PATHWAYS AND CHALLENGES TOWARDS INTEGRATION AND IMPLEMENTATION OF DRR AND CCA IN TONGA

Due to the similarities in theory, practice and purpose, the separate fields of climate change adaptation (CCA) and disaster risk reduction (DRR) are increasingly becoming integrated. DRR is the practice of lowering disaster risk by undertaking measures to prevent hazards, decrease vulnerability and increase capacities. It involves identifying drivers of risk and reducing them through mitigation, prevention and preparedness. DRR also acknowledges the 'unnatural' creation of disasters and seeks to identify and address the roots causes of people's and societies' vulnerability (Wisner et al., 2014). CCA aims to reduce the current and future impacts of climate change, by enhancing local and national capacities (Mercer, 2010). It focuses on adapting to environmental changes to increase resilience for the future. Thus, DRR and CCA share common goals of adapting to climatic changes, reducing vulnerability to hazards, and increasing capacities to deal with such hazards (Pettengell, 2010; Mercer, 2010).

Although DRR and CCA activities have been integrated informally at community levels in the past , there has been a call to formally combine them into a common framework. This is relevant to the Pacific, where the size, remoteness, low economic capacities and colonial heritage of the islands have contributed to increased vulnerability to a wide range of hazards (Pelling & Uitto, 2001). In the Pacific region, Tonga is a pioneer in fostering such an integrated approach to DRR and CCA, creating a Joint National Action Plan (JNAP) in 2010 (Hay, 2012). Tonga's JNAP is considered to be an exemplar for other countries in the Pacific. However, successful integration and implementation can be restricted by the social and political setting (Moser and Ekstrom, 2010). Furthermore, what is stated in policy and what is done at local, national, regional levels can vary (Mercer, 2010; Hay, 2012). A review of the Tongan experience is therefore valuable to inform and strengthen policies in this country and elsewhere in the Pacific. Currently there is little evaluation of how well Tonga's JNAP actually encourages DRR and CCA activities.

This policy brief summarises the outcomes of a research project undertaken to assess the impact of integrated DRR and CCA policies and provides recommendations for the future. The research project included a review of all documents guiding DRR and CCA, including national plans (such as JNAPs), regional policy recommendations as well as international frameworks for both DRR and CCA. It also drew upon the relevant academic literature. The data from the review in-

formed the creation of a framework to guide practices when integrating DRR and CCA policies. Interviews with key informants such as scholars at the University of South Pacific, staff of the United Nations Development Programme (UNDP), government officials and independent researchers produced information on the current state of integration activities in the Pacific. Lastly, a workshop was held in Tonga in May 2016 to gauge the current scope and impact of initiatives geared towards integrating DRR and CCA in the country. The workshop outlined the challenges and ways forwards for strengthening future policies. The workshop also aimed to increase the capacities of stakeholders and outcomes included drafting priorities for action in implementing DRR and CCA.

TONGA: A HISTORY OF DRR AND CCA

Tonga's history with integrating DRR and CCA policies is the longest in the Pacific. Prior to the JNAP in 2010, Tonga was also active in producing the First National Communication report to the United National Framework Convention on Climate Change (UNFCCC) (Hay, 2012). The second National Communication report serves as the JNAP. The JNAP has six goals. 1/improved governance, 2/ enhanced technical knowledge and understanding of DRR and CCA, 3/ assessment of vulnerability, 4/ enhanced community preparedness and resilience, 5/ sustainable energy development and 6/ strong partnerships between stakeholders.

The JNAP details the effects of climate change and El Nino cycles on the country. These cause droughts, sea level rise, flooding and increased temperature. Additionally, the plan outlines socio-economic factors such as population increase and an economy reliant on the agriculture and fisheries (Tonga, 2010). These put pressure on resources and reduce the resilience of the country to the risks of both disaster and climate change impacts. Furthermore, the diversity and distance between the 170 islands lead to different levels of vulnerability, making it hard to gauge the resilience of the country as a whole (Gero, M'eheux, & Dominey-Howes, 2011). In 2014, Tonga merged Disaster Risk Management and Climate Change into one Ministry, which is seen as being a step towards increasing resilience.

BOX 1: TONGA HAZARD AND RISK PROFILE

- Tonga has 170 islands across 740,000 km².
- Many of the islands are between 2 and 5 meters high which increases their exposure to sea level rise.
- Tonga has a population of 105,323, with 76.4% living rurally.
- The Tonga Meteorological Service considers tsunamis, earthquakes, cyclones and droughts to be significant hazards.
- Tonga is also facing significant coastal erosion due to sea level rise, beach mining and reduction in coastal trees.
- The economy of Tonga depends on primary agricultural products for export, so severe drought or other weather events can affect potential earnings and restrict socio-economic development.

GUIDING FRAMEWORKS

Prior to the workshop, a framework was developed with the intention of being a tool to analyse Tonga's and other JNAPs and guide further policies. This was informed by the data collected in the review of the existing literature. The framework was set up as a checklist of essential criteria to be included in JNAPs. There are four sections in the framework, which are called 'Priorities for Action'. This was done according to the priorities outlined by the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR). Additionally the outcomes of the Conference of the Parties

in Paris (COP21) on climate change were included in this framework, and were organised thematically against the SFDRR. These international frameworks are recognised globally and Tonga has signed both of them. This indicates Tonga's commitment to actions to reduce disaster risk and climate change effects.

The four priorities of the framework and their correlation to SFDRR and COP21 are outlined in the Box 2: Priorities for Action. They include 'understanding climate change and disaster risk', 'integrated governance for DRR and CCA', 'supporting and investing in DRR and CCA', and 'adaptation and risk reduction, response and recovery'. Each priority has several themes within it. 55 criteria are grouped under the themes, all of which would ideally be included in a JNAP. Tonga's JNAP ticked 47 out of 55 criteria. This indicates that the policy was well set out but did not fully cover some priorities that were suggested by the academic literature and policy documents. Criteria Tonga's JNAP did not address included 'planning for recovery using the 'build back better' approach' and 'donor funding is flexible'. As Tonga's JNAP was created in 2010 and the framework used recommendations from 2015 onwards, this tool will be more useful in guiding future policy.

BOX 2: PRIORITIES FOR ACTION

The guiding documents for the framework were the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) and the review of the United Nations Framework on Climate Change (UNFCCC) at the Conference of the Parties 2015 (COP21).

1. UNDERSTANDING CLIMATE CHANGE AND DISASTER RISK

- SFDRR priority 1: Understanding disaster risk
- COP 21: Climate change and capacity building
- Themes: Vulnerability / Hazards / Capacity

2. INTEGRATED GOVERNANCE FOR DRR AND CCA

- SFDRR priority 2: Strengthening disaster reduction governance to manage disaster risk
- COP 21: Transparency and global stocktake
- Themes: Actors and Policy / Education and Knowledge / Participation, Partnerships and Cooperation

3. SUPPORTING AND INVESTING IN DRR AND CCA

- SFDRR priority 3: Investing in disaster risk reduction for resilience.
- COP 21: Support, adaptation, climate change mitigation
- Themes: Reducing Disaster Risk and Adapting to Climate Change / Funding and support / Resilience

4. ADAPTATION AND RISK REDUCTION, RESPONSE AND RECOVERY

- SFDRR priority 4: Enhancing disaster preparedness for effective response, and to ~build back better~ in recovery, rehabilitation and reconstruction
- COP 21: Loss and damage
- Themes: Preparedness, Reconstruction and Rehabilitation / Monitoring and Evaluation of Pre and Post Disaster Plans

STRENGTHENING THE CAPACITIES OF DRR and CCA STAKEHOLDERS IN TONGA: WORKSHOP PROCESS AND OUTCOMES

The workshop held in Tonga focused on strengthening the capacities of stakeholders in DRR and CCA. It took place at the National Emergency Management Office in Nuku'alofa, Tongatapu, on the 19th of May 2016. Participatory techniques were used to share knowledge among the participants, identify and evaluate their existing capacities, recognise gaps in these, and encourage collaboration. There were 24 participants from different spheres, including government ministries, international NGOs, donor organisations and local NGOs and district officers.

Firstly, participants were briefed on the framework created to guide future JNAPs. The priorities for action outlined in the framework were used as starting points. A carousel tool was used to outline possible actions and barriers to success for each priority. The comments produced under each 'priority for action' were then ranked by the participants to show the most important. This facilitated discussion between participants who may not usually work together and produced concrete ways to achieve large, overarching priorities.

Secondly, the participants used a Johari Window tool to document their existing knowledge and resources and gaps in these. The outcomes of this are outlined in table 1. This tool can justify and enhance future collaboration, as it shows clearly that some stakeholders have the resources or knowledge that others are missing. Access to funding and local knowledge/networks came up often, as seen in the bolded text in the table, indicating the potential for increased stakeholder interaction in the future.

Next, the top three ideas for each priority from the carousel and the capacities identified by the Johari Window were compiled on a matrix. Using proportional piling method, participants represented their capacities and resources. They allocated their 'capacities' to the priorities identified in the carousel. This enabled a clear and concrete set of goals, which were visible to all stakeholder groups.

Lastly, the results of the carousel, Johari Window and matrix activities were used to create an 'Agenda for Future Action'. This outlines what, when, who and how the top three priorities should be achieved, and can be seen in diagram 1. Many stakeholders identified the same goals, such as the creation of a community development plan, emphasising that collaboration between the stakeholders would be beneficial.

Diagram 1 (below). The following diagram compiles the results of the Johari Window activity. The answers have been collated into a simple 'have' and 'don't have' to show the knowledge and capacities of each stakeholder group. Bolded text shows themes that are repeated consistently. Further repeated themes (which are not highlighted) include access and coordination of resources, and understanding of context. This table thus shows how collaboration would enhance the existing capacities of stakeholder groups.

	DON'T HAVE	HAVE
GOVERNMENT	**Enough local capacities** Good coordination of existing resources Proper expertise and resources **Adequate funding**	Access to expert advice Institutional arrangements Networks Some resources National Emergency Management Plan **Funding for policies**
DONORS	**Local knowledge** Local contacts Access to all stakeholders Enough data	Technical expertise Policies and legal documents Resources and equipment Own agenda Procedure to follow **Funds**
INTERNATIONAL NGOS	**Local networks** Good understanding of context Adequate tools Long term perspective Good coordination	**Short term funds** Plans Knowledge of capacities (of self) Technical expertise Broad view
LOCAL NGOS & COMMUNITIES	**Funds** Critieria when they recieve funds Process for allocating funds	Common practice **Traditional knowledge** Community approach to building resilience Community knowledge of needs

Photo (left). Participants allocating 'capacities' to the matrix.
Source: Jenny Knight 2016

Diagram 2 (below). This agenda shows the priorities for action that were produced during the workshop. The top three priorities from each stakeholder group are included, with the rest available in the minutes of the workshop. These priorities build on the capacities and knowledges identified in Diagram 1, and emphasise a collaborative approach as well.

GOVERNMENT

1. ONGOING: Capacity building

WHO: Government and donors

HOW: Training, scholarships (University of South Pacific, University of Auckland), school curriculum, distance learning

2. 2016: NEMP and ACT review

WHO: Government, donors and development partners

HOW: Ministry of Meteorology, Energy, Information, Disaster Management, Climate Change and Communications, engage legal exertise and priorities, key stakeholder consultations

3. 2016: Coordination strengthening

WHO: All key stakeholders and line ministries

HOW: Stock take activities, share resources, ongoing meetings

DONORS

1. ONGOING: Community development plans.

WHO: Communities and government

HOW: Technical assistance and funding

2. BEGINNING OF FINANCIAL YEAR: Community based project, run by the local community.

WHO: Stakeholders for the project. Coordinated by Live and Learn, United Nations Development Programme and a strong non-government organisation

HOW: Community consultation in the villages

3. ONGOING TO 2020: Infrastructure improvements including energy renewals, road maintenance and shelter for emergency supplies

WHO: Government, communities, multilateral partners, Red Cross

HOW: Funding

INTERNATIONAL NGOS

1. ONGOING: Involve and include disability

WHO: National Emergency Management Office, non-government organisations, Ministry of Meteorology, Energy, Information, Disaster Management, Climate Change and Communications

HOW: Reinforce and focus on them in national plans

2. 2016: Sharing informations

WHO: All stakeholders

HOW: Coordinator

LOCAL NGOS & COMMUNITIES

1. ONGOING: Community development plan

WHO: Government and non-government organisation, community

HOW: Community consultations, surveys (community priorities)

2. ONGOING: Implement community development plan

WHO: Local facilitators, technical experts, partners

HOW: Training

3. ONGOING: Lobby for funds

WHO: Community leaders, overseas donors

HOW: Human resource investigations, communication and cooperation about work on the ground

RECOMMENDATIONS:

RECOMMENDATION ONE: The Agenda should be acted upon by the stakeholders involved in the workshop. The priorities for action should be reviewed to assess whether there has been any ongoing action on them since May 2016. There may need to be further breakdown of the roles, activities and timeframes within each priority.

RECOMMENDATION TWO: There should be increased interaction and collaboration between stakeholders, especially when creating Community Development Plans. Collaboration was identified as beneficial in the Johari Window and the matrix, and the need for a Community Development Plan is shared across several stakeholder groups. This would also contribute to capacity building and sharing information, which are identified as priorities in the Agenda.

RECOMMENDATION THREE: That someone be appointed to oversee the actions taken as a result of the workshop and agenda produced. They should maintain enthusiasm for the Agenda and encourage the stakeholders to use it when designing projects.

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PATHWAYS AND CHALLENGES TOWARDS INTEGRATION AND IMPLEMENTATION OF DRR AND CCA IN TONGA is an outcome of a Tonga validation workshop which was part of the research: "Integrating climate change adaptation and disaster risk reduction policies in the Pacific".

The photo on the first page: "Kids carrying safe water taken from the desalination unit", corresponds to the TNYC and Oxfam response to Tropical Cyclon Ian in the Ha'apai group. Source: Kip Cooper 2014

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Photo (above). Participants to the validation workshop "Integrating climate change adaptation and disaster risk reduction policies in Tonga. Source: Jenny Knight 2016

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