

INTEGRATING A DISASTER RESPONSE ARCHITECTURE IN TIMOR-LESTE: OPPORTUNITIES AND CHALLENGES

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Executive Summary

Timor-Leste achieved its independence from Indonesia in 2002 but continues to suffer from a multitude of non-traditional security challenges such as flooding and landslides, water and food insecurity, and societal tensions. This research report seeks to understand how prepared the country is for emergencies and how current disaster response operations are coordinated by the government, international agencies, local NGOs and other non-state actors.

The literature on the current institutions, mechanisms and structures present in the country to deal with disasters, the vulnerability of the East Timorese to disaster situations and what has been done to enhance preparedness for emergency situations and disaster response operations is sparse. The document analysis in this report looks at existing literature on disaster preparedness, vulnerability of the population and response and management strategies. It then analyses the findings from the fieldwork interviews conducted with relevant government agencies, international non-government organisations (INGOs) and local NGOs between July and September 2017. All these stakeholders have contributed to emergency preparedness and disaster response operations in Timor-Leste.

There were three overarching themes that emerged from the interviews. They were: time taken to respond to disasters, low capacity, and issues with coordination. The findings also revealed that the government had weak structures and mechanisms in place to support emergency preparedness and disaster response operations. The government did not declare an emergency during past water and food shortages as the impact of those situations was not immediately obvious. A Humanitarian Country Team (HCT) set up by the UN has assisted the government to act during domestic emergency situations. The UN, together with INGOs, the majority of which are based in Australia, have played a significant role in providing humanitarian assistance and disaster relief in Timor-Leste. However, it emerged that local NGOs play a subordinate role to them in domestic emergencies. This situation should be reversed.

The following key recommendations are provided to enhance emergency preparedness and disaster response operations in Timor-Leste:

- Increase resources to be channelled to improving road and communication infrastructure
- Strengthen civil-military coordination during disaster response operations
- Restructure government agencies to include recent changes in disaster management and response plans
- Re-evaluate the extent of decentralisation of roles and responsibilities during emergencies
- Expand the involvement of all stakeholders in the disaster response field and for the central government to play an active decision-making role
- Conduct a nationwide survey to understand the specific needs of the East Timorese, particularly women, during disaster situations
- Further efforts to build a locally-led emergency response system in line with the Outcomes of the World Humanitarian Summit
- Undertake greater studies/research in the severity of human insecurities such as food and water crises, both during and outside disaster scenarios

The research has revealed that further development of the Humanitarian Assistance and Disaster Relief (HADR) structures, institutions and mechanisms is needed in the country to enhance Timor-Leste's emergency preparedness as well as disaster response operations. Further research is needed in Timor-Leste to better assess the needs of the people and the effectiveness of disaster response mechanisms on Timorese human security.

Introduction

Timor-Leste shares a land border with the Indonesian province, Nusa Tenggara Timur and is located in the Southeast of Indonesia on the island of Timor. Timor-Leste achieved its independence in 2002 with its capital, Dili, as the seat of the national government. Timor Leste was most notably colonised by Portugal in the 16th century until 28 November 1975 when the Revolutionary Front for an Independent East Timor (Fretilin) declared independence. Indonesia invaded nine days later and occupied Timor-Leste until 2002.

As of July 2017, Timor-Leste's population is an estimated 1,291,358 with about 60 percent of the population under the age of 25. The country's literacy rate, which refers to the population over the age of 15 that can read and write, is 67.5 percent. The majority of the population is located in the rural areas leaving only 34 percent of the total population living in urban areas.⁵ While an estimated 96 percent of the population is Catholic, there is a small minority of Muslims. Timor-Leste is made up of people of Malayo-polynesian and Papuan heritage and there is also a small group of Chinese origin. While the official languages of Timor-Leste are Tetum and Portuguese, the more common working languages are Bahasa Indonesia and English.⁶

More than two-thirds of the East Timorese population live on less than US\$2 a day.⁷ Most East Timorese are subsistence farmers who live in small villages and in different types of traditional housing made from bush materials.⁸ Bartering is common in some parts of Timor-Leste. For many East Timorese, corn and rice are their main staples, which they grow on small farms. The major agricultural products grown locally include coffee, rice, corn, and vanilla.⁹ Industrialisation is just taking off

⁵ "The World Factbook: Timor-Leste," *Central Intelligence Agency*, accessed October 19, 2017, https://www.cia.gov/library/publications/the-world-factbook/geos/print_tt.html.

⁶ "Country Profile: Timor-Leste," *World Vision Australia*, accessed May 20, 2017, <https://www.worldvision.com.au/docs/default-source/school-resources/country-profile---timor-leste.pdf?sfvrsn=0>.

⁷ "Poverty and Equity Data Portal: Timor-Leste," *The World Bank*, accessed June 10, 2017, <http://povertydata.worldbank.org/poverty/country/TLS>.

⁸ Bush materials refer to materials such as straw, reeds, palm leaves, timber, bamboo, wooden planks and twine.

⁹ *World Vision Australia*, "Country Profile: Timor-Leste."

in Timor-Leste. Most manufactured goods have to be imported from nearby countries such as Singapore, South Korea, China, Indonesia, India and Japan,¹⁰ resulting in a persistently high cost of living.¹¹

In Timor-Leste the seasons of low rainfall are from June to November and heavy rain falls from December to May.¹² Recently rainfall patterns have changed suggesting a decrease in dry season rainfall and increase in wet season rainfall over the course of the twenty-first century making it more difficult for farmers to predict the different farming seasons. Heavy rains during the monsoon season have caused soil loss and erosion, and diminished water quality while the dry season often leads to food shortages.¹³ Projections suggest that over the course of the century tropical cyclones will decrease in frequency.¹⁴ However, further challenges will come from the use of slash-and-burn practices by farmers and the existing rocky soil across the country.¹⁵ The choppy waters offshore during the monsoon season have also threatened the health of coral reefs and the supply of fish.¹⁶

Every year, the East Timorese experience a 'hunger' season, which is the time between planting and harvesting and a period of food insecurity. During this period, people rely on their stored food from the previous year's harvest, which is supposed to last them up to the next harvest.¹⁷ The protracted drought during El Niño of 2015-2016 resulted in a notably extended 'hunger' season as the time taken to grow crops was much longer than in previous years.

¹⁰ "Timor-Leste: Country Brief", International Trade Centre, accessed December 20, 2017, <http://www.intracen.org/country/timor-leste/>.

¹¹ "U.S. Department of State: 2014 Investment Climate Statement for Timor-Leste," *U.S. Department State*, published June 15, 2014, <https://www.state.gov/documents/organization/227502.pdf>.

¹² "Current and Future Climate of Timor-Leste," *Australian Government*, accessed January 22, 2018, https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/5_PCCSP_East_Timor_8pp.pdf.

¹³ World Vision Australia, "Timor-Leste – Food Security Case Study," *World Vision: 40 Hour Famine*, accessed July 15, 2017, <https://www.worldvision.com.au/docs/default-source/school-resources/get-connected-issue12-food-security.pdf?sfvrsn=2>.

¹⁴ "Current and Future Climate of Timor-Leste," *Australian Government*, accessed January 22, 2018, https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/5_PCCSP_East_Timor_8pp.pdf.

¹⁵ *World Vision Australia*, "Country Profile: Timor-Leste" and "Resilience Project in Timor Leste," *World Vision Australia Food Security and Climate Change*, accessed July 15, 2017, <http://fmnrhub.com.au/projects/resilience-project-timor-leste/#.Wetrlq2B1E4>.

¹⁶ "State of the Coral Triangle," *Asian Development Bank*, accessed October 1, 2017, <https://www.adb.org/sites/default/files/publication/42394/state-coral-triangle-timor-leste.pdf>.

¹⁷ *World Vision Australia*, "Country Profile: Timor-Leste."

Post-Independence Political Developments

Since independence in 2002, Timor-Leste has made significant political, economic and social progress.¹⁸ However, this progress has been mainly achieved by utilising revenue from the Petroleum Fund¹⁹ and directing it through the government's budget to meet the needs of the people. Yet, as a result of 95% of its national budget in 2010 being dependent on the gas reserves in the Timor Sea – coffee and peanuts remain its only other noteworthy exports – it remains vulnerable to external shocks.²⁰ Over the past 15 years, Timor-Leste has emerged from a period of instability caused by internal violence and political discord, which peaked from 2006 to 2007.²¹ The conduct of peaceful, free, and fair democratic elections in 2012 was a huge milestone for Timor-Leste in achieving peace and stability. It was a demonstration that it has significantly improved in providing basic services for its population by building a stable and popular political environment, and gaining the trust of the people.²²

However, the potential for political instability remains as no party won a majority in the national election in 2017. After the election a coalition government was initially formed. As the electoral system in Timor Leste is closed list proportionate representation, it has ensured that party politics dominate the discourse and political preferences rather than individual candidates and their networks dominate as seen in neighbouring countries.²³ However, the legacy of independence heroes like Xanana Gusmao (who lead political parties) influence voters' party preferences. Moreover, the independent role of individual candidates is much smaller than neighbouring countries. While name recognition and influence matters, parties tend not to

¹⁸ "Timor-Leste: Overview," *The Global Fund*, accessed July 10, 2017, <https://www.theglobalfund.org/en/portfolio/country/?loc=TLS&k=9da0b8b2-7521-4c14-ab9a-7f1140e5247a>.

¹⁹ The Petroleum Fund was established in 2005 to address the constitutional requirement set by Article 139 of the Constitution of the Republic of Timor-Leste that mandates a fair and equitable use of the petroleum to meet national interests and that the revenue from the sale of petroleum be used to establish a mandatory financial reserve.

²⁰ Elisabeth Lothe and Gordon Peake, 'Addressing symptoms but not causes: stabilisation and humanitarian action in Timor-Leste', *Disasters* volume 34, special issue 3, 2010, p. S434.

²¹ "Timor-Leste State of Conflict and Violence," *The Asia Foundation*, accessed January 10, 2018, https://asiafoundation.org/wp-content/uploads/2017/12/Timor-Leste-StateofConflictandViolence_revised.pdf.

²² *Ibid.*

²³ Edward Aspinall, Allen Hicken, James Scambray, and Meredith Weiss, 'Timor Leste Votes: Parties and Patronage', *Journal of Democracy*, volume 29, issue 1, January 2018, p. 155.

publicise their party lists widely nor highlight individuals outside their regional strongholds.²⁴ In the coming years veterans pensions will be a strain on the national budget. This future demand will play an important role in Timorese politics.

In the closing months of 2017, Timor-Leste's parliament failed to pass its budget legislation twice, which triggered a constitutional provision that requires dissolution of parliament or an invitation to the elected politicians to form a new coalition.²⁵ However, broader developmental progress was recorded with social indicators such as lower infant and child mortality rates, increased health and education standards, and increased participation by citizens in political and economic decisions also show the progress Timor-Leste has made domestically.²⁶ The ability to form a stable government with national elections due in May 2018 will ultimately determine whether changes to the current government structure that affect disaster governance can occur.

Facing the next government are still serious non-traditional security threats, particularly in relation to human security, which pose significant challenges in Timor-Leste. These will need to be addressed to produce sustainable economic growth and improve living standards. This report investigates these challenges that Timor-Leste faces when responding to emergencies, by assessing how prepared the country is for disasters and how emergency response operations are conducted by the state and supported by non-state actors. It will identify the governance gaps and coordination challenges that need to be addressed to ultimately mitigate disasters in Timor Leste.

²⁴ Edward Aspinall, Allen Hicken, James Scambary, and Meredith Weiss, 'Timor Leste Votes: Parties and Patronage', *Journal of Democracy*, volume 29, issue 1, January 2018, p.159.

²⁵ Alex Barnes, "Parliamentary opposition's second rejection of national budget triggers potential early election, government stability deteriorating in Timor-Leste," IHS Jane's Country Risk Daily Report, 10 January 2018.

²⁶ *World Vision Australia*, "Country Profile: Timor-Leste.

Research Objectives

Desk research was carried out to understand existing scholarship on the vulnerability and impact of disasters on the East Timorese, the leadership of government in emergencies, the involvement of international agencies in disaster response operations, and the role of local NGOs in Timor-Leste. This was particularly important due to the lack of information on humanitarian action in Timor-Leste.

The field study sought to assess current disaster response operations to analyse current state capacity to conduct HADR and its ability to coordinate between relevant ministries and external stakeholders. From here, this report aims to evaluate the changes required in policy to improve disaster response in the country. This in turn will provide situational awareness for countries in the region and further afield who are likely responders to disaster in Timor Leste.

In addition, as one of the key goals of the Timor-Leste government is to become a part of ASEAN, this research could provide some guidance to the Timor-Leste government and ASEAN Member States on avenues of collaboration in HADR to strengthen their ties and build Timor-Leste's institutional capacity. Being in the region gives ASEAN a comparative advantage in responding to disasters in Timor-Leste and for Timor-Leste to participate more in ASEAN's HADR exercises, operations and training in a setting widely seen as neutral and solidarity-generating.

Methodology

The report employs a qualitative methodology that assesses existing institutions and mechanisms in Timor-Leste that support HADR. Document analysis, literature review and semi-structured field interviews were employed. The next section outlines the document analyses and literature review. The details of the interviews are presented below.

Semi-structured interviews:

A total of 15 participants involved in HADR from the following organisations were interviewed for the research:

- Ministry of Defence, Timor-Leste
- Ministry of Social Solidarity, Timor-Leste
- Ministry of Agriculture and Fisheries, Timor-Leste
- United Nations Development Programme (UNDP)
- Red Cross Society, Timor-Leste
- Timor Aid
- CARE, Timor-Leste
- Plan International, Timor-Leste
- National University of Timor Lorosae

All the fieldwork interviews, except for CARE, Timor-Leste²⁷ were conducted in the respective participant's offices in Dili, Timor-Leste. Dr Tamara Nair, Research Fellow and Ms Foo Yen Ne, Senior Analyst, both from the Centre for Non-Traditional Security Studies at the S. Rajaratnam School of International Studies conducted the fieldwork interviews in Dili, Timor-Leste between 13 September to 15 September 2017. The following leading questions were posed to the participants as an opening line inquiry in these semi-structured interviews:

- What are your views on the disasters or crises situations faced by Timor-Leste?
- In what capacity does your organisation respond to disaster situations?

²⁷ A 1-hour Skype interview was conducted with Kabir Maqsood the In-Country Humanitarian Operations Manager of CARE International Timor-Leste on 11 July 2017.

- In your opinion, have there been any improvements in disaster response operations over the years?
- What challenges do your organisation face during disaster response operations?
- In your opinion, what can be done differently or in a better way to improve future disaster response operations?

All participants were provided background on the research project and a Participant Information Sheet, which outlined the aims of the study, why they have been invited to take part, their rights as participants and contact information for further information or to register complaints were provided. Participant consent and consent for recording the interviews were sought through consent forms. Participants were also told how data collected would be used.²⁸ Anonymity was also ensured, if so desired. *Tetun* and *Bahasa Indonesia* are two languages that are widely spoken in Timor-Leste. As English is not the working language of the government, interviews conducted with government officials had to be quoted directly in the report. There was also no translator present. As a result, interviewers had to paraphrase to the best of their abilities. Though certain nuances may not have been captured accurately, the essence of the interview responses were clear.

Document Analysis of Key Government Reports

Given the difficulties faced in finding information online and in accessible libraries in Singapore and online about HADR in Timor-Leste, an analysis of background reports in the following areas were conducted:

- Vulnerability to Emergency Situations;
- The role of the government in responding to emergency situations;
- The role played by international and non-government organisations in emergency situations;
- Ongoing challenges faced by East Timorese as a result of natural hazards; and
- The gaps in emergency response operations.

²⁸ The data collected will be used to produce a policy report and other publications.

Vulnerability to Emergencies

Timor-Leste is prone to severe and recurrent drought, flooding and landslides. Cyclones, earthquakes and tsunamis also pose a serious risk. However, landslides and flash floods are the most frequent hazards in the country.²⁹ They disrupt land transport systems by destroying road infrastructure. Droughts are also a serious hazard, which exacerbate the country's food insecurity problem.³⁰ According to the National Disaster Management Directorate (NDMD), there have been 185 floods since 2010, compared to 32 floods between 2001 and 2009.³¹ In June 2016, about 1,850 East Timorese were affected by floods in 5 out of 13 districts in the country.³² Although Timor-Leste is characterised as a state that only has medium exposure to natural hazards, its lack of effective governance mechanisms make it the seventh most disaster-prone country in the world.³³

Maplecroft's annual Natural Hazard Risk Atlas (2013) reported that Timor-Leste is at extreme risk when a natural disaster occurs due to a lack of resources diverted to emergency preparedness planning. It was also ranked 6th and 34th for infrastructure fragility and community vulnerability, respectively.³⁴ Help Age International also found that the urban areas are unprepared for possible disasters and so is concerned about the lack of earthquake resistant structures in Dili and district capitals.³⁵ In November 2011, the United Nations (UN) mission in Timor-Leste stated that the country had suffered from 470 disaster situations over the past 10 years. The Australian Bureau of Meteorology and the Commonwealth Scientific and

²⁹ "Democratic Republic of Timor-Leste Building Disaster/Climate Resilience in Timor-Leste," *The International Bank for Reconstruction and Development*, accessed May 15, 2017, <https://www.gfdr.org/sites/default/files/publication/synthesis-report-democratic-republic-timor-leste-natural-hazard-risk-assessment-2015.pdf>.

³⁰ *Ibid.*

³¹ "Bolstering Disaster Risk Reduction in Timor-Leste," *IRINews*, published June 25, 2013, <http://www.irinnews.org/analysis/2013/06/25-0>.

³² "Bolstering Disaster Risk Reduction in Timor-Leste," *IRINews*, published June 25, 2013, <http://www.irinnews.org/analysis/2013/06/25-0>.

³³ "Timor-Leste: Disaster Management Reference Handbook 2016," *Center for Excellence in Disaster Management & Humanitarian Assistance*, accessed May 15, 2017, <https://www.cfe-dmha.org/LinkClick.aspx?fileticket=t4w46XfNjml%3D&portalid=0>.

³⁴ International Office of Migration, "IOM Training Workshop on Managing Population in Natural Disasters," *African Press International*, published December 15, 2013, <https://africanpress.wordpress.com/tag/emergency-management/>.

³⁵ "Disaster Needs Analysis: Preparedness Timor-Leste," *Assessment Capacities Project*, accessed May 2017, https://www.acaps.org/sites/acaps/files/products/files/timorleste_2012.pdf.

Industrial Research Organisation (CSIRO) also found that sea levels surrounding Timor-Leste rose at a higher rate than the global average between 1993 and 2009.³⁶

Moreover, due to its troubled past, there are concerns that a renewed outbreak of conflict and violence could occur without ample warning. Some potential issues that could cause violence in Timor-Leste are disagreements among different political parties in Timor-Leste and weak and politicised government structures, most notably in its security forces and justice system.³⁷ After the onset of a hazard from natural causes, particularly in countries with low and middle incomes, fragile political regimes, and sluggish economic growth there is potential for social unrest and internal conflict.³⁸ Whilst Timor-Leste's political system is democratic, it is not yet fully consolidated. The absence of formal channels to communicate accurate information to the public could also lead to civil unrest. This is because the population would feel largely disempowered and not know who to trust or turn to in times of need.³⁹

The vulnerability of Timor-Leste to natural hazards and manmade disasters expose it to significant civil instability and prolonged disruption of daily routines, particularly if action is not taken to plan and prepare the community for crisis situations. Moreover, as Timor-Leste is keen to join ASEAN as a full member, their lack of capacity to cope during emergencies would mean that other member states would have to provide additional support to improve Timor-Leste's socioeconomic status and prevent state failure as a result of a disaster, which would impact their own economic well-being.⁴⁰

³⁶ Pacific Climate Change Science Program & Timor-Leste National Directorate of Meteorology and Geophysics, "Current and Future Climate of Timor-Leste," *Australian Government*, accessed June 15, 2017, https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/5_PCCSP_East_Timor_8pp.pdf.

³⁷ Cynthia Brady & David Timberman, "The Crisis in Timor-Leste: Causes, Consequences and Options for Conflict Management and Mitigation," *United States Agency for International Development Timor-Leste*, published November 12, 2006, <http://apcss.org/core/Library/CSS/CCM/Exercise%201/Timor%20Leste/2006%20Crisis/USAID%20Conflict%20Assessment%20Nov%202006.pdf> and "Crisis in Timor Leste: looking for the causes to find solutions," *APSN Net Policy Forum*, published July 31, 2006, <https://nautilus.org/apsnet/0625a-curtain-html/>.

³⁸ Philip Nel and Marjolein Righarts, 'Natural Disasters and the Risk of Violent Civil Conflict', *International Studies Quarterly*, volume 52, 2008, pp. 159 – 185.

³⁹ Brady & Timberman, "The Crisis in Timor-Leste: Causes, Consequences and Options for Conflict Management and Mitigation."

⁴⁰ Prashanth Parameswaran, "When will Timor-Leste Join ASEAN?," *The Diplomat*, published October 6, 2016, <https://thediplomat.com/2016/10/when-will-timor-leste-join-asean/>.

It is important to explore the challenges that Timor-Leste have faced and are currently experiencing with disaster governance. This is to determine the gaps in the current systems in place. Identifying any gaps will assist in formulating policies and put in place practices that focus on overcoming future challenges and community emergency preparedness. However, it is first important to understand the mechanisms in place to prepare, respond and rebuild communities in the event of a disaster at the time of writing.

Government's Role in Emergency Situations

The Timor-Leste government is in the process of developing its crisis management mechanisms. The government devised the National Disaster Risk Management Policy in 2008. The document outlines the government's vision of disaster management from the national to the village level.⁴¹ It aims to firstly look into Timor-Leste's constitutional mandate to better understand what should be the government's priorities to ensure safety and security of people and their properties. It also seeks to understand how it could better protect natural resources from natural and human-induced hazards. The policy lays out the plans to develop disaster risk management programmes in areas such as vulnerability assessments, risk analyses, early warning systems, crisis management, post-disaster research and review, recovery and reconstruction, raising awareness on disaster risks and management and human resource development.⁴² Having a developed government disaster management policy is the first step to developing a clear structure on how disaster management operations should be conducted, as it provides foundation to justify future Standing Operation Procedures and protocols in the event of a crisis.

Since the formulation of the National Disaster Risk Management policy, the government has added two other initiatives to help prepare for crises. In 2010, the National Adaptation Program of Action (NAPA) for Climate Change was rolled out in Timor-Leste. Its vision was to make Timorese more resilient to the impact of climate change by understanding their vulnerability in an economy that focuses on

⁴¹ *Center for Excellence in Disaster Management & Humanitarian Assistance*, "Timor-Leste: Disaster Management Reference Handbook 2016."

⁴² "National Disaster Risk Management Policy," *Ministry of Social Solidarity*, published March, 2008, http://www.preventionweb.net/files/22114_microsoftword15500nationaldisasterr.pdf.

subsistence farming. The programme also introduced adaptation initiatives that seek to reduce the impact of climate change and to promote sustainable development. In 2013, the government conducted a National Hazard, Vulnerability and Risk Assessment with the UNDP to develop a new Disaster Risk Management Policy and Legislation. However, the new policy and legislation has yet to be announced.⁴³

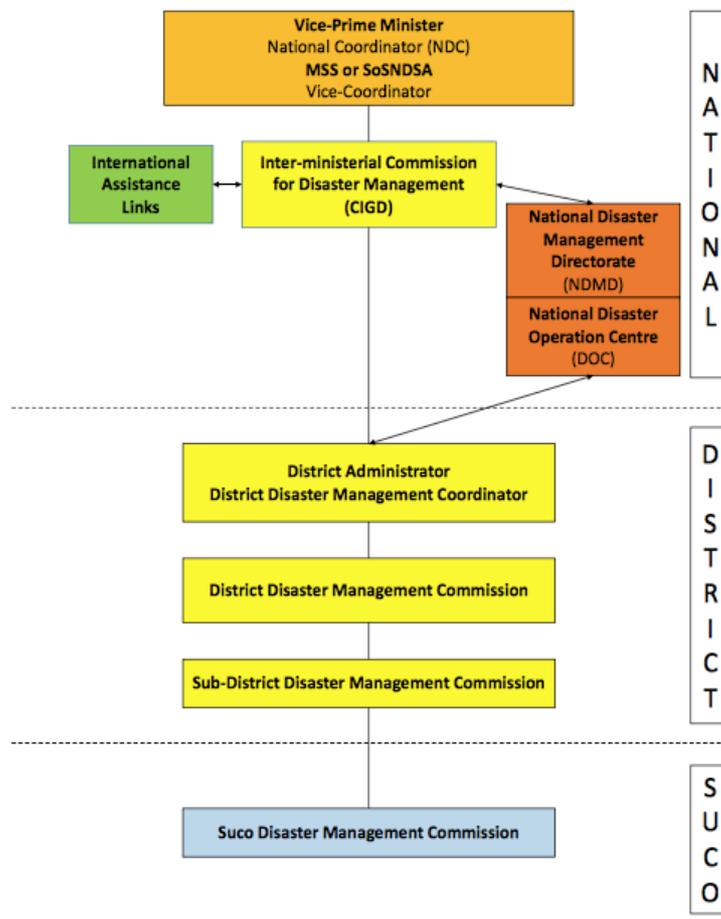
The Ministry of Social Solidarity coordinates crisis processes, preparation and response operations in collaboration with other government agencies, Civil Society Organisations (CSOs), international agencies and communities to ensure public safety and security in the event of a disaster in Timor-Leste. Under the Ministry's authority is the National Disaster Management Directorate (NDMD), which comprises of the Disaster Operations Centre (DOC), the Departments of Preparedness and Formation, Prevention and Mitigation, Response and Recovery; and disaster management committees at the district, sub-district and village levels. The NDMD oversees disaster management coordination and provides technical support to the government and communities. It supports the National Disaster Coordinator (NDC)⁴⁴ during disaster response operations as well.⁴⁵

⁴³ *Center for Excellence in Disaster Management & Humanitarian Assistance*, "Timor-Leste: Disaster Management Reference Handbook 2016."

⁴⁴ The National Disaster Coordinator (NDC) is the Vice-Prime Minister of Timor-Leste. He is the overall decision-maker during emergency situations. The Ministry of Social Solidarity reports to the NDC.

⁴⁵ *Center for Excellence in Disaster Management & Humanitarian Assistance*, "Timor-Leste: Disaster Management Reference Handbook 2016."

An Inter-Ministerial Commission for Disaster Management was set up by the Prime Minister's Office (PMO) to respond to public's fear of earthquakes and tsunamis in the aftermath of the 2004 Indian Ocean Earthquake and Tsunami. Almost all ministries are involved in this commission as the commission's policy is to take an all-hazards approach towards emergency response. However, there is a lack of information online on the activities of the commission. The most current organisational structure for Disaster Management in Timor-Leste is shown in Figure 1.⁴⁶



Source: Center for Excellence in Disaster Management & Humanitarian Assistance, "Timor-Leste: Disaster Management Reference Handbook 2016", p. 33

Although the Timor-Leste government views disaster risk management as a key priority and is very supportive of spreading awareness of the national disaster policy across the country, the current National Strategic Development Plan 2011-2030 has

⁴⁶ Ibid.

not integrated disaster risk management as one of its development priorities.⁴⁷ Disaster management has only been included in the Strategic Plan of the Ministry of Social Solidarity 2009-2012. It also remains unclear how integrated this system is in practice as the actual ability to integrate support provided to a specific sector and to the country overall is easier to aspire to than achieve.

If we take the security sector during the two Australian-led military stabilisation missions as an example, the experience in Timor-Leste was for coordination at a 'soft' strategic level through regular information-sharing with section heads at the Australian Embassy in Dili, and so programmes remained siloed in focus with little depth of coordination amongst them.⁴⁸ To consolidate an integrated disaster response architecture in Timor-Leste it is important to plan ahead and obtain buy-in from the stakeholders for it to gain traction and not be rendered a superficial enterprise. It will also be important to learn from past experience when there was a focus on bringing in outside expertise to the detriment of building capacity.

This is needed not only be at the national level government but also at the sub-national level to provide support to communities in the form of technical knowledge, and encourage links to local knowledge of hazards and vulnerabilities.⁴⁹ However, it is important to accompany any governance shifts from the central government to sub-national government structures with adequate support, so that they genuinely empower local agency rather than provide an excuse for state neglect.⁵⁰

Some scholars refer to this as an interactive form of governance "whereby structures of governance can better reflect the interests and priorities of local resource users."⁵¹ However, they recognise that there are power struggles to assert, claim interventions

⁴⁷ "Timor-Leste: National Progress Report on the Implementation of the Hyogo Framework for Action (2009-2011)," *PreventionWeb*, accessed December 15, 2017, http://www.preventionweb.net/files/15907_tls_NationalHFAprogress_2009-11.pdf.

⁴⁸ Elisabeth Lothe and Gordon Peake, 'Addressing symptoms but not causes: stabilisation and humanitarian action in Timor-Leste', *Disasters* volume 34, special issue 3, 2010, p. S437.

⁴⁹ Jessica Mercer, Ilan Kelman, Francisco do Rosario, Albilio de Deus de Jesus Lima, Augusto da Silva, Anna-Maija Beloff and Alex McClean, 'Nation-building policies in Timor-Leste: disaster risk reduction, including climate change adaptation', *Disasters*, volume 38, issue 4, 2014, pp.703 – 4.

⁵⁰ Joanne Wallis, 'Is 'good enough' peacebuilding good enough? The potential and pitfalls of the local turn in peacebuilding in Timor-Leste', *The Pacific Review*, volume 30, issue 2, 2017, p.264.

⁵¹ Dirk J. Steenbergen, Julian Clifton, LEontine E. Visser, Natasha Stacey, Andrew McWilliam, 'Understanding influences in policy landscapes for sustainable coastal livelihoods,' *Marine Policy*, volume 82, 2017, p. 186.

will always exist, and caution against participation without decision-making authority ('governance tokenism'). Therefore, accountability and transparency between central and local levels of government is key in avoiding this.⁵²

Role of International Organisations in Emergencies

The Timor-Leste government relies heavily on international agencies, particularly the United Nations Development Programme (UNDP), the World Bank and Australia-based NGOs under the Australian Department of Foreign Affairs and Trade's (DFAT) Australian Humanitarian Partnership (AHP). Additionally, the Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) in Hawaii, USA, has worked to produce a series of disaster management handbooks for responders in Timor-Leste. The Humanitarian Country Team (HCT) and website has also been set up by the international agencies to coordinate emergency response operations among agencies and the Timor-Leste government.⁵³

The UNDP still plays an important role in Timor-Leste, particularly in emergency response situations.⁵⁴ UN operations are headed by a UN Resident Coordinator who is stationed in-country. The role of the Resident Coordinator is to strategise and lead the UN in-country team to support the country's development goals and plans and to achieve the goals set by the UN.⁵⁵ The UNDP has been supporting Timor-Leste since 1999 in an effort to help the government build a stable and secure state. It has been doing so by working with the government to reduce poverty, manage environmental resources and finding ways to help prevent and overcome crisis within a democratic framework.⁵⁶

The UNDP's Disaster Risk Management Programme helps to equip vulnerable communities and the Timor-Leste government to be more prepared for disasters,

⁵² Ibid.

⁵³ Timor-Leste Humanitarian Country Team, "HCT," *United Nations Office of the Resident Coordinator in Timor-Leste*, accessed July 30, 2017, <https://hct-timorleste.com/hct/>.

⁵⁴ "About UNDP in Timor-Leste," *United Nations Development Programme Timor-Leste*, accessed May 10, 2017, http://www.tl.undp.org/content/timor_leste/en/home/operations/about_undp.html.

⁵⁵ "The UN Resident Coordinator," *United Nations Development Group*, accessed January 12, 2018, <https://undg.org/leadership/the-un-resident-coordinator/>.

⁵⁶ "Overview," *United Nations Development Programme Timor-Leste*, accessed May 10, 2017, http://www.tl.undp.org/content/timor_leste/en/home/ourwork/overview.html.

improve disaster response operations and reduce the impact of climate change at the national, district, sub-district, municipality and *suco*⁵⁷ levels.⁵⁸ As part of the project, the UNDP has created awareness amongst key decision makers in the government on the risks of natural disaster and extreme weather events and their impact on human security.⁵⁹ The UNDP has helped to build capacity of the National Disaster Operation Centre (DOC).⁶⁰ It has also pushed for vulnerable communities to adapt to climatic changes and to engage in disaster risk reduction practices.⁶¹ Its work has been important in providing support to the government in emergency preparedness as well as disaster response operations.

The World Bank has offered different forms of humanitarian assistance to Timor-Leste since 1999.⁶² In 2015, the government of Timor-Leste and the World Bank signed a grant agreement of US\$2.7 million to fund a Community-based Disaster Risk Management project.⁶³ The project, which will be initiated along the Dili-Ainaro road corridor, where flash floods, destructive winds and landslides frequently threaten the infrastructure and livelihoods of East Timorese seeks to train government officials and community members of an estimated 26 *sucos* on different aspects of community-based disaster risk management.⁶⁴ Part of the project involves

⁵⁷ The administrative posts, also formerly known as sub-districts are subdivided into *sucos* ("villages").

⁵⁸ "United Nations Development Programme Project Fact Sheet," *United Nations Development Programme Timor-Leste*, accessed May 10, 2017, http://www.tl.undp.org/content/dam/timorleste/docs/Factsheet/DRM_Project%20Fact_sheet_2015.pdf.

⁵⁹ "Strengthening Disaster Risk Management (DRM) Programme," *United Nations Development Programme Timor-Leste*, accessed May 10, 2017, http://www.tl.undp.org/content/timor_leste/en/home/operations/projects/crisis_prevention_and_recovery/TL_CPR_DRMproject.html.

⁶⁰ "United Nations Development Programme: Strengthening Disaster Risk Management in Timor-Leste," *United Nations Development Programme Timor-Leste*, accessed January 12, 2018, http://www.tl.undp.org/content/dam/timorleste/docs/reports/TL_CPR_DRM_prodoc.pdf.

⁶¹ "Strengthening Community Resilience to Climate Induced Natural Disasters in the Dili to Ainaro Road Development Corridor," *United Nations Development Programme Timor-Leste*, accessed January 9, 2018, http://www.tl.undp.org/content/timor_leste/en/home/operations/projects/environment_and_energy/disaster-risk-reduction-and-climate-change-adaptation-in-the-dil.html.

⁶² "Timor-Leste GDP forecast to recover to 5% in 2016," *The World Bank*, accessed January 12, 2018, <http://www.worldbank.org/en/news/press-release/2016/10/21/timor-leste-gdp-forecast-over-next-three-years>.

⁶³ "World Bank and Government of Timor-Leste Improving Disaster Resilience along the Dili-Ainaro Road Corridor," published, February 6, 2015, <http://www.worldbank.org/en/news/press-release/2015/02/06/world-bank-and-government-of-timor-leste-improving-disaster-resilience-along-the-dili-ainaro-road-corridor>.

⁶⁴ "Strengthening Community Resilience to Climate Induced Natural Disasters in the Dili to Ainaro Road Development Corridor," *United Nations Development Programme Timor-Leste*, accessed May 10, 2017,

developing comprehensive *suco* level disaster management plans for the villagers and to pilot small-scale projects that will reduce disaster risks in the vicinity.⁶⁵

However, it is not only within localised settings that local knowledge and resilience matters. As witnessed after the 2015 Nepal Earthquakes, Nepalis working in the United Nations system were prioritised and allowed to return home to assist in the disaster response and recovery efforts. This highlighted the significance of a mobile workforce where the participation of Nepalis in the UN system benefitted Nepal significantly in these efforts. Zbigniew Piepiora (2013) frames this in broader terms by establishing that the participation of countries in international organisations is a good way to prevent the negative consequences of natural disasters.⁶⁶ In other words, through this participation there is a both facilitation and learning of the country-sponsored individuals staffing international organisations. This however comes with an important nuance, that in general terms international organisations tend to have two salary scales for international staff which provides a higher salary scale than national staff, and in turn, financially discourages nationals from returning home for the longer term.

The NGOs in Australia are Timor-Leste's largest development partners. The Australian government contributes funding both bilaterally and through Australian-based NGOs: CARE, Caritas, Oxfam, Plan International, Save the Children, and World Vision to improve livelihoods in Timor-Leste, enhance human development and strengthen governance and institutions. The total amount of Australian funding channelled into Timor-Leste as development aid is an estimated AUD\$96.1 million between 2017 to 2018.⁶⁷ Plan International, for example, supports an emergency preparedness and prevention programme which is focussed on helping children, parents, teachers and community members understand how to prepare, mitigate and

http://www.tl.undp.org/content/timor_leste/en/home/operations/projects/environment_and_energy/disaster-risk-reduction-and-climate-change-adaptation-in-the-dil.html.

⁶⁵ Ibid.

⁶⁶ Zbigniew Piepiora, 'The Occurrence of Natural Disasters in South East Asia and the International Cooperation in the Field of Preventing their Negative Consequences', Research Paper of Wroclaw University of Economics, number 283, 2013, pp.106 – 120.

⁶⁷ "Overview of Australia's Aid Program to Timor-Leste," *Australian Government Department of Foreign Affairs and Trade*, accessed August 10, 2017, <http://dfat.gov.au/geo/timor-leste/development-assistance/Pages/development-assistance-in-timor-leste.aspx>.

prevent disasters through Child Centred Disaster Risk Reduction (CCDRR).⁶⁸ An estimated 1,550 children and adults have received training from their Disaster Risk Reduction Safe Schools programme.⁶⁹

This falls in line with the numerous other national and international agencies that have determined Disaster Risk Education constitutes an educational priority. There is a general concern that such programs are not based on published evidence of baseline disaster knowledge of teenagers and are founded on unfounded assumptions of a pre-existing knowledge base.⁷⁰ Plan International also encourages community-driven and affordable projects such as cutting down trees that could potentially be dangerous to villagers and repairing school roofs so that children are able to study in a comfortable and safe environment. They have also initiated the integration of disaster management into the normal school curriculum in public schools by, for example, teaching them how to respond during emergency situations.⁷¹

CARE Australia works with poor farmers and their families to help them grow their own food, sell surplus crops for profit and to store seeds for the next season so that food shortages are reduced.⁷² El Niño events generally bring drier conditions to Timor Leste, particularly in Dili, and often lead to a late onset and early finish to the wet season.⁷³ Historically, the most significant impact on the population during El Niño years is reduced ground water availability. CARE's Timor community magazine, Lafaek, also publishes basic information about El Niño and some preparedness pointers. This publication reaches close to 45 percent of all households in every

⁶⁸ "Disaster Risk Management in Timor-Leste," *Plan International*, accessed July 15, 2017, <https://plan-international.org/timor-leste/disaster-risk-management-timor-leste#>.

⁶⁹ Disaster Risk Reduction Safe Schools Training teaches students on how to prepare, mitigate and prevent a disaster and how to react when there is one. They are encouraged to share the information with their friends and members of their community.

⁷⁰ Tudor A. Codreanu, Antonio Celenza, and Ali A. Rahman Alabdulkarim, 'Factors Associated with Discussion of Disasters by Final Year High School Students: An International Cross-sectional Survey', *Prehospital and Disaster Medicine* 2015, volume 30, issue 4, pp. 366 – 370.

⁷¹ *Plan International*, "Disaster Risk Management in Timor-Leste."

⁷² "Timor Leste Country Info," *CARE International*, accessed July 14, 2017, <https://www.care.org/country/timor-leste>.

⁷³ "Pacific-Australia Climate Change Science and Adaptation Planning Program," *Australian Government*, accessed January 12, 2018, https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/5_PACCSAP-Timor-Leste-9pp_WEB.pdf.

municipality in Timor-Leste.⁷⁴ To educate locals on the impact of the El Nino phenomenon in Timor-Leste CARE also focuses on longer-term development programmes to build their capacity to respond to humanitarian situations.⁷⁵

The series of Timor-Leste Disaster Management Reference Handbooks is also another project designed by external stakeholders. The handbooks were created by the CFE-DM to give policy makers and first responders a baseline understanding of national disaster management plans and mechanisms in Timor-Leste. The handbook also includes information on the background of the country, important domestic disaster response entities, and local and international humanitarian organisations present in Timor-Leste.⁷⁶

The Timor-Leste Humanitarian Country Team (HCT) is organised under the auspices of the Ministry of Interior, Ministry of Social Solidarity, the United Nations Development Programme and Plan International. The UN Resident Coordinator heads the secretariat of the team. There are other UN agencies, INGOs, including the Red Cross Movement who are also part of the team. The objective of the HCT is to improve coordination and communication in Timor-Leste on emergency preparedness, response and recovery. It aims to fully maximise the combined effort of the UN and all the other agencies involved in the event of a disaster. The HCT maintains a website where information on disaster preparedness, response and recovery, and safety and security of humanitarian workers are shared amongst the members. The website is updated almost on a daily basis and the team works closely with the government of Timor-Leste to facilitate efficiency and improve effectiveness of operations to provide humanitarian assistance and protection to those affected by a crisis.⁷⁷

⁷⁴ "El Nino and CARE's Response," *CARE International*, published October 2, 2015, <http://www.care.org/impact/stories/el-nino-and-cares-response>.

⁷⁵ CARE International, "Timor Leste Country Info."

⁷⁶ *Center for Excellence in Disaster Management & Humanitarian Assistance*, "Timor-Leste: Disaster Management Reference Handbook 2016."

⁷⁷ *Timor-Leste Humanitarian Country Team*, "HCT."

The Role of Local Organisations

Unlike international agencies, there is little or almost no documentation on the role of local NGOs in disaster management in Timor-Leste. Yet the general expectation is that even in affluent countries such as the United States and Australia the government advise communities to expect to be on their own for at least 72 hours after a major disaster.⁷⁸ The only substantial accessible information on the work of local organisations is that of the Red Cross of Timor-Leste. The Red Cross of Timor-Leste provides support to government emergency operations through an Integrated Community Based Risk Reduction (ICBRR) programme to help support and increase the resilience of communities living in remote areas by addressing risks that they face, such as water shortages, health issues and risk to disasters.⁷⁹ Over the past 5 years, the Red Cross has been training teachers and about 5,000 students from 12 districts to improve their understanding of emergency preparedness. The Red Cross has also conducted disaster simulation exercises, which include lessons on how to evacuate and give first aid to victims to better prepare communities for potential crises. They have also worked with communities to promote early warning systems as it is an important means of preparing individuals for different types of hazards and threats and mitigating its impact on communities.⁸⁰

The analysis of documents on disaster management in Timor-Leste indicates that there are more disaster risk reduction programmes conducted to prepare communities for disasters than coordinated response operations involving international and local agencies in response to humanitarian crises. It also shows that INGOs play a prominent role in disaster response operations and have attempted to coordinate amongst themselves effectively. Local and indigenous knowledge by contrast demonstrates that communities are in awe of hazards caused by nature but also see them as something they can attempt to prevent or mitigate,

⁷⁸ Jessica Mercer, Ilan Kelman, Francisco do Rosario, Albilio de Deus de Jesus Lima, Augusto da Silva, Anna-Maija Beloff and Alex McClean, 'Nation-building policies in Timor-Leste: disaster risk reduction, including climate change adaptation', *Disasters*, volume 38, issue 4, p.703.

⁷⁹ "On the Move: Red Cross of Timor-Leste," *International Committee of the Red Cross*, published October 3, 2014, <https://www.icrc.org/en/document/move-red-cross-timor-leste>.

⁸⁰ "Building community resilience in Timor-Leste," *International Federation of Red Cross and Red Crescent Societies*, accessed June 4, 2017, <http://www.ifrc.org/en/news-and-media/news-stories/asia-pacific/timor-leste/in-pictures---timor-leste-red-cross-leading-the-way-with-community-based-disaster-risk-reduction/>.

and that community resilience is reliant upon keeping the knowledge alive by passing it to future generations. Communities questioned in an earlier study about rituals regarded them as 100% effective in stopping future hazards caused by nature.⁸¹

However, there is little information on how successful and effective disaster response operations have been, particularly between the government and other stakeholders; what were the challenges in coordinating disaster response operations in Timor-Leste, and if there has been progress in disaster management over the years. It is important to critically assess impact that local customs have on the ability to deliver assistance that adhere to the humanitarian principles. What has been identified in local governments is the tendency to romanticise local customs when instead they may be used to cover up crimes or reinforce customs that exclude women from decision-making for example.⁸² These are key questions that determine how successful disaster response operations have been and what are the areas that require more attention so that more lives and livelihoods can be saved in the event of a disaster. It is also important to document this information to learn from past mistakes and to have information to conduct longitudinal studies.

Fieldwork Findings

The responses from the fieldwork interviews have been categorised according to the participants' affiliations. Mainly, they are from government agencies, international organisations and local organisations.

Government Agencies

Officials from the Ministry of Defence, Ministry of Social Solidarity and the Ministry of Agriculture and Fisheries (MAF) were interviewed. This was to ascertain how disaster response operations are run, the challenges faced by the government in

⁸¹ Lisa Hiwasaki, Emmanuel Luna, Syamsidik and Jose Adriano Marcal, 'Local and indigenous knowledge on climate-related hazards of coastal and small island communities in Southeast Asia', *Climatic Change*, vol. 128, 2015, pp. 43 – 46.

⁸² Joanne Wallis, 'Is 'good enough' peacebuilding good enough? The potential and pitfalls of the local turn in peacebuilding in Timor-Leste', *The Pacific Review*, volume 30, issue 2, p. 265.

crisis situations and the progress made in response operations since independence. Officials from the chief co-ordinating agency during emergency situations, Ministry of Social Solidarity were of the view that droughts and flooding were more of a regular occurrence than a disaster situation that requires responders to be prepared. The Ministry of Social Solidarity, Timor-Leste official said that:

“... Droughts and floods [happen] regularly...We attend to these floods almost [always] January until March... Sometimes, December also when there is rainy season.”

They also highlighted that disaster response operations in Timor-Leste are very decentralised and the roles and responsibilities of the ministries involved are unclear. According to the official from the Ministry of Social Solidarity in the event of a disaster, most of the response operations occur at the municipality, sub-district and *suco* levels. He said that it is still undecided as to whether the Ministry of Social Solidarity or the Ministry of Interior heads disaster management in the country. An integrated plan that includes the ministries and responders at the municipality, sub-district and *suco* level is nonexistent. The Ministry of Social Solidarity official also highlighted that, “We have no like an integrated plan, from the national to municipal...Like National Disaster Management Directorate (NDMD), we plan by ourselves and the municipality they plan for their[selves].”

An official from the military stated that the army is only required to respond to large-scale disasters and is trained to do so. The official did not elaborate on the type of training. During the annual drought and flooding seasons, the military responds by providing logistical and transportation support if it is requested from the NDMD. The official explained that the military’s main responsibility is to provide protection in a scenario where there is some form of violence that threatens the lives of responders and civilians. However, more involvement of the military in providing humanitarian assistance with national civilian agencies as well as international agencies in emergency response operations could help overcome capacity challenges as the military possesses more equipment and resources. However, it is also important to note that at times, when the military is involved in the conflict, there may be a conflict of interest when they participate in HADR.

It was also revealed that the Ministry of Social Solidarity did not incorporate the differentiated needs of women into their emergency response operation plans. When distributing aid, the specific needs of locals are not addressed. Aid is given based on the number of people in each household. It was highlighted that the needs of children and victims of domestic violence were attended to by the Directorate of Development, which is a separate entity. It became clear that addressing the needs of only children and victims of domestic violence is not sufficient. Secondly, the role to address the needs of a specific group of people cannot be assigned to a single agency. This is because needs are multi-faceted in nature. A comprehensive emergency response operation plan needs to incorporate the specific needs of those who are most vulnerable during disasters. i.e. women, children, the elderly and disabled. They also need to be involved in the planning of the operation, so that responders are better able to understand what these groups of people require should a humanitarian situation arise. There is more that needs to be done to assess and understand the specific needs of the vulnerable populations in Timor-Leste and to include these needs in the country's emergency response plan. The decentralisation of disaster operations was a key challenge for the ministries involved in disaster response. It was understood that this led to a divided response plan, poor coordination, lengthier processes and response times. It was stated that:

“the community...[was] unhappy, unsatisfied with the process...as we [the government] take time to process [and] verify with the data...when we decentralise it's a big challenge because of human resource. They have no budget to support emergencies, equipment. The national [level] is waiting for the municipality now...we cannot go fast.”

The lack of an integrated plan that directs all officials to work together in the event of a disaster is a huge setback to emergency response operations and needs to be addressed immediately. Having a concrete national disaster management structure will reduce the impact of disasters on the civilian population and gain their trust. Decentralised efforts can have benefits and it is therefore important for the Timor-Leste government to determine to what extent there should be decentralisation in roles during emergencies. Moreover, the National Policy for Disaster Management

expired in 2012 and the government is still in the process of revising it, five years later. As a result, the Ministry of Social Solidarity and Ministry of Interior are unclear as to which agency will oversee disaster management in the country.

The official from the Ministry of Social Solidarity also stressed that there were limited specialists to respond to disasters. So far, responders from the government, excluding the military, have only received one to two weeks disaster response training. Some of this training has been conducted by officials from ASEAN countries but there are no long-term training programmes for responders at present. The official also said:

“The skill of human resource is not suitable...We need formal education for long term...We just know flood is come like that but we don't know how it is affected and the causes of the flood.”

Timor-Leste is equipped with basic technology such as the use of SMS, and the use of national radio and television broadcasters to provide information to the population on any emergency situations. An Early Warning System (EWS) comprising of such media outlets to inform civilians of an approaching disaster incident could provide necessary lead time to move people to safety. However, with limited information and communication technology and with poor road infrastructure, response time is increased significantly to forewarn communities.

The final challenge highlighted by the government officials was that there was, at times, duplication in disaster work with international agencies. For example, when government officials visit the villages to implement national disaster training, they quickly realise INGOs are already there training the villagers. In terms of progress, government officials are of the view that since the UN transition, the government has put in significant effort to improve disaster response operations, most noticeably with the development of a National Policy on Disaster Management. Moreover, it has introduced community-based disaster risk management as part of its national strategy. Community-based disaster risk management involves implementing initiatives at village level to create awareness and encourage locals to prepare themselves for emergencies in order to reduce their impact when it strikes. The

government has been implementing it in identified *sucos*. For example, they educate villagers about the consequences of slash-and-burn activities.

The government has also put in substantial effort to work on their relationship with various stakeholders to reduce the impact of disasters on local communities. The Ministry of Social Solidarity official said that the ministry conducts programmes in collaboration with the UNDP, which helps them to identify disaster risks and advises them on disaster mitigation. As there is willingness by the government to collaborate with other stakeholders in disaster response, there is potential for the government to forge partnerships in policy areas that one INGO has a comparative advantage over the others. There remains a need for stakeholders to also organise disaster response operation exercises together to improve coordination. For instance, the private sector may have more resources and motivation to invest in technology to improve response operations.

There is willingness on the part of the government to improve disaster response mechanisms and operations in the country. However, it is understandably difficult for the government to channel more resources to improve emergency preparedness and disaster response operations as they have more pressing challenges such as malnutrition, food and water security to overcome. Indeed, in the 2016 Tatoli! Public Opinion Poll conducted by the Asia Society, more respondents identified economic issues (including diversifying the economy) as the biggest issue facing the country, whereas at a community and individual level nearly two-thirds of respondents felt that the biggest issue at that level were roads and bridges.⁸³

This is where the regional association can play a crucial role to help develop the capacity of Timor-Leste to respond to emergency situations by engaging them in dialogue to identify how they could develop their current structures, policies and resources to better deal with emergencies and allow them to participate more in training programmes and HADR exercises conducted through ASEAN. In the long-term, it would be beneficial for the region as Timor-Leste would be less dependent

⁸³ Susan Marx, '2016 TATOLI! Public Opinion Poll', San Francisco: The Asia Society, 2016. Available: <https://asiafoundation.org/wp-content/uploads/2017/06/2016-Tatoli-Survey-Report-ENGLISH.pdf>

on foreign assistance for humanitarian assistance and disaster relief if they are able to plan operations and support themselves more effectively during emergencies.

International Organisations

As for international agencies, the researchers interviewed UN representatives, staff from Plan International and CARE International to understand their roles during disasters in Timor-Leste, the challenges they face during disaster response operations and the progress they have seen over the years in response operations. The agencies that the researchers spoke to were all part of the HCT, which usually meets as team about 3 to 5 times a year. According to the UN official interviewed, the HCT is an “effective body in terms of information sharing and partially in terms of coordination of action... we have a cluster structure...[that] meet to do contingency planning.”

The HCT allows for coordination between the government, international development partners and donors. It was highlighted that information and assessments conducted were efficiently shared with the government through regular HCT meetings. The cluster system specifically developed for the HCT is a platform to provide information in areas such as protection of vulnerable communities, health, food, nutrition and disaster resilience among the development partners and government agencies. It is also a platform to conduct specific training with the government agencies in Timor-Leste on what needs to be done during an emergency.

The UN official said that Timor-Leste has been experiencing a drought situation every year and this has led to high levels of poverty and malnutrition. However, as the impact of El Nino was not immediately obvious, as it was not viewed as a disaster. As a result, there was a lack of response and lack of recovery after El Nino. It was explained that,

“... there were different views about how serious this was. In our estimate, it was somewhere between 120,000 to 180,000 people severely affected. Many of these did not receive any assistance from government or external actors...a survey from the Ministry of Agriculture that showed many people were still

suffering from the lack of response and lack of recovery after El Nino, the slow onset disaster.”

Similar to the Ministry of Social Solidarity, the UN reiterated that the roles and responsibilities amongst the ministries are currently unclear as the new government is shifting the disaster management responsibilities from the Ministry of Social Solidarity, to Ministry of Interior. This has also caused an ‘eroding’ of institutional knowledge. It was stated that,

“There was work on legislation, policies and SOPs. And, there was also capacity building, advice, technical assistance, computer database preparation etc. in the state including the NDMD and the NDOC. But, these remain associated with the Ministry of Social Solidarity, Timor-Leste even though the responsibility has shifted to MI for disaster preparedness and response.”

Another challenge that was raised was that road infrastructure was poor, particularly outside Dili, making certain flood-affected areas inaccessible confirming the findings of the wider public opinion poll conducted by the Asia Society in 2016. The UN official said that although Timor-Leste is small, there is difficulty in organising logistics because many of the roads are poorly constructed, particularly the secondary and tertiary roads, and some times, are further obstructed during the rainy season. There is a need to walk to certain areas. Interviews with international agencies also indicated that were significant problems in the communication infrastructure in Timor-Leste. For instance, the CARE official stated:

“Communication breakdown is a common occurrence in the country, particularly in the remotest areas. At times it is hard to get in touch with our staff who are responding in remote areas. This is especially so in hilly areas, where road infrastructure is poor and the villages are not easily accessible.”

Poor communication infrastructure may be one of the key problems that increase disaster response time and also increases the security risks to humanitarian workers as they are unable to contact each other should they feel their personal safety

compromised. International agencies also highlighted that there were limited resources to deal with disaster situations in the country. According to Plan International, there was a lack of information on the impact of food shortages and the prevalence of malnutrition. While the government managed to develop a household questionnaire to understand the challenges faced by each individual, scarce resources of the government and international agencies hampered their ability to conduct the questionnaire identifying it as a key area to address as without data it is impossible to effectively prepare and respond to disasters.

Moreover, as noted earlier, the government is reluctant to consider the El Nino phenomenon in Timor-Leste as an emergency as the indicators of a slow onset disaster are indistinct. It was also understood from the international agencies that there was a lack of use of advanced technology in disaster response operations in the country. The UN official stated that “most key messages are printed on posters. We print posters on ‘how to irrigate, preserve water and protect water sources.’” The UN official went on to say that “for the NDMD, it’s early warning system but maybe the capacity is not there...[and] so, sometimes not functioning in the right way.” Again, this was a challenge raised by government officials as well. It highlights the importance of engaging stakeholders that can invest in better technology to improve response operations. However, for technology to work effectively to improve disaster response, it is critical to first build up the communication infrastructure, i.e. telecommunications and broadcasting services and wireless and satellite technologies. In terms of progress, international agencies argue that the communities they work with are generally receptive to their support. It was said that:

“They have built close relationships with humanitarian workers as most of them have had long-term projects with local communities. They see continuity and therefore trust us.”

This is important as gaining the trust would help to implement disaster preparedness initiatives more effectively as well as during disasters when the locals are more willing to work together with the agencies to improve their situation. This could also help reduce any of the tensions mentioned earlier, in relation to villagers sharing their water sources and insisting on aid when other *sucos* need more assistance. It

also improves the safety and security environment of humanitarian workers. It was stated that international agencies, particularly those from Australia, work well together. As a result, community projects that are coordinated amongst Australian agencies are run with largely successful results. Moreover, it was added that international agencies also forged good relationships with local NGOs as well, although INGOs retained more stable financial support. It was said by an INGO official that:

“We have like 20 partners with Plan, local partners for water and sanitation where I’ve [we have] been working, technically they are as equal as we are but it’s just that we can multiply our efforts and do more work when we work together and I think it turns out, unfortunately, it is the case that the funding streams don’t always reach the local NGOs...because we are bigger.”

Women’s participation in decision-making processes have also increased in the country. Some 38.5 percent of women are part of the national parliament, and also participate actively in economic decisions. As a result, they have a strong voice in advocating on how women can participate in the development process of Timor-Leste compared to many other countries in Asia. Finally, international agencies play a very active role in humanitarian assistance and disaster response operations in the country. The HCT has helped them forge ties with the government and to have a platform to interact with them. The interviews with them stress the importance of coordinating with local government and non-government agencies in disaster response operations, improving infrastructure and technology and most importantly, for the government to channel more resources into surveying the current emergency situation, the needs of the people, and to improve their disaster management institutions and mechanisms.

Local Organisations and Academia

Local agencies and an academic institution were also interviewed to understand their role during emergency situations and their perception of the role of the government and international agencies in HADR operations. In relation to local agencies, the fieldwork researchers interviewed Timor Aid, The Red Cross of Timor-Leste and in

terms of an academic institution, academics from the National University of Timor-Leste were interviewed. The participants shared their views on how emergencies are dealt with in their country and also their past experiences in dealing with disaster situations.

The Red Cross of Timor-Leste, an auxiliary to the government, is the local organisation that has contributed significantly in disaster response operation in recent times. They play an important role in collaboration with the government and international agencies as well as by themselves. They participate in the preparedness, response and recovery phases of disaster response. The participants highlighted that during the preparedness phase, they help communities build capacity by conducting community-based risk reduction programmes and they conduct their own Vulnerability Capacity Assessment. The assessment provides them with a better picture to identify the needs of the community, particularly women and children. The data is retained in their own system. Within each municipality and district, the organisation has trained about 25 volunteers to standby for emergency situations. These volunteers are the ones who help retrieve data about the specific populations. Previously, their preparedness programmes educated villagers on harvesting and targeted individual groups such as women and men. However, as the end results were not favourable they decided to target their projects based on households instead of being gender-specific.

Annual simulation exercises to prepare agencies responding to disasters is also conducted through the HCT. The Red Cross of Timor-Leste participates in these exercises. The official explained that it was a good opportunity for them to learn to coordinate and respond to operations along with the UN, as well as with all national and international NGOs active in Timor-Leste. During disasters the Red Cross of Timor-Leste assists by distributing relief items to specific populations. Some of the items usually distributed are non-food items such as family kits which comprise of cooking equipment, tarpaulin, a plastic basin, and women and baby kits for pregnant and breastfeeding mothers. The interview participant from the Red Cross of Timor-Leste stated that there is no great dependency on INGOs in terms of disaster response and recovery.

This is because INGOs need the government to declare an emergency to access emergency funds for disaster response operations. The local Red Cross explained that it is protocol that the state declares an emergency before international agencies have access to additional funding to deal specifically with disaster situations. It is therefore difficult to rely on INGOs if the government does not declare a state of emergency. However, the local Red Cross is able to request for immediate international assistance even if the government has not declared an emergency as it is part of their mandate to support and to their best ability fulfil requests made by the government to provide humanitarian assistance to locals during emergency situations.

One of the key challenges highlighted by the Red Cross of Timor-Leste and academics is that there was a lack of coordination during emergency response operations. It was stated that: "...Coordination... everyone wants to be support but the way of the support is not really linked to each other." It was also added that the constant changes the government had made, make it difficult to strengthen coordination because there is always someone new overseeing disaster response operations. The Red Cross of Timor-Leste also stressed that there was no integrated data sharing platform and that the organisation conducted its assessments in the aftermath of a disaster in a silo. It also highlighted that it did not have the expertise to understand the special needs of those who are ill as there were no health professionals available to join the assessment team. According to them, organisations keep their own data and there is an urgent need to integrate the data collated from all agencies.

The staff from Timor Aid, a local NGO, said that the organisation has not conducted disaster response operations in the country for about 9 to 10 years. According to the staff, a challenge faced by local NGOs like them is that they found it hard to compete with INGOs to receive financial and administrative support for disaster response operations. It was explained that: "Nowadays, all donors also come with their international partners, NGOs, and we as local NGOs cannot in any form compete with INGOs. There are so many here." Furthermore, the staff from Timor Aid stated that local NGOs are seen as "sub-contractors" by INGOs. When local NGOs are given projects, they feel like strangers as the resources are owned by INGOs. It was

stated that, “We [Local NGOs] are just like needed when they have resources for a certain area.”

A final key challenge that was brought up by the staff from the Red Cross of Timor-Leste was that there was significant duplication during response operations because there are a lot of actors and various different types of goods. The government faced difficulty organising the situation so that the needs of victims are met. It was explained that: “...many assessments are there, Many people come and collect the information but the coordination is a bit lack because everyone wants to distribute what they bring but not really see what is the need.” It is clear that apart from the Red Cross of Timor-Leste, most of the local NGOs do not play a central role in disaster response. This may be because they do not have the capacity or organised resources to head disaster response operations in the country. International agencies could assist by channelling resources to coordinating with them to a greater extent and increasing their capacity in the long-run.

Analysis

This section brings together analysis of the findings from the different institutions in Timor-Leste. It specifically looks at the three overarching themes that have emerged from the interviews. They are response time, coordination, and capacity. The views from the different groups show that the disaster management structures and operations are weak, coordination between the stakeholders can be improved and there is a need to build the capacity of the country for a more effective disaster response.

The challenge that was mentioned by all parties interviewed was the poor road and communication infrastructure that restricted the movement of responders to remote places. It was highlighted several times that the bad road infrastructure did not allow agencies to assist some of those affected by food and water shortages, especially in hilly areas. It also restricted responders from communicating quickly with their headquarters to inform them about the needs of the affected victims. Thus, this is one of the most important challenges that the government needs to overcome. There

is an immediate need for more resources to be spent to improve road and communications infrastructure in the country to increase their capacity and to ensure shorter response time during disaster operations.

The formation of the HCT is a huge achievement as it brings together all parties who are involved in disaster response operations. Currently Timor-Leste has very weak structures in place in the government. This can be developed by empowering them to make decisions in the HCT. Establishing an eco-system that involves the government of the affected country could first ease bureaucratic rules. For example, during the Nepal earthquake, due to the absence of a powerful disaster response coordinating body, many international rescue teams had to wait several hours at the Tribhuvan International Airport as there was a failure to promptly assign them to specific areas. Much of the relief was also stranded at the airport. Similarly, during Cyclone Nargis, four days after the disaster, the OCHA disaster assessment team in Bangkok was still waiting for its staff's visas to enter the country. Therefore, a central coordination system needs to be in place, perhaps in the HCT to prioritise the humanitarian needs of the affected population, gain access to affected people and to facilitate structure in reconstruction plans, instead of giving 'one-off' assistance. This requires advance preparation to understand the needs and capacity of various communities and regions within the country and to take note of any limitations such as language barriers and religious restrictions.

The HCT is a great platform to develop the low capacity of the Timor-Leste government in disaster management and overall coordination mechanisms amongst the various stakeholders in the disaster management field. However, more resources need to be channelled into it. It needs to develop into a more powerful coordinated eco-system encompassing local, regional and international actors for disaster operations strategies to be effectively implemented. There needs to be a structured system that has specific roles and responsibilities for government officials to make decisions for disasters, as well as the ways in which other non-government agencies can facilitate and support the government in their work. HCT must move beyond information sharing and trainings and be more operationalised in order to have a greater impact in the country's disaster management operations.

The HCT is also a good platform to conduct the much-needed survey to understand the current dynamics of Timor-Leste. At present, various surveys are conducted independently by government and international agencies to understand data about a specific issue. However, there is no integrated system that collates all this information to accurately target the needs of the population during disasters and improve the effectiveness of disaster response operations. The members of the HCT could set up a team to work together to go across the country to collate as much data about each individual in households and how many people have special needs i.e. children, pregnant and lactating women, disabled persons, and the elderly. Data could also be collated through the HCT on the weather patterns, agriculture produce over time, the length of hunger season and the number of people suffering from malnutrition or experiencing water shortages. Such a survey would require the specialised skills of personnel from the agriculture, health and meteorology sectors. This would help the government understand the severity of the food and water shortages amongst the people and help plan policies and initiatives to combat these challenges. It would indeed help to build their capacity as well as reduce the time taken to respond to future disasters.

Moreover, the annual simulation exercises are an important initiative that has been introduced by the HCT. It would help the civil government and international agencies to anticipate and overcome the challenges in coordinating disaster response operations. However, more actors, including the military can be involved in the exercise to have ensure that response operations are more well rounded and all aspects of disaster response operations in Timor-Leste are coordinated together. In ASEAN, the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) as part of its mandate to prepare for disasters in the region conducts a yearly training to strengthen the capacity of ASEAN-Emergency Response and Assessment Team (ERAT). Part of the training is to participate in emergency response simulation exercises to test the procedures and working mechanism and enhance cooperation and coordination with other disaster management stakeholders. For instance, during the onset of Cyclone Nargis and Typhoon Haiyan, plastic sheeting was given to shelter the homeless. However, it did not last long as they deteriorated due to weather conditions. There was a need to coordinate with donors to provide longer-term shelter solutions. The HCT can be a

platform to overcome such challenges and build the capacity of stakeholders, improve coordination mechanisms and reduce the time taken to respond to disasters in the future, by organising such simulation exercises to involve all parties that could contribute to disaster response operations, including local NGOs. Regular drills need to be conducted to ensure that the system in place works effectively.

Furthermore, Southeast Asia experiences a continued evolution of the humanitarian landscape and nature of disasters. The combination of climate change, deforestation, population growth, urbanization and the unfolding El Niño phenomenon and conflict situations suggests that more frequent and intense disasters are likely to have a greater impact on a larger number of people in Asia, including Timor-Leste over time. The coordination of diverse humanitarian actors should essentially further facilitate, not obstruct humanitarian assistance and/or disaster relief responses. It is also important to move beyond the siloes of disaster and conflict and begin to think more holistically about the multidimensional non-traditional security challenges we face. At the moment government structures in Timor-Leste are restricting smooth disaster response operations as there are no clear roles and responsibilities allocated to Ministries except for the NDMD and DOC. External stakeholders are unclear as to whom to approach for different aspects of disaster response operations. Similarly, officials from the agencies are unclear of their roles as well. Moreover, the 2012 National Policy for Disaster Management is still in review and has not been implemented. There is no guidance even for ministry officials to determine their exact roles. It is important for Timor-Leste to channel more resources to re-organising its disaster management structures quickly so as to maximise its capacity and reduce time taken to respond to disasters. One way to strengthen existing mechanisms would be to use the CFE-DMHA Timor-Leste: Disaster Management Reference Handbook 2016 as a reference to develop its own policies and processes.

Technology for emergency preparedness reduces time taken to respond to disasters and is important to predict and reduce their impact on civilians and ensure that they receive much-needed aid in a timely manner. In Timor-Leste, very little technology has been used to overcome the challenges during disaster situations. For example, during the interview with Plan International the interview participant stated that the

organisation used a tool called Vulnerability Analysis and Mapping (VAM)⁸⁴, which has been extremely useful to monitor erratic rain patterns and to survey weather conditions. It is also a good resource that can complement daily weather reports and the data is accessible by everyone. Such technology could actually help predict the scale of an emergency situation and also around the period of time it takes place each year.

Another example is that from Médecins Sans Frontières International and US Company Matternet trialled the use of small drones to transport diagnostic samples of patients with suspected Tuberculosis from remote health centres to the general hospital in Papua New Guinea. This helped to quickly identify those who are ill and to isolate them before there is an epidemic.⁸⁵ The Twitter lifeline used in Japan to send out mass alerts in the event of an earthquake also helped to warn locals in time to reduce injuries and damage to property.⁸⁶ Technology could reduce the impact and the time taken to react to a situation and also improve the effectiveness of the disaster response operations. It is important for Timor-Leste to source out partners to develop technology in disaster management. However, it is important to note that to develop these technology ideas, it is first critical for the government to enhance its basic communication infrastructure.

It was also stated that there tends to be duplication of aid and programmes in some areas of Timor-Leste. Other than coordinating through the HCT on who should be involved in providing aid and developing programmes in certain areas, it is also imperative for equipment (e.g. tents, medical facilities and energy sources) and items needed immediately during or after a crisis to be standardised, so that civilians in some areas do not receive too much of a certain item while there is a shortage of it in another area. For example, a Family Kit should cater to the average number of family members in a household in Timor-Leste and also be able to meet the special

⁸⁴ Vulnerability Analysis and Mapping (VAM), is a tool supported by the World Food Programme to analyse information on food security and vulnerability. More information about VAM can be found at: <http://documents.wfp.org/stellent/groups/public/documents/vam/wfp067434.pdf>.

⁸⁵ Denise Soesilo, "How Drones Helped Fight Tuberculosis in Papua New Guinea," *Drone Blog*, accessed October 20, 2017, <https://www.droneblog.com/2016/09/29/how-drones-helped-fight-tuberculosis-in-papua-new-guinea/>.

⁸⁶ Jinen, "A new lifeline in Japan," *Twitter*, accessed October 20, 2017, https://blog.twitter.com/official/en_us/a/2012/a-new-lifeline-in-japan.html.

needs of women. An interagency Emergency Health Kit should also be designed for use at peripheral and central health facilities. This will allow for essential equipment to be set up in a timely manner, reduce time taken to coordinate the distribution of relief items and also minimise resources needed to operate equipment or sort and distribute items.

It is also important to note that local civil society organisations can provide immeasurable support in disaster management. They are the bridging platform between governments, international agencies and the local people. They help materialise policies and also provide support on the ground to implement them. Local organisations have good local knowledge and extensive networks because of their ongoing activities in the areas affected by disasters. Also, due to their longstanding presence in Timor-Leste, they may have quick access to local authorities to further facilitate a disaster response operations. Most importantly, they raise awareness to challenges that are faced by the locals that foreign agencies are unaware of. From the interviews, it was understood that the role of local NGOs in particular were inferior to that of INGOs because their funding and operations were controlled by the bigger international agencies. Some of the local NGO staff highlighted that they felt that work was sub-contracted to them from INGOs.

Local NGOs need to be empowered so that they are able to eventually take charge of providing humanitarian assistance and aid to locals. This is likely to be more sustainable in the long-run to strengthen the institutions and coordination mechanisms within a country so that they are able to be self-sufficient. In the case of Timor-Leste the ability to empower local NGOs lies with INGOs as they have the capacity and resources to support and train them. This could be done through the HCT. There could be a pre-requisite made to make international partners work in partnership with local agencies, and not in a subordinated role.

Finally, there were two supplementary observations that came through the fieldwork interviews. Firstly, as mentioned earlier, women's participation in political and economic activities and even in the military, in Timor-Leste is higher than that of many Asian countries. Timor-Leste also has its own National Action Plan, a valuable tool for the country to implement its commitments to the Women, Peace and Security

agenda. This is indeed progress if the women are in decision-making positions because when women hold positions of power there is usually more thought put into their specific needs. In this case, there is a national action plan to also protect the rights of women in conflict situations and to allow them to participate in peacebuilding processes. It was also highlighted that organisations such as the Food and Agricultural Organisation of the UN (FAO) was heavily involved in helping the government develop policies on nutrition and producing brochures for pregnant women and children to eat nutritiously. The Red Cross of Timor-Leste has also been providing specific kits during disasters to cater to the needs of pregnant and lactating women. However, there are no kits to cater to other women who are neither pregnant nor breastfeeding.

Moreover, protecting women and their needs is an important component of disaster response and management. There is substantial evidence that indicates that women are disproportionately affected both during disasters and in response settings. For example, a 2005 Oxfam Report explained about how women and girls were extremely affected by the 2004 Tsunami, stressing their disproportionately high mortality rates⁸⁷. Similarly, a 2007 study of disaster situations in 141 countries showed that gender differences in mortality rates had a direct relationship to women's economic and social rights and that men and boys were treated better than women⁸⁸. The agenda to protect women and their needs is definitely moving in the right direction in Timor-Leste. However, again, it is important to emphasise that there is a need to ensure that women are placed in positions of power so that they are able to actively participate in decision-making processes. This is yet to be seen. Also, providing gender-sensitivity training for disaster response teams and collecting more disaggregated data through national surveys could help to ensure that the specific needs of women are addressed during disaster situations.

It was also drawn to attention that despite extreme water and food shortages during protracted hunger seasons, the government did not declare a state emergency as

⁸⁷ "The Tsunami's Impact on Women," *Oxfam International*, accessed October 15, 2017, http://www.preventionweb.net/files/1502_bn050326tsunamiwomen.pdf.

⁸⁸ Eric Neumayer & Thomas Plumper, "The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy," *Annals of the Association of American Geographers*, Vol. 97, No. 3 (2007): 552, <http://eprints.lse.ac.uk/3040/>.

the impact of the situation was not obvious. This has prevented international agencies from accessing emergency funds from their respective organisations to deal with the crisis. As it is protocol that the state has to declare an emergency before emergency funds in the organisation can be tapped upon. To ensure civilians receive the assistance they require there needs to be changes to the system. International agencies, together with the government could develop a threshold criteria for state emergency to be declared or for international agencies to gain access to emergency funds.

Conclusion

Timor-Leste has much to work on to improve its basic disaster management structures to enhance emergency preparedness and disaster response operations. Currently, the structures and processes have been formed but are weakly implemented. There needs to be more serious implementation by the government to increase the resilience and build the capacity of local communities to respond to emergency situations and to reduce suffering in times of crisis.

Timor-Leste receives significant support from the international community, particularly the UN and Australia-based NGOs. This support and aid should be more effectively utilised by the government by planning in advance how it should be allocated during emergency situations. This will allow the country to build its own capacity and not rely on international agencies for full support. Over time, some of these international agencies will reduce or cease their operations in Timor-Leste, regardless of the progress made in Timor-Leste in building its capacity to respond to emergencies. This will likely be rationalised because the budget of organisations is determined by various different considerations, other than the needs of the country.

The first step forward is to understand the impact of the El Nino phenomenon on its people and to divert resources to slowly overcome the challenges associated with it. Disaster management is one significant area where Timor-Leste can further its ties with ASEAN to improve its capacity, as ASEAN is a global leader in disaster management. At the moment, Timor-Leste does participate in workshops conducted by ASEAN in HADR-related areas. However, it is time for Timor-Leste to improve

their relationship with ASEAN by participating in HADR simulation exercises and trainings, where they get the opportunity to build networks and relationships that could provide them with support during future emergency situations.

From the fieldwork findings it is evident that Timor-Leste has weak institutional structures and for the government to work in siloes to conduct humanitarian assistance and disaster response operations independently. However, it is important for the Timor-Leste government to understand that in emergency situations it is important to have feasible structures and procedures in place to allow for an effective multi-agency response to take place. This is critical as each government agency has its own strengths and data that will help overcome the the multi-dimensional traditional and non-traditional security challenges posed during an emergency.

As highlighted in the report, it is critical that the government takes steady steps to develop and strengthen its capacity, reduce response time to disasters and enhance coordination mechanisms to build the resilience of its people and reduce their suffering in the event of a crisis. The report has highlighted many different areas and ways in which this can be done. Collecting accurate disaggregated data, implementing effective coordination mechanisms amongst government agencies involved in responding to emergency situations and working closely with non-government agencies could provide support in building the capacity of locals to respond to disasters are some of the key findings from the field study.

Finally, the research has revealed that there is a definite need to conduct more fieldwork in Timor-Leste to understand in detail the dynamics of the challenges highlighted in this report in relation to emergency settings. Some areas that could be explored further are the underlying threats to water and food shortages in the country and mapping out the specific needs of different communities. This will help formulate more focused HADR policies to improve disaster response operations.

In conclusion, Timor-Leste is far behind in coping with emergencies, mainly in the areas of capacity, coordination and response time during emergency situations. The country's resources need to be allocated to resolve many other pressing and urgent developmental challenges as well. Some of these challenges include hunger and

water security. It is understandable that preparing and developing clear structures and mechanisms to deal with emergency situations is not presently a top priority for the country. Dealing with other developmental challenges could help build up the country's resilience to emergency situations indirectly. Nonetheless, strengthening its interactions with countries across the region, particularly in ASEAN, where most countries are better equipped for disaster emergencies is one critical step that Timor-Leste needs to move forward.

Policy Recommendations

The following are the policy recommendations to improve emergency preparedness and disaster response operations in Timor-Leste:

- Build ties with ASEAN to improve its capacity, as ASEAN has relatively stronger disaster management mechanisms and practices in place.
- Channel more resources to re-organising its disaster management structures quickly so as to maximise its capacity and reduce time taken to respond to disasters.
- Collate data on the weather patterns, agricultural produce over time, the length of the hunger season and the number of people suffering from malnutrition or experiencing water shortages.
- Complete the review of the National Policy for Disaster Management as soon as possible.
- Conduct an integrated national survey to understand the dynamics of the Timorese people to accurately target the needs of the population during disasters.

- Develop a threshold criteria for a state of emergency to be declared or for international agencies to gain access to emergency funds, together with the government.
- Conduct further research, particularly to understand the needs of the population and the underlying threats to water and food shortages.
- Form a central coordination system perhaps in the HCT to prioritise the humanitarian needs of the affected population, gain access to affected people and to facilitate structure in reconstruction plans, instead of giving 'one-off' assistance.
- Expand mandate of HCT to move beyond information sharing and training and be more coordinated on the the ground with government agencies in order to have a greater impact in the country's disaster management operations.
- Increase involvement of the military with national civilian agencies as well as international agencies in emergency response operations. Militaries can help overcome capacity challenges during natural disaster settings as they possess more equipment and resources.
- Invest greater resources to improve road and communications infrastructure.
- Invest in technology that prepares the population for emergencies and reduces the time taken to respond to disaster situations, after improving road and communication infrastructure.
- Make it a pre-requisite for international organisations to work in partnership with local agencies, and not in a subordinated role so that local NGOs could play a more significant role in disaster response and management.

- Organise simulation exercises that involve all parties that could contribute to disaster response operations, including local NGOs by using HCT as a platform.
- Provide gender-sensitivity training for disaster response teams and collect more disaggregated data through national surveys in order to ensure that the specific needs of women are addressed during disaster situations.
- Re-evaluate the extend of decentralization during emergencies and assess areas that need to be controlled by the federal government.
- Standardise equipment and relief items needed immediately during or after a crisis to reduce duplication.