Resilience Financing

The Tonga Experience

Pacific Resilience Program

PACIFIC ISLANDS FORUM

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Acronyms

ASP	Adaptive Social Protection
AMRDD	Aid Management and Resilient Development Division, Ministry of Finance, Tonga
CERC	Contingent Emergency Response Component
DRF	Disaster Risk Finance/Disaster Risk Financing
DRM	Disaster Risk Management
EMA	Emergency Management Act
FRDP	Framework for Resilient Development in the Pacific 2017 - 2030
GDP	Gross Domestic Product
IMF	International Monetary Fund
JNAP 2	Joint National Action Plan on Climate Change and Disaster Risk Management 2, 2018 - 2028
MEIDECC	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change, Communication
MoF	Ministry of Finance
NEF	National Emergency Fund
NEMO	National Emergency Management Office
NGOs	Non Governmental Organisations
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative
PCRIC	Pacific Catastrophe Risk Insurance Company
PIC	Pacific Island Country
PREP	Pacific Resilience Program
PRS	Pacific Resilience Standards
SDG	Sustainable Development Goals
TC	Tropical Cyclones
TSDF II	Tonga Strategic Development Framework II, 2015 - 2025

Executive Summary

The vulnerabilities of the Pacific Island Countries (PICs) to climate change are an established fact. We are at the forefront of climate change and disasters impacts, and our countries are consistently ranked at the top of the global risk ranking. Currently, three Pacific Island countries feature as the top 3 of the most at-risk countries in the world[1]. Our countries are frequently exposed to many extreme natural events and when we are impacted by them, the effects are devastating economically and socially particularly on our most vulnerable – our women, children, the elderly, and persons with disabilities.

Recent estimates indicate that the average annual economic cost of disasters to PICs from 2018- 2020 was USD 1.075 billion or nearly 5% of the combined GDP of PICs[2]. For some PICs, particularly Palau, Tonga and Vanuatu, they are at risk of losing more than 10% of their GDP annually to disaster[3]. Given that most PICs are already facing shrinking fiscal spaces and are now at risk for being in high debt distress – compounded by the impacts of COVID-19 - building resilience, particularly financial protection, needs to be a priority.

Securing and strengthening the financial protection of countries against disaster is critical as it reduces the risk of PICs being trapped in a perpetual cycle of scrambled, manic disaster responses that causes further strain to their fiscal spaces as well as delays to the recovery and rebuilding phase.

Strengthening financial protection requires a structured and a deliberate approach to disaster risk finance (DRF). Having a DRF Strategy provides a framework for enhanced financial resilience. A DRF Strategy can help secure access to disaster financing for governments before an event and ensures timely and cost-effective access to financial resources to support post-disaster recovery and reconstruction activities while minimizing the cost of these funds through an optimal use of DRF instruments.

Tonga has been part of a pioneering Pacific effort to develop a DRF Strategy to guide strengthening their financial resilience against disasters. In the process of developing and implementing their 2021- 2025 DRF Strategy, Tonga has made changes in their legislative and institutional environment including the setting up of a special division in the Ministry of Finance – Aid Management and Resilient Development Division - to spearhead the mainstreaming of resilience across government agencies.

The purpose of this report is to capture the key learning from the Tonga DRF experience for the purpose of strengthening awareness of the drivers of comprehensive resilience including that of financial protection. The eight key lessons learned that have emerged from this study are:

1. There is value in developing a separate country DRF Strategy to provide clarity and direction on how to pursue a targeted and cost-efficient approach to strengthening financial protection to disasters;
2. The DRF Strategy is more than just about accessing finance - it is a tool that can improve national planning and strengthen risk informed national development.
3. Multi-sectoral collaboration that is based on strong relationships and collegiality is the prerequisite to developing and implementing a holistic, sustainable and nationally owned DRF Strategy.
4. Securing strong political support for a DRF Strategy requires political leadership that is attuned to the technical aspects of the public finance management systems (PFM).

[1] Vanuatu 1; Solomon Islands 2; Tonga 3

[2] ESCAP (2020) The Disaster Riskscape across the Pacific Small Developing States: Key Takeaways for Stakeholders. ST/ESCAP/2880.

[3] ibid

5. Inclusion is a must for the DRF Strategy – Adaptive Social Protection (ASP) is a non-negotiable component as it ensures that the DRF approach is 'people centered'
6. DRF solutions are only as reliable as the risk models that support them, and the latter are only as good as the data and the capacity used to develop them.
7. The Ministry of Finance is best placed to lead and drive the national DRF efforts of countries.
8. Awareness and more awareness – For the objectives of the DRF Strategies (financial protection) to be owned and internalized, clear, consistent and persistent messaging is critical.

These key lessons learned provides the blueprint for those PICs who are considering pursuing a targeted approach to DRF.

Policy Messages

- ***National DRF strategies are intended to ensure that governments have the resources necessary to manage the adverse financial and economic consequences of disasters through a structured and strategic approach to financing for response***. DRF strategies when designed appropriately can function as a prioritization tool for the allocation of scarce financial resources when responding to disasters.
- ***The Ministry of Finance (MoF) is uniquely positioned to ensure that DRF strategies are well integrated, efficient and effective and thus play a critical role in strengthening financial protection***. The MoF are well placed to deploy policies, regulations and financial tools that are needed to support the development and adoption of DRF solutions. Additionally, the MoF is able to provide the clarity on the budget allocations including that of disaster costs provide direction on how risks are to be retained, mitigated and transfer within the economy thus fostering a risk management culture within society.
- ***Robust DRF strategies are underpinned by comprehensive country risk assessments that are informed by accurate data***. It is critical that country risk assessments are founded on a solid evidence base through the collection of data on hazards, exposure, vulnerability, damage and loss. For country risk assessments to be comprehensive, a well-coordinated and partnership approach between the relevant government agencies and other stakeholders will be required.
- ***The financial vulnerabilities of countries to disasters needs to be factored into the country risk assessment in order to provide clarity on how much risk the economy can realistically absorb and how much it needs to transfer***. Having this clarity is important in terms of 'layering the risks' which is part of the comprehensive financial protection strategy that requires the mobilization of different *ex-ante and ex-post* DRF instruments to address the evolving needs for funds.
- ***'Learning leadership' is a critical enabler for the integration and mainstreaming of risk across government agencies.*** Understanding risks particularly financial risk can be challenging given its complexities, thus it is critical that leaders at different levels create an environment of learning within their organisations. They must be receptive to new ideas and also be well informed themselves so that change and improvement is cyclical.

Introduction

Tonga is regarded as one of the most at risk countries to disasters and is ranked third globally in the 2021 World Risk Index[4]. Tonga in recent years has been devasted by climate induced disasters, particularly Tropical Cyclones (TC) that have rolled back significant development gains, destroyed livelihoods, and left the Tongan economy in a continuous cycle of disaster recovery and rebuilding. For example, in 2019, during the global challenges brought about by COVID -19, Tonga was devasted by TC Harold[5] which caused damage worth about 25% of Tonga's GDP. The emergence of COVID-19 in 2020 has further exacerbated the economic and social costs those disasters.

In the midst of trying to recover from the 'double whammy of crisis' in 2021, Tonga was again faced with a devastating geological disaster in January 2022 with the eruption of the Hunga Tonga-Hunga Ha'apai underwater volcano. The eruption triggered massive tsunami that destroyed the Nukualofa shorelines - the primary areas in which the majority of the Tongan population as well as critical infrastructures are concentrated in. The Hunga Tonga-Hunga Ha'apai volcano eruption has been described as a "once in a millennium" volcanic event, and the most powerful eruption in the past 30 years. The estimated economic costs of damage from the eruption and the tsunami was USD 90.4 million (~18.5% of Tonga's GDP). The socio economic (and environmental) costs of this disaster added another layer of burden to the Tonga society, particularly to the Tongan Government whose budget and resources were currently being stretched due to multiple priorities (but scarce financing availability) it needs to address. Once these are fully known the full impact of the disaster could be significantly more than the acknowledged 18.5% impact to date. The Tongan Government estimated that a total of USD 240 million will be required to fund the Hunga Tonga-Hunga Ha'apai 2022-2025 Recovery and Resilience Building Plan[6].

Tonga Risk Profile

- Land area- 749 km^2
- No of Volcanoes – 18
- 2% of populations live within 30km of volcanoes
- 84% of populations live within 1km of the coast
- 100% of populations live within 5km of the coast
- Population density– 133 person/km^2

Hazards Likelihood

- Earthquake – High Likelihood
- Tsunami – High Likelihood
- Volcano - Medium Likelihood
- Coastal Flood – Medium Likelihood
- Landslide – Medium Likelihood
- Wildfire- Very Low Likelihood

Major Disasters Type in 2011- 2020

- Storm – 70%
- Drought – 10%
- Epidemic – 20%

Climate Projections

- Cyclones- less frequent but more intense
- Rainfall – extreme rainfall events to become more frequent and intense
- Temperature- annual mean temperatures and extremely high daily temperatures will continue to rise (~0.8-2.0C by 2050)
- Sea Level rise- expected to continue to rise (~17-35cm by 2050)
- Ocean acidification- expected to continue
- Coral bleaching risk- expected to

Figure 1. Tonga Risk Profile (Source from DFAT Website)

[4] Aleksandrova, M. et al (2021) World Risk Report 2021- Focus: Social Protection, ISBN 978-3-946785-12-5.
[5] Fiji, Vanuatu and Solomon Islands were also affected by TC Harold.
[6] Government of the Kingdom of Tonga (2022) Prime Minister confirms recovery and resilience building plan needs TOP$565.8 million, Available: <https://www.gov.to/press-release/prime-minister-confirms-recovery-and-resilience-building-plan-needs-top565-8-million/>

Tonga's Strategic Response for Strengthening Financial Resilience to Disasters

Strengthening Tonga's financial resilience is a top priority in the context of the Tongan national resilience agenda[7]. Tonga recognized earlier on that strengthening financial resilience requires a more coherent national approach to disaster risk and will require deliberate changes in their policy landscape. Consequently, Tonga became the first Pacific Island Country (PIC) to implement an integrated approach to addressing risks from climate change and disaster through the region's first ever Joint National Action Plan for Climate Change and Disaster (JNAP I 2010-2015) in 2010. Building on from the lessons learned from the implementation of JNAP I, Tonga released a 10-year JNAP 2 covering the period 2018-2028. The second JNAP aims to significantly strengthen its resilience (including financial resilience) to the impacts of climate change and reduce disaster risk.

Additionally, the Ministry of Finance (MoF) has now taken a more prominent leadership role in the disaster risk management (DRM) space and works together with other central agencies of the Government by increasing its commitment to strengthening the financial resilience of the country and its communities. The MoF has begun to embrace its responsibilities as identified in the Tonga Strategic Development Framework (TSDF II) and the JNAP 2 to lead the resilience efforts within the context of the national development apparatus. As a consequence, the MoF has: 1) established a dedicated Aid Management and Resilient Development Division (AMRDD) within the Ministry of Finance[8], and 2) developed a national Disaster Risk Financing (DRF) Strategy. These major policy developments represent Tonga's deliberate effort to strengthen their financial protection in terms of access to, and management of climate change and disaster risk finance as well as integrating risk governance into Tonga's overall development agenda.

Purpose of the Case Study

This case study provides an account of the experiences of the Ministry of Finance in Tonga in leading the national effort for strengthened financial protection against disasters. By providing the experience of the Tonga Ministry of Finance, the case study can also serve as a useful reference to assist Ministries of Finance in other PICs in terms of their respective endeavors for financial resilience.

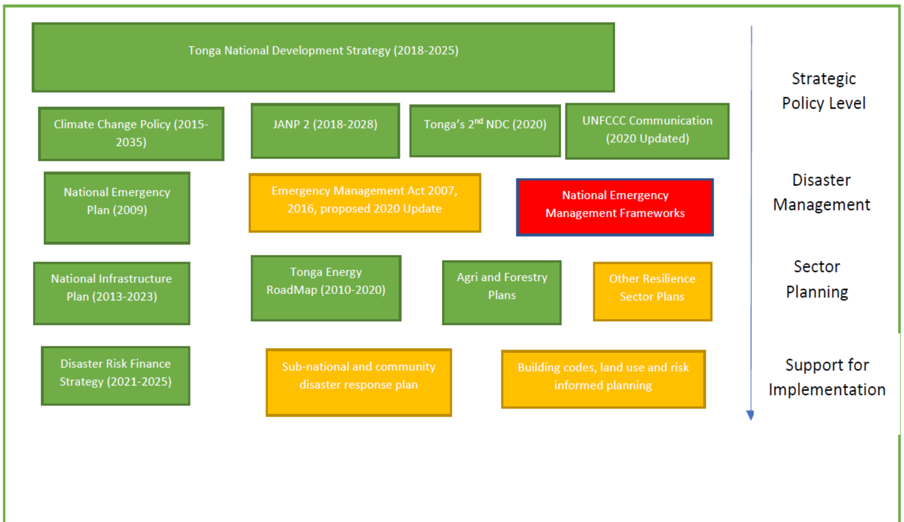
Overview of the Resilience Architecture

Tonga at the strategic level has adopted an integrated approach to climate change and disaster risks in ways that are embedded in the sustainable development goals (SDG). Tonga's overarching vision for resilient development is articulated in the 2015-2025 TSDF II. This national strategy provides the overall

[7] The JNAP 2 2018-2028 outlines the 20 targets that makes up the overall resilience agenda for Tonga.
[8] The primary focus is on risk mainstreaming, climate change financing, disaster risk financing and aid management

direction and the framing of resilient development against which all other national and sectorial policies and plans in Tonga are or should be aligned.

A number of resilience related policies then underpins the TSDF II. This includes the 2016 National Climate Change Policy, The Joint National Action Plan 2 on Climate Change Adaptation and Disaster Risk Management 2018-2028 (JNAP 2), the 2021 Second Nationally Determined Contributions (NDC), and the Emergency Management Act (2007).



Note: Green Indicates a well developed instrument(s); yellow-less developed; red-the instrument does not exist.

Figure 2. Overview of Tonga's Resilience Policy Landscape (Adopted from IMF (2020))

Overview of Disaster Risk Management Institutional Arrangements

The primary legislation that guides DRM in Tonga is the Emergency Management Act 2007 (EMA) (No.14 of 2007). The EMA (2007) sets out the DRM governance structure as well as the coordination responsibilities and authorities of respective agencies both at national and local levels. The Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change, Communications (MEIDECC) is the agency responsible for coordinating and promoting climate and disaster resilience in Tonga. To address disaster preparedness and response, Tonga has adopted a 'cluster model'[9] in its DRM approach and currently has 10 national clusters which are led by different sectoral ministries and is comprised of different stakeholders which also include the

Tonga Aid Management and Resilient Development Division

Objective:

- Strengthen the integration of resilience measures across all development planning, budgeting, and oversight systems in Tonga.

Key Functions:

- It is a hub to lead MoF's efforts in mainstreaming climate change and disaster risk considerations into the policies, plans and procedures used by the Ministry and works closely with other divisions in this regard.
- Lead the ministry efforts to secure and manage external climate change and other financing modalities.
- Implement a national disaster risk financing strategy and coordinate a wider resilience effort across all central agencies.
- Assist agencies such as the Planning Division in the Prime Minister's Office, Ministry of Foreign Affairs, Parliament, Audit and Public Service Commission in achieving their contributions to national resilience building in lune with relevant national policies and consistent with the respective mandate for each.
- Works in close coordination with the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) and the Government lead technical agency for the implementation of the national climate and disaster resilience agenda, and the Women's Affairs Division in the Ministry of Internal Affairs, as the lead agency for advancing

[9] Derived from the Pacific Humanitarian Cluster system introduced by the UN Office for the Coordination of Humanitarian Affairs

private sector and NGOs. The cluster system is supported by international and regional agencies within the Pacific Humanitarian Team. The Tonga cluster system was activated for the first time during TC Ian in 2014. TC Gita in 2018 was the first disaster for which the cluster system was used at scale[10]. This system was also critical in the national response to the 2022 Hunga Tonga-Hunga Ha'apai volcano and tsunami disaster.

Importance of Strengthening Finance Resilience in Tonga

Risks associated with disasters present significant financial challenges to the Tongan Government given it is already at high risk of debt distress. In 2020, Tonga's debt to GDP ratio was at 42% despite several years of fiscal consolidation[11]. The IMF report[12] also highlighted those disasters in Tonga:

- continue to adversely affect Tonga's economic growth,
- further jeopardize the nation's already weak growth and debt sustainability, and
- could lower the further potential for growth through their impact on major economic sectors such as agriculture, water and food security, and infrastructure.

Snapshot of the Fiscal Impacts of Disasters in Tonga

- Total Average Annual Losses (AAL) – USD 76.81 million.
- AAL as % of GDP – 18.20%.
- Adaptation costs for Coastal Protection- ~ USD 9- 35 million/ year.
- Estimated that economic growth is lowered on average by 0.1-0.2 % points per year.
- Annual average loss due to tropical cyclones estimated to be USD 9.5 million ~ (2.7% of GDP).
- Average annual emergency costs from an event- USD 3.2 million
- Disasters can reduce economic growth by more than 3% points.
- Exports in Tonga could contract by 7% points of GDP after an event.
- After an event, the present value (PV) of public debt-to-GDP can immediately increase by 15% points of GDP in 2021 and reach 100% in 2030.
- Expected average annual damage from earthquakes and tsunamis- USD 6 million
- 2% probability that cost of direct damage annually will >USD 140 million and 1% probability that it will >USD 225 million annually
- Disasters can lead to a substantial unanticipated fiscal financial gap which could be hard to

Figure 3. Snapshot of the Fiscal impacts of Disasters in Tonga (Source DFAT (2020) & IMF (2020))

[10] Civil Society Forum of Tonga (2019) Localization in Tonga: Demonstrating Change, pp 1-44.
[11] IMF (2020) Tonga. Staff Report for the 2020 Article IV Consultation and Request for Disbursement under the Rapid Credit Facility- Debt Sustainability Analysis, pp 1-22.
[12] ibid

Governance Structure for Financial Resilience

The overall financial governance framework for Tonga during disasters is guided by two legislations i.e., 1) the Public Finance Management Act (2022) and 2) the 2008 National Emergency Fund (NEF) Act. The Public Financial Management Act (2002) is the overarching financial framework for the management of public finance in Tonga. The PFM Act mandates the MoF to manage public finance and that it establishes a contingency fund to be presented annually to the Legislative Assembly during the Budget process and that it have an allocation of a ceiling of 5% of the total budget. The Public Procurement Regulations (2015) allows use of the limited bidding method (direct sourcing) for procurement of goods and services in emergencies.

Key Responsibilities of the Finance Ministries in DRM in ensuring Financial Resilience

- *Ensuring that the financial vulnerabilities with the economy are addressed through adequate and efficient compensation mechanisms be it public or private.*
- *Ensuring proper fiscal management of risks by anticipating potential budgetary impacts and planning ahead to ensure adequate financial capacity and rapid release of funds.*
- *Establishing clear rules regarding post-disaster financial compensation to enable rapid compensations, demonstrating solidarity and ensuring sound incentives.*
- *Ensuring the soundness and resilience of the financial sector with respect to disaster risks, including through proper regulations, business continuity planning, and stress testing.*
- *Ensuring the optimal allocation of the resources for disaster risk management including assessment of the cost-effectiveness of major public investments in disaster risk*

Figure 4. Centrality of Ministry of Finance in DRM (Source: OECD (2015))

The NEF Act (2008) is the primary mechanism for financing emergency and response and recovery in Tonga. The NEF can be used exclusively to provide resources for timely, efficient relief and reconstruction in any emergency, including natural and human-made hazards, health emergencies and outbreaks. The NEF's funding flows from a variety of sources including that of an annual budget allocation of USD 2 million, interest from the amount held, and cash donations from the Tonga diaspora and concerned citizens/organisations abroad.

The MoF is the lead agency responsible for strengthening financial resilience to disasters in Tonga. The MoF is a key permanent member of the three (3) main committees that is responsible for efforts in different phases of DRM in Tonga and plays the primary role in the coordination of finance for relief and recovery efforts. The MoF is also the lead agency for the Economic and Social Recovery Cluster and is also responsible for the administration of the National Emergency Fund (NEF).

Approach to Strengthening Financial Resilience

Strategic Priorities of Tonga's DRFS

- Identify and quantify disaster-related economic and financial risks, including those exacerbated by climate changes
- Review the portfolio of risk financing instruments annually to ensure they meet government objectives cost-effectively
- Assess options to transfer risk to the private sector and strengthened domestic insurance markets
- Strengthen disaster-related public financial management
- Develop Adaptive Social Protection
- Develop national DRM policy frameworks and plans to invest in national DRR priorities to mitigate and minimize the effect of future disaster shocks, including those exacerbated by climate

Figure 5. Strategic Priorities of Tonga's Disaster Risk Finance

Tonga's approach to strengthening financial resilience is guided by the 2021 Tonga DRF Strategy. The main objective of the DRF Strategy is to provide strategic guidance to the Government of Tonga on the most context relevant and cost-effective approach to reducing the economic and fiscal effects of disasters through a combination and sequencing of instruments that address various identified risks. Tonga's DRF Strategy is an integral part for strengthening the financial protection of Tonga against disasters and reducing their long term and economic costs.

Tonga's DRF approach is guided by the 'risk layering' ideology[13] which contends that no single financial instrument can cover all risks but rather a combination of financial instruments is the most efficient and cost-effective way to protect against disasters of different frequency and severity. The risk layering approach is a key part of a comprehensive financial protection strategy that mobilizes different instruments, either before or after a disaster strikes, to address the evolving need for funds[14]. Risk layering ensures that cheaper sources of money are used first and the most expensive instruments are used only in exceptional circumstances[15].

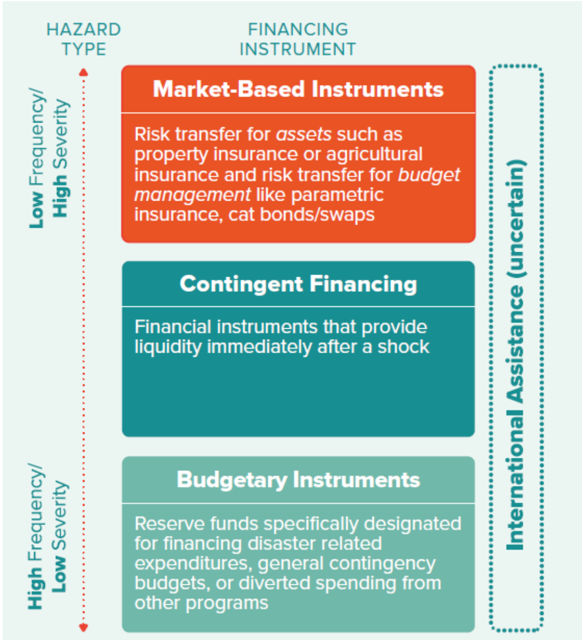


Figure 6. Disaster Risk Layering Framework (Source World Bank (2018)

Tonga's risk layering approach features budgetary instruments such as reserve funds, contingent financing instruments such as contingent credit and market-based instruments such as those of insurance and catastrophe bonds. Tonga has ensured that some of these instruments are in place before a disaster (i.e. ex-ante instruments) while others are mobilized after a disaster (i.e. ex post instruments). Additionally, Tonga has also factored in the timing needs of the instruments at its disposal recognizing not only the importance of pre-arranging DRF instruments, but also the fact that not all resources will be needed at the same time[16].

Tonga has also built-in catastrophe models in its DRF Strategy to clarify the combinations of instruments as well as the financial quantum it will need to deploy in the face of different types and magnitude of disasters[17]. It has adopted the probabilistic risk assessment approach used by the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) to consider a spectrum of disaster events and account for their respective probabilities. Tonga's catastrophe model enabled a detailed, quantitative understanding of potential costs of disasters to the fiscal budget, allowing for the subsequent design and implementation of its DRF Strategy that is tailored to the need of its economy.

[13] World Bank (2018) Disaster Risk Finance: A Primer- Core Principles and Operational Framework. Disaster Risk Financing & Insurance Program, pp 1-16.
[14] ibid
[15] ibid
[16] ibid
[17] OECD (2015) Disaster Risk Financing: A Global Survey of Practices and Challenges, OECD Publishing, Paris.

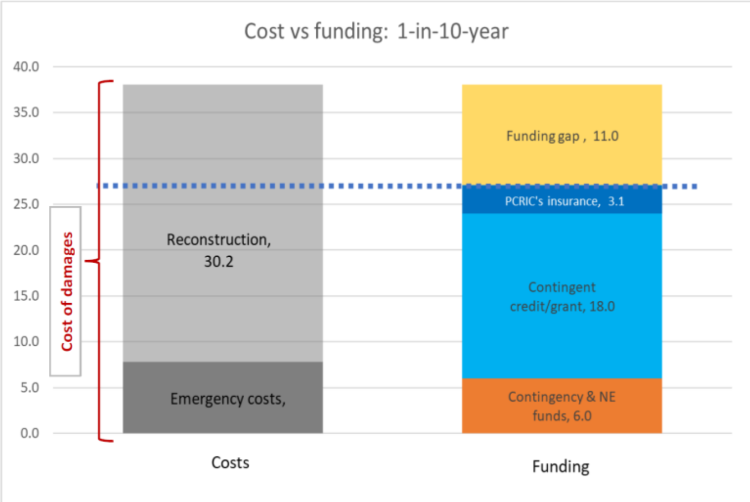


Figure 7. Tonga's Catastrophe Model: Cost vs Funding 1-10 Return Period (Source Tonga's DRF Strategy)

The implementation of the DRF Strategy is led by the MoF in close consultation with National Emergency Management Office (NEMO). A Steering Committee that the MoF Chief Executive Officer chairs oversees the implementation of the DRF Strategy. Additionally, a Working Group comprising of members of different ministries and agencies that are responsible for implementing specific tasks under the identified priorities has been established. A workplan outlining the timeline of milestones and responsibilities have been developed. Reporting on progress on these milestones is done on a quarterly basis to the Steering Committee.

Steps taken by the Government of Tonga's to strengthen its Commitment to resourcing its DRR priorities:

- Support greater involvement of the AMRDD in the MoF, NEMO and the Department of Climate Change in the annual budget process including budget consultations,
- Endorsement of the new DRM bill and develop comprehensive DRM plans at the national, island, and village levels.
- Continue project preparation and dialogue with development partners to secure donor and climate fund financing (grants) for priorities identified in national and sector investment plans.
- Develop a strategic approach to accessing international climate financing, with suitable application, implementation, and oversight arrangements based on available specialised expertise and in close collaboration with development and implementing partners
- Track and report on (including through budget documentation and as part of progress reports of various government plans) implementing progress and financing of DRR activities at the project level and comprehensively, through new integrated financial management information systems functionally where appropriate, to inform management decision-making and future resource allocation

Figure 8. Key DRR Resourcing Commitments of the Government of Tonga (Source 2021 DRF Strategy)

Portfolio of Financial Protection Instruments

A review of the Tongan financial protection landscape indicated that Tonga has at its disposal a suite of ex-ante and ex-post financial instruments that it has utilized during times of disaster[18]. These include:

International Financing Sources

- **Bilateral Support**: Tonga is highly dependent on donor support and this remains the case in the aftermath of disaster events. 'Solidarity' finance has constituted a significant portion of the funds spent during historical response, recovery, and reconstruction phases in Tonga. For instance, in the wake of Cyclone Gita, the Government of Australia contributed a response and recovery package valued at AUD 14 million. Other Governments such as, New Zealand, India, and China provided funding in the form of both humanitarian aid and general financial assistance.
- **External Credit:** Due to high national debt levels there is minimal potential for significant reliance on external credit as a means of finance for disaster risk financing.
- **Emergency Response Funding (international grants)**: Tonga has accessed emergency funding from the International Red Cross, INGOs, and a range of UN agencies following disaster events. In general, due to low population and access to other funding

Impacts of Disasters to the Government

Direct

- Emergency response and recovery expenditure;
- Reconstruction expenditure for uninsured/underinsured public infrastructure, public buildings, and often low-income housing;
- Costs of improvements of reconstructed infrastructure, as well as for relocation of at-risk population;
- Expenditure on social and economic recovery support programs;
- Realization of contingent liabilities to state-owned enterprises, to firms that are critical to economic recovery

Indirect

- Decrease tax revenue due to economic disruption and declines in GDP growth;
- Opportunity cost of diverting funds from development and social programs to disaster response and reconstruction;
- Increase domestic/international borrowing costs;
- Potential negative impact on sovereign credit rating;
- Increased expenditure for social support programs (safety nets);

Figure 9. Impacts of Disasters to Government (Source: World Bank (2014))

[18] Sourced from Lund, D (2020) Climate and Disaster Risk Financing: Tonga, Overview and Gap Analysis, Draft Report.

Impacts of Disasters to Homeowners and SMEs

Direct

- Reconstruction cost due to damage of often uninsured or underinsured assets;
- Health and other financial costs associated with human fatalities, injuries and disabilities.

Indirect

- Loss of income/livelihood due to business interruption/unemployment or loss of wage earner;
- Loss of income/livelihood due to economic decline;
- Increased borrowing costs;
- Additional expenses such as health care and paying for alternative accommodation during reconstruction.

Figure 10. Impacts of disasters to homeowners and SMEs (Source: World Bank (2014))

arrangements, Tonga has accessed lesser amounts from these mechanisms than its neighbouring PICs with higher populations.

- **Fundraising for Reconstruction (international grants):** Based on past financial trends, following disaster events, Tonga has successfully repurposed and increased development bank financing to help support reconstruction needs. However, capacity to plan, implement, and carry through reconstruction activities in order to meet objectives continues to be limited resulting in slow reconstruction rates.
- **Remittances** – Due to large diaspora populations there is an ongoing high year to year dependency on diaspora remittances (which have in the past constituted as much as 30% of Tonga's GDP), in the aftermath of disaster events. Remittances have continued to play a major role in reducing individual financial distress as well as beinga major source of business continuity support for businesses.

Ex ante Arranged Risk Transfer and Contingent Finance Arrangements

- **Asian Development Bank, Policy-Based Contingent Finance (dispersed, further agreement required)**

Impacts of disasters to the Poorest

Direct

- Reconstruction costs for damaged assets;
- Replacement of livestock.

Indirect

- Decrease in expenditure on food, accommodation, and human capital (possibly combined with higher costs for healthcare, education etc);
- Loss of social support due to breakdown in informal safety net systems such as family and community support;
- Loss of income and unemployment;
- Increased borrowing costs.

Figure 11. Impacts of disasters to the Poorest (Source: World Bank (2014)).

In 2017, Tonga entered into a policy-based concessional loan and grant contingent finance agreement with the Asian Development Bank. The financing trigger agreed was a state of emergency declaration. Following Cyclone Gita this agreement dispersed USD 6million in total (USD 3.1million Loan (1-1.5% interest rate), USD 2.9million Grant) to help fund early recovery activities. Funds were received by Tonga three days after TC Gita struck. Tonga is now paying annual interest on the USD 3.1million loan but there is potential to enter a further agreement to help provide coverage for future events.

- **Pacific Catastrophe Risk Insurance Company, Sovereign Wind Speed Product**

Tonga's annual premiums for PCRIC's Wind-speed-based parametric insurance are covered by the PREP (USD 0.5million per annum). The Tongan government makes additional small annual counterpart payments (approx. USD 80k for 2020). Tonga currently holds policies with PCRIC which covers risks emanating from earthquakes, earthquake-induced tsunami, and tropical cyclones. The maximum payout is currently USD 7.1 (split USD 5.6 million for tropical cyclone and USD 1.5 million for earthquake and earthquake-induced tsunami). For policies purchased over 2014 to 2020, Tonga received payouts totalling USD 9.3 million, while premium payments over this same period totalled USD 2.4 million. Historically, payouts were received within 10 days from the date of the event. In 2014 for TC Ian (USD 1.3 million), and TC Gita (USD 3.5 million) in 2018, Tonga received USD 4.5 million following TC Harold in 2020. Tonga, however, did not receive any payout for the damage caused by the 2022 Hunga Tonga- Hunga Ha'apai volcano eruption due to the current policy cover conditions.

Impacts of Disasters to Farmers

Direct

- Reconstruction costs for often uninsured or underinsured assets;
- Restocking/replanting /rehabilitation of productive assets such as livestock or crops

Indirect

- Loss of income for farmers and other supply chain actors due to interruption of crop/livestock production;
- Loss of income for farmers and other supply chain actors due to economic decline and or lack of access to markets;
- Increased borrowing costs;

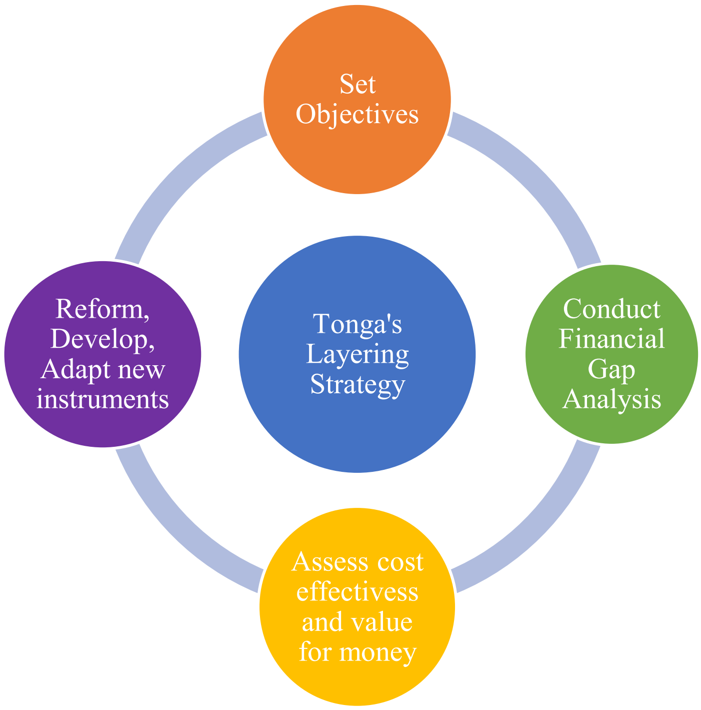
Figure 12. Impacts of Disasters to Farmers (Source: World Bank (2014)).

- **World Bank, Contingent Emergency Response Component**
  In 2015, Tonga entered into an agreement with IDA to set aside USD 0.5million for contingent emergency financing under the PREP. Tonga was the first PREP country to successfully activate the Contingent Emergency Response Component (CERC) included within the PREP. CERC activation following a disaster event requires 1) a declaration of national emergency, 2) a rapid assessment, 3) a request letter inclusive of damage assessment, action plan, draft procurement documents, approved CERC operations manual.

Nationally Driven Sources

- **National Emergency Fund**
  Tonga's National Emergency Fund was established in 2008 with a provision for the fund to be capitalized annually with 'at least 5 million Pa'anga' (approx. USD 2.2million) derived from available public budget surpluses. The National Emergency Fund is where all donor contributions and sovereign insurance payouts are held.

- **Contingency Fund**
  There is provision under the Public Financial Management Act to appropriate up to 5% of the Tonga Government budget as a contingency fund when finance is urgently needed to support public interest.



- **Post-Disaster Trust Fund**
  The Minister of Finance has the power to establish additional necessary trust accounts. Following a disaster event, the Minister has the ability to establish a specific dedicated post-disaster trust fund to support fundraising efforts.

- **Budget Reallocation**
  The Tongan Government is permitted to repurpose ministry held funds with the approval of both the relevant minister and the minister of Finance.

- **Capital Budget Realignment**
  Capital budget realignment is a further way for Tonga to re-direct existing public funds to address key post-disaster priorities and improve national risk retention.

- **Domestic Credit from National Banks**
  Reliance domestic credit is not perceived as a significant source of accessible risk finance in Tonga.

- **Domestic Taxation and other domestically derived revenue raising initiatives and levies**
  Public taxation is not an appropriate financing option in Tonga due to both economic circumstances and the high potential that in most disaster situations the majority of the population will have been directly or indirectly impacted. There is limited potential to impose revenue-raising initiatives on foreign activities such as tourism as the sector itself is highly sensitive to disaster impacts and economics.

Market-Based Risk Transfer Finance Sources

- **Property / asset indemnity insurance options –** Tonga's insurance market is small even by PIC standards. There is no national regulator in place for Tonga's insurance industry. There is minimal subscription to catastrophe insurance and the majority of infrastructure and housing in Tonga is not assured against the main perils experienced (cyclone, tsunami, flood, earthquake).

- **Public Critical Infrastructure and Property Insurance –** The Government of Tonga does not have an indemnity insurance program in place for infrastructure or property.

Risk Layering Strategy

Tonga has adopted a four (4) pronged approach to gain clarity and optimize on the most cost-effective instrument mix and sequence available in anticipation for different disaster types and magnitude.

First, Tonga will determine the risk finance objectives i.e. what type of event to cover and the type of costs that the prearranged finance will put in place.

Second, it will need to then conduct a gap analysis to compare the available funding after events of different sizes and with different needs. This will be updated annually.

Third, based on the results of the gap analysis, Tonga will assess the cost efficiency and best value for money for different instruments in its portfolio annually to ensure that the portfolio instruments remain

Figure 1. Overview of Tonga's Layering Strategy

relevant and meets the government's needs in the most cost-effective way. Tonga will then, from the annual review, decide to either reform, develop or adopt new instruments in line with its priorities.

Tonga's layering approach therefore is not static but changes in line with the DRF priorities determined by the government. Additionally, the combinations of instruments that will be pursued in the event of disasters will vary according to the type, cost[19], magnitude as well as the timing required for the finances.

Table 1. Cost and Benefits of different DRF Instruments (Source: World Bank (2014)).

Instruments	Indicative Cost (Multiplier)	Disbursement (Months)	Amounts of Funds Available
EX – POST FINANCING			
Donor Support (humanitarian support)	0 – 1	1 – 6	Uncertain
Donor support (recovery and reconstructions)	0 – 2	4 – 9	Uncertain
Budget Reallocations	1 – 2	0 – 9	Small
Domestic credit (bond issue)	1 – 2	3 – 9	Medium
External credit (emergency loans, bond issues)	1 – 2	3 – 6	Large
EX – ANTE FINANCING			
Budget contingencies	1 – 2	0 – 2	Small
Reserves	1 – 2	0 – 1	Small
Contingent debt facility (e.g. CAT DDO)	1 – 2	0 – 1	Medium
Parametric insurance	1.5 and up	1 – 2	Large
Alternative Risk Transfer (e.g. CAT bonds and weather derivatives)	1.5 and up	1 – 2	Large
Traditional (indemnity-based) insurance	1.5 and up	2 – 6	Large

Methodology

Collection of data was led by a national based consultant in Tonga, overseen by the PREP Resilient Financing Analyst of PIFS based in Suva, Fiji. Support was also rendered by a Reference Group made up of senior Resilient Advisors in PIFS and the World Bank. The research used a mixed methods approach, including a desk review of 20+ documents, key informant interviews with 20 critical stakeholders. Data was also strategically collected from specific international and regional platforms such as the Global Platform for DRR and the Resilience Learning Event and PREP knowledge sharing opportunities which were attended by DRR and development financing practitioners and specialists.

Limitations

- COVID-19 context and restrictions: COVID-19 restrictions and protocols in the region hindered field travel to Tonga as well as travel to communities.

[19] World Bank (2014) Financial protection against natural disasters. An operating framework for Disaster Risk Finance and Insurance.

- Hunga Tonga-Hunga Ha'apa'i Volcano Eruption: Tonga was devasted by a volcanic eruption which caused tsunami that destroyed most coastal communities' livelihood. At the time of the writing of this report, the Tonga government and communities were still trying to recover from the event. Recovery from the event was a top priority which could impact the quality of responses collected.
- Representatives: 20 participants participated in the in-depth interviews. Perspectives vary amongst representatives and because they only represent a small number of the Tongan population means that the findings need to be considered in tandem with other context-specific factors.
- Applicability of findings: findings from this report are intended to be of relevance to other PICs. However, as it focused specifically on Tonga, results may not be fully applicable to other PICs.

Implementation Challenges and Opportunities

The experience of Tonga to date with the implementation of the DRF Strategy has yielded some interesting lessons. A summary of the key challenges and potential opportunities for improved DRF implementation are highlighted in Table 2.

Table 2. Key Challenges and Opportunities

Key Challenges	Opportunities
The current version of the DRF Strategy is too technical and while this is understandable it is therefore not easily understood by other agencies apart from the Ministry of Finance.	• There is a need for more awareness and cross agency interaction on the objectives of the DRF Strategy. The avenue exists for increased socialization of the DRF Strategy to wide range of stakeholders such as through the MoF Week - an existing initiative where Ministries showcase what they do publicly. • Strengthen communications and advocacy of the DRF Strategy through strategic use of traditional and social media as well as partnering with media organisations and the private sector. • DRF is a living document and thus an opportunity exists for review and changes in its next iteration. • Develop a Results Framework so that the intended outcomes of the DRF Strategy are clear. • Internal peer-to-peer learning between agencies to be encouraged as part of the organizational culture. This needs to be formalised.
Securing and retaining the right human and technical capacity to implement the DRF Strategy.	• Peer-to-peer learning with other countries and regions who have advanced their DRF agendas. • Work with the Public Service Commission to review and identify opportunities for improving the ministry's recruitment process, job specification/classification and quality of work environment.

Key Challenges	Opportunities
	• Encourage and prioritize opportunities for further specialized training/learning for staff in the AMRDD. • Encourage documentation of knowledge and learning accumulated within the department including SOPs. • Pursue opportunities for funded technical assistance from development partners, and at the same time put in place appropriate knowledge management processes in the AMRDD.
Availability of robust data required for risk assessments and modelling	• Advocate for a culture of open sharing of data amongst agencies- this is linked to the increase advocacy on the objectives of the DRF Strategy and its 'value-add' across government agencies. • Need to strengthen and involve the Bureau of Statistics more in the data collation stage to ensure consistency and quality of national data related to risk assessments. • Consider reviewing and updating legislation regarding responsibilities, ownership and sharing of disaster related data amongst government agencies.
Volatility of the political economy in Tonga and change in leadership can be disruptive to Tonga's resilience agenda.	• Messaging to policy makers needs to be attuned to political realities but needs to be within existing financing frameworks. • Briefings to key Ministers such as the Minister of Finance or the Prime Minister need to have 'shock' factor in terms of statistics that are relatable and personal. • Strengthen technical capacity to advice the Minister of Finance to champion the DRF agenda of Tonga. • Fostering a learning environment within the AMRDD that will encourage lessons learned and this also involve Ministers' so that they become learning-oriented leaders that are attuned to the DRF work.
Minimal participation of the private sector in advancing the DRF agenda in Tonga.	• Develop and implement an national insurance legislation in Tonga - currently, there is none. Insurance legislation can provide the legal framework for microinsurance that promotes financial inclusion and provides affordable and scalable insurance products in Tonga. • Develop a public awareness strategy to enable targeted communications that will help socialize the DRF Strategy objectives to stakeholders including the private sector. • Peer-to-peer learning with countries such as Fiji on lessons learned in partnering with the private sector particularly the insurance and finance sectors.

Key Findings and Lessons Learned

1: There is value in developing a separate country DRF Strategy to provide clarity and directions on how to pursue a targeted and cost-efficient approach to strengthening financial protection to disasters.

There is consensus amongst the Tongan stakeholders that were consulted that the recent Tongan DRF Strategy is a first critical step in demystifying not only the financial magnitude of disasters but more importantly in providing clarity on the financial opportunities and options that are available to Tonga in the national, regional and international financial landscape to enable immediate response to disasters.

Experience in Tonga has indicated that when disasters occur multiple stakeholders advocate for their sector to be prioritized for fiscal resources, which invariably means that the Ministry of Finance faces greater pressures to appease interest groups. The Tongan DRF Strategy is therefore critical as it provides a sound and objective basis for the government to prioritize scarce resources in disaster response.

With the understanding that no one instrument will adequately cover all the risks but rather that different instruments are needed to cover different layers of risk, the DRF Strategy clearly sends a message that strengthening financial protection will require a trade-off in managing the costs and risks. This insight, according to the Tongan MoF, has helped reshape the institutional approach to financial protection to disasters from a reactive stance to a more proactive or forward-thinking approach. According to the MoF, Tonga now emphasizes, as part of its approach to pre-arranged financing instruments such as insurance, contingent credit, risk pooling etc., that it can strengthen its financial preparedness to disasters. Tonga has recognized that key to its fiscal stability and development progress is financial preparedness and risk financing solutions support this. In addition, Tonga also understands that being financially prepared is closely linked with their operational preparedness during disasters as funds needs to be distributed in a timely manner to areas where it is most needed with minimal implications to the current budget.

More importantly, as indicated by those that were consulted, having a DRF Strategy has played a critical role in elevating to the fore of Tongan's political fora the importance of strengthening financial protection particularly during 'peacetime'. This is evident in the streamlining of climate financing, disaster risk financing and official development aid through the AMRDD within the MoF to ensure that the financial vulnerabilities of the Tongan economy are effectively addressed through adequate financial mechanisms be it public or private.

Figure 13 provides an overview of the processes that Tonga used to articulate its DRF Strategy.

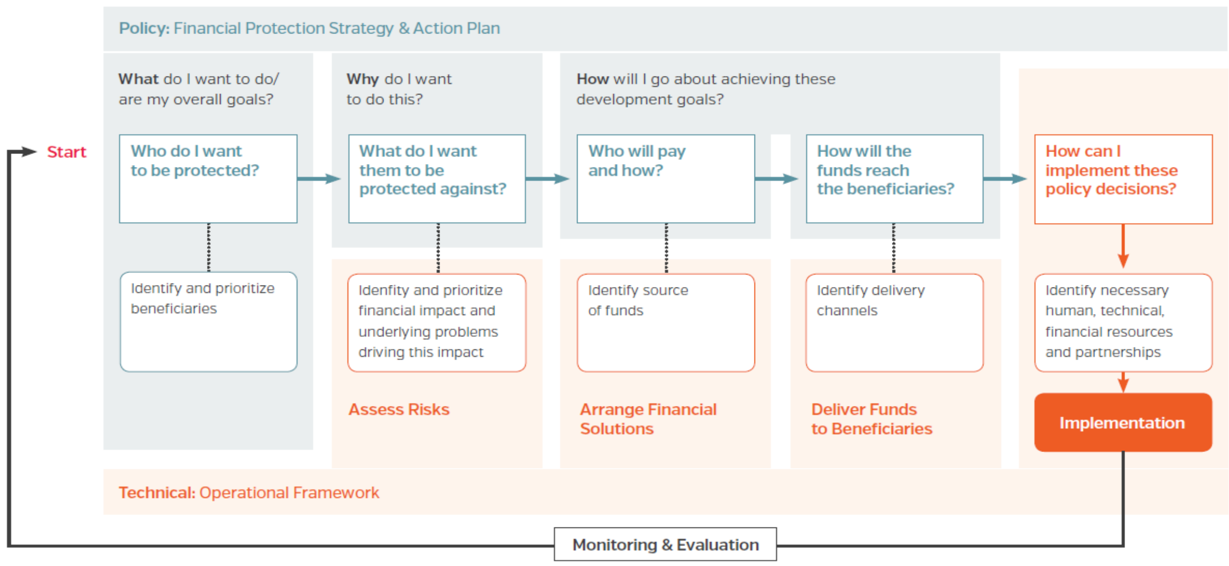


Figure 13. Overview of Guidance to Governments for Building Resilience (Source: World Bank (2014))

2: The DRF Strategy is more than just about accessing finance - it is a tool that can improve national planning and strengthen risk informed national development.

The DRF Strategy is not just a vehicle for accessing finance but plays a critical role in informing the long-term development plans for Tonga. Views shared by the stakeholders indicate that the DRF Strategy value add goes beyond just the financing 'response' phase and that it is a critical 'building block' for a more comprehensive risk management approach.

Feedback from the consultations particularly from the MoF indicates that the DRF Strategy provides an understanding from a financial perspective on how to reduce the impacts of hazard, exposure and vulnerability because it establishes a coordinated and pre-agreed post disaster plan that is backed by financial protection measures. The DRF Strategy puts into perspective that not all disasters faced by Tonga can be prevented, it therefore places onus on the government to be ready and plan on how to manage the residual risks of disasters. The impacts of the 2022 Hunga Tonga-Hunga Ha'apai eruption and tsunami has clearly highlighted the complex nature of threats and risks that Tonga now faces, and how important it is for Tonga to move away from a significant focus on post-event fundraising towards to an approach that emphasizes preparedness based on national response systems – the approach that the DRF Strategy advocates.

Another critical role of the DRF Strategy is that it can provide clarity to the Minister of Finance on the nature and scale of the impact of disasters and their relevance to financial, economic and fiscal management strategies and policies that falls under his or her purview. Given the central role of the MoF in driving the resilient development agenda of Tonga, the DRF Strategy highlights the importance of rethinking the nature of information that must be considered when planning the long-term development of the country. In supporting Tonga to plan how to manage the financial consequences of future disasters, there is an expectation that the DRF Strategy will provide key insights on the financial gaps, vulnerable sectors and stakeholders as well as the expected financial impacts of disasters to the Tongan economy as a whole. Clarity on this information is considered to be critical in the future planning and risk informing development decisions because it enables the government to strive to ensure that adequacy of financial resources are available to meet the costs of a potential range of disasters in the future. Consequently, the DRF strategy, whilst still very recent for Tonga, enables a forward-looking analysis of Tonga's risk profile (that is based on the identification and assessment of hazards, vulnerability and exposure) using the objective of deriving sensible and well-informed decision making by policy makers on how best to strengthen financial protection against disasters.

3: Multi-sectoral collaboration that is based on strong relationships and collegiality is the prerequisite to developing and implementing a holistic, sustainable and nationally owned DRF Strategy.

The cross-cutting nature of risk finance requires a holistic approach across all policy, technical and impacted sectors. The Tongan experience to date clearly indicates that the mobilization of resources needs to be integrated as part of a broader, comprehensive, and locally led effort that leverages different expertise and skills-sets that sit within the government systems as well as externally.

This collaborative design that is embedded in the Tongan DRF Strategy is reflected in its six (6) priorities where its leadership and implementation has been assigned to different government agencies and departments. The Ministry of Finance, Ministry of Meteorology, Energy, Information, Disaster Management, Environment and Climate Change and Communications (MEIDECC) and the Ministry of Internal Affairs are the primary agencies that were critical in shaping the parameters and the scope of the Tongan DRF Strategy and have also been given the task to leading its implementation.

Whilst coordination between the relevant government ministries is an ongoing challenge given their different roles and mandates within the DRM space, a key factor that has enabled Tonga to be where it is now in terms of developing and implementing its DRF Strategy is the collegial relationship these agencies, particularly the technical staff, have with each other. Conversations with key staff of the respective ministries reveal that the current working relationship amongst the agencies was not a 'given' and that it has to be worked on to the level where there is 'trust' and clarity on the bigger picture of the value-add of the DRF Strategy.

Identifying key entry points where DRF Strategy-related conversations can take place so as to strengthen the buy-in and ownership of the respective agencies was to a large extent driven by the MoF particularly the AMRDD. The key structure which was instrumental in facilitating national coordination and socializing the idea of a national DRF Strategy was through Tonga's 'cluster system'. Tonga's cluster system provides an interactive platform for engaging relevant stakeholders who have a role to play in responding to disasters and was the natural 'entry point' for inter-agency engagements on the DRF Strategy. Interestingly, other approaches that were used by the 'champions' of the DRF Strategy in MoF goes beyond just conducting formal workshops and coordination meetings, but also explored relationship building techniques that are rooted in the traditional Tonga way - which include 'kava bowl' discussions and informal social gatherings. Given the tight-knit and deep cultural values of the Tongan society, these personal and social relationship building approaches seems to be more effective in promoting collegiality amongst those that are implementing the DRF Strategy in Tonga.

4: Securing strong political support for a DRF Strategy requires political leadership that is attuned to the technical aspects of the public finance management systems (PFM).

The emergence of the Tonga DRF Strategy is within itself an indication of political attuned leadership to the realities of disaster risk to the financial resilience of Tonga. The decision to develop a DRF Strategy reflects a leadership that is serious about improving financial resilience to disasters. Without strong leadership, Tonga would be trapped in a perpetual cycle of scrambled, manic disaster responses. In other words, a DRF Strategy is the manifestation of how the Tongan leadership perceives the urgency of ensuring financial resilience and has taken the critical steps of transforming their existing governance and ways of work to accommodate these priorities as evident in the creation of the AMRDD within the MoF as well as the review of the 2007 Emergency Management Act.

Political commitment and leadership by the Minister of Finance and the Minister of MEIDECC is a critical component in the elevation of the Tongan DRF strategy to the fore of its policy landscape. Given the existing plethora of disaster risk related policies and strategies in Tonga (e.g. the Climate Change Policy, JNAP, the Tongan Strategic Roadmap, the Nationally Determined Contributions etc.), elevating the 'value-add' of the DRF Strategy and how it complements and strengthens existing policy visions requires leaders that can inspire and advocate for a shift in mindset, new ways of thinking and behavioral change in support for a strong national financial protection stance.

Discussions with the MoF that during the conceptualizing and the process of developing the DRF Strategy they indicated that securing the buy-in of the ministers of the relevant ministries such as Finance and the MEIDECC were critical in the initial inception and implementation stage of the DRF Strategy. Key to the buy-in was the existing level of institutional and technical knowledge on the ways of work of government that the policy makers had [20]. It was interesting to note that the respective Ministers that initiated and drove the DRF Strategy were former CEOs of the respective ministries that they served and were well aware of the technicalities as well as the issues at the operational level. Communicating what needed to be done at leadership level to advance the development and the advancement of the DRF Strategy was therefore regarded as 'smooth sailing' by the technical staff charged with implementing the strategy across the relevant agencies. This political leadership coupled with the technical knowledge gained from actual

[20] At the finalization of this report these two ministers no longer hold the respective portfolio due to legal issues pertaining to the election process.

experience on the ground played a critical role in building the political capital around the DRF Strategy implementation.

5: Inclusion is a must for the DRF Strategy– Adaptive Social Protection (ASP) is a non-negotiable component as it ensures that the DRF approach is 'people centered'.

Emphasis on the need for the DRF Strategy to be intentional about social protection is a priority. Disaster impacts pose the greatest risks to vulnerable communities and yet post-disaster funding support is typically not channeled directly to them. Adaptative Social Protection is thus critical as it ensures that social protection systems are designed and modified or used to channel temporary assistance to affected populations during a disaster.

Tonga has social protection systems in place. For example, in 2018, the government channeled TOP$1 million through the Social Welfare Scheme for the Elderly and the Disability Scheme - the two government's core social protection programs. A similar situation transpired after the dual shock of COVID-19 and TC Harold in 2020 where an additional one-time payment was provided through these two existing programs and to the secondary school conditional cash transfer program beneficiaries of the Skills and Employment for Tongans project.

Significant gaps, however, still exist in the current social protection systems as it was evident that only those that are already in the programs benefited whereas other vulnerable families not in the programs, could not obtain the assistance. Moreover, the scope of the management information systems of the Ministry of Internal Affairs did not adequately cover all poor households because of the stringent requirements of the programs. The general reflections of stakeholders seem to indicate that the assistance channeled to the vulnerable in communities during disasters were provided in a slow and adhoc manner and as currently there is no ASP strategy or procedures to implement such programs. Thus, the Tongan DRF Strategy has made ASP a key priority in ensuring that that social equity particularly that the resilience of poor households and the vulnerable groups in Tonga are strengthened.

The Tongan DRF Strategy has recognizes that having an ASP is an efficient way to scale up support during or after a disaster, and that the value-add of embedding it in the whole DRF approach is that of 'timing'. Responses from Tongan stakeholders particularly from humanitarian sector indicate that more often than not, when disasters strike, the decision to scale-up assistance is too late. It many cases, responses to the most vulnerable are often delayed as several needs assessments have to be carried out to verify and quantify how populations have been affected and again by appeals for funding to meet the identified needs.

The crux of the ASP in the Tongan DRF Strategy is to speed up the provision of assistance to affected communities. It is clear from the DRF Strategy and responses from stakeholders that infusing a DRF approach to ASP has helped the government begin the process of pivoting its behavior towards social protection from a 'wait and see' approach reliant on post-disaster assessment and appeal processes, towards becoming more proactive approach, with risk management and financing plans that are rapidly acted upon. Discussion with funding partners in the region also seems to suggest that as donors they do not regret acting early even if conditions improve or impact on households are not as great as anticipated because there is an acknowledgement that the human and economic benefits of early actions outweigh the cost of responses.

6: DRF solutions are only as reliable as the risk models that support them, and the latter are only as good as the data and the capacity required to develop them.

Tonga faces significant challenges when it comes to having adequate data to build and validate risk assessment models because gathering the necessary data sets requires significant investments in terms of finance, human capacity and technology. Whilst the risk models for Tonga's DRF Strategy was locally sourced, there was no or limited local capacity to assess/analyse the data, thus they were heavily dependent on the World Bank technical resources to do the modeling on their behalf. Additionally, Tonga with the support of SPC are currently collating the exposure data of public and private infrastructure assets in all the islands in Tonga.

Whilst the risks models of the DRF Strategy provides an initial understanding of the DRF solutions options that are available to Tonga, there is increasing appetite from the Ministries particularly the MoF, for a range of scenarios to be developed (instead of the two to three scenarios in the DRF Strategy) so that they can have a better understanding on the nature of investments that might be required for adequate financial protection. The recent experience from the Hunga Tonga-Hunga Ha'apai eruption and tsunami has really brought home the message for better exposure data and more importantly the capacity to analyze these data from a range of potential disaster events as it strongly influences the decisions on financial solutions and options that Tonga needs to pursue.

Akin to other developing countries, critical disaster related data including exposure data are often scattered across ministries and other organizations in Tonga. Given the lack of adequate knowledge management systems and storage technologies across the government ministries in Tonga, concerns have also been raised that most of these crucial data are kept in vulnerable formats. In Tonga, paper-based formats are still the common way of storing information in ministries.

Data sharing across government agencies is also not a common practice. Within the government, sharing information amongst different ministries is challenging and they tend to be even more reluctant to share with the external organisations for the purpose of developing risk assessment models. Data is still being seen as a source of power that is not relinquished lightly often linked with security concerns. There have also been experiences when ministries share data, they often do not see any tangible 'reward' flowing back to them for their effort as the custodian of those data.

It is therefore important to highlight the objectives and nature of risk assessments throughout relevant government agencies in order to increase awareness and appreciation on the relevance of complete and accurate information and encourage cooperation from those who are responsible for data. Agencies must be aware of the benefits of sharing their information as a means to build financial risk management strategies that may improve their own risk transfer options and capacity while enhancing the benefits to be derived from such data sharing efforts.

7: The Ministry of Finance is best placed to lead and drive the national DRF efforts of countries.

In many countries, disaster risk management has traditionally been seen as an agenda that belongs to specialized agencies such as the national disaster emergency agency, the Defense agencies or the Ministry of Environment. However, in the case of Tonga, the MoF plays a central role in advancing the country's DRM agenda using DRF as the entry point of engagement. The rationale behind involving MoF to drive the DRF agenda is because it can as a consequence inform development that is resilient to disaster and climate risks through better integration of risk considerations in public investments.

Given Tonga's vulnerability to disasters, it is a given that risk financing cuts across different government agendas and thus for DRF to be successful it needs to be anchored in the MoF. Tonga, like other countries that have an advanced approach to DRF, has opted to adopt an integrated approach to risk management and this mainly involves the establishment of specialized DRF units such as the AMRDD within the MoF. This AMRDD has been specifically tasked with the identification, disclosure and management of fiscal risks associated with disasters. The AMRDD is currently leading the DRF agenda for Tonga in partnership with agencies for respective policy areas such as MEIDECC, Ministry of Agriculture and Ministry of Internal Affairs as well as the private sector and the international/donor community.

By anchoring financial protection within the MoF, Tonga hopes to advance a comprehensive approach to its fiscal and debt risk management and more importantly allow the government to build on existing capacity in managing other liabilities including debt.

8: Awareness and more awareness – For the objectives of the DRF Strategies (financial protection) to be owned and internalized, clear, consistent and persistent messaging is critical.

The socialization of the DRF Strategy objectives is not a 'one day' event but rather a long-term effort. Conversations with the private sector indicate that most of them are not even aware of the endorsed DRF Strategy. This is understandable given that the DRF Strategy was finalized when COVID-19 occurred. It is now in the initial roll-out phase. Moving forward, it is critical the DRF Strategy objectives are communicated widely rather than just keeping it internally between the relevant agencies.

Effective communication of the DRF Strategy objectives (including the underlying risk assessments on which it is built on) is critical as it can provide significant benefits to policy makers and those in charge of planning at the national level and communities to appreciate the value add of the DRF Strategy in strengthening resilience but most importantly build and sustain public trust on vision of the strategy. Securing public trust becomes important as it provides public acceptance to decisions/measures (even extraordinary ones) that maybe made by the government when disaster hits.

For the socialization of the DRF Strategy to be effective, it needs to be consistent and persistent so that it can enable the internalization of information and facilitate change in perceptions from stakeholders. A partnership approach between government, CSOs, media outlets and private sector towards creating awareness around DRF Strategy particular on its objective in strengthening financial protection is important. Underpinning this partnership approach should be a guideline to ensure standardization of important content that needs to be highlighted so that it limits confusion and conflicting messages.

More importantly, the Tongan government needs to also seriously consider reviewing the structure and format of disaster related information that it publicly hosts on its agencies' website. Currently risk related information listed on the NEMO and MoF websites are not granular enough for it to create the necessary general awareness on risks let alone invoke actions. Consideration to invest in making information such as simplified hazard maps, the benefits of collective and individual disaster risk reduction actions, the availability and scope of DRF, risk sharing and transfer tools (including insurance) as well as event response and emergency planning for post-event will be of value to create a more 'risk informed' society for Tonga.

Importantly, clear and consistent messages to all stakeholders, including all levels of government, concerning the allocation of expected disaster costs and disaster prevention responsibilities can promote a shared understanding of roles and responsibilities and can stimulate collective actions to reduce vulnerability and exposure to the risk of both physical and financial losses from disasters.

Future Outlook

Tonga has taken the critical step to progress a strategic approach to implementing disaster risk financing solutions. Whilst its DRF Strategy is still at its initial level of implementation, key lessons learned from the process have emerged which could be useful to other PICs who are seriously considering following suit.

It is expected that, in the future, as Tonga's approach to DRF matures, they will need to invest more significantly in the elements of enabling environment that will ensure the cohesion and the integration of DRR across its agencies as well as with other stakeholders. This includes strengthening:

- Institutions, particularly the legal environment and the coordination and cooperation capabilities amongst government agencies. This is critical as these elements can either support or limit the adoption and development of DRF solutions;

- Technical capabilities of agencies which include their ability to collect, collate data, and conduct risk assessments and modeling - this is critical as these elements underscore evidence-based decision making;
- Partnership with donors and international organizations - having strong partnership with these stakeholders can allow countries like Tonga to leverage the needed technical and financial support that will enable a shift in mindset within government, particularly the MoF, towards more comprehensive fiscal risk management.
- Robust delivery mechanisms (i.e. payment systems) - this element is also quite critical as it underpins the ability of financial support during disasters to be channeled quickly and efficiently to affected populations. More importantly, concerns for fast distribution must be balanced with the need for accountability and transparency. More investments in digitizing payment systems will be needed.

Finally, DRF in general requires a shift in thinking when looking at disasters – rather than viewing disasters as unpredictable humanitarian crises, there is a need to perceive them as predictable events that can be planned for and managed to minimize impact and increase protection. Having a DRF Strategy indicates a shift from a reactive approach to addressing the fiscal impacts of disasters, to a more proactive one. More importantly, the DRF Strategy can also depoliticize the decision-making process when disasters occur as it ensures that decisions are based more on robust models and evidence. Minimizing emotional and personal bias from influencing the decision-making process can ensure the effectiveness of DRF solutions in countries

References

Aleksandrova, M. et al. (2021) World Risk Report 2021- Focus: Social Protection, ISBN 978-3-946785-12-5.

Civil Society Forum of Tonga. (2019) Localization in Tonga: Demonstrating Change, pp 1-44.

DFAT (2021) Pacific Risk Profile: Tonga, Available:

https://www.dfat.gov.au/sites/default/files/pacific-risk-profile_tonga.pdf

ESCAP (2020) The Disaster Riskscape across the Pacific Small Developing States: Key Takeaways for Stakeholders. ST/ESCAP/2880.

Government of the Kingdom of Tonga. (2022) Prime Minister confirms recovery and resilience building plan needs TOP$565.8 million, Available: https://www.gov.to/press-release/prime-minister-confirms-recovery-and-resilience-building-plan-needs-top565-8-million/

IMF (2020) Tonga. Staff Report for the 2020 Article IV Consultation and Request for Disbursement under the Rapid Credit Facility- Debt Sustainability Analysis, pp 1-22.

Lund, D. (2020) Climate and Disaster Risk Financing: Tonga, Overview and Gap Analysis, Draft Report.

Ministry of Finance- Tonga (2021) Tonga Disaster Risk Financing Strategy 2021-2025, pp 1-50.

OCED. (2015) Disaster Risk Financing: A Global Survey of Practices and Challenges, pp 1-40.

World Bank. (2014) Financial protection against natural disasters. An operating framework for Disaster Risk Finance and Insurance, pp 1-88.

World Bank (2015) Disaster Risk Finance: A Primer- Core Principles and Frameworks, pp 1-16.

World Bank. (2018) Disaster Risk Finance: A Primer- Core Principles and Operational Framework. Disaster Risk Financing & Insurance Program, pp 1-16.

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