

INSTITUTE FOR SUSTAINABLE FUTURES &
WORLD HEALTH ORGANIZATION COLLABORATING CENTRE FOR NURSING MIDWIFERY
AND HEALTH DEVELOPMENT

UNDERSTANDING THE PACIFIC'S ADAPTIVE CAPACITY TO EMERGENCIES IN THE CONTEXT OF CLIMATE CHANGE COUNTRY REPORT: COOK ISLANDS



ABOUT THE AUTHORS

The Institute for Sustainable Futures (ISF) was established by the University of Technology, Sydney in 1996 to work with industry, government and the community to develop sustainable futures through research and consultancy. Our mission is to create change toward sustainable futures that protect and enhance the environment, human well-being and social equity. We seek to adopt an inter-disciplinary approach to our work and engage our partner organisations in a collaborative process that emphasises strategic decision-making.

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Understanding the Pacific's adaptive capacity to emergencies in the context of climate change

Country Report: Cook Islands

Prepared for: National Climate Change Adaptation Research Facility (NCCARF)

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Understanding the Pacific's adaptive capacity to emergencies in the context of climate change

Research outputs in this series:

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COUNTRY REPORTS:

- Country Report – Vanuatu
- Country Report – Samoa
- Country Report – Fiji
- Country Report – Cook Islands

POLICY BRIEFS:

- Understanding the Pacific's adaptive capacity to emergencies in the context of climate change: Policy Brief for Australian Stakeholders.
- Understanding the Pacific's adaptive capacity to emergencies in the context of climate change: Policy Brief for Pacific Regional Stakeholders.
- Understanding the Pacific's adaptive capacity to emergencies in the context of climate change: Policy Brief for Pacific Island Country stakeholders.

BACKGROUND REVIEWS:

- Background Review: Disaster Response System of Four Pacific Island Countries.
- Projected climate change impacts in the Pacific: A summary.
- Review of Australia's Overseas Disaster and Emergency Response Sector.

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EXECUTIVE SUMMARY

INTRODUCTION

Climate change is likely to affect the pattern of some disasters in the Pacific, and therefore the organisations and systems involved in disaster response. This research, conducted by researchers at the University of Technology, Sydney, focused on how the immediate humanitarian needs following disasters are met by various stakeholders, both in the affected country and those offering support from outside. The research sought to understand the adaptive capacity of both Pacific island countries (PICs) and Australia's disaster response to a potential increase in disasters driven by climate change. This report provides results for the Cook Islands – one of four case study countries selected for deeper analysis. See institute websites for our full research report which includes details of all case study countries.

The research was guided by the following research questions:

1. What constitutes the 'disaster response system' (DRS) for the immediate humanitarian needs post-disaster (health care, water and sanitation, psychosocial needs and food and nutrition) in each of the 4 case study PICs (including the Australian component to this response)?
2. How do various inter-organisational determinants serve to strengthen or reduce adaptive capacity of the 'disaster response system'? This question considers Australia's response obligations, national, regional and international stakeholders and the mechanisms that coordinate their actions, and other regional examples.
3. Which objective and subjective determinants are most significant in influencing the adaptive capacity of the organisations within the 'disaster response system'? What are the characteristics of an organisation with high levels of adaptive capacity?

RESEARCH METHODS AND APPROACH

A qualitative methodology, with a strong focus on participatory stakeholder engagement, was used for this research. The concept of 'adaptive capacity' was used to assess the resilience of individual organisations and the robustness of the broader system of response. Specific determinants of adaptive capacity were used to assess the 'disaster response system' (DRS), comprised of actors and agents from government and non-government sectors, governance structures and the formal and informal networks that support them. Background literature reviews, stakeholder workshops and key informant interviews with Australian, New Zealand and Pacific based stakeholders within the disaster, climate change, health and development sectors were used to assess the complexities of the DRS in selected Pacific island countries. Emphasis was placed on four immediate humanitarian post-disaster needs: health care; water and sanitation, psychosocial, food and nutrition.

COOK ISLANDS DISASTER RESPONSE SYSTEM

Key organisations and supporting policies / plans active in supporting disaster response, as identified by in-country stakeholders in Cook Islands include the following:

Key Organisations	Key Legislation, Policies and Plans
<ul style="list-style-type: none"> National Disaster Risk Management Council (NDRMC) Emergency Management Cook Islands (EMCI) Response Executive (comprised of Police Commissioner, Ministry of Financial and Economic Management, Ministry of Infrastructure and Planning, Cook Islands Meteorological Service, EMCI) Ministry of Health Ministry of Outer Island Administration Cook Islands Red Cross Society Cook Islands Civil Society Organisation (CICSO) NZAID UN Agencies (including UNDAC) Churches 	<ul style="list-style-type: none"> National Disaster Risk Management Policy 2005 Te Kaveinga Nui 2020 and the National Sustainable Development Plan 2011-2015 (NSDP) National Disaster Risk Management (DRM) Act 2007 DRM Regulations 2010 Joint National Action Plan for Disaster Risk Management and Climate Change Adaptation 2011-2015 (JNAP) National Disaster Risk Management Arrangement 2009 (the Arrangement)

Some flexibility existed in terms of the stakeholders involved in the Response Executive depending on the specific details of the disaster. While this showed a degree of adaptiveness and flexibility, evidence from past events showed that clearer guidelines were needed to ensure decisions can be made quickly, particularly surrounding requests for external assistance.

HUMANITARIAN NEEDS

A summary of organisations and response mechanisms in the Cook Islands relating to the four post-disaster humanitarian needs covered in this research is provided below.

Health Care	Psychosocial Needs
<ul style="list-style-type: none"> Policy was in place to guide health workforce, but knowledge of policies was affected by high rates of staff turnover. No clear guidelines existed for the coordination of in-coming health personnel but mechanisms were being developed to deal with this. The health sector was a stakeholder in the DRS and was relatively well organised since improvements in the clarification of roles and responsibilities. The health sector had clear leadership and strong partnerships with NGOs and donors. Health workforce and material capacity was inadequate particularly in times of disaster. However, local health professionals were keen to be able to provide care but required material resources to be able to meet this responsibility. Some level of disaster training was available 	<ul style="list-style-type: none"> The Cook Islands had inadequate capacity to meet post-disaster psychosocial needs, as acknowledged by many Cook Island interviewees. There were uncertain roles, responsibilities and expectations between government ministries regarding psychosocial support. Dedicated and trained personnel were found to be lacking in the MoH. Psychosocial support was needed for communities affected by disasters, including key community leaders who are important points of contact for incoming support. Psychosocial support was also needed for disaster response personnel offering the support.

for the health workforce.	
Food & Nutrition	Water, Sanitation & Hygiene (WASH)
<ul style="list-style-type: none"> • Immediate food and nutrition needs post-disaster were not raised as a priority amongst Cook Island interviewees. • The mention of food and nutrition needs usually led interviewees to mention longer term food security issues. • The MoH indicated that provision of immediate food needs were not funded by government, rather the staff themselves. • Past events revealed that some of the food and nutritional needs can be sustained from crops surviving disaster damage, however this did not last long and depended on the extent of damage. 	<ul style="list-style-type: none"> • WASH as an ongoing development issue, as well as a post-disaster need received the greatest attention when compared to the other three humanitarian needs. • Several key DRS organisations prioritised WASH and were relatively well equipped to source materials and trained personnel either internally or externally. • The Ministry of Infrastructure and Planning (MoIP) was a key government agency with a focus on WASH infrastructure in disasters. • Red Cross was the key organisation outside of government for WASH and had a dedicated team and equipment for WASH.

KEY DETERMINANTS OF ADAPTIVE CAPACITY

As a country with a small and scattered population across vast distances, key individuals, their relationships and trust were crucial determinants of adaptive capacity. This issue permeated the other key determinants of adaptive capacity, with positions of leadership and the governance of the DRS supported by few personnel. These few people's perceptions of risk were seen to drive the progress and pathway towards efforts of risk reduction and addressing key issues surrounding resilience.

Communications, relationships, information and knowledge

Communications, relationships, information and knowledge in the Cook Islands centred around personal relationships and trust between key individuals, which was particularly pertinent given the small population of the Cook Islands.

“Overseas organisations want to help but don't know how, so they do an assessment.”

Adaptive capacity can be supported by this key determinant so long as key individuals within the DRS have a clear understanding of the roles and responsibilities of others and information flows are unobstructed. Informal modes of operating within this system are particularly important and also rely heavily on the existence of trust and strong relationships.

Leadership, management and governance

Key DRS decision making bodies need to be comprised of individuals who are recognised as leaders. In the Cook Islands, this acknowledgement of leadership was in part dependent on the (formal and informal) relationships and levels of trust between individuals, as described above. Effective leadership was also dependent on the capacity of individuals (or organisations) to fulfil their obligations, both in terms of sufficient personnel and financial capacity to undertake necessary activities and initiatives.

“Because of their [population] size, we are relying on individuals rather than institutions so if a strong person goes then you lose a lot.”

Some uncertainty in the broader leadership of decision makers was present in the Cook Islands, including mechanisms surrounding requests for overseas disaster assistance and who is included on key decision making bodies. This could constrain adaptive capacity as it had the potential to delay requests for post disaster international assistance.

Past events also revealed a lack of coordination of disaster assessments in the Cook Islands, both from national and international responding organisations. Clarification of roles and responsibilities of all DRS agents (including those from overseas) was needed to ensure efficiency in response and minimised duplication of efforts. Adaptive capacity can be enhanced with a streamlined process for disaster assessments, as support can be provided quicker, reducing potential medium to longer term impacts.

Capacity (human resource, financial and technical)

Capacity challenges (in terms of human, financial and technical resources) in the Cook Islands were found to generally constrain adaptive capacity due to limitations of access to

"We use what resources we have – money and connections – to make things happen, and we have become clever about this over the years. We don't say we don't have money, we can't do it, we find what we have to make things happen".

a range of assets. Perceptions of levels of capacity, and what was considered adequate, varied amongst research participants, with some indicating high degrees of internal human resource capacity. This implies that Cook Islanders wanted to draw on all of their own capacity first, prior to accepting external assistance. External assistance in times of disaster should acknowledge capacity (both existing and gaps)

and always act to build skills, experience and knowledge throughout all stages of the disaster management cycle.

Some capacity issues have been addressed in recent years, e.g. immediate financial capacity through the Disaster Trust Fund. However, a future focus towards capacity building across all sectors needs to be mainstreamed, with innovative approaches sought to ensure skills are not lost when key individuals move on. The flexible use of the Disaster Trust Fund (using it for DRR or disaster preparedness) was identified as a way to enact a future focus on disaster response.

Risk perceptions

The perceptions of disaster risk and climate change were relatively consistent across the Cook Islands' DRS. Most respondents agreed that climate change was shifting the baseline risk to a world with potentially more unpredictable and severe weather. What differed across the DRS was the degree to which this perception of risk had led to actions to reduce risk.

Those more directly related to the issue (e.g. EMCI and the Met Service) had the advantage since managing risk was core to their work. Other sectors believed themselves to be more distanced from the issue, thus less concerned about taking steps to develop policy or plans for disaster response. Adaptive capacity could therefore be somewhat constrained, as all stakeholders were not (for various reasons) prioritising risk reduction and preparedness as part of their work.

"If people are focused on disaster risk reduction then there is a possibility that there will be no disaster. That will make our work easy. If they don't do their jobs, then there will definitely be a disaster. And in terms of preparedness I am 100% behind that I think we should be prepared at all times".

Conclusion

Relationships and trust were key to an effective and adaptable system of disaster response in the Cook Islands. With low institutional capacity due to a small population, efficiency in disaster response required the smooth flow of information between responding agencies, who in turn needed an understanding of the formal and informal modes of operating. If relationships were strong, then agents within the DRS were aware of each other's roles, responsibilities, capacity and gaps, which in turn led to a legitimate and credible governance structure.

Incoming support to the Cook Islands in times of disaster also needed an awareness of the modes of operating, including issues surrounding culture and traditional governance structures. By doing so, external assistance can work towards building adaptive capacity in ways which are more sustainable and aligned with Cook Islands cultural practices. Past events have revealed some gaps in the capacity and coordination of the Cook Islands' DRS, and some steps have been taken to overcome them, for example the establishment of the Disaster Trust Fund.

The capacity of the health sector is highly constrained in times of disasters, however, it was clear that Cook Islanders were keen to draw on existing capacity and be supported by external assistance only when gaps are evident. Leadership of key responding bodies, such as EMCI, was crucial for future adaptive capacity, however capacity constrains the ability of some organisations to take necessary steps in implementing important initiatives. Policies and plans were needed to ensure disaster response efforts (including disaster assessments) were appropriately coordinated; however some flexibility is needed given the nature of disasters. Such policies and plans need adequate consultation of all relevant stakeholders to ensure that a collective level of ownership exists, resulting in an inclusive and collaborative DRS.

COOK ISLANDS COUNTRY REPORT

1. SETTING THE CONTEXT

Climate change is likely to affect the pattern of some disasters in the Pacific, and therefore the organisations and systems involved in disaster response. This research, conducted by researchers at the University of Technology, Sydney, focused on how the immediate humanitarian needs following disasters are met by various stakeholders, both in the affected country and those offering support from outside. The research sought to understand the adaptive capacity of both PICs and Australia's disaster response to a potential increase in disasters driven by climate change.

The primary objectives of the research were:

- To provide recommendations to policy makers and practitioners in the Pacific and Australian disaster and emergency response sectors on current adaptive capacity of PICs to climate related disasters (e.g. tropical cyclones, floods, droughts, storm surge), and identify the resources, policies and systems needed in the coming years to enhance this capacity;
- To inform improved planning and more effective response through analysis of the Australian emergency services and related organisations' capacity, role and obligations to assist PICs in times of disaster.

The research was conducted in 2012 and had a strong focus on participatory stakeholder engagement through extensive interviews, workshops and guidance from a Project Reference Group. Four case study countries (Fiji, Cook Islands, Vanuatu and Samoa) were chosen for deeper investigation of the range of issues present in the Pacific. The purpose of this report is to provide country specific results of the research for the Cook Islands.

The Pacific region is vulnerable to a range of natural hazards including tropical cyclones and storms, droughts, earthquakes, tsunamis, floods, volcanoes and wave surges. The capacity of PICs to cope with these hazards is often challenged, due to their inherent vulnerability stemming from the isolation, small size, insularity, environmental factors and limited disaster mitigation capacity (Meheux et al., 2007). As such, natural disasters occur relatively frequently in the Pacific, with significant economic and social impacts.¹

Pacific Forum Leaders have committed to reducing disaster risks through various declarations and frameworks, including the Pacific Disaster Risk Reduction and Disaster Management (DRR and DM) Framework for Action (SOPAC, 2009). The Pacific DRR and DM Framework sets out six themes and includes guiding principles and expected outcomes by 2015, and contributes to global progress in achieving goals of the Hyogo Framework for Action 2005-2015 – which is the principle international guiding framework for disaster risk management (UNISDR, 2005).

In times of disaster, it is the responsibility of the national government to respond to the needs of the population. In the Pacific, effective response is made more complex than in other regions due to reasons such as (Kennedy and Muller, 2008):

- Potential remoteness of the affected area

¹ Hay and Mimura, 2010; data from EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be – Université Catholique de Louvain – Brussels – Belgium

² Adaptive Capacity - The ability of a system to adjust to climate change (including climate

- Relatively small number of people affected (high cost per person due to relatively low population density and multiple remote locations)
- Ability of natural hazards to overwhelm local and national capacity to respond
- Logistical constraints, affecting timeliness and assessment challenges
- Coordination challenges of regional organisations

Effective institutions and guiding policies are necessary to provide a coordinated and effective response to disasters. Specific indicators important at the national government level that are identified as important in effective disaster response include (UNOCHA and UNISDR, 2008):

- A disaster risk reduction and disaster risk management implementation plan based on assessment of hazards and risks
- A national platform to promote coordination and sharing of information, and to harmonise capacity
- Adequate resource allocation across all levels
- National plans including community capacity and inclusion of specific vulnerable groups
- Disaggregated population data.

This report takes some of these elements into consideration in an attempt to provide a broader understanding of the Cook Islands national capacity to respond to disasters. This report seeks to describe specific elements of the Cook Islands DRS and the institutional capacity to respond to disasters under a changing climate.

2. RESEARCH METHODS

A qualitative methodology, with a strong focus on participatory stakeholder engagement was used for this research. The research was guided by a Conceptual Framework (see Figure 1) which was developed to provide the scope for this study.

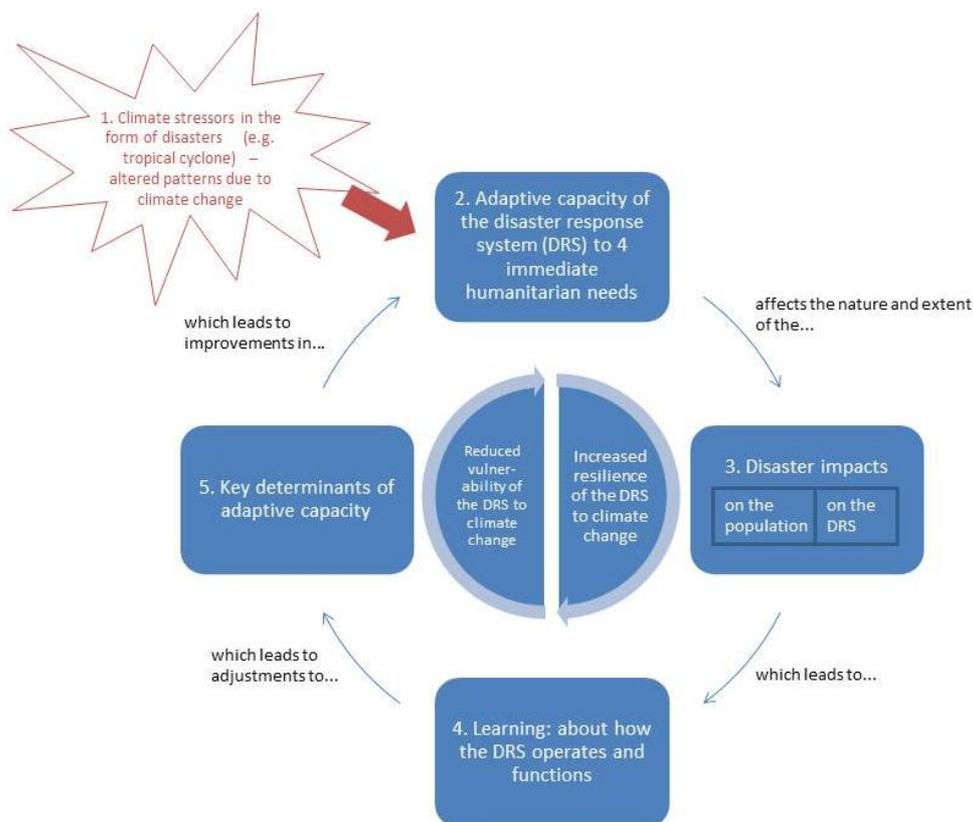


Figure 1: Conceptual Framework

The Conceptual Framework describes a cycle of adaptive learning within which the adaptive capacity of the DRS is affected by a range of key determinants (Ekstom et al., 2012). The DRS is defined, in the scope of this research, to be the organisations and mechanisms responsible for responding to the four immediate humanitarian needs. The DRS is thus comprised of actors and agents from government and non-government sectors, governance structures and the formal and informal networks that support them. The concept of adaptive capacity² was used to assess the resilience of individual organisations and the robustness of the broader system of response.

Specific determinants of adaptive capacity were used to assess the ‘disaster response system’ (DRS). Key determinants were defined as being inter-organisational, intra-organisational and objective and subjective. A list of the key determinants of adaptive capacity used in the research is provided below.

- Architecture
- Agency
- Adaptiveness
- Access to assets
- Leadership, management and governance structures
- Technical capacity, tools, methods and approaches
- Health workforce education, training and continuing competence
- Human resource for health governance and management systems

² Adaptive Capacity - The ability of a system to adjust to climate change (including climate variability and extremes), to moderate potential damages, to take advantage of opportunities, or to cope with the consequences. (IPCC TAR, 2001)

- Risk Perceptions
- Self-efficacy beliefs
- Silo mentality
- Communications and relationships
- Strategic vision and outcome expectancy
- Information and knowledge
- Elements of social practice

Background literature review, stakeholder workshops and key informant interviews with Australian, New Zealand and PIC stakeholders within the disaster, climate change, health and development sectors were used to assess the complexities of the DRS in selected PICs. Emphasis was placed on four immediate humanitarian needs: health care; water and sanitation, psychosocial, food and nutrition.

A total of 15 interviews were completed in the Cook Islands with donors, government and non-government organisations (NGOs). Interview and workshop results were drawn together with desktop review results during the data analysis phase. Key informant interviews' transcripts were subjected to an inductive thematic analysis for general patterns and emerging issues. Interview transcripts were analysed using qualitative software, and coded for specific themes based on the conceptual framework. Key determinants of adaptive capacity of the disaster response system were identified based on triangulation of data from multiple sources. Results were analysed thematically and recommendations made accordingly.

3. COUNTRY BACKGROUND

The Cook Islands are comprised of 15 islands, all but two of which are inhabited. With a population of 14,974 (Government of the Cook Islands, 2011a), the country is geographically divided into a group of atoll islands in the north (the Northern Group) and volcanic islands in the south (the Southern Group) (Government of Cook Islands, 2010). The Cook Islands have a total land area of approximately 240km² across an expanse of ocean of 2 million km² (Government of Cook Islands, 2010)

3.1 Climate change impacts on disasters in Cook Islands

Projections for the Cook Islands indicate that temperatures are likely to increase by up to 1°C by 2030 (high emission scenario), with a wider uncertainty range given for the Southern Group (Australian Bureau of Meteorology and CSIRO, 2011). Sea level is predicted to rise by between 4-15cm (high emission scenario) by 2030 (Australian Bureau of Meteorology and CSIRO, 2011). Rainfall projections carry considerable uncertainty in the region of the Cook Islands, however in the Southern Group, scientists project an increase in the wet season rainfall, while extreme rainfall days are likely to occur more frequently (Australian Bureau of Meteorology and CSIRO, 2011). As for the other PICs, tropical cyclones in the Cook Islands are predicted to occur less frequently, but there is expected to be an increase in the proportion of severe storms (Australian Bureau of Meteorology and CSIRO, 2011, Gero et al., 2012).

3.2 Key disaster response organisations in Cook Islands

Many organisations are involved in disaster response in the Cook Islands. These are described below alongside their roles and responsibilities for disaster response.

The Disaster Risk Management Council is responsible for overseeing disaster management in the Cook Islands, including in advising the Prime Minister on declaring State of Emergencies or State of Disasters. The Council is comprised of the Prime Minister, Financial Secretary, Police Commissioner, Emergency Management Cook Islands (EMCI) Director, Public Service Commissioner and Secretary of Ministry of Infrastructure and Planning (IFRC, 2012).

The **Response Executive** is established in the **Disaster Risk Management Act** and directs disaster response. The Response Executive is chaired by the National Controller, and also consists of the **Police Commissioner**, the **Financial Secretary**, the **Secretary of Works**, the **Chief Executive Officer of Ministry of Outer Islands Administration** and the director of **EMCI** (Government of the Cook Islands, 2007).

Emergency Management Cook Islands (EMCI) is established as a division under the Office of the Prime Minister. Its responsibilities are to coordinate the maintenance (including review and testing) and implementation of the disaster risk management plan (Government of the Cook Islands, 2007). In addition, EMCI is responsible for advising and supporting the Disaster Risk Management Council and assisting the National Coordinator in Emergency Operations Centre management in times of disaster (Government of the Cook Islands, 2007). The Director of EMCI is appointed by the Prime Minister, and must report to the Prime Minister. The Director has all the resources of government at his/her disposal (within reason) in times of disaster (Government of the Cook Islands, 2007).

Disaster Response Teams are coordinated at the village, district or island level and are tasked with implementing the Disaster Risk Management Plan at the local level, in tandem with EMCI (Government of the Cook Islands, 2007).

Island Councils are responsible for establishing Disaster Risk Management Committees and a Disaster Coordinator, who liaise with the Director of EMCI on the implementation of Disaster Risk Management Plans (Government of the Cook Islands, 2007). Disaster Coordinators take on the powers of the Disaster Controller should an event occur in the Outer Islands and communications are limited (Government of the Cook Islands, 2007).

The **Ministry of Health** is responsible for appointing a **Health Official** to assist the Disaster Coordinator. The **Ministry of Works** is also important in disaster response from a coastal hazards and infrastructure perspective (Reed, 2004).

Cook Islands Red Cross Society is active in Cook Islands disaster response, with its head office in Rarotonga and branches located on nine of the 12 inhabited islands (IFRC, 2003).

Cook Islands Civil Society Organisation (CICSO) is the new umbrella group representing civil society and NGOs in the Cook Islands. It supersedes Cook Islands Association of NGOs (CIANGO) which was disbanded due to financial troubles.

New Zealand Aid Programme is also active in times of disaster response and coordinate with national institutional arrangements as necessary. AusAID provides funding for development and disaster response through New Zealand Aid Programme, aiming to support donor harmonisation efforts.

The institutional structure of these organisations is illustrated below.

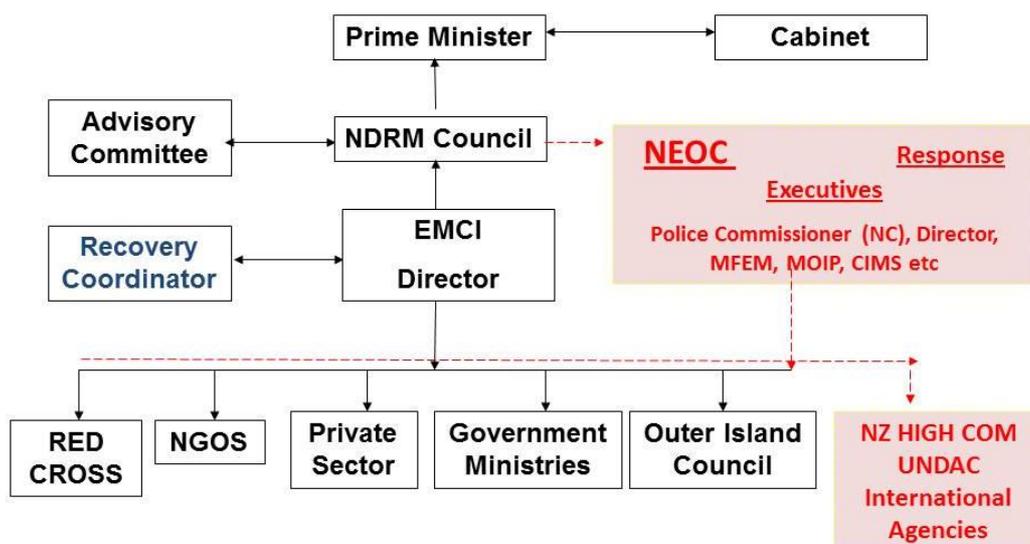


Figure 2: Cook Islands disaster coordination system

(Source: pers comms. Carson, 2012)

Important and relevant policies relating to DRR and disaster response in the Cook Islands include:

- National Disaster Risk Management Policy 2005 (Government of the Cook Islands, 2005)
- Te Kaveinga Nui 2020 and the National Sustainable Development Plan 2011-2015 (NSDP - Government of the Cook Islands, 2011)
- National Disaster Risk Management (DRM) Act 2007 (Government of the Cook Islands, 2007)
- DRM Regulations 2010 (Government of the Cook Islands, 2010)
- Joint National Action Plan for Disaster Risk Management and Climate Change Adaptation 2011-2015 (JNAP, Government of the Cook Islands, 2012)
- National Disaster Risk Management Arrangement 2009 (the Arrangement)

Box 1 provides an example of past disaster response, and describes some of the roles of organisations included above.

Box 1: Example of past response in Cook Islands

On February 10th 2010, category three TC Pat hit the island of Aituaki in Cook Islands Southern Group. The TC struck after a series of TCs affected the Cook Islands during the month of January, however TC Pat was unusual as it came without a sea surge – the typical warning sign of an impending storm. Given the early warnings available, upon the TCs impact, the Prime Minister declared a State of Emergency for the island of Aituaki and government and Red Cross personnel were dispatched early on the 10th February (UNOCHA, 2010). The United Nations received a formal request for assistance from the Government of the Cook Islands on 12 February 2010, while New Zealand received its request for assistance on 14 February 2010. New Zealand responded to the Cook Islands request with its 'Operations Cook Islands Assist' mission which involved army and air force delivering emergency aid relief and assisting with repairs (NZAID, 2010). Immediate funds of NZ\$350,000 were also provided for response, while a further NZ\$5.5 million were made available for reconstruction (NZAID, 2010).

Opinions amongst interviewees on the coordination of TC Pat varied. For example, an interviewee from the Ministry of Internal Affairs noted that:

"There weren't a lot of existing processes of what we should do... a difficulty was not being sure what was expected of us".

The Ministry of Health had a more positive response with regard to their internal efforts:

"We have a policy in place when there is a cyclone - off duty staff and on duty staff have to assemble".

New Zealand Aid Programme noted that *"In Polynesia, NZAID acts to position itself as a first responder"*. Some organisations were clear on their roles and responsibilities and other were not. Perhaps as a result of this varied response, a strong opinion was held by one interviewee in particular:

"This event highlighted the completely dysfunctional nature of disaster response in the Cooks" (Consultant). This view was held because "Government took a long time to understand what had happened... Mobilising emergency response takes too long". (Consultant)

Delays in response were reportedly due to multiple assessments, and that no supplies could be sent until assessment reports were received. This was seen as a frustration by one interviewee in particular, who noted:

"There is no imagination of what might be urgently needed – for example water, generators etc."

Furthermore, regarding the processes needing to be followed:

"The protocols and bureaucracy that we need to go through before action is taken is an impediment".

Lack of finances for disaster response amongst government ministries provided a significant obstacle to the provision of immediate needs. For example, an interviewee noted:

“Tiaponga (the Power Company) were on standby for 3-4 days because there was not enough money to purchase their airline tickets to get them to Aitutaki.”

The newly established Disaster Trust Fund is an initiative designed to overcome this obstacle, and a direct learning from the TC Pat response. Regarding lessons learned, one government interviewee noted that:

“The experience of responding to TC Pat isn’t widely known why and what happened, what worked what didn’t. It would be good to have lessons learned in a way that people can digest.”

Red Cross was reported to have a strong presence, especially with their local counterparts on Aitutaki. Red Cross reported that their approach was linked in with that of government:

“We were with Minister of Health who had hand-picked a special team to respond that night. We met about what roles we would be doing. We briefed ourselves before we sat in with the Island Council.”

This highlights that some elements of the initial response was well coordinated, with the Red Cross heavily involved. It was also mentioned that a lessons learned exercise was conducted by Red Cross in Aitutaki after the TC Pat response, with EMCI in attendance.

4. HUMANITARIAN NEEDS

A summary of the DRS capacity relating to the four themes of the research in Cook Islands is provided below.

4.1 Health care

Health care in the Cook Islands suffers from limitations due to shortages in personnel, particularly in times of disaster where staff work long hours without a break. The following points summarise the health care situation in the Cook Islands, as noted in Chapter 5).

- Policy is in place to guide health workforce, but knowledge of policies is affected by high rates of staff turnover.
- No clear guidelines exist for the coordination of in-coming health personnel but mechanisms are being developed to deal with this.
- The health sector is a key group of stakeholder in the DRS and is well organised since improvements in the clarification of roles and responsibilities
- The health sector has clear leadership and strong partnerships with NGOs and donors. Health workforce and material capacity is inadequate particularly in times of disaster. However, local health professionals are keen to be able to provide care to country but required material resources to be able to meet this responsibility.
- The health sector are often the first responders and first to carry out disaster assessment
- Some level of disaster training available for the health workforce. Desk top and field simulations or training programs are provided annually. Access to training for some levels of staff is an issue.

An interviewee from government noted that “[h]ealthcare is mostly nationally funded and Red Cross mobilises [their] workers quickly” (DCD). This highlights the collaborative and cooperative nature of health sector organisations, including the role of the Red Cross. The Red Cross are able to provide health care through a funded program:

“The Pacific Regional Health Program includes... \$50,000 a year to do community health programs – this includes before, during after disasters ... This includes psychosocial support which is a strong link between health and DRM.”

The Red Cross also note that when they visit communities,

“We always link in with the hospitals. Most of the time they say they need to upgrade their first aid skills. First Aid has to be [about] disaster preparedness and you have to be First Aid trained while out in the field. That is a package of the DM [disaster management] program - [it] is first aid training.” (CI Red Cross).

Provision of health care is supported by the pre-positioning of supplies in most of the Cook Islands.

In addition to health care provisions in the Cook Islands, the diplomatic ties between the Cook Islands and New Zealand have other implications, as noted by New Zealand Aid Programme:

“They [Cook Islanders] are New Zealand citizens they have access to New Zealand healthcare.” This is seen as a benefit to Cook Islanders, who can readily access the health care they may need by travelling to New Zealand. This ease of access, in addition to the other facilities and opportunities available in the New Zealand, is also part of the reason why so many Cook Islanders are migrating temporarily or more permanently, to New Zealand. Thus, the health workforce (and other sectors) needs to cope with fewer personnel.

4.2 Water, sanitation and hygiene (WASH)

WASH as an ongoing development issue, as well as a post-disaster need receives the greatest attention when compared to the other three humanitarian needs. This is reflected by national government interviewees from two sectors: *“Water and sanitation is the biggest funded [sector]”* (DCD) and *“Water and sanitation a priority for us here now.”* (MoIP)

Several key DRS organisations prioritise WASH and are relatively well equipped to source materials and trained personnel either internally or externally. Coordination and understanding of roles and responsibilities is also fairly well established, for example the National Environment Service considers its role in WASH: *“Water and sanitation – in terms of water and waste.”* (NES) The MoH has some personnel with skills in WASH in disasters:

“[For] Water/sanitation, Environmental Officers in the Ministry of Health - they would be on the plane [to the disaster area]. Two doctors and nurses [would also be] on the plane.” (MoH).

The MoH noted however, that due to financial constraints, they sometimes have to make the decision as to whether they send personnel or supplies, as space on the plane and the cost of aircraft fuel are limiting factors.

The Ministry of Infrastructure and Planning (MoIP) is a key government agency with a focus on WASH infrastructure in disasters and notes:

“In water we have a Water Sanitation unit. [We] also [have] a program with waste management under the one program. [There are] lots of linkages with water/ sanitation with health, the [National] Environmental Service - we work together on all responses.” (MoIP)

Red Cross is the key organisation outside of government for WASH and has a specific team and equipment dedicated to WASH needs: *“Water and sanitation equipment - a unit concentrates on just this during and after disasters”* (Red Cross). Red Cross receives support from regional and global partners in times of disaster as well and it was noted by a Police interviewee that at the time of TC Pat:

“Red Cross supplies for TC Pat came mainly from NZ Red Cross. This included a lot of WASH supplies including a desalination unit” (Police).

4.3 Food and nutrition

Immediate food and nutrition needs post-disaster were not raised as a priority amongst Cook Island interviewees. The mention of food and nutrition needs usually led interviewees to mention longer term food security issues, for example the National Environment Service (NES) interviewee noted their role for food and nutrition was *“[i]n terms of biodiversity and food security”*. Furthermore, the NES interviewee noted that *“[a]fter TC Pat the food was also destroyed; we had recommendations about replanting.”* Another national government interviewee noted that *“[f]ood and nutrition (or Food Security) is probably the theme for next year’s Development Partners meeting as it’s underfunded but needs more.” (DCD).*

The MoH indicated that provision of immediate food needs was not funded by government, rather the staff themselves:

“Food / nutrition - before we left to Aititaki [for the TC Pat response] there was a contribution [of food] from staff and then we sent the food to Aititaki. Otherwise it’s from the Red Cross.” (MoH)

The Red Cross noted that in assessing needs post- TC Pat: *“The crop food seemed okay at this point but this only lasts for 2 weeks.” (Red Cross)* This indicates that some of the food and nutritional needs can be sustained from crops surviving disaster damage, however this does not last long, and so plans need to be in place to meet these needs in food requirements.

4.4 Psychosocial needs

“People die in the sea [as a result of disasters] and then afterwards people don’t want to go in and fish because of what they think.” (MoH)

As noted in the Chapter 5, all four case study countries have inadequate capacity to meet post-disaster psychosocial needs. This has implications for the affected population as well as the ability of health care workers and other community leaders to function effectively in times of disasters. One challenge this research identified is uncertain roles and responsibilities regarding psychosocial support. An interviewee from the Ministry of Internal Affairs (MoIA) noted that:

“One area of weakness for the ministries was there was an expectation that we [MoIA] would have people who can go and counsel, but we don’t actually employ counsellors - we don’t have funds for that.”

After TC Pat, the need for psychosocial support was clear so MoIA was able to find one person:

“We [MoIA] had one person who had received some social counselling training so they were freed up to go and be part of a team.”

Dedicated and trained personnel were also found to be lacking in the MoH, and MoIA noted that as part of the TC Pat response:

“Internal Affairs does not generally provide counselling services, the Ministry of Health has primary responsibility for mental health and wellbeing and therefore had some capacity through the provision of nurses and doctors.”

Together, MoH and MoIA were able to coordinate with a team of counsellors who came from New Zealand 3 months after TC Pat to offer psychosocial support. MoH workshop participants reported that there is *“limited formal counselling. School guardians, mental health service in Ministry of Health.”*

Given MoIA and MoH were able to meet at least some of the post-disaster psychosocial needs, the expectation from other ministries is maintained – that psychosocial needs are met by both MoH and MoIA, despite the internal inadequacies that remain in both agencies, as noted by the MoIA interviewee:

“Expectations is an important one. Even after, there is still expectations we will provide counsellors and we don't have people. So now internally we have to look at how we manage those expectations.”

Red Cross interviewees were aware that psychosocial needs were a gap:

“The 2005 [tropical cyclone] event exposed psychosocial needs to be significant. From lessons learned it's been recognised counselling etc. needs to be involved. Psych support is recognised as needed and included in DRM Plans”.

Part of the gap relates to supporting community and traditional leaders, who are important points of contact for incoming support. Traditional leaders, or mayors, are often faced with additional role of being the community's disaster coordinator. As Red Cross noted that for TC Pat response:

“First point of contact was [the disaster] coordinator, who is the Mayor of the island. His first comment was he was not up to it, so we knew we needed another coordinator because he has been traumatised, he was distressed, he had not been able to get back to where he should be. So we decided we needed a coordinator to help”.

Support is needed for communities affected by disasters, including key community leaders, as well as those offering the support, who can be faced with the situation of needing to offer comfort to their own communities while in distress themselves. One interviewee noted that of the research's four humanitarian needs, the first three are more tangible, while psychosocial needs are more difficult to understand and address. This remains a challenge in the Cook Islands despite being recognised as a need since 2005 at least.

5. KEY DETERMINANTS OF ADAPTIVE CAPACITY IN COOK ISLANDS

Analysis of field results (both interviews and workshop results) and supplementary literature were analysed and interrogated to identify the key determinants of adaptive capacity of the Cook Islands' DRS.

Four key determinants adaptive capacity found to be most influential (in order of significance): 1) Communications and relationships; 2) Leadership, management and governance; 3) Capacity and 4) Risk perceptions.

As a country with such a small population and with a scattered population across vast distances, key individuals and their relationships and trust were crucial determinants of adaptive capacity. This issue permeated the other key determinants, with positions of leadership and the governance of the DRS supported by a few personnel. These few

people's perceptions of risk were seen to drive the progress and pathway towards efforts of risk reduction and addressing key issues surrounding resilience.

5.1 Communications, relationships, information and knowledge

In the context of this research, communications and relationships (McManus et al., 2007) relate to accountability (Biermann, 2007). This means that governance that is credible, stable and inclusive must be considered to be legitimate by all stakeholders, and is held accountable for its actions and representatives by its constituencies. Trust is developed between governance systems, their stakeholders and constituents when they are found to be credible, stable, inclusive and accountable. The creation of effective communications pathways based on mutually respectful relationships is critical. Closely related to this concept is information and knowledge; the dissemination and retention of which forms part of the adaptive capacity of an organisation (McManus et al., 2008). The capacity to apply current knowledge to a situation in a creative manner and assigning roles, and the ability of subsets of an organisation to assume responsibilities of absent members are considered adaptive features of an organisation.

This determinant was observed to both support and constrain adaptive capacity in the Cook Islands in different ways. Firstly, the geographical nature of the Cook Islands, with its main centre in Rarotonga and small and scattered population across outer islands, provides a challenging environment in which to manage disaster response. Logistically, communications are difficult with outer islands in times of disaster, as noted by a Cook Islands Police interviewee with regard to communicating with affected population in times of disasters: *"Communications [are] still the biggest challenge. Once comms are lost, it is just a waiting game"*. Efforts to overcome this challenge have focused on disaster preparedness and DRR so the population can cope without immediate assistance; this is described in further detail in Section 8.4.4 (Risk perceptions).

The small population is seen as a strength to some, and a constraint to others. For example, a New Zealand Aid Programme interviewee notes that *"[s]ize helps. It's a small place, you can't come on the island without people knowing you are here"*. A small population could be seen to support adaptive capacity if everyone knows who is who and how they fit into the DRS. However, small populations also mean low institutional capacity, as raised by New Zealand Aid Programme: *"Because of their size, we are relying on individuals rather than institutions so if a strong person goes then you lose a lot."* Population decline was reported as an issue by several interviewees from a range of sectors. The loss of skilled personnel is discussed below (Section 8.4.3, Capacity).

Ministry of Health interviewees noted that the management of disaster response:

"[i]s personality driven. If there is someone good on the [disaster] committee then we are represented and it [information] filters back".

This emphasis on the importance of key individuals was also highlighted by a NES interviewee:

"The [NES] director is key as he knows the people on the [Disaster] Council and has experience that he can call and inform us."

These quotes provides examples of the importance key people, and the formal and informal roles they play, in supporting adaptive capacity of the DRS. With the right people in the right roles who are connected to the right people, information can flow to those who need it. In terms of the importance of informal communications, nurses present at the workshop noted that discussion and incorporation of lessons learned after a disaster happens informally.

An example of where the lack of a relationship has limited the inclusion of an organisation in the DRS is that of the Cook Islands Civil Society Organisations (CICSO), which is the newly established umbrella group of civil society and non-government organisations. A CICSO interviewee notes that:

“There is a definite lack of relationship between government and CICSO so national policies are not relevant to us. The policies do not come down to us... We want to partner with them [Government] and be able to provide input where we have relevant knowledge, skills and experience – and contacts / networks. We want to be part of the consultation process.”

This shows that without the relationship with government (or key individuals within government), the ability of CICSO to participate in the DRS is limited and from CICSO’s perspective, the governance of the DRS lacks credibility given its limited inclusiveness. It would therefore be worthwhile for both government and CICSO to work towards developing ways to work together, given the mutually beneficial partnership and feelings of legitimacy and credibility this may lead to, particularly with regard to disaster response.

The concept and importance of trust in these relationships was also crucial in the Cook Islands where the DRS is comprised of relatively few people. When asked about the key skills people need to manage the response to disasters, a government interviewee responded:

“We need people who are good relationship managers, so a level of trust is maintained at a high level. So when an emergency happens we can sit down and make quick decisions. [We] have to deal with politics to get resources out there, you have to go through channels and respect local decision making systems so staff need to understand these politics.”

This response highlights that above other skills, relationship management and understanding formal and informal modes of operating is crucial.

Informal modes of operating include the way in which communications are often through word of mouth in times of disaster, for example: *“We are relying on family and friends networks. We walk around if the phones go down”* (Ministry of Infrastructure and Planning). So long as close relationships are maintained, this system can support adaptive capacity. However if key individuals or communities are left out of this method of communication, their ability to be kept informed, and therefore prepare or respond appropriately, is limited.

Another informal (or unofficial) mode of operating relates to the unwritten understanding that Red Cross personnel are included on the team conducting initial disaster assessments (which occur after the local nurses assessment):

"It's not a written arrangement, it's verbal, that the first flight that goes out a Red Cross person is to go. So far [it is] being observed ... it's just been happening - it's not yet written as a policy. But it wouldn't hurt, because people come and go" (Red Cross).

Red Cross recognised, perhaps as a result of the interview questions, that their inclusion on the government's initial disaster assessment team was based on an "understanding" rather than a policy. So long as key individuals involved in decision making understand this, as mentioned in the quote, this process will continue. However with high staff turnover and population decline, the lack of formal agreement has the potential to limit Red Cross inclusion in the future.

In summary, communications, relationships, information and knowledge in the Cook Islands centre around personal relationships and trust between key individuals, which is particularly pertinent given the small population. Adaptive capacity can be supported by this key determinant so long as key individuals within the DRS have a clear understanding of the roles and responsibilities of others and information flows are unobstructed. Informal modes of operating within this system are important and also rely heavily on the existence of trust and strong relationships.

5.2 Leadership, management and governance

The quality of leadership and degree of empowerment of staff is critical for an adaptive culture (McManus et al., 2008). Strength of leadership across the Cook Islands DRS organisations was found to vary. As noted in Chapter 5, there is clear leadership within the health sector and strong partnerships exist with NGOs and donors. Red Cross in the Cook Islands also provides strong leadership in times of disaster, and has a solid reputation in delivering critical support to disaster affected communities. As a result, Red Cross enjoys some support from government, and it was reported the Government had a building specially built for them.

The central government has shown leadership in the establishment of the Climate Change Office which sits within the Office of the Prime Minister (OPM), as noted by a staff member:

"Government is taking a bold step with establishing the Climate Change Office. It's a good step to coordinate better and recognises the need to improve synergies and results".

Emergency Management Cook Islands (EMCI – the equivalent to NDMOs in other PICs) has also been recently shifted to the OPM, and an EMCI interviewee notes "*[i]t is good politically to be under the Office of the PM*". Furthermore, as a result of past events:

"The government is being very supportive. I guess after Cyclone Pat there is probably a rude awakening for the previous government and then they started putting things together and then the new government that came on are very supportive especially having the PM and drove lots of things here. It's good that we have a government that support our work."

Despite this support for the leadership of EMCI, capacity to fulfil its coordination obligations remain limited (see next section). This highlights the need for leadership to be supported by sufficient personnel and financial capacity to undertake necessary activities and initiatives.

The vast majority of Cook Islands interviewees acknowledged the leadership of EMCI in terms of their role in coordination of disaster response. There was uncertainty, however, in the broader leadership of decision makers, including who and how external assistance is requested and who is included on key decision making bodies. Regarding the latter issue in relation to decision making for the TC Pat response, an interviewee from government noted, “[t]here were too many chiefs. So that caused a lot of delays especially in terms of emergency response”. EMCI also recognised the need to limit numbers on key decision making bodies because “[t]he last thing we need is having this huge number of people in the operation room so you can get a decision made”. Some flexibility exists in terms of the stakeholders involved in decision making, as noted by EMCI: “The Response Executive is a part of the Operation Team, depending on the disaster [it] can add people to the Executive.” While this shows a degree of adaptiveness and flexibility, evidence from past events shows that clearer guidelines are needed to ensure decisions can be made quickly. This too was pointed out by a government interviewee:

“It’s important to have key people that know what to do... that people are recognised as leaders in those circumstances”.

This lack of clarity in leadership on decision making bodies extended overall governance mechanisms in times of disaster. As noted by a Cook Islands interviewee:

“On paper there are processes, but as in most Pacific island countries, the Cooks Government is known for its decisions to be made ad-hoc in times of disaster. It isn’t about who shouts the loudest, but this government can find it convenient to forget procedures in times of crisis.”

Such procedures being “forgotten” may be the result of policies, plans and SOPs being inappropriate in times of disaster – perhaps too rigid, unspecific and vague, or developed without adequate consultation. Inclusion of traditional leaders and how this leadership is managed in times of disaster led to much discussion amongst workshop participants, including one comment that:

“It’s a fight of who is in charge in outer islands – the secretary, the traditional chief, mayor, member of parliament etc etc... and their wives”.

This reflects the need for a flexible approach to including and communicating with local government and leaders in outer islands.

An example of misunderstanding of the disaster response procedures at the time of TC Pat was revealed by EMCI, in terms of how the MoH responded:

“It’s us [EMCI] that activate the response; any request that comes from the outer islands comes through us. But what happened was the health people [in Aitutaki] were liaising directly to their people over here [in Rarotonga] and bypassing the system ... they thought they could just go ahead and order the stuff, then they realise that they couldn’t do it unless to us and formally through the government. Eventually we ironed out all of those communication issues.”

This example reveals that MoH were likely responding according to their own procedures, where roles and responsibilities have been clarified (as noted in Chapter 5). The

miscommunication between EMCI and MoH could therefore be the result of limited ability of EMCI in communicating national disaster procedures to other sectors, or high staff turnover, which was revealed to lead to limited knowledge of policies (see Chapter 5).

This issue of miscommunication had implications for the coordination of disaster assessments for the TC Pat response. A Cook Islands interviewee noted that:

“People felt they needed to “see for themselves” – for example those in different government departments, rather than rely on previous assessments. As a result, numerous assessments were conducted”.

This feeling of lack of coordination for disaster assessments was echoed by several Cook Islands interviewees and workshop participants, highlighting the need for a clearly developed approach to conducting and sharing results of disaster assessments. This understanding and coordination is needed for external organisations offering assistance too, as noted by an NES interviewee: *“Overseas organisations want to help but don’t know how, so they do an assessment.”* As described in Chapter 4, it is important to have clearly understood roles and responsibilities of all DRS agents (including those from overseas) to ensure efficiency in response and minimised duplication of efforts. Adaptive capacity can be enhanced with a streamlined process for disaster assessments, as support can be provided quicker, reducing potential medium to longer term impacts.

Effective leadership in the Cook Islands is important for efficiency in disaster response and adaptive capacity in the uncertainty presented by climate change. Key DRS decision making bodies need to be comprised of individuals who are recognised as leaders. This acknowledgement of leadership is in part dependent on the relationships and levels of trust between individuals, as described in the previous section. Effective leadership is also dependent on the capacity of individuals (or organisations) to fulfil their obligations.

5.3 Capacity (human resource, financial and technical)

The extent of an organisation’s access to various assets and how they are utilised to expand adaptive capacity is an important determinant. Financial assets include funding available to organisations undertaking disaster management (DRR, preparedness and response), whilst human resources include the skills and knowledge of staff related to disaster management. Defining the technical capacity in a disaster response system is important for understanding how the system functions, how monitoring / evaluation of response outcomes is undertaken for identifying gaps for future exploration and analysis, and the capacity to adapt to unforeseen stresses such as climate change impacts.

As a key determinant of adaptive capacity in the Cook Islands, capacity (in terms of human, financial and technical resources) was found to generally constrain adaptive capacity due to limitations to access to a range of assets. Perceptions of levels of capacity, and what is considered adequate, varied amongst research participants. This was made clear in a workshop activity which focused on obtaining the views of participants on levels of capacity of various organisations within the DRS. The activity focused on coordination, human resources and skills and exposed interesting views. Whereas severe constraints in human resource capacity were mentioned in interviews, participants in this exercise gave some organisations relatively high scores for human resources, e.g. the MoH received scores of 3 and 4, Red Cross received 3 and 5, while

Police (key in immediate disaster coordination) received 2.5 and 5. The MoH scores are perhaps the most surprising in light of staff shortages. However, it may point to the Cook Islanders wanting to draw on all of their own capacity first. It was mentioned several times that they wanted to look after their own people prior to requesting external assistance. To be able to do this they need material resources. For example, the WHO CC have been working on re-establishing the School of Nursing to be able to produce more local educated nurses. Full results are provided in Appendix 9.

Inherent in the capacity challenge is the small population of the Cook Islands, which a government interviewee acknowledged: *“In a small island state, we will never have all the technical skills.”* Key DRS organisations, such as EMCI who are the coordinating body for disaster risk management, only have two staff. This limited human resource capacity constrains their ability to fulfil their leadership and coordination role, and therefore has implications for the adaptive capacity of the DRS in the Cook Islands.

Accessing training, which is often delivered overseas, is difficult when staff are needed to perform their daily duties, as noted by workshop participants in terms of prioritising needs, and also a Met Service interviewee: *“Training is out of country a lot. The maximum we can send is two staff because they’re needed here.”* Capacity building in-country was identified as a priority, and needs to be incorporated as a matter of course, as highlighted by a Climate Change Office interviewee, regarding CCA projects:

“There is not much use having developed countries funding CCA projects to be prepared for DRM [disaster risk management] if there’s no component for capacity building.”

It was also noted that the small numbers of staff in organisations:

“Makes capability and capacity development building tricky because you’re building capacity of individuals not institutions” (Cook Islands New Zealand Aid Programme).

Interviewees also reported that this can lead to a loss of institutional knowledge, because *“[i]f a strong person goes, then you lose a lot.”* (Cook Islands New Zealand Aid Programme). The challenge of limited human resources and technical capacity was found to be occurring as a result of outward migration, as noted by a Met Services interviewee:

“We have a lack of skilled personnel mainly because of outward migration. It’s not as we want it. There needs to be a policy to be created by government to have some incentive to keep skilled people.”

Implications of limited human resource and technical flow on to the ability to implement programs, as reported by EMCI:

“[i]n terms of the donor funding - there’s a lot of funds there. The challenge there is we don’t have the capacity to implement a lot of these things.”

Adaptive capacity is therefore clearly constrained by the limited ability to make use of available funds for CCA programs.

Limited financial capacity was an issue raised by most interviewees, for example these quotes from government interviewees: *“Funding capacity is a core issue”* and *“Money is*

more an issue than finding people who can do the work". The financial capacity to cope with immediate disaster response has recently been boosted in the Cook Islands with the establishment of a Disaster Trust Fund of NZ\$200,000, as described by a government interviewee:

"There has been money appropriated into a Disaster Trust Fund which can be directed immediately. [It is] not a big fund but allows money to be freed up immediately."

This was developed as a learning from past events, which revealed the limited ability of government ministries to respond due to severe funding constraints. Not all interviewees (both government and non-government) were aware of the Disaster Trust Fund, indicating that communication of its existence, and understanding of the ability to draw from it, still requires broader communication. Workshop participants raised the point that some funds would be better invested into preparedness activities, rather than keeping all funds for response.

Similarly, not all interview and workshop participants were aware of the recently developed Joint National Action Plan for Disaster Risk Management and Climate Change Adaptation (JNAP – see Government of the Cook Islands, 2012). Despite EMCI, the Climate Change Office and other holding this document in high regard as the key guiding document for climate change and disaster planning, several research participants were unaware of its existence. The issue of limited capacity was once again raised as the reason for this, as few staff and funding provisions were provided for wide stakeholder consultation. A workshop participant noted that:

"We have to question whether it [the JNAP] is of any use. If it sits on the shelf there is no use doing it. You have to get the right buy in to make it useful."

As reported in Chapter 5, the Cook Islands health workforce and material capacity is inadequate, particularly in times of disaster. In most disaster situations, health sector capacity is managed by drawing personnel from one area of the MoH to assist in another area, mainly from Rarotonga, where the majority of workforce is located. Workshop participants noted that *"[t]here is no budget to increase the workforce, retired nurses have to come on board to assist. [It is] all hands on deck"*. The chronic lack of financial resources, however, affects the delivery of health services in times of disasters, especially to other islands.

"Without funding we can send 8 or 9 [personnel], because we can charter a flight; but without medication. With more funding we can take more staff and medicines".

The MoH felt that they could cope with a minor disaster. However there is a lack of the infrastructure, transport, supplies, and staff to cope with a large scale disaster.

"Thinking about when we [are] hit by a big disaster, how can we manage: I don't know where we will get all these people, and we don't have enough beds in the wards, so we can't manage. We will need people to come in and assist us" (CI-MOH).

Cook Islands Red Cross take a pragmatic approach to their limited resources, as noted by an interviewee:

“We use what resources we have – money and connections – to make things happen, and we have become clever about this over the years. We don't say we don't have money, we can't do it, we find what we have to make things happen”.

Part of the Red Cross's approach is to recognise connections between issues – for example disaster management and health at the community level. The Pacific Regional Health Program, for which the Red Cross has funding, therefore incorporates a disaster management angle.

Capacity challenges in the Cook Islands DRS provide a significant challenge to efficiency in disaster response, and constrain the adaptive capacity of the DRS, given the challenge in addressing current risk. Some capacity issues have been addressed in recent years, e.g. immediate financial capacity through the Disaster Trust Fund. However, a future focus towards capacity building across all sectors needs to be mainstreamed, with innovative approaches sought to ensure skills are not lost when key individuals move on. The flexible use of the Disaster Trust Fund (using it for DRR or disaster preparedness) was identified as a way to enact a future focus on disaster response. External assistance in times of disaster should acknowledge capacity (both existing and gaps) and always act to build skills, experience and knowledge throughout all stages of the disaster management cycle.

5.4 Risk perceptions

This subjective determinant examining perceptions relates to an organisation's understanding of the risks of climate change and the likely impacts on their disaster response processes. “Perceived adaptation efficacy” refers to an organisation's belief in the effectiveness of adaptation actions and perceived adaptation costs refers to the organisation's assumed costs (inclusive of monetary, personal time, effort) of undertaking the actions (Ekstom et al., 2012; Kuruppu et al., 2011).

While risk perceptions were generally similar across organisations in the Cook Islands DRS, the degree to which risk reduction measures were implemented (e.g. policy development, technical upskilling and relocation of risk prone infrastructure) was constrained by human resource, technical and financial capacity, as described in the previous section.

There was general consensus amongst Cook Islands interviewees that risk reduction and disaster preparedness are important, for example, an EMCI interviewee made this clear:

“If people are focused on disaster risk reduction then there is a possibility that there will be no disaster. That will make our work easy. If they don't do their jobs, then there will definitely be a disaster. And in terms of preparedness I am 100% behind that I think we should be prepared at all times”.

Part of “*doing their jobs*” involves government ministries having a disaster risk management plan, which describes internal roles and responsibilities for times of disaster. These ministry disaster plans are a requirement under the Disaster Risk Management Act 2007; however, some government ministry's plans have not yet been developed, remain in draft, or are not widely communicated to staff, as noted by a NES interviewee:

“[w]e don’t have a Disaster Response Plan for our office. We have been talking about it, we know what to do but it’s not written down.”

Workshop participants also agreed on the importance of Disaster Response Plans, as they provide details of what to do and where to go. This reveals that despite organisations and individuals saying they acknowledge the importance of risk reduction and preparedness, actions are sometimes limited in putting these words into practice. EMCI voiced some frustrations in obtaining buy-in from other government agencies:

“There is lot of preparation on our behalf and to me there was – not a failure – but it was a bit more challenging to get our agencies to respond as soon as we would like to.”

Prioritisation of implementing preparedness actions is needed to support adaptive capacity of the DRS, especially since the Cook Islands DRS is dependent on few people, meaning that all individuals need to understand their (and each other’s) roles and responsibilities in times of disaster response.

Most interviewees were aware that climate change had the potential to affect the frequency and severity of severe weather events, including tropical cyclones, with an interviewee from the Met Service reporting:

“There may be fewer cyclones but those that happen are likely to be more intense. So we need some new policies to cater for those events also conveyed across to the remote areas.”

Interviews revealed that it was not only climate change experts who were incorporating climate change into policies, as a MoH interviewee noted that:

“It used to be just emergency and disaster, now we have talked about climate change. We never used to think of climate change affecting health but now we see it does. Even our strategic plan has a component of climate change and health and what’s our response to it.”

While not always explicitly mentioned, climate change considerations were found to be incorporated where possible:

“There’s no specific reference to climate change but if you’re building a clinic then they are now being built to withstand higher categories [of tropical cyclones]” (MoFA).

There were of course limitations in relocating existing buildings, an issue raised by several interviewees, particularly the Met Service who note, regarding their building’s location (on the waterfront): *“There has been talk in government to relocate.”*

Climate change and its impacts were raised by several interviewees as one of a number of pressing issues for the Cook Islands. For example, two government interviewees noted that: *“Climate change isn’t THE issue. It’s part of the problem”* and

“What’s relevant here is a move to work towards livelihoods, then they [communities] have a better capacity to cope with disaster than those without livelihoods”.

Another interviewee noted strongly that “[t]here is almost no need to talk about climate change as we are not even managing current risk”; while a workshop participant noted that “[w]e need to invest in things to do today, [more] than things that need to be done in the future”. Broader development planning was also raised as an important factor, with one Cook Islands interviewee noting that:

“People understand risks will increase with climate change. But risks are already increasing because of poor planning”.

The perception of climate change and disaster risk was seen by some interviewees alongside development challenges, and one which could not be managed in isolation.

The perceptions of disaster risk and climate change are relatively consistent across the Cook Islands DRS. Most agree that climate change is shifting the baseline risk to a world with potentially more unpredictable and severe weather. What differs across the DRS is the degree to which this perception of risk has led to actions to reduce risk. Those more directly related to the issue (e.g. EMCI and the Met Service) have the advantage of risk being core to their work. Other sectors believe themselves to be more distanced from the issue, thus less concerned about taking steps to develop policy or plans for disaster response. Adaptive capacity is therefore somewhat constrained, as all stakeholders are not (for various reasons) prioritising risk reduction and preparedness as part of their work.

6. CONCLUSION

The key determinants of adaptive capacity for the Cook Islands that were found to be most significant were strongly related to each other and included communications, relationships, information and knowledge; leadership, management and governance; capacity and risk perceptions. As for other case study countries and across the regional DRS, relationships and trust were key to an effective and adaptable system of disaster response in the Cook Islands. With low institutional capacity due to a small population, efficiency in disaster response requires the smooth flow of information between responding agencies, and these responding agencies need an understanding of the formal and informal modes of operating. If relationships are strong, then agents within the DRS are aware of each other’s roles, responsibilities, capacity and gaps, which in turn lead to a legitimate and credible governance structure. Incoming support to the Cook Islands in times of disaster also need an awareness of the modes of operating, including issues surrounding culture and traditional governance structures. By doing so, external assistance can work towards building adaptive capacity in ways which are more sustainable and aligned with Cook Islands cultural practices.

Past events have revealed some gaps in the capacity and coordination of the Cook Islands’ DRS, and some steps have been taken to overcome them, for example the establishment of the Disaster Trust Fund. The capacity of the health sector is highly constrained in times of disasters, however, it was clear that Cook Islanders are keen to draw on the capacity they have and be supported by external assistance only when gaps are evident. Leadership of key responding bodies, such as EMCI, is crucial for future adaptive capacity, however capacity constrains the ability of some organisations to take necessary steps in implementing important initiatives. Policies and plans are needed to ensure disaster response efforts (including disaster assessments) are appropriately coordinated, however some flexibility is needed given the nature of disasters. Such

policies and plans need adequate consultation of all relevant stakeholders to ensure a collective level of ownership exists, resulting in an inclusive and collaborative DRS.

Specific recommendations for the Cook Islands include the following:

- MoH (with the support of donors and international organisations) to ensure that clear guidelines are in place for in-coming personnel to be registered to facilitate efficient and effective HRH management, immigration and customs processes in each country.
- NDMO to ensure systems are in place to facilitate a structured post-disaster debrief that encourages a feedback of lessons learned from all agencies into national policy and planning processes.
- Communication and coordination between the MoH and other DRS organisations needs to be strengthened with a view to improve effectiveness and efficiency of disaster response.
- NDMOs to work towards improved coordination of capacity building of technical upskilling and training programmes (aligned with UNOCHA's own recommendations). This is to include needs based content and systematic selection of participants.
- MoH to lead (supported by of Australian and regional / international organisations) an urgent comprehensive assessment, including further research, of psychosocial support needs and technical capacity in each of the case study PICs, both in terms of affected populations, health providers and other first respondents to disasters.
- MoH/National Health Services (supported by Australian and regional / international organisations including WHO) to develop a strategic plan addressing emergent findings from assessments of psychosocial support capacity. This will ensure that adequate consideration and provisions are made regarding the specific psychosocial needs of the affected population, health worker support and disaster response personnel.
- MoH should ensure that adequate considerations are given to HRH needs for disaster response under a changing climate, in any new or revised National Health Plans or HRH strategic policies.
- DRS to seek the support of development partners for the assessment of how the health workforce capacity can be improved in terms of numbers, skills and competencies in the context of more frequent intense disasters.



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