



Tonga Making Social Protection More Responsive To Natural Disasters and Climate Change

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ACRONYMS

ADB Asian Development Bank
ALMP Active Labor Market Program
BNPL Basic Needs Poverty Line
CCA Climate Change Adaptation

CfW Cash for Work

CIA Central Intelligence Agency
CSF Civil Society Forum
CSO Civil Society Organization
DRM Disaster Risk Management
DRR Disaster Risk Reduction

DFAT Department of Foreign Affairs and Trade (Australia)

Early Warning System **EWS** Female Headed Household **FHH** Gender Based Violence **GBV GDP** Gross Domestic Product **GEC** Global Economic Crisis GoT Government of Tonga HDI Human Development Index Hyogo Framework for Action **HFA**

HIES Household Income and Expenditure Survey

ILO International Labor Organization
JFPR Japan Fund for Poverty Reduction
MDGs Millennium Development Goals

MEECCMICDMIC Ministry of Environment, Energy, Climate Change, Disaster Management,

Meteorology, Information and Communications

MIA Ministry of Interior
MFI Microfinance Institution

MFNP Ministry of Finance and National Planning
MHEWS Multi-Hazard Early Warning System
NEMO National Emergency Management Office
NRBF National Retirement Benefits Fund
ODA Official Development Assistance
NGO Non-Governmental Organization

PCRAFI Pacific Catastrophe Risk Assessment and Financing Initiative

PFIP Pacific Financial Inclusion Programme

PIC Pacific Island Country
PLWDs People Living with Disabilities
PREP Pacific Resilience Program

SP&D Social Protection and Disability (Division)
SPC Secretariat of the Pacific Community
SOPAC Applied Geoscience Commission

SPVP Social Protection of the Vulnerable in the Pacific Program

SWS Social Welfare Scheme (for the Elderly)

TDB Tongan Development Bank

TOP Tongan Pa'anga

TSSP Tongan Social Service Pilot

UN United Nations

UNCDF UN Capacity Development Fund
UNDP United Nations Development Program
UNHCR United Nations Human Rights Commission

UNICEF United Nations Children's Fund

UNOHCR United Nations Office of the Commissioner for Human Rights

USD United States Dollar

EXECUTIVE SUMMARY

This case study explores the inter-relationships of Tonga's natural hazards and climate-related risks with social protection and poverty issues. The disaster risk management (DRM), climate change adaptation (CCA) and social protection institutional frameworks and mechanisms currently in place to respond to disaster/climate-related social protection needs are analyzed. Gaps are identified and recommendations are made to further develop and strengthen the linkages between the three areas as a key element of poverty reduction strategies.

Disasters, Climate Change and Poverty

- 1. Tonga is the second most exposed country in the world to natural hazard risks and faces the third highest level of disaster risk in the world, along with a high degree of vulnerability to climate change impacts. Its location, climate and topography render the country susceptible to many natural hazards. These include both climate-related hazards (eg cyclones, floods, drought, and storm surge) and geophysical hazards (eg earthquakes, tsunamis and volcanic eruptions). Between 1980 and 2014, the country reported 11 tropical cyclones and one major earthquake/tsunami. The most recent cyclone, Cyclone Ian, occurred in January, 2014; it was a Category 5 storm, with winds over 200 kilometers per hour, the strongest ever to strike the country. A drought also was experienced in late 2014.
- 2. Tonga is also highly vulnerable to climate change impacts. It is projected that: rainfall patterns will change over this century, with the intensity and frequency of extreme rainfall days expected to increase; more very hot days will occur; and there will fewer but more intense tropical cyclones. Tonga has many low-lying coastal areas and atolls, including the main island of Tongatapu, which makes it highly vulnerable to hydro-meteorological hazards. Climate-related changes are adding pressure to fragile island systems, such as coastal erosion and saline intrusion into limited freshwater lenses. These changes are projected to negatively affect tourism, agricultural production, food security and health. This is likely to impact disproportionately on poor rural people.
- 3. High concentrations of population in vulnerable coastal areas, population growth, urbanization, physical isolation and the socio-economic challenges associated with being a small island state are key contributors to increased vulnerability to the impacts of natural hazard events and climate change. People living in coastal areas are vulnerable both to sea level rise and increases in the intensity of tropical storms and storm surges. Population growth has led to exploitation of limited land and marine resources, undermining the environmental resilience of coastal populations. The number of informal settlements in Tongatapu's urban centers (eg around Nuku'alofa) is increasing; many are located in hazard-prone areas with low quality housing. Additionally, having a small population spread out over a large area of ocean makes it challenging and costly to develop and maintain disaster/climate resilient infrastructure and systems. Many among the isolated rural and low island populations live at subsistence levels, which limit their ability to protect themselves from disaster/climate-related risks.
- **4.** Tonga's narrow economic base and heavy reliance on overseas remittances also put it at risk from external shocks. For example, the country was hard hit by the global economic slowdown of 2008, as well as food and fuel price shocks. Overseas remittances, on which many Tongan households depend, fell sharply. The effects of these shocks were compounded by the economic impacts of a tsunami in 2009 and multiple tropical cyclones between 2011-2014. Although the number of people killed in disasters is relatively low, the proportion of the population affected by disasters is significant (14.6 percent per year on average over the period 1950-2012). It is estimated that disaster damages cost Tonga an average annual loss of USD 15.5 million or 4.3 percent of its GDP. Over the next 50 years, Tonga has a 50 percent chance of experiencing a loss exceeding USD 175 million and casualties greater than 440 people. Cyclone Ian alone cost around 11 percent of GDP (USD 50 million) in 2014.

5. A sizeable number of Tongan households may be vulnerable to falling into hardship or poverty, even as a result of small shocks. Around 23 percent of Tongans lived below the basic needs poverty line (BNPL), or lived in hardship, in 2009; basic needs poverty rose by six percentage points between 2001-2009. Those most affected by poverty lived in Tongatapu (outside of the capital, Nuku'alofa) and the outer islands. A significant portion of the population also lives just above the BNPL. An event such as a natural disaster that destroys a household's home, possessions or income sources, could push many households below the poverty threshold. This can be expected to particularly impact on vulnerable groups such as women, children, youth, the elderly, and people living with disabilities (PLWD).

Institutional Frameworks for DRM, CCA and Social Protection

- 6. Tonga is the first Pacific Island Country (PIC) to develop a combined DRM and CCA policy and planning framework. This is linked to national development priorities. A new Ministry of Environment, Energy, Climate Change, Disaster Management, Meteorology, Information and Communications (MEECCMMIC) also brings together all of the key DRM and CCA responsibility centers. The JNAP process has been successful in integrating disaster and climate resilience into governmental planning and budgetary processes, but translating this into cohesive and prioritized strategic investments remains a challenge. Technical, fiduciary and institutional limitations have restricted progress in integrated programming across government. The World Bank-supported Pacific Resilience Program (PREP) aims to assist the GoT to build up its capacity to produce a strategic multi-sector investment program in disaster and climate resilience.
- 7. The National Emergency Management Office (NEMO) is the main government agency responsible for the coordination of DRM, particularly disaster response, but operates with limited human and financial resources. For this reason, NEMO works with NGO partners on DRM, including for the identification of vulnerable people. Following Cyclone Ian, the GoT adopted the UN cluster system to improve coordination of disaster preparedness and response among key stakeholders. This includes a Safety and Protection Cluster, headed by the Ministry of Internal Affairs (MIA). The country is currently developing its longer-term cluster approach, in partnership with the UN.
- 8. While the GoT has disaster contingency financing mechanisms in place, there remains a substantial risk that disaster losses will exceed the maximum amount of funds available for response in a given year. Tonga established an emergency fund in 2008, with an annual appropriation of up to a maximum of T\$5 million. Tonga also has disaster insurance coverage through the World Bank-supported Pacific Catastrophe Risk Insurance Program. Despite these laudable efforts, the total funding will likely still be insufficient to meet reconstruction and recovery needs following a major disaster event, as demonstrated by recent experience following Cyclone Ian in 2013. Tonga remains dependent on external support to finance the majority of its larger-scale disaster responses, given its limited economic prospects and high susceptibility to disaster impacts. The GoT and World Bank are currently discussing options to increase risk financing and insurance coverage as a means to further strengthen disaster response and recovery capacity.
- 9. With regard to social protection, the GoT also does not have a social protection policy or strategy, but is making progress towards addressing this. A new Social Protection and Disability (SP & D) Division has been created within the MIA in FY 2014-15, providing a central focal point for social protection for the first time. A Deputy Secretary has been appointed, with three other staff to be recruited over 2015. The Division will be responsible for: the development of policies, standards and regulations on social protection: oversight and monitoring of social assistance programs; and liaison on national emergency management and building climate resilience with vulnerable populations. The GoT expanded social insurance coverage in 2012 and introduced its first formal social assistance schemes.

- **10.** Social insurance coverage was extended from public servants to also include the private sector in July, 2012. The National Retirements Benefits Fund (NRBF) operates as a mandatory superannuation scheme for the non-government sector (eg private sector, churches, etc), in which employees and employers make matching contributions. All employers with one or more employees are liable to contribute to the NRBF. For FY 2013/14, 5,502 members were enrolled in the scheme, an increase of 27.8 percent from the previous year. A total of USD \$324,023 was paid out in retirement benefits.
- 11. The GoT introduced a new Social Welfare Scheme (SWS) for the elderly in late 2012, in recognition of the high poverty risks faced by older people. The SWS was originally targeted at those aged 75+ but the eligible age was lowered to 70+ in 2014, raising the number of eligible older persons from around 2,200 to over 3,970 older people. A monthly stipend of TOP \$65 is paid to each beneficiary, administered through the NRBF. The estimated coverage for financial year 2014-15 is approximately 60 percent (2,384) of those eligible.
- 12. The GoT also has been piloting disability and aged care services since 2012. The services include: home-based care, monitoring and referral services for vulnerable elderly people; early intervention services for children (0-3 years) born with a disability or developmental delay: and job creation for PLWDs aged 18 and over. The pilot administered through a partnership with a local NGO provided services to 151 elderly people and 55 disabled children (at March 2014) in Ha'apai and rural areas of Tongatapu. The GoT envisages gradually expanding these services through further cost-effective partnerships with NGOs. A disability pension scheme for the most severely disabled is also being planned. Tonga's disability policy includes a focus on disability-inclusive disaster preparedness.
- 13. Private overseas remittances remain the most important form of social protection in Tonga, and the GoT provides support services for migrant workers through the MIA. The country is the leading recipient of remittances relative to GDP among all the PICs, estimated at USD 61 million in 2014. Remittances are primarily used to fund household consumption, but also have been used to support post-disaster recovery. Since 2007, seasonal employment schemes in New Zealand and Australia have provided new sources of remittances to the country. The MIA coordinates and facilitates arrangements for the workers.
- 14. Traditional forms of community support also provide an important buffer against economic and social shocks, but these have been eroded by socio-economic changes in the country in recent years. This has rendered them less effective in addressing co-variate shocks, such as natural disasters or economic recession. While churches and NGOs continue to play an important role in social service provision, this situation has led the GoT to begin to put formal social protection systems in place.

Opportunities to Strengthen the Social Protection Response to Disaster and Climate Risks

- 15. Tonga's formal social protection system is at an early stage of development, and there are opportunities to build in a systematic focus on DRM and CCA. The key considerations in designing appropriate initiatives will be: to work through existing programs and systems, rather than create new structures; to integrate DRM and CCA features into the development of the SP&D Division's roles and functions; and to avoid the creation of an 'entitlement mentality' or undermining of current forms of resilience among the beneficiary households and communities.
- 16. Vulnerability to disaster and climate-related impacts can be incorporated into the country's national hardship/poverty databases and linked with disaster/climate change hazard and risk databases. Such information can be used across government to plan DRM/CCA interventions. The SP&D Division is already coordinating with the Department of Statistics to incorporate data-gathering on disaster-related vulnerability and coping mechanisms into the 2015 national census. Initiatives supported

by development partners should also make these connections. It will also be important for the MIA to have access to one unified, or linked, database on hardship/poverty and the social assistance programs currently being put in place to avoid fragmentation or duplication of programming in future.

- 17. An overarching national policy and strategic plan on social protection will be needed to guide and coordinate the different emerging streams of social assistance, as well as to develop cohesive approaches with other government agencies and civil society partners including in the areas of DRM and CCA. As the new SP&D Division establishes itself over the next few years, technical support will be required in this and other areas such as: administrative systems and procedures, program oversight; and monitoring and evaluation systems.
- 18. The development of the social protection cluster's permanent functions offers an opportunity to integrate DRM and CCA-related considerations into wider social protection programming. Since it is chaired by MIA, relationships can be built over time between the SP&D Division and other key government and civil society actors in DRM, CCA and social protection. Support to the work program of the cluster would be an option for development partners to consider, complementary to existing GoT joint DRM/CCA coordination mechanisms. Social protection technical assistance for key DRM/CCA initiatives, such as the development of the multi-sectoral disaster and climate resilience investment plan, would be a complementary way to ensure these needs are identified and addressed.
- 19. Tonga is poised to further develop and strengthen its disaster preparedness and early warning systems, including post-disaster contingency financing mechanisms, with the support of development partners. The integration of attention to the communication and protection needs of vulnerable groups will be an essential component of this work. This includes the facilitation of a robust two-way information flow to ensure that the design and implementation of these systems incorporate existing local community-based DRM and EWS structures and knowledge.
- 20. Further to this, the GoT could identify international and local development partners to help preposition responsive CfW mechanisms for vulnerable disaster-affected people. The experience of the UNDP-supported Post Cyclone Livelihoods Recovery and CfW Project following Cyclone Ian has demonstrated the potential of such programs to reach vulnerable disaster-affected households and communities, provided that they do not undermine existing local forms of community support. A successful partnership also was put in place with a local telecommunications provider, which enabled the project participants to receive their funds in a timely and less costly manner. The GoT could explore the possibilities to expand the focus of the UN Capital Development Fund-supported Pacific Financial Inclusion Programme (PFIP) to include post-disaster electronic cash transfer systems.
- 21. Over the medium-to longer-term, the GoT could investigate the potential to incorporate disaster response components into its current and emerging social assistance programs. Some countries provide rapid cash assistance for immediate relief or recovery needs to poor and vulnerable groups through existing social welfare schemes. Once Tonga's social assistance programs are sufficiently established, the development of such components could be considered. Putting in place disaster preparedness plans for social welfare schemes also would be highly desirable, in order to minimize the disruption of services to disaster-affected beneficiaries. Ways to ensure the smooth flow of private remittances to households following disasters could be investigated as well.

1. A Framework for Disaster- and Climate-Responsive Social Protection

- 1. The last decade has witnessed multiple natural disasters that have resulted in huge human and economic loss. The 2004 Asian tsunami, the 2010 earthquake in Haiti, the earthquake and tsunami in Japan in 2011, and the 2013 typhoon in the Philippines come to mind. These "headline events" have served to highlight the vulnerability of households and communities to disaster impacts, in addition to the smaller scale repeated storms, floods, droughts and other hazard events that are a regular feature of life in many countries. There also is concern that the growing impacts of climate-related change, together with rapid urbanization and poor environmental management, are contributing to increased vulnerability to natural hazards.¹
- **2.** Countries in East Asia and the Pacific region are among the worst affected in the world by natural disasters and climate change-related impacts. The Asian continent and the Pacific Island Countries (PICs) account for 30 percent of the world's landmass, but more than 50 percent of all recorded disasters and over 80 percent of all disaster-related fatalities. At the same time, 85 percent of the population affected by disasters since 1997 lives in the Asia or Pacific Region. Six of the 10 countries most vulnerable to climate change are in East Asia and the Pacific (Taiwan, Vanuatu, the Philippines, Japan, Vietnam, and the Solomon Islands),² as are six out of the 10 countries most at risk of disaster impacts (Vanuatu, the Philippines, Tonga, Solomon Islands, Cambodia, and PNG).³
- 3. Natural disasters have particularly harsh consequences for poor and near poor households because they have limited access to risk management instruments, such as insurance or savings. In the absence of effective risk management, households often resort to negative coping strategies such as selling productive assets, taking children out of school, or forgoing health care. These coping strategies can have adverse and long-term consequences for human capital, poverty, and economic development.
- **4.** While hazard events are a natural occurrence, most disasters are preventable. The large majority of adverse disaster impacts are the result of ineffective management of the risks associated with natural hazards, rather than the hazards themselves.⁴
- 5. Social protection can help build community and household resilience to natural hazards. In order to accomplish this, the social protection system needs to fulfill three core functions prevention (resilience), protection (equity) and promotion (opportunities).⁵ Social protection has a prevention role in helping to reduce the impact of shocks. It also has a protection role by preventing people and communities from falling deeper into poverty when disaster strikes. Finally, social protection has a promotion role as it can increase opportunities by promoting human capital development, access to more diverse and sustainable livelihoods, and employment. This, in turn, contributes to strengthening the capacity of households and communities to reduce the risks and impacts from future disasters.
- **6.** A disaster- and climate-responsive social protection system fulfills these functions through an integrated set of programs. Prevention may include *ex ante* security against the impacts of disaster shocks, for example via social insurance, weather-based insurance, social transfers, asset diversification

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¹ World Bank. 2013. World Development Report 2014: Risk and Opportunity. Washington, D.C.: World Bank.

² World Bank. Undated. *Building Resilience: Managing the Risks of Disasters in East Asia and the Pacific*. Washington DC: World Bank.

³ UN University-Institute for Environmental and Human Security/Alliance Development Works. 2014. *World Risk Index*. Berlin/Bonn: UNU-EHS.

⁴ World Bank. 2010. Natural Hazards, Unnatural Disasters, The Economics of Prevention. Washington D.C.: World Bank.

⁵ World Bank. 2012. Social Protection and Labor Strategy. Washington, D.C.: World Bank.

and other instruments. It may also include public works programs that build climate resistant infrastructure (eg sea walls). Protection measures aim at providing relief from disaster impacts through cash transfers, social pensions, public works programs, and other instruments. Promotion measures build capacity for response by encouraging risk diversification, enhancing incomes and assets and building skills – this also contributes to building capacity to adapt to climate change. Overall, disasterand climate-responsive social protection promotes disaster risk management (DRM) and climate change adaptation (CCA), as illustrated by Figure 1.

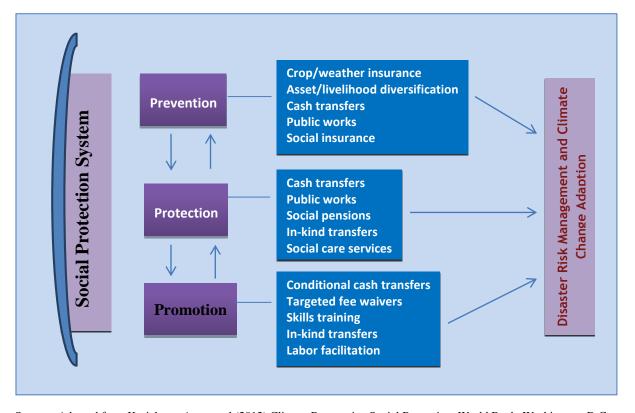


Figure 1: Disaster- and Climate-Responsive Social Protection

Source: Adapted from Kuriakose, Anne et al (2012) Climate Responsive Social Protection, World Bank, Washington, D.C.

- 7. The social protection, DRM and CCA fields have different languages and practices, but they share the common objectives of reducing risks, lessening the impacts of shocks, and building resilience to shocks (Box 1). Disaster risk management, CCA, and social protection all have a central concern with reducing vulnerability and building resilience. Social protection promotes resilience to natural hazards and other shocks among the poor through its focus on protection, prevention and promotion. Disaster risk management builds resilience to disaster shocks by focusing on preventing and mitigating the negative impacts of natural hazard events, as well as facilitating recovery from disaster impacts. Climate change adaptation focuses on reducing vulnerability to increasing disaster and socio-economic risks as a result of climate-related changes.
- 8. Social protection, as part of a multi-sector response that also includes DRM and CCA, has a role to play in reducing vulnerability to disaster- and climate-related risks. This multi-sector approach aims to reduce risk and lessen the impact of shocks faced by households and communities and, in the long term, help vulnerable populations build resilience to shocks. Integrating climate and disaster

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⁶ Kuriakose, Anne et al. 2012. Climate Responsive Social Protection. Washington, D.C.: World Bank.

risk considerations into the planning and design of social protection programs can help to prevent vulnerable households from falling into poverty or falling deeper into poverty if they are already poor.

Box 1: Social Protection, Disaster Risk Management and Climate Change Adaptation Terminology						
		Disaster Risk	Climate Change			
	Social Protection (1)	Management ⁽²⁾	Adaptation ⁽³⁾			
	Ex ante interventions that	Outright avoidance of adverse	Mitigation or intervention			
	increase resilience of the	impacts of hazards and related	to reduce the sources or			
Prevention	vulnerable by preventing or	disasters. Mitigation or	enhance the sinks of			
Prevention	reducing the impacts of shocks	lessening of adverse impacts of	greenhouse gases.			
		hazards and disasters through				
		actions taken in advance.				
	Ex post interventions that seek	Ex post provision of short-term				
Protection	to protect against destitute in	needs, sometimes called relief				
	the fact of shocks					
	Interventions that increase	Disaster risk reduction through	Adaptation or adjustment			
	opportunity by advance human	adaptation in natural or human	in natural or human			
	capital development, access to	systems, which moderates	systems in response to			
Duomodian	sustainable livelihoods, and	harm or exploits beneficial	actual or expected climatic			
Promotion	employment	opportunities	stimuli or their effects,			
			which moderates harm or			
			exploits beneficial			
			opportunities			

⁽¹⁾ Mirey Ovadiya et al. 2013 (2) UNISDR (2014) Terminology @ http://www.unisdr.org/we/inform/terminology (3) UN Framework Committee on Climate Change. 2014. http://unfccc.int/essential_background/glossary/items/3666.php

9. There has been a growing call for better integration of the three approaches. This case study explores the inter-relationships of Tonga's natural hazards and climate-related risks with social protection and poverty issues. The DRM, CCA and social protection institutional frameworks and mechanisms currently in place to respond to disaster/climate-related social protection needs are analyzed. Gaps are identified and recommendations are made to further develop and strengthen the linkages between the three areas as a key element of poverty reduction strategies. Annexes 1 and 2 summarize the literature reviewed and meetings held in Tonga to develop the case study.

2. Country Overview

10. The small size of the Kingdom of Tonga (KoT), along with its limited economic base and dependency on distant global markets, makes it highly susceptible to the impacts of external shocks. Tonga is a remote island archipelago, northeast of Australia and southwest of Fiji. It is comprised of 172 islands distributed among four island groups, of which 36 are inhabited. The islands are a mixture of volcanic, low-lying atolls, and elevated reefs. The country's total land area is 74 7 square kilometers (sq.km) and its Exclusive Economic Zone comprises 640,050 million sq. km (see Figure 2). The distances between inhabited islands are considerable.

⁷ Kanbur. 2009. Systemic Crisis and the Social Protection System: Three Proposals for World Bank Action.

⁸ GoT. 2010. Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015. Suva: SOPAC.

p. 7. ⁹ GoT. 2010. *Social Protection Issues Paper*. Nuku'alofa: Ministry of Finance and National Planning.

Tonga NIUA GROUP S Q SOUTH ACIF OCEAN TONGATAPU MISSIGNATI AUSTRALIA ZEALAND

Figure 2: Kingdom of Tonga

Source: Google Maps

- **11.** The country's population was estimated at around 105, 300 in 2013; ¹⁰ over 70 percent of its people live on the largest island, Tongatapu, around 34,000 of these in the capital city of Nuku'alofa. ¹¹ The country's annual population growth rate is 0.6 percent. ¹²
- 12. Tonga is a lower middle income country with a small economic base, which mainly relies on the services sector for its income. GDP per capita growth was 1.2 percent in 2014 and has been low over

¹⁰ World Bank. World Development Indicators. Accessed 6 March, 2015: http://data.worldbank.org/country/tonga

¹¹ UNOCHA. Tonga country profile. Accessed 22 January 2015:http://www.unocha.org/rop/about-us/about-ocha-regional/tonga

¹² World Bank. World Development Indicators. Accessed 5 March 2015: http://data.worldbank.org/country/tonga

the past decade.¹³ Services, including a large public sector, produced 57.2 percent of GDP. Tourism services are the second-largest source of the country's hard currency earnings, though only accounting for around 10 percent of GDP (2012), following remittances from citizens living overseas. Agriculture (mainly squash, vanilla, yam crops and fish) accounted for only 20.9 per cent of GDP, but is the main source of livelihoods for a large proportion of the population.¹⁴ Per capita GDP stood at USD 4,752 (2014 estimate).¹⁵ Tonga is heavily reliant on imports, which are equivalent to about 40 percent of Gross National Income (GNI), and faces a large structural trade deficit. External public debt was equivalent to 42.5 percent of GDP in 2012.¹⁶ Official development assistance (ODA) is equivalent to about 15% of GNI and has been central to GoT service delivery efforts.¹⁷

13. Development outcomes in Tonga have been relatively strong compared with other Pacific island member countries, but they are fragile. Life expectancy at birth is 72.7 years (73 for women and 67.3 for men), and the adult literacy rate is 99 percent. Extreme poverty is rare, and health and education indicators are relatively strong, due to government investments in these areas. Tonga has made good progress against most Millenium Development Goal (MDG) indicators. However, gains in poverty/hardship reduction (MDG 1) have been slower to materialize; this reflects the challenges the country faces as a small and remote island economy. These have been compounded by the impacts of economic shocks and disasters.

3. Natural Disasters, Climate Change and Poverty in Tonga

3.1 Exposure to Natural Hazards and Climate-Related Risks

14. Tonga is the second most exposed country in the world to natural hazard risks.¹⁹ Its location, climate and topography render the country susceptible to many natural hazards. These include both climate-related hazards (eg cyclones, floods, drought, and storm surge) and geophysical hazards (eg earthquakes, tsunamis and volcanic eruptions). The most frequently recurring hazard events are tropical cyclones, earthquakes/tremors, and tsunamis – along with offshore volcanic eruptions. Between 1980 and 2014, the country reported twelve natural disasters: 11 tropical cyclones and one major earthquake/tsunami (2009).²⁰ The most recent was a drought in 2014.

Figure 3: Tonga: Natural Hazard Risks: Degree of Exposure

Area of Country Affected

¹³ *Ibid*.

¹⁴ CIA. World Factbook 2014: Tonga data. Accessed 22 January, 2014: https://www.cia.gov/library/publications/the-world-factbook/geos/tn.html

¹⁵ International Monetary Fund (IMF). April 2014. *World Economic Outlook*. Accessed 22 January 2015: http://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx

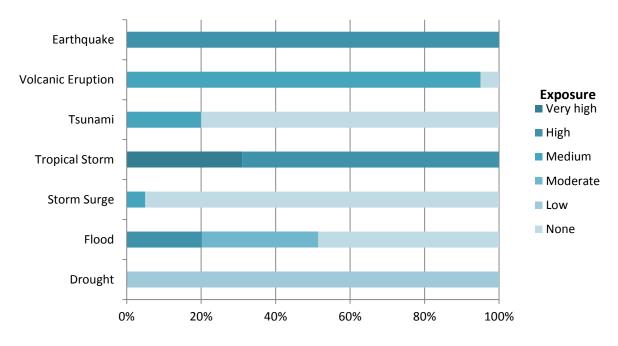
¹⁶ IMF in United Nations (UN). 2014. The State of Human Development in the Pacific: A Report on Vulnerability and Exclusion in a Time of Rapid Change. Suva: UNDP. p. 40.

¹⁷. International Development Association (IDA)/International Finance Corporation (IFC). .2010. Country Assistance Strategy for the Kingdom of Tonga 2011 to 2014. p.4

¹⁸ UNDP. 2014. Human Development Report and World Bank; 2014. World Development Report.

¹⁹ UN University-Institute for Environmental and Human Security/Alliance Development Works. 2014. *World Risk Index*. Berlin/Bonn: UNU-EHS.

²⁰Compiled from CRED:EMDAT data and PreventionWeb disaster statistics (http://preventionweb.net/english/countries/statistics/?cid=174)



Source: OCHA, 2007

- 15. Tonga is located within the Pacific region's tropical cyclone belt; cyclones occur once every year on average. Between the 1969/70 and 2009/10 seasons, the centre of 71 tropical cyclones passed within approximately 400 km of Nuku'alofa, representing an average of 17 cyclones per decade. ²¹Tropical storms and cyclones produce storm surge, flooding, and heavy seas. Tonga has many low-lying coastal areas and atolls (average altitude is 2-5 meters), including Tongatapu, which make it highly vulnerable to these hazards.²² The most recent severe cyclone occurred in January 2014: Cyclone Ian was a Category 5 system with winds over 200 kilometers per hour, the strongest storm ever to strike the country (see box 2 for details).²³
- 16. Rainfall can also be highly variable, and Tonga most commonly experiences severe drought in its southern islands. Historically, changes to storm patterns and droughts are largely associated with El Niño-Southern Oscillation events (eg major droughts of 1983, 1998, and 2006).²⁴ Tonga is currently experiencing a significant drought, following El Niño warnings throughout the Pacific region; this is impacting on agriculture and water supply in the affected areas.²⁵
- 17. The country is situated at the subduction zone of the Indian-Australian and the Pacific tectonic plates and within the Pacific 'ring of fire,' where intense seismic activities occur. It is about 200km to the west of the Tonga Trench, which also is a source of tsunamis. While major earthquakes do not occur as often as tropical cyclones, they can cause considerable destruction. For example, a major earthquake of 7.2 magnitude occurred in 1977, with the epicenter 200 km southwest of Tongatapu. There was extensive damage to houses, schools, public buildings and wharves on the Tongatapu and Eua islands. If it had occurred during the day, rather than the middle of night, the collapse of several

²¹ Pacific Climate Change Science Program Partners. 2013. Current and future climate of the Pacific Islands. Canberra: Australian Government, p 220.

²² GoT. 2010. Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015, p. 7.

²³ World Bank. 24 October, 2014. Project Appraisal Document. Pacific Resilience Program (PREP), v 4. p 2.

²⁴ The El Niño-Southern Oscillation is a natural climate pattern that occurs across the tropical Pacific Ocean, with two extreme phases: El Niño (creates drier conditions than normal) and La Niña (creates wetter conditions than normal). ²⁵ 'El Nino warning as Tonga drought continues' on *Matangi Tonga*. 21 December 2014. http://matnagitonga.to

primary schools and the Prime Minister's building in Nukuu'alofa likely would have resulted in a considerable loss of life. ²⁶ When an earthquake generates a tsunami, this also can have disastrous results in Tonga's coastal and low-lying areas, as Box 2 illustrates.

Box 2: Small Island, Big Impact

The very remote and isolated island of Niuatoputapu, in the far north of Tonga, was struck by a series of three tsunami waves on 30 September 2009. This followed an 8.3 magnitude earthquake that occurred 190 km northeast of the island (the Samoa earthquake and tsunami). The flow height of the waves reached a maximum of 16.9 meters; they penetrated up to 1 km inland, inundating as much as 46 percent of the island.

Although Niuatoputapu only has 1,100 residents, the impact on these people was devastating. Nine people died. Over 55 percent (141) of homes were destroyed or heavily damaged, the island's water and sanitation system was completely destroyed, and most public buildings and utilities were beyond repair. The livelihoods of the population, who are estimated to have among the lowest incomes in Tonga, were severely affected as well.

The overall damage bill was approximately US \$10 million (3.1 percent of GDP), but this only partially reflects the magnitude of impacts that the communities of small and remote island nations can experience as a consequence of a disaster.



Sources: World Bank, 27 June 2014; World Bank, 2009; World Bank, undated (b); image: 18 October 2009: http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=40875

18. Tonga is highly susceptible to climate change impacts. The sea level near Tonga has risen by over 6 mm per year since 1993, more than the global average of 2.8-3.6 mm per year. Surface air and sea

²⁶ Campbell M D *et al.* 'The Tonga Earthquake of 23 June, 1977 Some Initial Observations' in *Bulletin of the New Zealand National Society for Earthquake Engineering*, Vol 10, No 4, December 1977.

temperatures also have been rising.²⁷ It is projected that: rainfall patterns will change over this century, with the intensity and frequency of extreme rainfall days expected to increase; more very hot days will occur; and there will fewer - but more intense – tropical cyclones.²⁸ Ocean acidification in Tonga's water also has been increasing over time and poses a threat to the country's coral reef ecosystems. Overall, climate-related changes are adding pressure to fragile island systems, such as coastal erosion and saline intrusion into limited freshwater lenses.

3.2 Vulnerability to Disaster- and Climate Change

- 19. Tonga faces the third highest level of disaster risk in the world,²⁹ along with a high degree of vulnerability to climate change impacts. High concentrations of population in vulnerable coastal areas, population growth, urbanization, physical isolation and the socio-economic challenges associated with being a small island state are key contributors to increased vulnerability to the impacts of natural hazard events and climate change.
- **20.** Population pockets in coastal areas are vulnerable both to sea level rise and increases in the intensity of tropical storms and storm surges. This exposes the local residents to the risks of flooding, wind damage and erosion. The GoT has recorded losses of village lands, buildings and coastal roads in several communities; for instance, from south of Ha'atafu to Kolovai, along the eastern coast of Tongatapu, coastal erosion has affected a 2.2km stretch, with an average penetration of 100m from the shoreline.³⁰
- 21. Population growth has led to exploitation of very limited land and marine resources, undermining the environmental resilience of coastal populations to climate-related impacts and disaster risks. While population growth rates have declined from a high of around 3.6 percent in the 1950s to the current rate of 0.6 percent, the overall size of the population has increased over time. This has created increased competition for a small resource base, including land, and has led to the increased denudation of mangroves and coastal trees. Livelihoods pressures also have contributed to practices such as live coral removal, illegal mining of beach sands and sand dredging of off-shore sand dunes for construction purposes. 32
- **22.** The growth of informal settlements in the urban centers of Tongatapu is increasing the vulnerability of these areas to natural hazard and climate-related events. The country's annual urban growth rate is estimated at 0.8 percent over 2010-15;³³ over 30 percent of the population reside in urban areas, of which 77 percent live in the capital.³⁴ With the demand for land and housing outstripping the capacity of Nuku'alofa/Tongatapu to accommodate it, many lower income migrants from rural areas find themselves in informal settlements on reclaimed swampland.³⁵ The quality of housing and access to basic services is low, which further compounds their risks.
- 23. Having a small population spread out over a large area of ocean makes it challenging and costly to develop and maintain DRR/CCA infrastructure and systems. The isolation of rural and low

³³ UN Data. Accessed 22 January 2015. https://data.un.org/CountryProfile.aspx?crName=Tonga

²⁷ Pacific Climate Change Science Program Partners. 2013. *Current and future climate of the Pacific Islands*. p 216. Note: this may be partly related to natural fluctuations, combined with climate-related impacts.

²⁸ Ibid.

²⁹ United Nations University-Institute for Environmental and Human Security/Alliance Development Works. 2014. *World Risk Index*. Berlin/Bonn: UNU-EHS.

³⁰ GoT . 2010. Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015. p.13.

³¹ *Ibid*. p. 9.

³² *Ibid*.

³⁴ ADB. 2013. Tonga: Economic update and outlook 2012. Mandaluyong City, Philippines: Asian Development Bank. P.24.

³⁵ GoT. 2010. Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015.

island populations has contributed to socio-economic disparities; many live at subsistence levels; this limits their ability to protect themselves from disaster and climate-related risks. The challenges and costs of communication and logistics also make disaster response more difficult.

3.3 Relationship of Natural Disaster and Climate-Related Risks to Poverty

24. Tonga's economy is highly vulnerable to external shocks, including natural disasters. Because of its small and widely dispersed population, narrow economic base and heavy reliance on overseas remittances, Tonga has been categorized as one of fifty-one Small Island Developing States that is vulnerable to exogenous shocks.³⁶ The country was hard hit by the global economic crisis (GEC) of 2008, as well as food and fuel price shocks.³⁷ Overseas remittances, on which many Tongan households depend, fell sharply. The effects of these shocks were compounded by the economic impacts of the 2009 earthquake/tsunami and multiple tropical cyclones between 2011-2014. Cyclone Ian alone cost the country around USD 50 million or 11 percent of its GDP in 2014 (see box 3).

Box 3: A Costly Disaster

Tropical Cyclone Ian, a Category 5 system, was the strongest storm to hit Tonga in recorded history. The cyclone made landfall in the Ha'apai island group on January 11, 2014, killing one person and affecting some 5,500. The housing sector was particularly affected, with nearly a thousand houses and public buildings—or about 75 percent of Ha'apai's housing stock—destroyed or severely damaged. The livelihoods of many of those affected were significantly compromised, including crop losses, and economic activity was disrupted. The overall estimated cost of the disaster was approximately USD 50 million, equivalent to around 11 percent of Tonga's GDP.

Sources: CRED:EM-DAT 2014; USAID, 2014; and World Bank, 2014.

25. Around 23 percent of Tongans lived below the basic needs poverty line (BNPL), or lived in hardship, in 2009 - and basic needs poverty rose by six percentage points between 2001-2009.³⁸ Those most affected by poverty lived in Tongatapu, outside of Nuku'alofa (50.1% of total population of the poor), and the outer islands (29.1% of total population of the poor).³⁹ The depth of poverty also has increased over time, as revealed in poverty gap analysis conducted as part of the 2009 Household Income and Expenditure Survey (HIES). Poor households were more commonly characterized by: number of children (average of three), elderly headed (aged 60 and above) and female-headed (see Figure 4).^{40 41} An estimated 33 percent of children lived in poverty and 27 percent were vulnerable or very vulnerable to falling into poverty.⁴²

Figure 4: Poverty Incidence of Households and Population by Region, 2009

³⁶ Ibid.

³⁷ IDA/IFC. 2010. Country Assistance Strategy for the Kingdom of Tonga 2011 to 2014. Washington DC: World Bank.

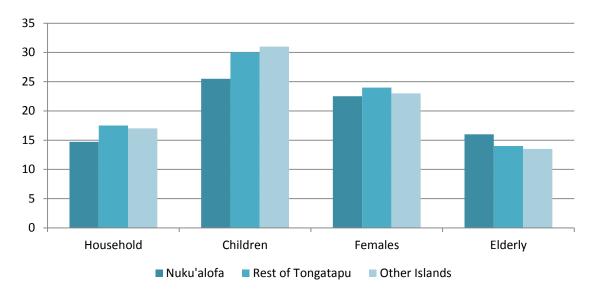
³⁸ KoT. 2011. *Tonga Strategic Development Framework*, 2011-2014. Nukuu'alofa: Ministry of Finance and National Planning (MFNP). p. 38. <u>Note</u>: this is a revised estimate from the original 2009 HIES.

³⁹ GoT. 2010. Social Protection Issues Paper. p. 5.

⁴⁰ Ibid.

⁴¹ The GoT defines basic needs poverty as: 'an inadequate level of sustainable human development, manifested by a lack of access to basic services; a lack of opportunities to participate fully in the socioeconomic life of the community; and a lack of adequate resources (including cash) to meet the basic needs of the household or customary obligations to the extended family, village community and/or the church' in KoT. 2010. *Second National Millenium Development Goals Report Tonga*. September, 2010. Nukuu'alofa: MFNP. p. 2.

⁴² UN. 2014. The State of Human Development in the Pacific. p. 57.



Source: Government of Tonga

- **26. Tonga's high, and growing, level of vulnerability to natural disasters carries a significant human and economic cost.** Although the number of people killed in disasters is comparatively low, the proportion of the population affected by disasters is significant (14.6 percent per year on average over the period 1950-2012⁴³). It is estimated that disaster damages cost Tonga an average annual loss of USD 15.5 million or 4.3 percent of its GDP. ⁴⁴ Over the next 50 years, Tonga has a 50 percent chance of experiencing a loss exceeding USD 175 million and casualties greater than 440 people, and a 10 percent chance of a loss exceeding USD 430 million and casualties greater than 1,700 people. ⁴⁵
- 27. Climate-related changes are projected to negatively affect agricultural crop production, fish catch sizes, and food security. This is likely to impact disproportionately on poor rural people, who earn their livelihoods mainly in these areas. Tourism is expected to decline with soil erosion or inundation of coastal beach resorts. The availability of fresh drinking water in low-lying areas may be reduced and the incidence of waterborne/vector-based diseases increased. Overall, disaster and climate-related impacts can be expected to continue to erode the gains of Tonga's development.
- **28.** A much greater number of households may be vulnerable to falling into poverty in future, even as a result of small shocks. A significant portion of the population lives just above the BNPL. An event such as the death of the main family breadwinner, or a natural disaster that destroys a household's home, possessions or source of income, could readily push many households below the poverty threshold. ⁴⁷ A lack of government social safety nets, and the erosion of traditional community coping mechanisms, will exacerbate the impacts of shocks especially on vulnerable groups such as: female headed households (FHH), children, youth, the elderly, people living with disabilities (PLWDs), and people living on outer islands or in rural areas of Tongatapu.

⁴³ Asian Development Bank (ADB), 2013. Economics of Climate Change in the Pacific. Manila: ADB, p. 38.

⁴⁴ World Bank. ²⁴ October, 2014. Project Appraisal Document. Pacific Resilience Program (PREP), v 4. p 2.

⁴⁵ SPC-SOPAC. September 2011. Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI): Country Risk Profile: Tonga. Suva: SPC-SOPAC. p. 1.

⁴⁶ GoT. 2010. Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015.

⁴⁷ GoT. 2010. Social Protection Issues Paper. p. 7-

- 29. Socially disadvantaged groups, many of whom live in or near poverty, usually have specific vulnerabilities to disaster and climate-related impacts; this increases their susceptibility to poverty or increased hardship. For example, many elderly in the Pacific depend to a large extent on subsistence agriculture. Climate change is likely to affect them more than some other population groups, as traditional work opportunities in farming and fishing diminish and younger generations opt to migrate. Additionally, as more elderly people are left behind to care for their grandchildren, and there are fewer able-bodied young people left to undertake work in the community, vulnerability may be further increased, ie the ability of older people to protect both themselves and these children from disaster impacts may be limited. This is significant, as the proportion of people over 60 in Tonga is expected to grow from 8.2 percent in 2010 to around 13 percent by 2050. The number of very old is expected to double, from 3.7 percent in 2010 to 6.6 percent by 2050.
- **30.** Female-headed households, and female household members, are vulnerable to a range of economic and social impacts. Women play an important role in household livelihoods and food security strategies in Tonga as well as the care of the young, sick, elderly and disabled during emergency response and recovery processes but they can be excluded from the decision-making processes around DRM and CCA. In the aftermath of disasters, existing gender inequalities often lead to increased rates of domestic or gender-based violence (GBV), unequal access to humanitarian assistance, loss of economic opportunities and/or an increased workload (see Box 4). Tonga's overall progress on MDG 3 has been mixed, due to slow progress on women's economic and political participation, and an estimated 40 percent of women have experienced violence in their lifetime. St
- 31. Tonga's PLWDs face mobility and/or other constraints that may affect their safety and wellbeing, both during and after a disaster. They are often entirely dependent on their families for support and face considerable stigma; if not adequately included in disaster preparedness planning, early warning systems (EWS) can miss them. Loss of a caregiver, or poorly designed (inaccessible) or discriminatory livelihoods assistance, can adversely affect them as can increases in the rate of domestic violence. PLWDs comprise around eight percent of Tonga's population (9,007: 4,198 male; 4,809). As the population ages, and non-communicable diseases become more prevalent among children (Tonga faces a large and growing health care burden in this area), the proportion of PLWDs is likely to rise. 52
- **32. Youth constitute another group in Tonga that is highly vulnerable to disaster shocks.** Youth unemployment in Tonga accounted for 43 percent of total unemployment in 2009. This situation reflects issues of access to land, the structure of education, and limited labor markets. For young women, it is compounded by traditional social views that associate the roles of women more with the home than the formal workforce. ⁵³ This means that many youth have few reserves to deal with the negative economic impacts of a disaster. Regarding younger children, in addition to the potential economic impacts of disaster- and climate-related changes on their nutrition, health and education, they also face increased post-disaster risks of abuse or violence; for example, eight percent of children in Tonga have experienced sexual abuse before the age of 15.⁵⁴

⁴⁸ Hayes, Geoffrey. 2009. *Population ageing in the Pacific: a situation analysis*. Suva: UNFPA.

⁴⁹ GoT. 2010. Social Protection Issues Paper.

⁵⁰ World Bank. 2012. Gender and Disaster Risk Management: Guidance Note 5: Integrating Gender Issues into Reconstruction and Recovery Planning. Washington DC: World Bank.

⁵¹ UN. 2014. The State of Human Development in the Pacific. p. 79.

⁵² GoT. 2010. Social Protection Issues Paper. p. 12.

⁵³ *Ibid*. pp. 10-11.

⁵⁴ Jansen in UN. 2014. The State of Human Development in the Pacific. p. 62.

Box 4: Cyclone Ian: Safety and Protection Assessment

The GoT undertook its first post-disaster *Safety and Protection Assessment* over January-February 2014, following Cyclone Ian. The assessment was carried out by the MIA, in partnership with OHCHR and UNHCR, under the auspices of the Safety and Protection Cluster. It focused on the humanitarian relief stage of the disaster response.

The assessment team found that the GoT and the affected communities in Ha'apai had generally performed well on social protection during relief operations, with only a few exceptions. Informal social protection mechanisms had generally worked to avoid much of the death and suffering experienced by socially marginalized groups in some other countries. Local family or community members made provision for the evacuation of vulnerable PLWDS and elderly people with mobility constraints and ensured that relief supplies were delivered to them.

Some of the main exceptions were: FHHs missed out on emergency tent distributions; provisions were not made to assist people with mobility constraints to cope with discomforts caused by the heat in evacuation centers, to provide adult diapers for those who needed them, or to replace mobility aids. Additionally, provisions were not made for the increased and heavy post-disaster care burdens faced by caregivers. The team further noted a lack of awareness of social protection needs among some government and NGO responders, and a socio-cultural reticence to discuss GBV or domestic violence-related issues.

The assessment recommended: training for police and health workers in Ha'apai on social protection issues; engaging and training existing village committees to monitor social protection issues; and investigation of the potential to develop some form of referral services for those in need.

Source: GoT/UOHCR/UNHCR. 2014. Safety and Protection Assessment TC Ian – Ha'apai, Tonga. Nuku'alofa: GoT.

4. Institutional Framework for DRM and CCA

4.1 Global and Regional

33. Tonga is a signatory to key global and regional agreements on DRM and CCA. The GoT committed to the core international agreement on DRR/DRM: Hyogo Framework for Action (HFA)
2005-15: Building the Resilience of Nations and Communities to Disasters in 2005; it is currently engaged in global consultations on the development of a post-2015 DRR framework, 'HFA2,' to be finalized in March, 2015. Tonga has signed the Kyoto Protocol and other key international climate change agreements and conventions. The GoT also is a signatory to the Pacific Islands Framework for Action on Climate Change 2006-2015 and the Pacific Islands DRR and DRM Framework for Action 2005-2015. These strategies are linked to the HFA and the 2005 Mauritius Strategy for small island developing states.

34. The Pacific Island Countries, including Tonga, may become the first region in the world with an integrated plan for DRM and CCA. In 2011, the Pacific DRM and CCA communities agreed to

⁵⁵ The HFA was formulated and adopted by 168 governments at the World Conference on Disaster Reduction held in Kobe, Japan in 2005. Its purpose relates to building the resilience of nations and communities to disasters and reducing vulnerabilities and risks to hazards. It aims include: (a) effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels – disaster prevention, mitigation, preparedness and vulnerability reduction; (b) development and strengthening of DRR/DRM institutions, mechanisms and capacities at all levels; and (c) systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programs in the reconstruction of affected communities.

combine efforts to develop an integrated strategy for the successors to the existing regional DRM and CCA frameworks. Consultations on the plan have been held over 2103-14, and it is expected to be endorsed at the next Pacific Islands Forum leaders' meeting in September, 2015.

4.2 National

Policy, Planning and Coordination

- 35. Tonga leads the Pacific Islands Countries, as the first nation to develop a combined DRM and CCA policy and planning framework. The GoT has formally recognized the significant detrimental impacts of climate change and disaster risks to sustainable development and identified these issues as high priorities in its National Strategic Planning Framework, 2009–2014. The Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015 (JNAP) was developed to ensure that these priorities are addressed. The Action Plan identifies six priority DRM/CCA objectives, specific actions to implement them, budget estimates, a funding strategy and roles/responsibilities for stakeholders. The GoT has developed a concept note for a second JNAP to succeed the current plan when it expires in 2015.
- 36. A new Ministry of Environment, Energy, Climate Change, Disaster Management, Meteorology, Information and Communications (MEECCMMIC) also was formally established in financial year 2014-15, which brings together all of the key DRM and CCA responsibility centers. The JNAP oversight structures within MEECCMIC include: a National Environment and Climate Change Coordinating Committee (NECCC) and a National Emergency Management Committee (NEMC). The latter is responsible for coordination and oversight of national emergency responses, as prescribed under the Emergency Management Act 2007 (EMA). A JNAP Task Force, comprised of DRM and CCA representatives, and established as a Cabinet sub-committee, has responsibility for overall operational/technical leadership and guidance for JNAP implementation (Annex 3: JNAP stakeholder roles and coordination structures). Some of these structures may be subject to change in future, as they were created prior to the merger of DRM and CCA overall management into a single ministry.
- 37. The NEMO is the main government agency responsible for the coordination of DRM, particularly disaster response, but operates with very limited human and financial resources. Its role is mandated under the EMA, and related National Emergency Management Plan, and includes coordination of the NEMC. However, the office previously located within the Ministry of Infrastructure has only four national staff to cover five widely spread out districts and multiple islands. For this reason, NEMO relies on its two main NGO partners (Caritas and the Tongan Red Cross) to assist it with disaster preparedness and response in three out of the five regions, including the identification of vulnerable people. Several NGO partners assist with community disaster preparedness, often with the financial support of development partners, but a key challenge has been sustaining these initiatives.
- 38. The GoT also has adopted the UN cluster system approach to improve the coordination of disaster preparedness and response between key line ministries and between the government and other national and international stakeholders. Following Cyclone Ian, a number of clusters were put in place, including: Health, Food Security, Livelihoods, Shelter, WASH (water, sanitation and hygiene), and Safety and Protection. The latter was headed by MIA, working in partnership with the United Nations Office of the High Commissioner for Human Rights (OHCHR) and the United Nations

Humans Right Commission (UNHCR).⁵⁶ Tonga's longer-term cluster system approach is currently being developed.

39. Multi-hazard early warning systems (MHEWS) are still under development. The NEMO has reasonable coordination with Tonga's Meteorological Department and the Natural Resources Department (seismology area) of the Ministry of Lands and Natural Resources on EWS. Additional work is needed to strengthen capacity and operational relationships in MHEWS and disaster preparedness among these agencies. The PREP will provide assistance to the GoT on MHEWS and disaster preparedness, including a focus on service delivery to the community level and vulnerable groups. There appears to be a need to better link existing community-based DRM (CBDRM) structures and practices with this more technologically driven program (ie beyond one-way community feedback mechanisms on pre-designed options), in order to fully inform its risk and vulnerability assessments and EWS development. This is especially important for designing the critical 'last mile' of the MHEWS, where robust two-way information flows between service providers and communities have been found to be a factor in success.

Post-Disaster DRM Mechanisms to Protect the Vulnerable

- **40.** Tonga has recent experience with the use of cash for work (CfW) mechanisms to support the recovery of vulnerable disaster-affected households and communities. Following Cyclone Ian, UNDP partnered with the MIA and the Ministry of Agriculture, Fisheries and Forestry to undertake a Post Cyclone Livelihoods Recovery and Cash for Work Project in three locations in the Ha'apai Group (Lifuja, Foa and 'Uiha). The project provided temporary CfW income to disaster affected families to cover immediate financial needs and to accelerate the recovery of traditional livelihoods, such as agriculture and handicrafts (an important source of revenue in Tonga). Some of the main activities were: debris clearance, including a focus on elderly-headed households; recycling salvageable material to build fences for livestock; and clearing and planting public land for livelihoods groups to grow vegetables. A total of 73 livelihoods groups, comprised of 10 members, were formed (31 headed by men; 42 headed by women) and an estimated 4,441 individuals benefited from the fencing and vegetable farms; 626 participated in debris clearance.⁵⁷
- **41.** A successful partnership was put in place with Digicel Tonga, a local telecommunications provider, which enabled the program participants to receive their funds in a timely, efficient and less costly manner. Digicel provided mobile money services with zero withdrawal fees, mobile phones, SIM cards, and data enabled handsets to the CfW participants. This was especially targeted at the most vulnerable, such as: single mothers, the elderly and PLWD. The CfW participants also had access to Digicel's agent network, which included the Tonga Development Bank (TDB). Each person was paid for 20 days of labor at TOP \$7.50/day (TOP 150/person). A total of TOP \$403, 050 was paid out over at least 1, 349 transactions.⁵⁸ This experience demonstrates the potential both to utilize CfW mechanisms and Tonga's telecommunications services to provide social protection to vulnerable people affected by disasters and other crises.

⁵⁶ UN Office for the Coordination of Humanitarian Assistance. Accessed 9 March, 2015. 'The Pacific, Tonga': http://www.unocha.org/rop/about-us/about-ocha-regional/tonga.

⁵⁷ UNDP. October, 2014. 'Fast Facts: Post Cyclone Livelihoods Recovery and Cash-for-Work,' Suva: UNDP. p. 1

⁵⁸ *Ibid*, pp. 1-2; and UNDP. 29 May, 2014. 'UNDP and Digicel partner on cash-for-work in Ha'apai:' http://www.fj.undp.org/content/fiji/en/home/presscenter/pressreleases/2014/05/29/undp-and-digicel-partner-on-cash-for-work-in-ha-apai.html

Financing of DRM and CCA

- **42.** The JNAP process has been successful in integrating disaster and climate resilience into governmental planning and budgetary processes, but translating this into cohesive and prioritized strategic investments remains a challenge. Tonga's 2014-15 budget clearly identifies both government and donor planned developmental expenditure and activity on climate change and related environmental programming, down to the regional level. At the same time, the extent of planned investment by line ministries (other than MEECCMIC) in these areas, as well as GoT investment in disaster preparedness and response, is hard to discern; there also appears to be some fragmentation of programming, in part due to a project orientation of donors. Technical, fiduciary and institutional limitations have restricted progress in integrated programming across government.⁵⁹
- **43.** There remains a high dependency on external donor support for CCA and DRM programming and institutional capacity development. For example, the donor component of the 2014-15 CCA/environmental/cultural budget is TOP\$ 37.06 million, while the government contribution is TOP\$ 4.8 million. The GoT has set up a Climate Change Trust Fund, with ADB assistance, to provide sustainable support to communities to implement CCA and disaster risk resilience projects; it also hopes to access Green Climate Fund resources. Given the economic context of Tonga, there is likely to remain a need for substantial external assistance for the foreseeable future.
- 44. The World Bank-supported Pacific Resilience Program (PREP) will include assistance to the GoT to build up its capacity to produce a strategic multi-sector investment program in disaster and climate resilience. The program will be based on existing plans, such as the JNAP and the National Infrastructure Investment Plan 2013-2023, as well as creating synergies with the country's Strategic Program for Climate Resilience. This is expected to address the issue of fragmentation of initiatives and provide the GoT with further access to development partner DRM/CCA funding. The ADB also is supporting a major climate resilience program in Tonga that includes strengthening planning and investment in this area.
- **45.** The GoT has also put disaster contingency financing mechanisms in place. Tonga established an emergency fund in 2008, with an annual appropriation of up to a maximum of ToP \$5 million in any fiscal year. The fund is able to accrue, and the monies are used exclusively for the purpose of providing timely and efficient relief and recovery following an emergency. Tonga also has disaster insurance coverage through the World Bank-supported pilot Pacific Catastrophe Risk Insurance Program (2012-2016), underwritten by the Government of Japan. It was the first PIC to receive a payout, following Cyclone Ian in 2014 (USD \$1.27 million). This insurance coverage will continue for three more years under PREP.
- **46.** Despite these laudable initiatives, post-disaster damage and losses are likely to continue to exceed the GoT's financial capacity to respond. The recent experience of Cyclone Ian illustrates this financing gap (see Box 5). The World Bank and the SPC estimate that Tonga will experience an average of TOP \$28.2 million in losses per disaster event per year, as a result of tropical storms and earthquakes alone. ⁶³ The GoT has the ability to raise a maximum of TOP \$ 21.5 million per year for disaster response from its combined sources, leading to a substantial relief and recovery financing gap

⁵⁹ World Bank. 24 October., 2014. Project Appraisal Document on Proposed IDA Grants and Credits in Support of Four Projects Under a Series of Operations: Pacific Resilience Program, version 4. Washington DC: World Bank.

⁶⁰ GoT. 2014. Budget Statement 2014/2015. May, 2014. MFNP. p. 5.

⁶¹ World Bank. 8 May, 2014. Project Appraisal Document: Pacific Resilience Program.

⁶² The funds were primarily used to pay the costs of transport of food and water (relief assistance) to these remote islands.

⁶³ World Bank/SPC. February, 2015. Country Note: Tonga Disaster Risk Financing and Insurance. Washington DC: World Bank. p. 12.

when a significant disaster event occurs.⁶⁴ This situation reflects the vulnerability of a small island nation with a limited economic resource base, and high susceptibility to disaster impacts. The GoT and the World Bank are discussing possible options to improve disaster risk financing and insurance coverage under PREP.

Box 5: Cyclone Ian: Financing Gap

In the month immediately following Cyclone Ian, the GoT received TOP\$ 1.5 million (USD\$ 1.4 million) in cash donations from development partners, the private sector and several other sources to support its relief efforts. These funds were channeled through a *Cyclone Ian Relief Account* established specifically for the disaster response and were additional to in-kind assistance received.

A *Tropical Cyclone Ian Response Plan* was developed to meet the estimated TOP \$90.2 million (USD \$50.3 million) of post-cyclone rehabilitation and recovery needs. At March 2014, a total of TOP \$25.7 million had been committed to implementing the plan by development partners and the GoT, leaving a shortfall of around TOP \$64.5 million. Some donors were still realigning their existing development priorities to help fill some of the gaps in coverage, but it is unlikely that Tonga's rehabilitation and recovery needs will be fully met. This is a common experience in many lower-income countries.

Source: World Bank/SPC. February 2015. p. 12.

5. Institutional Framework for Social Protection

- **47.** While the GoT does not have a policy on poverty reduction, it has committed to combating basic needs poverty and to providing employment in particular for youth.⁶⁵ This is evident both through its MDG progress reporting and annual budgetary statements.
- **48.** The GoT also does not have a social protection policy or strategy, but is making progress towards addressing this. The 2014-15 budget specifically refers to the need to develop clear policy-based, and financially affordable social protection schemes to support vulnerable groups; it recognizes social protection programming "as a powerful tool in the battle against poverty and inequality," as well as "an important instrument for the pursuit of many of the MDGs." The GoT introduced its first formal social assistance schemes and expanded its social insurance coverage in 2012. Ongoing programs in other ministries offer: skills development and training opportunities to unemployed youth, rural livelihoods initiatives, and support to health and education services to make them more accessible and affordable.
- **49.** A new Social Protection and Disability (SP&D) Division has been created within the MIA in FY 2014-15, providing a central focal point for social protection for the first time. Up until now, this role has been shared by different ministries with little coordination. A Deputy Secretary for Social Protection has been appointed, with three other staff to be recruited over 2015. The Division, once established, will be responsible for the development of policies, standards and regulations on social protection. It also will be responsible for the oversight and quality assurance of government, NGO and CSO entities providing social assistance to vulnerable populations. Moreover, it will play the key

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⁶⁴ This figure has been calculated based on the GoT's contingency budget for FY 2013-14, maximum annual appropriation into its emergency fund, and aggregate coverage limit from the PCRAFI pilot insurance scheme.

⁶⁵ For example: GoT. September 2010. Second National Millenium Development Goals Report. Nuku'alofa: Ministry of Finance and Economic Planning; GoT. 2014. Budget Statement 2014/2015. May, 2014.

⁶⁶ GoT. 2014. Budget Statement 2014/2015. May, 2014. p. 78.

government liaison role for national emergency management and building climate resilience with vulnerable populations.⁶⁷ Annex 4 provides a full list of the envisaged longer-term functions of the Division.

5.1 Government Programs

- **50.** The GoT introduced a new Social Welfare Scheme (SWS) for the elderly in late 2012, in recognition of the high risk of poverty faced by older people. The SWS was originally targeted at those aged 75 and over, but the age of eligibility was lowered to 70 and over in August, 2014 expanding the pool of potential recipients from approximately 2,200 to over 3,970. The scheme is open to Tongans over 70 whom: currently reside in Tonga; no longer work in a paid job; and are not receiving benefits from other pension schemes. A monthly stipend of TOP \$65 is paid to each beneficiary. The SWS is administered by the NRBF, with payments made through its national/regional offices or directly into the member's bank account.
- 51. The experience of the SWS has been that most elderly people prefer to receive their payments in person, and 40 percent of eligible recipients either were unaware of or chose not to receive the benefit. The reasons for this are unclear. The total number of eligible people was estimated at 3,973 (women = 2,161; men = 1,812) in 2014. If 100 percent claim their benefits in FY 2014-15, the estimated cost to the GoT will be TOP \$3.1 million; if 60 percent (2,384) claim their benefits, following the trend of the previous year, then the cost will be TOP \$1.86 million.⁶⁹ Figure 5 provides a breakdown of estimated coverage by region, based on the FY 2013-14 trends.
- 52. The GoT has been piloting disability and aged care services since 2012. This work was a component of a recently completed regional pilot project on Social Protection of the Vulnerable in the Pacific (SPVP), supported by the Asian Development Bank and the Japan Fund for Poverty Reduction. ⁷⁰ Under the component, called the Tongan Social Service Pilot (TSSP), the GoT developed a partnership with a local NGO (Ma'a Fafine Mo e Famili) to provide: home-based care, monitoring and referral services to vulnerable elderly people; ⁷¹ and early intervention services for children born with a disability and/or developmental delay (premature birth), aged 0-3 years. This included capacity building of NGO and government staff in aged and disability service provision. The pilot covered the rural areas of Tongatapu and the community of Lifuka in the Ha'apai Group, providing services to 151 vulnerable elderly people and 55 disabled children (as at March 2014). There is a wait list for the expansion of the services to other areas. ⁷² A third set of activities has focused on creating work (independent living) opportunities for PLWD through internships, which were 50 percent subsidized by the project.

Figure 5: Estimated Coverage of SWS by Region

⁶⁷ *Ibid*.. p.82.

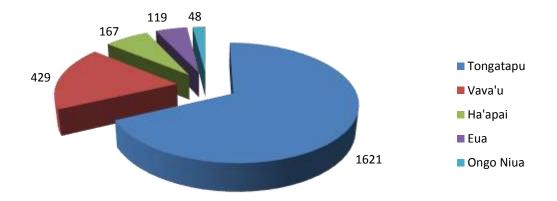
⁶⁸ *Ibid*. p. 79.

⁶⁹ *Ibid.* p. 79.

⁷⁰ ADB. Undated. 'Social Protection Project Briefs: Social Protection of the Vulnerable in the Pacific.' Manila: ADB.

⁷¹ Vulnerable elderly people are defined as: 60 and over; with a medical condition; and living in hardship or poverty

⁷² GoT. 2014. Budget Statement 2014/2015. p.81.



Source: Ministry of Finance and National Planning, 2014

- 53. The GoT plans to continue and further develop these initiatives in future. A modest amount of TOP 750,000 has been allocated in the FY 2014-15 budget to continue the SPVP/TSSP activities. Aged care services currently cover around 10 percent of the estimated total number of 609 people over 65 years who need them (based on 2011 Population and Housing Census). Early childhood intervention services could potentially reach an estimated 82 babies born prematurely or with disabilities each year (nearly one percent of all births). The GoT envisages gradually expanding these social services over time, as the capacity of the new Division for Social Welfare and Disability grows; the Division will be responsible for managing the transition from the SPVP/TSSP project to regularly programmed social services. The GoT continues to seek cost-effective ways to provide this support, including partnerships with NGOs/CSOs.
- **54.** A disability welfare scheme for the most severely disabled also is being planned. This scheme should cover more than 530 people, according to the 2011 census figures on severe disability. The ultimate coverage and features of the possible future scheme are currently under consideration by the government. It follows from Tonga's *National Policy on Disability Inclusive Development 2014-2018*, which includes a clause on disability-inclusive disaster preparedness:

"Disaster risk awareness: ensure that Persons With Disabilities are included in polices and plans for Emergency Evacuation; disaster warnings are heard, seen and understood by all; and that evacuation centres can be used by all." ⁷⁶

55. A grant-funded micro-finance scheme was started under the SPVP that continues to be operated by the Tongan Development Bank (TDB) under the direction of the MFNP. This USD 280,000 scheme was established as a revolving fund to help women's groups in the outer islands facing hardships and struggling with the high interest rates of local micro-finance companies. It offered a lower interest rate, no fees, and shorter terms. The GoT underwrites another micro-finance scheme that is administered through the TDB, but its repayment rate has not been high.

⁷³ *Ibid*. p 22.

⁷⁴ *Ibid*. p.16.

⁷⁵ GoT/SOC. 2014. Tonga 2011 Census of Population and Housing, Vol 2: Analytical Report. p. 36.

⁷⁶ GoT. May, 2014. Tonga National Policy on Disability Inclusive Development, Final Draft. Not stated. p. 10.

- 56. The GoT extended social insurance coverage from public servants and the military to also include the private sector in July, 2012. This followed the introduction of the National Retirement Benefits Scheme Act in 2010. The National Retirements Benefits Fund (NRBF) operates as a mandatory superannuation scheme for the non-government sector (eg private sector, churches, etc), in which employees contribute five percent of their gross salary to a savings and investment fund; employers provide a matching payment. Upon retirement (age 60 up to 70) or permanent total disability, death or early release from employment the employee receives a lump-sum payout. All employers with one or more employees are liable to contribute to the NRBF. Tongans living overseas also can make contributions, and some are doing so on behalf of relations residing in Tonga. For FY 2013/14, the NRBF reported that 5,502 members were currently enrolled in the scheme, an increase of 27.8 percent from the previous year; 451 employers are registered with the scheme, with another 300 remaining to register (around 4,000 employees). A total of USD 324,023 was paid out in retirement benefits, compared with USD 101,749 the previous year.
- **57.** A mandatory superannuation scheme was first put in place for public servants and the military in 1999, with around 4,875 public servants (including 978 ex-public servants with some preserved benefits) covered in FY 2011-12.⁷⁹ In response to the increased hardship that followed the GEC and other economic downturns, the public service Retirement Fund Board approved early release of funds for members who had ceased services and current members having difficulty with debt repayment in FY 2011-12. With regard to the latter group, a total of ToP \$8.62 million was paid out to 2, 339 members.⁸⁰ Such circumstances could arise again in a disaster-stricken area.

5.2 Private Transfers

- 58. Overseas remittances remain the most important form of social protection in Tonga. For example, a 2012 study found that remittances reduced the incidence of poverty in Tonga by 31 percent and the depth of poverty by 49 percent. As many Tongan nationals live and work abroad, as live in Tonga. The country is the leading recipient of remittances relative to GDP among all the PICs, estimated at USD 61 million in 2014; they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. Remittances are primarily used to fund consumption, they are the largest source of foreign exchange. They are the largest sourc
- **59.** The GoT, in recognition of the importance of overseas remittances, has initiated support services for migrant workers through the MIA. Since 2007, seasonal employment schemes have provided new sources of remittances to the country. These have included: New Zealand's Recognised Seasonal

⁷⁷ Personal communication: Mr S L Taufu'i, CEO, NRBF and SWS: 3 February, 2015.

⁷⁸ National Retirement Benefits Fund and Social Welfare Scheme. 2014. *Annual Report 2014*. Nuku'alofa: NRBF.

⁷⁹ Retirement Fund Board (RFB). October, 2012. Annual Report, 2011-2012. Nuku'alofa: RFB. pp. 4-5.

⁸⁰ *Ibid.* p. 4.

⁸¹ Jimenez-Soto, E. V., & Brown, R. P. 2012. 'Assessing the Poverty Impacts of Migrants' Remittances Using Propensity Score Matching: The Case of Tonga'. *Economic Record*, 88(282), 425-439. p. 425.

World Bank data. 2014. http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:22759429~pagePK:641654 01~piPK:64165026~theSitePK:476883.00.html

⁸³ IDA/IFC. .2010. Country Assistance Strategy for the Kingdom of Tonga 2011 to 2014. p. 3

⁸⁴ ADB. Undated. Tonga: Strengthening Public Financial Management Program: Summary Poverty Reduction and Social Strategy. Manila: ADB.

Employer Scheme (RSE) and, more recently, the Australian Seasonal Worker Program (SWP) and also the United States H-2A temporary agricultural working visa. In FY 2013-14, 3,516 Tongans took up offers under the RSE and SWP.⁸⁵ An estimate of the average worker's annual savings/remittances from the RSE alone was NZ \$ 5,500 each (around ToP \$8,400) in 2013.⁸⁶ The MIA provides assistance to applicants to process their documentation and prepare for the overseas experience. The government has also proposed the placement of focal points in Australia and New Zealand to coordinate and facilitate arrangements for the workers.⁸⁷ While remittances provide valuable resources to families, they also can have negative consequences on family structures and local production; the MIA is investigating its social support options for the family members left behind as well.

60. Traditional forms of community support in Tonga provide an important buffer against economic and social shocks, but these are proving to be less effective in addressing co-variate shocks, such as natural disasters or economic recession. Social successive shocks appear to have weakened informal SSNs, especially for lower income households, as there is less wealth to share. Increasing urbanization, overseas migration and other socio-economic changes (eg transition to market economy) are also gradually distancing people from their traditional community and church-based commitments. For instance, the TSSP pilot found that many vulnerable elderly people were not being assisted through traditional systems, as previously believed. This situation has led the GoT to begin to put formal social protection systems in place. Nevertheless, churches and NGOs continue to play an important role in social service provision, such as education and support services for people in need – including domestic violence survivors and PLWDs.

6. The Way Forward: Opportunities to Strengthen the Social Protection Response to Disaster and Climate Risks

- **61.** Tonga's formal social protection system is at an early stage of development, and there are opportunities to build in a systematic focus on DRM and CCA. The key considerations in designing appropriate DRM and CCA initiatives will be: to work through existing programs and systems, rather than create new structures; to integrate DRM and CCA features into the process of development of the SP&D Division's roles and functions; and to avoid the creation of an 'entitlement mentality' or undermining of current forms of resilience among the beneficiary households and communities.
- **62.** Vulnerability to disaster and climate-related impacts can be incorporated into the country's national hardship/poverty databases. The GoT is planning to undertake its next national census and HIES over 2015-16. The SP&D Division has already coordinated with the Department of Statistics to include questions on disaster-related vulnerability and coping mechanisms in the household questionnaire, drawing from Fiji's recent experience. This information, especially when combined with Geographic Information System (GIS) mapping of households, can be used to identify households at risk. When further combined with HIES data, a more detailed picture of the inter-relationships of disaster risk and hardship/poverty can be created. 92 Such information can be usefully linked up with

⁸⁵ World Bank data.

⁸⁶ Gibson et al in UN. 2014. The State of Human Development in the Pacific. p. 34.

⁸⁷ GoT. 2014. Budget Statement 2014/2015. p.74.

⁸⁸ GoT. 2010. Social Protection Issues Paper.

⁸⁹ Ibid.

⁹⁰ ADB. January, 2015. JFPR Grant Assistance 9151-REG: Social Protection of the Vulnerable in the Pacific, Final Assessment Report (draft). Not specified.

⁹¹ GoT. . 2014. Budget Statement 2014/2015. p.78.

⁹² SPC/SOPAC also has undertaken spatial poverty mapping in the Ha'apai Group, which is a good resource.

multi-hazard databases/mapping and post-disaster damage and needs assessments to plan both DRR/CCA interventions and disaster responses, as has been done in some other countries. It also will be important for the SP&D Division to have access to one unified, or linked, database on hardship/poverty and the social assistance programs currently being put in place to avoid fragmentation or duplication of programming in future.

- 63. An overarching national policy and strategic plan on social protection will be needed to guide and coordinate the different emerging streams of social assistance, as well as to develop cohesive approaches with other government agencies and civil society partners including in the areas of DRM and CCA. The GoT is aware of this need and may seek technical assistance from development partners to formulate a social protection policy that will effectively target the most vulnerable and complement the national disability policy. As the new SP&D Division will be establishing itself over the next few years, technical support will be required in several areas such as: administrative systems and procedures, monitoring and evaluation systems, and coordination mechanisms to oversight the range of programs which it will be monitoring or implementing.
- 64. The development of the social protection cluster's permanent functions offers an opportunity to integrate DRM and CCA-related considerations into wider social protection programming in Tonga. Since it is also chaired by MIA, relationships can be built over time between the SP&D Division and other key government and civil society actors in DRM, CCA and social protection. Support to the disaster preparedness work program of the cluster would be an option for development partners to consider, complementary to existing JNAP coordination mechanisms. Additionally, UNDP's Pacific Risk Resilience Programme (funded by Australia's DFAT) is placing a DRM specialist in the MIA in 2015 to improve the two-way flow of information between the three disciplines, who may be able to assist in facilitating the identification of linkages. The ADB also is placing a gender and social inclusion specialist in the MEECCMMIC. Social protection technical assistance for key DRM/CCA initiatives, such as the development of the multi-sectoral disaster and climate resilience investment plan and successor plan to JNAP - along with field-based activities - would be a complementary way to ensure these needs are identified and addressed. As a preliminary step, the GoT could compile a summary of the key lessons learned from integrated DRM-CCA-social protection programming in other countries and review these in relation to the context of Tonga, possibly through the social protection cluster and/or JNAP coordination structures.
- 65. Tonga is poised to further develop and strengthen its disaster preparedness and early warning systems, including post-disaster contingency financing mechanisms, with the support of development partners. The integration of attention to the communication and protection needs of vulnerable groups will be an essential component of this work. This includes the facilitation of a robust two-way information flow to ensure that the design and implementation of these systems incorporate existing local community-based structures for DRM and EWS. Multi-hazard database/mapping capacity development also should incorporate attention to the potential to create linkages with national hardship/ poverty databases over the medium-to-longer term. Training in post-disaster needs assessment should include the social impact assessment modules recently developed by the World Bank.
- **66.** Further to this, the GoT could identify international and local development partners to help preposition responsive CfW mechanisms for vulnerable people in times of disaster. The experience of the UNDP-supported Post Cyclone Livelihoods Recovery and CfW Project has demonstrated the value of such programs in reaching vulnerable disaster-affected households and communities. The caveat would be that these initiatives do not replace the actions that would ordinarily be undertaken within communities to provide post-disaster support to their vulnerable members and undermine local

resilience. Given the findings of the TSSP, that many vulnerable elderly people need more assistance from outside their families and communities than had been previously assumed, it would appear that further (gender- and age-disaggregated) empirical research is needed on post-disaster relief and recovery outcomes for poor and vulnerable people.

- **67.** Over the medium-to longer-term, the GoT could investigate the potential to incorporate disaster response components into its current and emerging social assistance programs. Some countries provide much-needed rapid cash assistance for immediate relief or recovery needs to identified poor and vulnerable groups through existing social welfare schemes. Once Tonga's social assistance programs are sufficiently established, the development of such components could be considered. Putting in place disaster preparedness plans for social welfare schemes also would be highly desirable, in order to minimize the disruption of cash transfers and services to disaster-affected beneficiaries a time when this support is most needed. Ways to ensure the smooth flow of private remittances to households following disasters, a period when they usually rise in most countries could be investigated as well.
- **68.** The GoT could explore the possibilities to further engage with the Pacific Financial Inclusion Programme (PFIP) on post-disaster electronic cash transfer systems. Electronic payment systems are a preferred means of reaching disaster-affected people with cash payments in a timely manner, and Tonga has a well-developed telecommunications network. The PFIP, administered by the UN Capital Development Fund, has worked with governments and private sector firms (eg banks, telecommunications service providers, etc) in the Pacific region on strengthening electronic and mobile cash transfer services. A post-disaster focus could possibly be incorporated into the planning processes of PFIP with the GoT on financial inclusiveness strategies.

ANNEXES

ANNEX 1: REFERENCES

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ANNEX 2: MEETINGS: TONGA FIELD MISSION (2-6 FEBRUARY, 2015)

Government of Tonga

Mr Leveni Aho

Director, National Emergency Management Office

• Mr Taniela Kula

Geology Office, Ministry of Lands and Natural Resources

Mr. Malakai Kaufusi

Project Manager, ADB/Japan Fund for Poverty Reduction

• Ms Inoke Kupu

Local Government

• Ms Fakaola Lemani

Deputy CEO, Treasury Division, Ministry of Finance and National Planning

• Ms Lu'isa Tu'i'afitu Malolo

Director of Climate Change, Ministry of Environment, Energy, Climate Change, Disaster Management, Meteorology, Information and Communications

• Ms Luisa Manuofetoa

Deputy CEO, Social Protection and Disability Division, MIA

Ms Atelaite Lupe Matoto

Director of Environment, Ministry of Environment, Energy, Climate Change, Disaster Management, Meteorology, Information and Communications

• Mr Tatafu Moeaki

CEO, Finance and Planning Division, Ministry of Finance and National Planning

• Mr 'Asipeli Palaki

CEO, Ministry of Lands and Natural Resources

• Mr 'Aholotu Palu

A/g Chief Secretary and Secretary to Cabinet

• Mr Lopeti Senituli

CEO, Ministry of Internal Affairs

• Ms Kalesita Taumoepeau & OZ volunteer

Employment Division, MIA

Non-Governmental Organizations

Ms Betty Blake

President, Ma'a Fafine Mo e Famili (For Women and Families)

• Ms Emeline Siale 'Ilolahia

Executive Director, Civil Society Forum Tonga

• Mr Sione Taumoefolau

Secretary General, Tonga Red Cross

Private Sector

Ms Leta Havea Kami

Managing Director and CEO, Tonga Development Bank

• Mr Sitino Maka

Manager, Credit & Risk, Tonga Development Bank

• Mr Ronan McGrane

CEO, Digicel Tonga

• Dr Sione Leimoni Taufu'i

CEO, National Retirement Benefits Fund and Social Welfare Fund

Development Partners

Ms Kathleen Bombell

Deputy High Commissioner, Australian High Commission

• Ms Telusa Fotu Tu'i'onetoa

Senior Program Manager, Australian High Commission

• Mr Shoichi Iwata

Assistant Representative, Japan International Cooperation Agency

• Mr Hiroshi Kikawa

Resident Representative, Japan International Cooperation Agency

Ms Sally Perry

Program Manager for Infrastructure and Disaster, Australian High Commission

• Ms Adele Plummer

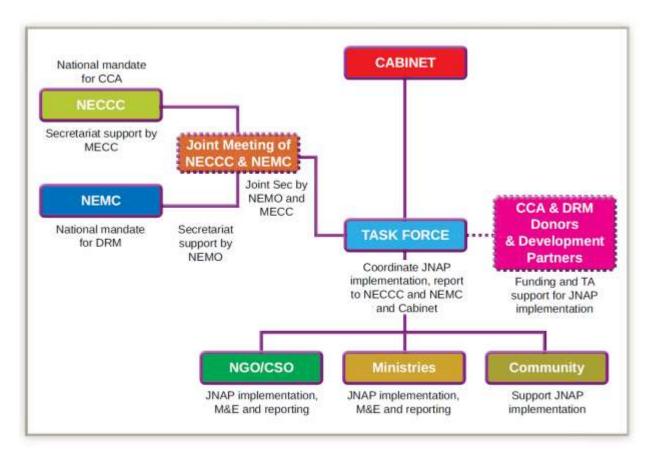
Acting High Commissioner, New Zealand High Commission

ANNEX 3: JNAP IMPLEMENTATION: STAKEHOLDER ROLES AND COORDINATION STRUCTURES

Roles and Responsibilities of JNAP stakeholders

Stakeholder Group	Role/Responsibility
NEMO	High level oversight, policy guidance and direction for DRM institutional
	strengthening and capacity building
	Review of JNAP implementation progress
National Environment &	High level oversight, policy guidance and direction for climate change
Climate Change	adaptation and mitigation
Coordinating Committee	
(NECC)	
Task Force	Participate in advocacy for JNAP at different levels internally within Tonga
	and also with donors and development partners
	Assist ministries to integrate JNAP actions into Corporate Plans and Annual
	Management Plans
	Develop project profiles and related documentation to facilitate requests for
	funding and technical assistance from donors and development partners and
	assist ministries in this connection when required
	Develop and implement a communication strategy to support JNAP
	implementation, including the identification of the requisite resource requirements and associated costs
	 Work with donors and development partners to secure funding and technical
	assistance to implement JNAP actions
	Ensure that thorough monitoring, evaluation and reporting is undertaken in
	relation to JNAP implementation and work closely with the relevant
	ministries and other key stakeholders in this regard
	Provide regular reports and at a minimum of six month intervals to the
	NECC, NEMC, PACC and Cabinet on JNAP implementation
	Submit reports and acquittals to donors and development partners in relation
	to any specific funding and technical assistance that may be provided for
	JNAP implementation
NEMO/Ministry of	Facilitate regular Task Force meetings
Environment & Climate	Follow up on JNAP implementation with ministries and agencies
Change	Facilitate reporting to NECC, NEMC, Cabinet, development partners and
3.5	donors
Ministries, agencies and	Ministries and agencies: facilitate the integration of JNAP actions in
local partners	Corporate Plans and Annual Management Plans
	Local partners: facilitate integration of JNAP actions into respective planning and budget systems
	Facilitate implementation of JNAP actions in coordination with the Task Force
	Ensure progress reporting on JNAP implementation and assist in evaluation
	Advocate for CCA and DRM
Villages and community	Support JNAP implementation
groups	Provide feedback to assist monitoring and evaluation
Development partners and	SOPAC: inform members of the Partnership Network of the JNAP and
donors	implementation programme
	All regional and international development partners and donors: liaise with
	NEMO and MECC and other local stakeholders in support of JNAP actions

JNAP Management Structure



NEMC = National Emergency Management Council
The NEMC is responsible for coordination/oversight of national emergency responses

Source: GoT, July 2009, pp 47-49

ANNEX 4: SP&D DIVISION: ROLES AND RESPONSIBILITIES

Under the GoT's 2014-15 budget, the key roles and responsibilities of the new Deputy Secretary for Social Protection (DSSP) are defined as:

- Aged Care Services (formerly managed by ADB-JFPR)
- Early Intervention Services -First Step (formerly managed by ADB-JFPR)
- Poverty Impact Assessments on new policies
- Country Focal Point for Disability
- National Disability Policy
- *Proposed:* Paralympics
- UN Convention of Rights for Persons with Disabilities
- **Proposed:** Convention on the Rights of the Child
- *Proposed:* Payments to the elderly (administered by NRBF with oversight by DSSP)
- Ombudsman Services
- Human Services monitoring of standards and quality assurance (government, NGOs and CSOs)
- Monitoring of regulations and standards (government, NGOs, CSOs)
- Liaison for national emergency management of vulnerable populations
- Liaison for climate resilience for vulnerable populations
- Liaison for inclusive education
- Liaison for MDGs

Source: GoT, May 2014, p. 82