordination and encourage collective action, where appropriate. DRM implementation, including governance arrangements and roles and responsibilities, follows guidance outlined in the DRM Act and DRM Policy.

**Policy objective 2: Policies and plans from other sectors are aligned with the DRM Policy**

Mainstreaming DRM policy objectives into national, local, and sector policies, plans, and programming documents will strengthen the commitment to DRM in all sectors. When national and local instruments are updated, they should align with the DRM Policy and incorporate relevant DRM measures. This alignment should continue in future policies and plans.

**Policy objective 3: The DRM Policy is operationalized via DRM plans that are updated regularly**

Operational documents help ensure that DRM Policy objectives are implemented at all levels of society. Tonga's DRM Policy will be implemented through the National and Sub-National DRM Plans, Ministerial Plan (corporate plans), Cluster Plans and the instruments that support it such as Standard Operating Procedures (SOPs) and regulations. These instruments are updated regularly by the responsible agency to incorporate recent data and reflect lessons learned.

**Policy objective 4: Government and other stakeholders have the capacity to carry out their respective responsibilities**

Successfully implementing DRM measures requires both human and capital resources including ongoing capacity building and training. DRM stakeholders have the necessary skills<sup>38</sup> and resources to implement the DRM Policy effectively. Adequate training and capacity building opportunities are provided by the NDRMO to support implementation of DRM measures across the DRM cycle, as well as cross-cutting issues. Capacity building and training pays particular attention to addressing the needs of vulnerable and hard to reach populations.

**Policy objective 5: Local communities are empowered to engage in the implementation of the DRM Policy**

The involvement of local governments and civil society is essential for achieving the objectives of the DRM Policy. Working through Clusters, Island and Village DRM Committees and civil society organisations, communities will be empowered to actively engage in DRM measures, and receive support in the form of training, data, and financing. Local skills, values, and traditional knowledge are to be recognized and valued, and area-based approaches to DRM are encouraged. Mechanisms are in place for regular exchanges with local community members on DRM matters and this feedback is given appropriate weight in decision making.

**Policy objective 6: The needs of diverse and vulnerable Tongans are addressed in all DRM activities**

In an effort to provide fair treatment during disasters and equitable recovery outcomes, a needs-based approach<sup>39</sup> will be used in planning and carrying out responses and other DRM activities. This approach considers the variable impact of disasters on vulnerable populations. Tonga will continue to build its adaptive social protection (ASP) system to help vulnerable populations mitigate, prepare, respond, and recover from disasters.

## 3.1.2 Finance

Adequate finance is required to implement measures at all stages of the DRM cycle, and it is also necessary to support effective governance, comprehensive disaster data, and capacity building and awareness raising.

**Policy objective 7: Finance is available for all aspects of DRM, including for ex-ante measures**

Historically, disaster risk financing instruments have focused on post-disaster response and recovery, rather than risk reduction/mitigation and preparedness. The government will continue allocating adequate budget for investments in national disaster risk reduction priorities, such as retrofitting critical facilities, resilient transport infrastructure, coastal and urban resilience investments, multi-hazard early warning systems, and coastal adaptation. Disaster resilience will continue being a high priority for the national budget and development partner financing.

<sup>38</sup> This includes skills on promoting equity, transparency, and risk-informed planning.

<sup>39</sup> A needs-based approach involves a comprehensive evaluation of the holistic needs of individuals and communities, and recognise that needs might differ.



### **Policy objective 8: Government utilises a suite of disaster risk management financing instruments**

Different types and scales of disasters need to be matched with appropriate DRM financing mechanisms. The Government utilises a suite of DRM financing instruments to support the DRM cycle, including budgetary instruments, dedicated funds (such as the Climate Change Trust Fund), contingent financing, and market-based instruments. The government will review the instruments available annually (including any new suitable instruments) to ensure they are cost effective and remain appropriate to the country's risk profile and the Disaster Risk Financing Strategy. Stakeholders are aware of, and understand how to access, the range of instruments available to them for DRM measures.

### **Policy objective 9: Government stakeholders have adequate budget to fulfil DRM roles and receive funds in a timely manner**

Government stakeholders responsible for implementation have adequate budget to fulfil their DRM functions, including to reduce disaster risk, prepare for disasters, respond efficiently to disasters, and recover after a disaster occurs. Funds are disbursed to stakeholders including at the subnational level in a timely manner, particularly post-disaster, through streamlined budgetary processes.

## **3.1.3 Disaster risk data**

Comprehensive, accurate, and up-to-date data on the risks and impacts of a range of hazards, and technical analysis of that data, are crucial for stakeholders to make informed decisions across the DRM cycle.

### **Policy objective 10: Data and information on DRM-related activities are accessible to all stakeholders and monitored effectively, and results are presented transparently**

Data collected on DRM is housed in a central location and easily accessible to the public (where appropriate).<sup>40</sup> Recording and monitoring DRM-related work supports lessons learned, raises awareness, and improves stakeholder accountability and coordination. Existing and planned DRM measures are recorded and tracked, and information is centrally and publicly available. DRM measures are monitored and evaluated regularly (see also 4.2.1).

### **Policy objective 11: Disaster risk data are used objectively in planning processes and decision-making**

Comprehensive, accurate, and current data on the risks and impacts of natural hazards across different sectors are collected, including through MHDRA (see 4.1.1), IDAs (see 4.1.3), post-disaster need assessments, surveys, and consultations (see 4.1.4). Data collected and maintained includes a database of people and assets (e.g., buildings, infrastructure, vulnerable households), as well as their characteristics (such as, geographic location, age, participation in formal social protection, construction type, use, and repair cost). Data should be gender disaggregated as appropriate. Location-specific post-event data on hazard strengths and impacts are collected systematically to improve the understanding of disaster risk. Data are analysed and used in DRM in planning processes and decision-making.

### **Policy objective 12: Adequate training on data collection, management, and use is available to key stakeholders**

Ongoing training is provided to key stakeholders on appropriate data collection and management, and use. This is to ensure comprehensive and accurate data are captured and used effectively. Guidance is also provided publicly to encourage best practice collection, management, and use of data.

<sup>40</sup> Section 118 of the DRM Act makes it a responsibility of the Director (NDRMO) to maintain data/information in a register. Some data will be confidential and should therefore not be shared publicly.

## 3.2 Disaster Risk Management priorities



Key DRM priorities including mitigation, preparedness, response, and recovery are considered as part of the four phases of the DRM cycle. Policy objectives for each phase are outlined below.

### 3.2.1 Mitigation

The country's vulnerability and exposure to the impacts of hazards can be reduced by taking proactive mitigation measures before a disaster occurs. Measures include structural measures (such as investing in resilient infrastructure and coastal adaptation) and non-structural measures (such as risk-informed spatial planning and early warning systems).

**Policy objective 13: Multi-hazard disaster risk assessments are used to increase understanding of disaster risk and integrated in DRM planning processes**

Multi-hazard disaster risk assessments (MHDRA) provide comprehensive information of the potential risks posed by multiple, cascading hazards. Tonga continues undertaking MHDRA, covering the suite of risks the country faces for all inhabited islands, to inform future development. Traditional and local knowledge will be captured in MHDRA. All stakeholders have improved understanding on how multiple hazards can occur simultaneously or cumulatively over time and may have interrelated effects. The results of MHDRA are made publicly available to support all development actors including communities, households, the private sector, whole-of-government, and development partners, to better plan DRM measures across the DRM cycle.

**Policy objective 14: Land use, building regulations and codes are informed by disaster risk, and enforced effectively**

Land use, building regulations and codes are strengthened to incorporate information from MHDRA and other risk information and are updated to reflect lessons learned and new risk information. Development of new infrastructure avoids areas identified in MHDRA as 'high risk' if possible (however, earthquake risk is high across the country and unavoidable) and always adopts resilient standards. Where possible, existing infrastructure is retrofitted with mitigation measures. The Government identifies safer locations suitable for potential future resettlement needs. Institutional capacity in the Ministry of Infrastructure (MOI) and the Ministry of Lands, Survey and Natural Resources (MLSNR) is sufficient to enforce compliance for all new developments, and development actors are aware of current regulations and codes.

**Policy objective 15: Stakeholders undertake disaster awareness-raising programmes which focus on mitigation measures**

Stakeholders understand the impacts of hazards to reduce and mitigate their impacts effectively. Government and communities undertake risk reduction and mitigation education and awareness-raising programmes, including in the outer islands and targeting of vulnerable groups. The programmes are designed on the basis of an agreed framework/modules to promote consistency across Tonga with adaptability for the local context. Stakeholders are aware of support available to implement such measures.

### 3.2.2 Preparedness

Preparedness refers to the measures implemented in advance of a disaster to minimize its impact, ensure an effective response, and support communities to respond and recover from disasters quickly and effectively. Preparedness measures include establishing impact-based and inclusive multi-hazard early warning systems, taking anticipatory action, developing contingency and emergency plans, stockpiling equipment and supplies, undertaking response and recovery training, education, and awareness-raising programmes.



**Policy objective 16: Government uses and maintains multi-hazard early warning systems suitable to Tonga's context**

Multi-hazard early-warning systems (MHEWS) are accurate, freely available and consider single and multi-hazard events that may occur simultaneously or cumulatively over time or may have interrelated effects. Affected populations are warned in a timely and effective way, and suitable impact-based mitigation actions are relayed to all affected communities and users. Implementation of MHEWS follows guidance as outlined in Tonga's Meteorological Services' MHEWS Policy, and investments are sustainable and consider Tonga's available resources and cultural needs (e.g., use of traditional methods of dissemination).

**Policy objective 17: Government has adequate warehousing and logistical capacity as well as clear protocols for response coordination**

This includes: (i) ensuring essential supplies are in-stock, in-date, and easily accessible to communities; (ii) warehousing and logistics processes are streamlined; (iii) evacuation centres are organized, and locations are known to communities; (iv) emergency plans are developed and are operational; and (v) emergency response protocols are well-understood and coordinated between stakeholders. Regular education and training are provided to stakeholders to reinforce preparedness for response and recovery procedures.

**Policy objective 18: All Tongans and stakeholders understand and are adequately prepared for different types of disasters**

Communities, Island and Village DRM Committees, and Clusters understand and are adequately prepared for different types of disasters. Island and Village DRM Committees provide support and guidance for DRM measures at the island and village level, leverage local resources, and secure community buy-in for preparatory measures including targeted outreach to diverse and vulnerable groups. Village DRM Committees have adequate resources and capacity to fulfil this role, especially to support community awareness raising and preparedness initiatives. Service providers have business continuity plans to ensure they can continue providing essential and critical services during and following disaster events.

### 3.2.3 Response

Effective DRM can help save lives, reduce health impacts, and meet the needs of its affected people by taking adequate response measures directly before, during, and immediately after a disaster occurs. Response measures include providing emergency services, opening evacuation centres, assisting in evacuations, restoration of essential services, undertaking initial damage assessments, coordinating search and rescue, and providing emergency relief.

**Policy objective 19: Clear standards and guidelines to coordinate emergency operations are available**

Emergency Operation Centres, search and rescue operations, evacuation processes have clear SOPs and guidelines to ensure emergency response activities are well coordinated, effective, timely, and inclusive for all stakeholders.

**Policy objective 20: Evacuation centres and routes are in strategic locations, safe and accessible to all, and centres have sufficient supplies**

Evacuation centres are sufficiently stocked to provide temporary shelter and basic services to communities during and after disasters. They are accessible to all, including for people of all abilities, ages, genders, and socio-economic backgrounds. Evacuation centres and routes are in places that communities are aware of, easy to find, safe (e.g., adequate lighting and WASH facilities), and away from hazard-prone areas.

**Policy objective 21: Diverse and vulnerable groups are reached effectively, and their needs are met during and after disasters**

Vulnerable groups can be difficult to engage before, during, and after disasters, due to their diverse needs and their social, geographic, and technological isolation. Tonga's national, island, and village-level implementing agencies must engage closely with community groups and Non-Governmental Organizations (NGOs) (including organizations that advocate for youth, faith, disability and gender) to ensure that vulnerable people are reached effectively and advocate to ensure that their needs are met. Special attention should be placed on the safety and protection of all diverse and vulnerable groups including through shock-responsive social protection mechanisms to prevent instances of--and support people affected by--gender-based violence (GBV).

**Policy objective 22: Initial damage assessments are undertaken on a timely basis using standardized guidelines**

Initial damage assessments (IDAs) are used to collect information about damage and other impacts immediately after an event. Tonga has standardized guidelines for undertaking IDAs, and IDA teams are trained regularly with SOPs in place. Data are accurately recorded, updated, and used to prioritize Tonga's response and recovery measures.

## 3.2.4 Recovery

Recovery involves a series of activities and interventions aimed at effectively restoring and improving infrastructure and livelihoods of Tongans and avoiding or reducing future disaster risk by 'building back better'. Clusters, community groups, and NGOs, as well as the waste and health sectors, play important roles in disaster recovery in Tonga.

**Policy objective 23: Recovery efforts are coordinated and appropriately resourced**

Well-coordinated and resourced recovery efforts help to ensure that affected populations can recover efficiently following disasters. The recovery plan is developed based on the standard IDAs. The recovery efforts of various stakeholders in Tonga are coordinated (following guidance in the DRM Act and DRM Policy and other operational documents) and stakeholders have sufficient institutional and financial capacity to fulfil their roles and implement the plan.

**Policy objective 24: Investments made during recovery reduce disaster risk and increase resilience**

The design and construction of physical infrastructure and the restoration of social and cultural assets and practices post-disaster follows the 'build back better' approach. Instead of simply replacing what was there before and time will be taken to consider data and multi-hazard risk information, conduct risk-oriented physical planning, and consult closely with disaster-affected communities to address their needs. Disaster waste is managed swiftly and safely following disaster events and recycled or reused wherever possible. New investment project plans will reflect emerging practice in design, use of materials, and risk reduction.

**Policy objective 25: Lessons are learned from previous disasters and are used to improve DRM**

Capturing lessons learned from disasters and integrating them into future measures will help with proactive DRM. Stakeholders will use lessons learned from disasters including traditional knowledge to enhance their DRM planning and processes, and to strengthen Tonga's DRM instruments, policies, and investments. The GoT led by NDRMO with respective line ministries (including MOF) will organise a formal review of national emergency response and recovery programs related to major disasters (e.g., with a declared state of emergency, complex disasters such as HT-HH) to identify lessons that could be institutionalized.





# 4



## Implementation arrangements

### 4.1 Governance of the DRM Policy

The DRM Policy is an official policy of the GoT, and any changes, updates, or amendments must be approved by the Cabinet. The DRM Policy shall be reviewed after three (3) years in 2026 and revised to address current policy guidance. A second policy review will take place in 2029 to align with the end of the SFDRR period.

While all Tongans and stakeholders are responsible for implementing the DRM Policy (as outlined in Guiding Principle 1), MEIDECC through the NDRMO will lead administration of the Policy, monitor implementation and results annually, and be responsible for reviewing and updating the Policy. The NDRMO will guide other Ministries, Departments and Agencies (MDAs) to prepare detailed implementation plans based on this policy framework. Specifically, NDRMO is responsible for developing a national DRM Plan within 18 months of the adoption of the DRM Policy, which sets out actions to achieve the policy objectives in the DRM Policy. Actions will be prioritized, measurable, timebound, and assigned to a particular stakeholder group. The DRM Policy should also be operationalized through SOPs and other documents such as corporate plans, sector plans and strategies, and subnational- and community-level plans.

The NDRMC will act as the Steering Committee to oversee implementation progress and decide on future revisions of the Policy. Through the Cluster System,

which is comprised of members of the MDAs, the Island DRM Committees, and key representatives from CSOs and private sector, will meet every quarter to review implementation progress and report to the Steering Committee. NDRMO as the secretariat of the NDRMC will coordinate the reporting.

Tonga established the Cluster System in 2015 through a Cabinet decision following TC Ian. The DRM Act provides legislated arrangements and mandates for Clusters, which are led by Government MDAs and have a responsibility to put systems and procedures in place to manage DRM effectively. They contribute to risk reduction and preparedness as guided by this policy. The clusters are accountable to the NDRMC through the inter-cluster coordination committee.

The Island DRM Committees report to the NDRMC and are chaired by the respective Governors and government representatives of the Island groups, while district officers and departmental heads in the Islands are members of the committee. The Island DRM Committees will have responsibility to prepare and implement Island DRM Plans guided by this policy (see Annex D). Similarly, Village DRM Committees are chaired by town officers and are mandated to prepare/update Village DRM Plans and submit them to their Island DRM Committees to inform the Island DRM Plans.

## 4.2 Monitoring and evaluation framework

The monitoring and evaluation framework for implementation of the DRM Policy is outlined in Appendix C and can be revised at annual intervals when the technical working group reports to the Steering Committee. The NDRMC may appoint other bodies to assist it in monitoring the implementation of the DRM Policy and Plan.

The Director of the NDRMO will be responsible for submitting an annual report on the DRM Policy to the NDRMC monitoring progress towards the policy

objectives. The Director of NDRMO will also submit a report to the Minister responsible for DRM at three-year intervals after the adoption of the DRM Policy reviewing and evaluating progress towards the DRM Policy objectives outlined in Section 3. The report should use the monitoring and evaluation (M&E) framework and key performance indicators (KPIs) outlined in this section. Table 5 (Appendix C) includes the KPIs for monitoring the DRM Policy objectives.



# Appendix A:

## Relevant laws, policies, and plans and strategies

The DRM Policy relates to and is guided by national and regional laws, policies, plans, and strategies, as outlined in Table 1. Stakeholders should reference these instruments in developing mainstreaming approaches and implementation plans for the Policy.

Table 1: Laws, policies, and plans and strategies relevant to the DRM Policy

Title of legislation / CAP No.	Responsible Ministry
<b>Laws</b>	
Disaster Risk Management Act 2021	Ministry responsible for disaster risk management (MEIDECC)
Emergency Fund Act (CAP.11.08)	Ministry of Finance (MOF)
Meteorology Act (CAP.21.06)	Ministry responsible for meteorology (MEIDECC)
Public Health Act (CAP.12.15)	Ministry responsible for health (MOH)
Public Finance Management Act (CAP.2.10)	Ministry of Finance (MOF)
His Majesty's Armed Forces Act (CAP.9.02)	His Majesty's Armed Forces
Tonga Police Act (CAP.7.07)	Ministry of Police
Tonga Fire and Emergency Services Act (CAP.14.01)	Ministry responsible for fire and emergency services (MTFES)
Communications Act (CAP.15.01)	Ministry responsible for communications (MEIDECC)
Tonga Water Board Act (CAP.14.05)	Ministry responsible for public enterprises (MPE)
Waste Management Act (CAP.14.06)	Ministry responsible for the environment (MEIDECC)
Tonga Broadcasting Commission Act (CAP.15.05)	Ministry responsible for public enterprises (MPE)
District and Town Officers Act (CAP.8.03)	Ministry responsible for internal affairs (MIA)
Tonga Red Cross Society Act (CAP.12.18)	Tonga Red Cross Society
Order in Public Places Act (CAP.7.06)	Ministry of Police
Building Control and Standards Act (CAP.8.01)	Ministry responsible for infrastructure (MOI)
Environmental Management Act (CAP.21.03)	Ministry responsible for the environment (MEIDECC)
Hazardous Wastes and Chemicals Act (CAP.21.05)	Ministry responsible for the environment (MEIDECC)
Land Act (CAP.20.01)	Ministry of Land, Survey and Natural Resources (MLSNR)
National Spatial Planning and Management Act (CAP.46.03)	Ministry of Land, Survey and Natural Resources (MLSNR)
Public Enterprises Act (CAP.14.03)	Ministry responsible for public enterprises (MPE)
Food Act 2020 (CAP.19.05)	Ministry of Agriculture, Food and Forests (MAFF)
Energy Act 2021 (Act 14 of 2021)	Ministry responsible for energy (MEIDECC)
Tonga Climate Change Fund Act 2021	Ministry responsible for climate change (MEIDECC)

Title of legislation / CAP No.	Responsible Ministry
<b>Policies</b>	
Tonga Strategic Development Framework 2015-2025 (TSDF II) (2015)	Prime Minister's Office
Climate Change Policy (2016)	Ministry responsible for climate change (MEIDECC)
Tonga Housing Recovery and Resilience Policy (2020)	Ministry responsible for infrastructure (MOI)
Land Use Policy (forthcoming)	Ministry of Lands and Natural Resources
Multi-Hazard Early Warning System (MHEWS) Policy (forthcoming)	Ministry responsible for meteorology (MEIDECC)
National Social Protection Policy (forthcoming)	Ministry of Internal Affairs (MIA)
<b>Plans and strategies</b>	
Disaster Risk Financing Strategy 2021-2025 (DRFS) (2021)	Ministry of Finance
Joint National Action Plan 2 (JNAP2) (2018)	Ministry responsible for climate change (MEIDECC)
National Disaster Management Plan and Emergency Procedures	Ministry responsible for disaster risk management (MEIDECC)
National Emergency Management Plan	Ministry responsible for disaster risk management (MEIDECC)
Tonga National Infrastructure Investment Plan 3 (NIIP 3) (2021 - 2030)	National Planning Division of the Prime Minister's Office (PMO), Ministry of Finance (MOF) and the Ministry of Infrastructure (MOI)
Tonga Strategic Road Map for Emergency and Disaster Risk Management 2021-2023	Ministry responsible for disaster risk management (MEIDECC)
Tonga Tourism Recovery Plan	Ministry of Tourism
COVID-19 Preparedness and Response Plan (2020)	Ministry of Health
<b>Other general sector plans and strategies</b>	
Community Development Plans	
Community Disaster Response Plans	
Emergency Response Plans	
Five-year Island Development Plans	
Corporate Business Continuity Plans and other private sector instruments	



# Appendix B:

## Stakeholder roles and responsibilities

Appendix B provides information on key stakeholders responsible for implementing the DRM Policy, including:

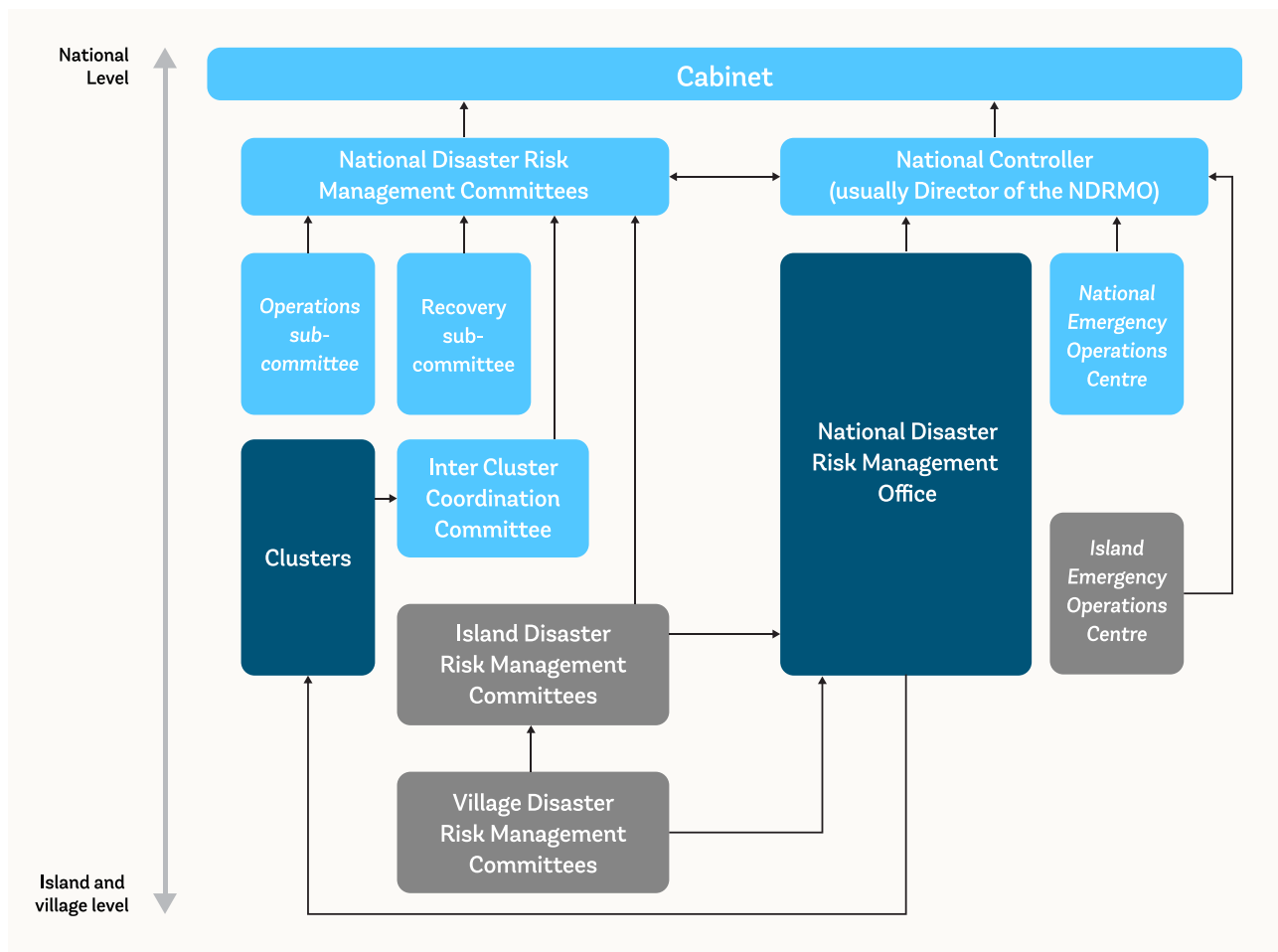
- National and local stakeholders
- International and regional stakeholders

The stakeholder roles align with roles in the DRM Act 2021.

### National and local stakeholders

#### Government stakeholders

Figure 1 illustrates the legal framework for DRM in Tonga, as shown in the DRM Act. Table 2 describes the roles of individual stakeholders.



**Note:** Entities in *italics* are only active during emergencies; they provide emergency first response services. Solid arrows indicate a formal reporting or oversight relationship.

Source: Adapted from the Government of Tonga (2021), DRM Act 2021

Table 2: Stakeholder roles and responsibilities under the DRM Act 2021 and the DRM Policy

Stakeholder	Key roles and responsibilities under the DRM Act 2021	Additional roles and responsibilities under the DRM Policy
<b>Cabinet</b>	The Cabinet is, responsible for evaluating and adopting the DRM Act (as an Act of Parliament) and the DRM Policy (as an official Government policy). <sup>41</sup>	<ul style="list-style-type: none"> <li>• Ultimate decisions in setting of instruments to implement DRM Policy including financial arrangement</li> <li>• Evaluating and adopting any revised DRM Policy provided by NDRMO</li> </ul>
<b>National Disaster Risk Management Committee (NDRMC)</b>	<ul style="list-style-type: none"> <li>• Advising Cabinet on the status of the work of key DRM entities towards their DRM objectives</li> <li>• Facilitating coordination of government ministries and calling on Ministry resources as appropriate during declared states of emergency</li> <li>• Endorsing funding requests to the Emergency Fund in relation to NDRMC's work</li> <li>• Convening meetings of its sub-committees when necessary to implement appropriate response and recovery efforts.</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend Cabinet on institutional arrangement, human and capital resources including funding required to implement Policy</li> <li>• Annual Review of DRM Policy implementation</li> <li>• Provide strategic direction.</li> </ul>
<b>National Controller</b>	<ul style="list-style-type: none"> <li>• Activating the National Emergency Operation Centre (NEOC) in response to or in anticipation of an emergency</li> <li>• Determining the priority of responsible roles of Government and Non-government entities (in coordination with the NDRMC)</li> <li>• Allocating available resources necessary for responding to events (with consent of the Minister responsible for DRM).</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that lessons learned from previous disasters are used to improve DRM in Tonga, in keeping with Policy Objective 13</li> <li>• Organise monitoring and evaluation of progress against the DRM Policy based on the M&amp;E framework</li> <li>• Ensure that DRM-related work is monitored, and information is shared publicly, in keeping with Policy Objective 23.</li> </ul>
<b>National Disaster Risk Management Office (NDRMO)</b>	<ul style="list-style-type: none"> <li>• Implementation of the DRM Act 2021</li> <li>• Acting as a secretariat to the governing bodies established under the DRM Act 2021</li> <li>• Advising the Minister and other governing bodies established under the DRM Act 2021 on disaster risk management and related matters</li> </ul>	<ul style="list-style-type: none"> <li>• Developing a DRM Plan [within 18 months of the adoption of the DRM Policy]</li> <li>• Monitoring implementation of the actions identified in the DRM Action Plan and reporting [annually] to the Cabinet through NDRMC on progress towards implementing the DRM Plan.</li> </ul>

<sup>41</sup> Cabinet includes the Parliamentary Standing Committee on Environment, Climate Change, and DRM—this is the legislative organ to establish political support and constituency support for DRM laws, and the Climate Change Cabinet Committee—this is the executive decision-making body that endorses DRM policies and plans.

	<ul style="list-style-type: none"> <li>• Formulating the DRM Policy</li> <li>• In consultation with the NDRMC, and aided by the Clusters, submitting SOPs for each Cluster to the Minister responsible for DRM</li> <li>• Reviewing and monitoring plans, programs, and SOPs relevant to DRM</li> <li>• Coordinating DRM activities in the Kingdom</li> <li>• Preparing a National Recovery Plan within 3 months following a declared state of emergency.</li> <li>• NDRMO (on behalf of MEIDECC) is also the lead entity for the Emergency Shelter and Non-Food Items Cluster and the Logistics and Coordination Cluster, meaning it is responsible for all functions of the cluster outlined below.</li> </ul>	<ul style="list-style-type: none"> <li>• Updating the DRM Policy</li> <li>• Coordinating the completion of MHDRAs and publish the findings of MHDRAs in keeping with Policy Objective 1</li> <li>• Provide or coordinate risk reduction and mitigation education and awareness-raising programs in keeping with Policy Objective 6</li> <li>• Regularly updating operational DRM documents including SOPs</li> <li>• Ensuring that national and local instruments are updated to align with the DRM Policy and DRM measures</li> <li>• Ensuring that the DRM roles and responsibilities of all stakeholders in Tonga are clear and coordinated</li> <li>• Ensuring that sufficient DRM capacity building and training is provided to stakeholders</li> <li>• As the lead entity of the Logistics and Coordination cluster, ensure emergency services respond in a timely and coordinated way</li> <li>• As lead entity of the emergency shelter and non-food items cluster, ensure evacuation centres have sufficient supplies and are safe and accessible to all Tongans.</li> </ul>
<p><b>Inter-cluster Coordination Committee (ICCC)</b></p>	<ul style="list-style-type: none"> <li>• The ICCC is responsible for overseeing and coordinating the activities of the clusters.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that cluster roles and responsibilities are clear, coordinated, and well understood</li> <li>• Review individual Cluster Plans and coordinate the development of National level plans combined of all clusters and sectoral response and provide recommendation to NDRMC</li> <li>• Review the implementation of Cluster Plans in regular interval.</li> </ul>
<p><b>Clusters</b></p>	<ul style="list-style-type: none"> <li>• Developing plans and procedures for preparing for, responding, to, and recovering from disasters</li> <li>• Providing integrated, timely, and targeted emergency assistance and recovery interventions</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure operational DRM documents are regularly updated</li> <li>• Develop their DRM which includes preparedness and response plan as well as Business Continuity Plan and lead agency to allocate dedicated human and financial resource to</li> </ul>

	<ul style="list-style-type: none"> <li>• Preparing recommendations for submission to the NDRMC, including funding requests for proposed work</li> <li>• Submitting annual reports to the Inter-Cluster Coordination Committee for integration into the Ministry's annual report.</li> </ul>	coordinate the implementation in their respective sectoral focus.
<b>Island Disaster Risk Management Committees (IDRMC)</b>	<ul style="list-style-type: none"> <li>• Develop and implement an effective Disaster Risk Management Plan</li> <li>• Initiate programmes in accordance with any directives issued by the Ministry</li> <li>• Regularly conduct operational procedures, as requested by the Ministry</li> <li>• Provide reports and make recommendations to the National Disaster Risk Management Committee about disaster risk reduction and disaster management activities</li> <li>• Promote community awareness of disaster risk management, including ways of mitigating, preparing for, responding to, and recovering from a disaster.</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate all DRM activities in the Island in collaboration with NDRMO, including:</li> <li>• Ensure Village DRM Committees are established and engaged, and Village DRM Plans are developed in all villages</li> <li>• Develop Island DRM Plan which is informed by and integrates Village DRM Plans</li> <li>• In coordination with NDRMO, facilitate the MHDRA of respective islands</li> <li>• Support community preparedness awareness and capacity building.</li> </ul>
<b>Village Disaster Risk Management Committees (VDRMC)</b>	<ul style="list-style-type: none"> <li>• Supporting community members to ensure effective disaster risk management before, during and after an event</li> <li>• Promoting disaster awareness within communities</li> <li>• Managing village-level emergency operations</li> <li>• Establishing and reviewing communications systems</li> <li>• Providing information on disaster impacts to the NDRMC.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop Village DRM Plans</li> <li>• Communicating information on the hazards communities face</li> <li>• Support community awareness and preparedness</li> <li>• Ensure that communities are enabled and empowered to actively engage in DRM activities</li> </ul>
<b>Ministry of Agriculture, Food, and Forests</b>	Lead entity for the Food Security and Livelihoods Cluster, responsible for all functions of the cluster as per its Terms of Reference.	<ul style="list-style-type: none"> <li>• Promote a needs-based approach is taken in all food-security and livelihood functions,</li> </ul>
<b>Ministry of Education and Training</b>	Lead entity for the Education Cluster, responsible for all functions of the cluster as per its Terms of Reference.	<ul style="list-style-type: none"> <li>• Ensure all Tongans understand and are adequately prepared for disasters</li> </ul>



<p><b>Ministry of Finance</b></p>	<p>Lead entity for the Economic and Social Recovery Cluster, responsible for all functions of the cluster as per its Terms of Reference.</p>	<ul style="list-style-type: none"> <li>• Ensure recovery efforts are appropriately resourced</li> <li>• Ensure equivalent finance is available for all stages of the DRM cycle</li> <li>• Ensure Tonga uses a layered approach to DRM financing</li> <li>• Ensure stakeholders have sufficient finance to fulfil their DRM roles and that they receive funds in a timely manner</li> <li>• Regularly review the suitability of DRM financing mechanisms.</li> </ul>
<p><b>Ministry of Health</b></p>	<p>Lead entity for the Health and Nutrition, Water Sanitation, and Hygiene Cluster, responsible for all functions of the cluster as per its Terms of Reference.</p>	<ul style="list-style-type: none"> <li>• Promote a needs-based approach is taken in health, nutrition, water sanitation, and hygiene functions</li> </ul>
<p><b>Ministry of Infrastructure</b></p>	<p>Lead entity for the Reconstruction Cluster,<sup>42</sup> responsible for all functions of the cluster as per its Terms of Reference.</p>	<ul style="list-style-type: none"> <li>• Ensure that recovery efforts are coordinated, in keeping with Policy Objective 13 and the Ministry of Infrastructure’s role as lead entity of the reconstruction cluster</li> <li>• Ensure that new infrastructure avoids high risk areas and existing developments implement risk reduction initiatives</li> <li>• Promote Build Back Better through policy, planning and implementation post disaster infrastructure activities.</li> </ul>
<p><b>Ministry of Internal Affairs</b></p>	<p>Lead entity for the Safety and Protection Cluster, responsible for all functions of the cluster as per its Terms of Reference.</p>	<ul style="list-style-type: none"> <li>• Ensure vulnerable groups are reached effectively and their needs are met and the Ministry of Internal Affairs’ role as lead entity of the safety and protection cluster</li> <li>• Working with Ministry of Finance and MEIDECC/NDRMO, develop and implement Adaptive Social Protection strategy.</li> </ul>
<p><b>Ministry of Public Enterprises</b></p>	<p>Lead entity for the Critical Services Cluster,<sup>43</sup> responsible for all functions of the cluster as per its Terms of Reference.</p>	

<sup>42</sup> Waste services are also critical during reconstruction. Tonga’s Waste Authority Limited (WAL) should therefore be appropriately represented in the Reconstruction cluster. The Ministry of Health should also be represented in the Reconstruction cluster (insofar as reconstruction presents health risks, for example from exposure to harmful substances).

<sup>43</sup> Waste services (provided by WAL) are critical in the immediate aftermath of disasters. WAL should therefore be appropriately represented in the Critical Services cluster. The Ministry of Health should also be represented in the Critical Services cluster (insofar as post-disaster clean-up presents health risks, for example from exposure to asbestos and other harmful substances).

<b>Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC)</b>	Ministry responsible for DRM Custodian of DRM Act Makes sure the provision of DRM Act is duly recognized, practiced, and exercised by all stakeholders to coordinate whole of Tonga response	<ul style="list-style-type: none"> <li>• Custodian of DRM Policy</li> <li>• Responsible Ministry to coordinate (all stakeholders) the implementation of DRM Policy, and DRM Plans at different level.</li> </ul>
<b>Communications Department of MEIDECC</b>	Lead entity for the Emergency Telecommunications Cluster, responsible for all functions of the cluster as per its Terms of Reference.  emergency communication systems are in place in case of disaster	<ul style="list-style-type: none"> <li>• Make sure there is alternative (satellite, V/HF Radio) communication system in place when the standard system doesn't work.</li> <li>• Install early warning system (communication equipment for example Tsunami Siren) are in place across Tonga.</li> </ul>
<b>Tonga Geological Services (TGS) (Under MNLR)</b>	<ul style="list-style-type: none"> <li>• Undertake geological survey of the areas of potential risk and provide information</li> <li>• Record, and disseminate/warn inform the earthquake and other geological risk to the public.</li> </ul>	<ul style="list-style-type: none"> <li>• Contribute geological data and analytical expertise to Tonga's multi hazard climate and disaster risk assessments.</li> </ul>
<b>Tonga Meteorological Services (Under MEIDECC)</b>	<ul style="list-style-type: none"> <li>• Responsible for collection of the meteorological information and provision of forecasts including for tropical cyclones</li> <li>• Issue meteorological hazard warnings.</li> </ul>	<ul style="list-style-type: none"> <li>• Contribute to MHDRA's</li> <li>• Coordinate and/or work with NDRMO and communication department for the establishment of comprehensive MHEWs.</li> </ul>
<b>Tonga Statistics Department</b>		<ul style="list-style-type: none"> <li>• Ensure that Tonga collects high quality statistics on a timely basis to aid in evidence-based decision making</li> <li>• Provide advice to organizations and agencies on the collection, compilation, and analysis of their data and help ensure access to data</li> <li>• Provide ongoing training on data collection, management, and use to key stakeholders.</li> </ul>
<b>First Responder Agencies:</b>  Tonga Fire and Emergency Services  Tonga Police  His Majesty's Armed Forces  Tonga Red Cross	<ul style="list-style-type: none"> <li>• Key member of Logistic and Coordination cluster</li> <li>• Key member to participate when Emergency Operation Center is activated</li> <li>• Key member to take part in IDA, search and rescue, relief distribution and overall logistic management.</li> </ul>	<ul style="list-style-type: none"> <li>• Work together with NDRMO and other member agency of logistic and coordination cluster to develop and implement Logistic management and coordination plan</li> <li>• Support the emergency operation and response coordination as requested by NDRMO</li> <li>• Work together with NDRMO to</li> </ul>

		develop SOP and guidelines including MoU as required to streamline chain of command and communication for effective emergency operations and response coordination.
<b>National Spatial Planning Authority Office (Under MLSNR)</b>		<ul style="list-style-type: none"> <li>• Undertake risk-informed land use planning</li> <li>• Guide new infrastructure/developments to avoid high risk areas whenever possible or ensure adequate mitigation measures are in place for new infrastructure/developments in high-risk areas.</li> </ul>

Source: Kingdom of Tonga (2021), Tonga Disaster Risk Management Bill 2021

### Government stakeholders

Under the DRM Act 2021, clusters are required to ensure adequate representation of NGOs and communities in their membership. Table 3 lists key non-government stakeholders and indicates the clusters in which they [should be] represented.

Table 3: Key non-government stakeholders and their role in DRM

Non-government Stakeholder	Roles in DRM
<b>Churches and faith-based organisations</b>	<ul style="list-style-type: none"> <li>• Provide space for emergency shelters</li> <li>• Provide emergency and recovery support to member households and others</li> <li>• Provide emergency social services (NFIs, health care, financial support)</li> <li>• Mobilize volunteers and funding</li> <li>• Develop their own DRM and business continuity strategies</li> </ul>
<b>International non-governmental organizations</b> <b>Local non-governmental organizations</b> <b>Civil society organizations</b>	<ul style="list-style-type: none"> <li>• Organize community members at local level</li> <li>• Advocate for specific groups and issues</li> <li>• Provide technical expertise and policy advice</li> <li>• Mobilize volunteers and funding</li> <li>• Provide short-term social services (NFIs, health care, financial support)</li> <li>• Help ensure transparency in the distribution of aid</li> <li>• Implement and/or monitor donor and government projects</li> <li>• Develop their own DRM and business continuity strategies</li> </ul>
<b>Private sector organizations and associations</b>	<ul style="list-style-type: none"> <li>• Mobilize employees</li> <li>• Raise funds</li> <li>• Donate goods and services (corporate social responsibility)</li> <li>• Contribute technical expertise</li> <li>• Assist government with delivery of services</li> <li>• Ensure the continuity of critical business operations</li> <li>• Develop their own DRM and business continuity strategies</li> </ul>
<b>Tongan Diaspora</b>	<ul style="list-style-type: none"> <li>• Contribute technical expertise</li> <li>• Support the delivery of goods and services</li> <li>• Mobilize funds</li> </ul>

## *International and regional stakeholders*

Table 4 lists a range of international and regional stakeholders that play active roles relevant to DRM in Tonga.

**Table 4:** Roles of key international and regional stakeholders

Stakeholder	Roles
<b>Multilateral Financial Institutions</b>	<ul style="list-style-type: none"> <li>• Provide financing and technical assistance as requested to support disaster risk management priorities, such as early warning systems, resilient infrastructure, contingent financing, adaptive social protection, disaster risk financing and insurance, and policy support</li> <li>• Support DRM policy development, disaster risk financing, and disaster recovery</li> </ul>
<b>Bilateral development partners</b>	<ul style="list-style-type: none"> <li>• Provide ongoing development assistance for resilience building</li> <li>• Provide earmarked funding for disaster risk reduction and preparedness activities</li> <li>• Contribute to effective humanitarian responses to disasters</li> <li>• Provide funding and/or technical assistance for recovery</li> <li>• Support DRM policy development, disaster risk financing, and disaster recovery</li> </ul>
<b>Regional Organisations</b>	<ul style="list-style-type: none"> <li>• Provide policy support and share data for DRM through initiatives including the Framework for Resilient Development in the Pacific 2017-2030</li> <li>• Build capacity in the region to better understand hazard exposure, data uses, and how such data could be used to manage disaster risk</li> </ul>
<b>United Nations Agencies</b>	<ul style="list-style-type: none"> <li>• Following their respective global mandate, play effective role in supporting GoT for the implementation of DRM Policy</li> <li>• Through their respective cluster co-lead role as assigned, support clusters in their capacity strengthening and implementing respective cluster DRM Plan</li> <li>• Ensure alignment with the Sendai Framework for Disaster Risk Reduction</li> <li>• Provide guidance, leadership, and support to accelerate disaster risk reduction</li> <li>• Contribute to effective humanitarian responses to disasters through coordination, information management, advocacy, policy, and humanitarian financing tools.</li> </ul>

# Appendix C:

## Monitoring and evaluation framework

Table 5 displays the proposed KPIs for monitoring the DRM policy objectives. The table also proposes entities that could be responsible for data collection and reporting on these proposed KPIs. The Director of NDRMO should liaise directly with these entities to collect data on each KPI when developing the DRM Policy M&E Report annually to review the progress.

The DRM Policy provides overarching policy objectives to guide lower-level plans (in this case, Tonga's forthcoming national DRM Plan, subnational DRM Plans, and other DRM related operational documents and SOPs). These lower-level plans will require their own M&E frameworks with clear KPIs appropriate for the actions and activities envisioned. The national and subnational DRM Plans will be based on these KPIs, and a detailed implementation plan prepared under these plans that shall include details on timeframes to achieve the objectives.

**Table 5:** Proposed KPIs for monitoring DRM policy objectives

Policy Objective	Proposed KPI	Proposed entity responsible for data collection and reporting
<b>Policy objective 1:</b> The roles and responsibilities of all stakeholders in DRM are clear and effective coordination is promoted	<ul style="list-style-type: none"> <li>Proportion of corporate plans from MDAs that incorporate policy guidance from this policy</li> </ul>	NDRMO with Planning and Development Office
<b>Policy objective 2:</b> Policies and plans from other sectors are aligned with the DRM Policy	<ul style="list-style-type: none"> <li>Proportion of national and sector policy documents that explicitly include DRM policy guidance</li> </ul>	NDRMO with Planning and Development Office
<b>Policy objective 3:</b> The DRM Policy is operationalized via DRM plans that are updated regularly	<ul style="list-style-type: none"> <li>All island groups have DRM plans which are aligned with the DRM Policy and are reviewed every five years.</li> </ul>	NDRMO
<b>Policy objective 4:</b> Government and other stakeholders have the capacity to carry out their respective responsibilities	<ul style="list-style-type: none"> <li>Number of public sector employees who have received DRM capacity building or training in the past five years</li> </ul>	NDRMO
<b>Policy objective 5:</b> Local communities are empowered to engage in the implementation of the DRM Policy	<ul style="list-style-type: none"> <li>Number of community awareness and capacity building activities/training carried out annually</li> <li>Feedback from participants indicating increased empowerment of community members</li> </ul>	Island and Village DRM Committees

<p><b>Policy objective 6:</b> The needs of diverse and vulnerable Tongans are addressed in all DRM activities</p>	<ul style="list-style-type: none"> <li>All DRM operational documents (including SOPs) explicitly consider vulnerable groups and strategies to encourage gender equality, disability, and social inclusion</li> </ul>	NDRMO
<p><b>Policy objective 7:</b> Finance is available for all aspects of DRM, including for ex-ante measures</p>	<ul style="list-style-type: none"> <li>Annual increase (min. 5%) of budget allocation for investments in national disaster risk reduction priorities</li> </ul>	Ministry of Finance
<p><b>Policy objective 8:</b> Government utilises a suite of disaster risk management financing instruments</p>	<ul style="list-style-type: none"> <li>Government reviews the suite of DRM financing annually to ensure instruments are suitable to Tonga's risk profile</li> </ul>	Ministry of Finance with NDRMO
<p><b>Policy objective 9:</b> Government stakeholders have adequate budget to fulfil DRIM roles and receive funds in a timely manner</p>	<ul style="list-style-type: none"> <li>Adoption of National Emergency Fund operations manual</li> <li>Budget tagging includes DRM activities</li> </ul>	Ministry of Finance
<p><b>Policy objective 10:</b> Data and information on DRM-related activities are accessible to all stakeholders and monitored effectively, and results are presented transparently</p>	<ul style="list-style-type: none"> <li>A publicly available portal containing all relevant DRM-related activities is developed including monitoring of DRM Policy implementation progress</li> </ul>	NDRMO
<p><b>Policy objective 11:</b> Disaster risk data are used objectively in planning processes and decision-making</p>	<ul style="list-style-type: none"> <li>Public sector employees are trained adequately assess and utilize disaster risk data in their sectoral and/or cluster plans</li> </ul>	NDRMO with Planning and Development Office
<p><b>Policy objective 12:</b> Adequate training on data collection, management, and use is available to key stakeholders</p>	<ul style="list-style-type: none"> <li>Proportion of public sector employees who have received training on data collection, management and use in the past five years</li> </ul>	NDRMO with Tonga Statistics Department
<p><b>Policy objective 13:</b> Multi-hazard disaster risk assessments are used to increase understanding of disaster risk and integrated in DRM planning processes</p>	<ul style="list-style-type: none"> <li>All of Tonga's main island groups have completed and published multi-hazard disaster risk assessments</li> </ul>	NDRMO
<p><b>Policy objective 14:</b> Land use, building regulations, and codes are informed by disaster risk, and are enforced effectively</p>	<ul style="list-style-type: none"> <li>All developments receive development consent and a building permit to ensure compliance with relevant regulations and codes</li> </ul>	MOI and Ministry of Lands and Natural Resources

<p><b>Policy objective 15:</b> Stakeholders undertake disaster awareness-raising programmes which focus on mitigation measures</p>	<ul style="list-style-type: none"> <li>Annual number of risk reduction and mitigation education and awareness raising programs completed annually</li> </ul>	NDRMO
<p><b>Policy objective 16:</b> Government uses and maintains multi-hazard early warning systems suitable to Tonga's context</p>	<ul style="list-style-type: none"> <li>Proportion of hazards identified in Tonga's multi-hazard disaster risk assessments that are covered by early warning systems in Tonga</li> </ul>	Tonga Meteorological Services
<p><b>Policy objective 17:</b> Government has adequate warehousing and logistical capacity as well as clear protocols for response coordination</p>	<ul style="list-style-type: none"> <li>Annual review of warehouse facilities and emergency processes and procedures</li> </ul>	NDRMO
<p><b>Policy objective 18:</b> All Tongans understand and are adequately prepared for different types of disasters</p>	<ul style="list-style-type: none"> <li>Annual number of risk reduction and mitigation, education and awareness raising programs completed annually</li> </ul>	NDRMO with Island and Village DRM Committees
<p><b>Policy objective 19:</b> Clear standards and guidelines to coordinate emergency operations to coordinate emergency operations are available</p>	<ul style="list-style-type: none"> <li>Proportion of hazards identified in Tonga's multi-hazard disaster risk assessments that have formal guidelines for evacuation processes</li> </ul>	NDRMO
<p><b>Policy objective 20:</b> Evacuation centres and routes are in strategic locations, safe and accessible to all, and centres have sufficient supplies</p>	<ul style="list-style-type: none"> <li>Annual reported number of crimes reported in evacuation centres</li> <li>Proportion of evacuation centres that are accessible</li> </ul>	NDRMO
<p><b>Policy objective 21:</b> Diverse and vulnerable groups are reached effectively, and their needs are met during and after disasters</p>	<ul style="list-style-type: none"> <li>Annual number of risk reduction and mitigation education and awareness raising programs completed annually that target diverse and vulnerable groups</li> </ul>	NDRMO with Island and Village DRM Committees
<p><b>22:</b> Initial damage assessments are undertaken on a timely basis using standardized guidelines</p>	<ul style="list-style-type: none"> <li>IDAs are completed within 4 weeks of disaster and comply with standardized guidelines</li> </ul>	National Disaster Operations Sub-Committee
<p><b>Policy objective 23:</b> Recovery efforts are coordinated and appropriately resourced</p>	<ul style="list-style-type: none"> <li>A multi-sectoral recovery plan and budget for major disasters is approved within 6 months of the disaster.</li> </ul>	NDRMO with Ministry of Finance

<p><b>Policy objective 24: Measures are in place to ensure that investments made during recovery reduce disaster risk and increase resilience</b></p>	<ul style="list-style-type: none"> <li>• All post-disaster recovery projects/ activities re screened for disaster risk reduction and resilience building.</li> </ul>	<p>NDRMO</p>
<p><b>Policy objective 25: Lessons are learned from previous disasters and are used to improve DRM</b></p>	<ul style="list-style-type: none"> <li>• Technical review of disasters carried out within 12 months of the event to establish lessons learned</li> </ul>	<p>NDRMO</p>





# Appendix D:

## Template for Island DRM Plans

Section 56(4) (b) of the DRM Act 2021 requires Island DRM Committees to establish Island DRM Plans for each island group (see Glossary). A template for Island DRM plans is provided below and will be guided by the NDRMO. In the longer term, Village DRM plans will also be developed. District and Village DRM Plans will help inform requests for future funding opportunities at the subnational level.

### **Executive Summary**

A brief summary of the key priorities and actions of the DRM plan.

### **Introduction and Purpose**

Explanation of the background, aims, and structure of the Island DRM Plan

### **Local Circumstances in [Island Group]**

Brief summary of the socioeconomic, political, cultural, and geographic circumstances of the district, and how this may enable or constrain DRM actions.

### **Disaster Risk Profile in [Island Group]**

Explanation of the multi-hazard risk environment in the island group based on the best available data and risk assessments.

### **Institutional and Policy Context**

Summary of the DRM institutional and policy context in the island group. This should highlight the existence and role of Island and Village Disaster Risk Management Committees and explain the legal requirement to develop Island Level DRM Plans in Tonga's DRM Act 2021. It should also layout a clear organization structure, directives, and entities/persons responsible for implementing the plan.

### **Existing and Planned DRM Activities in [Island Group]**

Summary of existing and planned DRM activities or initiatives in the island group.

### **Methodology for Identifying and Prioritizing DRM Actions**

Summary of the approach taken to identify DRM actions and prioritize actions relative to one another.

### **Prioritized DRM Actions for [Island Group]**

Actions should be summarized in brief concept notes containing elements such as 'Activity Description', 'Estimated Impacts/Benefits', 'Estimated Cost', 'Timeframe for Implementation', 'Potential Co-benefits', and 'Potential Barriers to Implementation'.

### **Financing and Investment Plan for DRM Actions**

Summary of finance available in or to the island group, or financing gaps, and table matching actions to potential sources of finance.

### **Implementation Plan**

Outline of the most practical timing, sequencing/prioritization, and responsible parties of DRM actions

### **Monitoring and Evaluation Framework**

Framework and KPIs for monitoring progress on the Island DRM Plan.

