



MINISTRY OF METEOROLOGY, ENERGY, INFORMATION, DISASTER MANAGEMENT, ENVIRONMENT,
CLIMATE CHANGE AND COMMUNICATIONS (MEIDECC)
NUKU'ALOFA, TONGA

Tropical Cyclone Preparedness and Response Plan

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INTRODUCTION

Background

This Tropical Cyclone Preparedness and Response plan covers the preparedness, response and initial recovery actions associated with tropical cyclone events directly impacting the Kingdom of Tonga.

This plan also considers the global pandemic with current COVID-19 restrictions and considers the complexities of dual disasters. This plan ensures appropriate contingency measures are in place, in the event that a tropical cyclone event occurs when there are also COVID19 community transmissions in Tonga.

This plan will be reviewed on an annual basis or after conducting an exercise to test this plan. This plan does not detail the prevention component or the long-term recovery component as these are covered in other plans, including the Tonga National Emergency Management Plan.

This plan has been prepared by NEMO (and approved) by the National Emergency Management Committee (NEMC).

Purpose

This plan is prepared for NEMO to enhance its preparedness and readiness to respond to tropical cyclone events while maintaining current COVID 19 health protocols and response actions.

This plan aims to achieve the following objectives:

- Prepare Tonga's communities by:
 - o providing accurate, timely warnings and information to enable quick, informed decisions to keep potential affected people safe and protected from any negative impacts,
 - o responding immediately and providing relief when safe and as safely and quickly as possible to reduce any further potential negative impacts to communities,
 - o reducing risks and minimising community's vulnerability when exposed to volcanic eruptions and related after effects,

This plan will strive to achieve the following outcomes before, during and immediately after a disaster event:

- (a) no loss of life or serious injury;
- (b) minimal negative impact on Critical Infrastructure or Essential Services;
- (c) limit and contain any negative impact on the environment;
- (d) minimal negative impact on Government services through an effective business continuity program;
- (e) timely and effective response in light of the State of Emergency with COVID19;
- (f) effective communication and liaison between and within support agencies at all levels at all times;
- (g) accurate safeguarding of prepositioning of supplies for affected communities;
- (h) timely and accurate information is disseminated to the public enabling informed and proactive decision making on individual and family responses to events; and
- (i) restoration of disrupted services as rapidly as possible.

The following assumptions have been made in the development of this plan:

1. Many of Tonga's residents are familiar with the impacts and the region's susceptibility to volcanic eruptions,
2. Tongan residents will take on some responsibility to adequately prepare and take heed of the alerts and warnings and will make informed decisions to keep themselves safe (whether by remaining at home or by seeking shelter with family and friends or at evacuation centres).
3. Tonga Meteorological Services (Tonga MET) and the Geo-Hazards Unit of the Ministry of Lands, Survey and Natural Resources (MLSNR) will provide timely warnings and alerts when possible, though not guaranteed as volcanic eruptions can be a rapid onset hazard;

4. The National Emergency Operations Centre (NEOC) and, if also required, District Emergency Operations Centres (DEOC) will be activated based on established triggers and protocols;
5. Tonga MET will continue to maintain accurate mapping and associated data that will be available to all stakeholders and the public;
6. The Cluster system will be activated and have standard operating procedures and trained, equipped and available personnel to perform the roles and responsibilities of that specific Cluster.
7. NEOC will coordinate distribution of resources to ensure response capacity is sustainable over an extended period, and in the event of consecutive disaster events to the cyclone. For example, a pandemic, storm surge, or another tropical cyclone immediately after.

Context

Tropical cyclones are intense low pressure weather systems that, in the southern hemisphere, have winds circulating in a clockwise direction around the central eye. Cyclones pose a significant risk to communities across the Kingdom. The cyclone season in Tonga runs annually from 1 November to 30 April. However, with the impact of climate change, it is reported that cyclones are occurring more frequently and with increased intensity. The most recent Category 5 cyclone to impact Tonga occurred in April 2020.

Flooding and flash floods are also considered in this plan due to the level of rainfall from cyclones and storms that can impact negatively on the community and further disrupt evacuation routes. While the cyclone may not become severe and remain in category 2 and below the impact from the rain can cause significant flooding putting Tongan communities at higher risk.

Coastal erosion and storm surges also threaten critical services in Tonga vital to transportation and resupply. The risk of severe damage in the area is very high along the coastal areas and associated low lying areas. All tropical cyclones on or near the coast are capable of producing a storm surge, which can increase coastal water levels for periods of several hours and simultaneously affect over 100 km of the coastline. This is also exacerbated with a high tide and more so, in the event of a king tide which has occurred in previous tropical cyclones.

To add more complexity to NEMO's response to tropical cyclones, severe storms and storm surges, is the potential for:

Epidemics and Pandemics which is the risk of an outbreak of disease that would cause the health system to be taxed to its limits and may involve the isolation and quarantine of large numbers of people for a protracted period. In the absence of immunity, any viral strain (respiratory/air borne) can rapidly spread across Tonga infecting large numbers of people with fatal results. This risk is exacerbated by the community-focused culture inherent to Tonga. Extra precautions are required to contain the virus as quickly as possible. To date, Tonga remains COVID free and is one of the remaining countries that is COVID free. This plan incorporates World Health Organisation (WHO) and Ministry of Health's (MoH) recommendations to maintain Tonga's COVID free status.

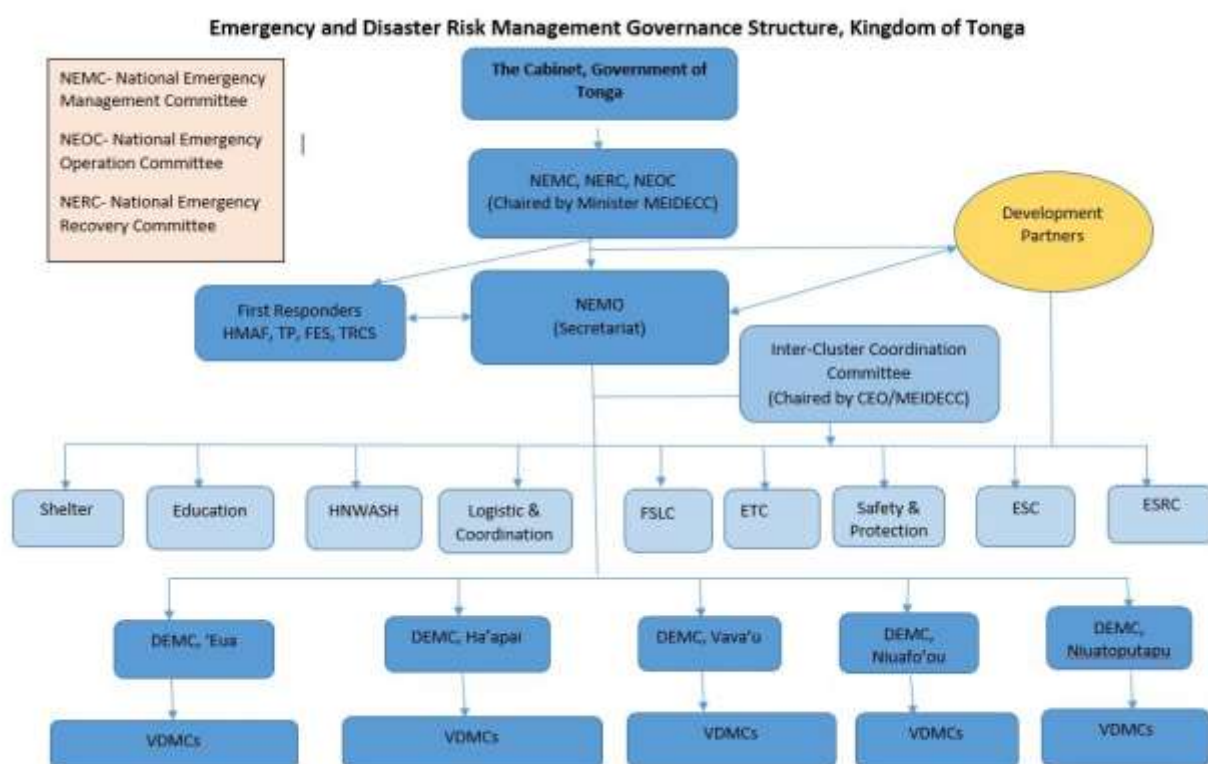
Climate change will impact Tonga's coastal areas through increases in sea levels; frequency, intensity of storms and tropical cyclones and increased risk of storm surge.

Potential risks to Tonga

The following are at risk in the event of a disaster

- people (and communities)– possible injury and fatalities
- infrastructure and property – infrastructure including private buildings damaged and destroyed
- environment – damage to the environment, impacting agriculture and aquaculture
- economy and livelihoods – effect on the economy as a result of reduction in tourism and Tongan produce

Disaster Governance in Tonga



On behalf of NEMC and the Government of Tonga, NEMO coordinates the national preparedness and response for Tropical Cyclones and other geo and climate induced disaster.

As mandated through *Tonga Emergency Management Act, 2007*, NEMO's mission during a disaster event is to provide relief and assistance to the disaster affected communities and services in Tonga to bring back normal services, operations and community activity as swiftly as possible.

The below are the list of agencies who NEMO work closely with both for disaster preparedness and response.

	Organisation/ Department	Role in Response	Responsibilities
1.	Tonga Fire and Emergency Services (TFES), First Response	Member-First Responder	First responder, safety, evacuation support, COVID19 support team
2.	His Majesty's Armed Forces (HMAF)	Member- First Responder	First responder, security, safety, evacuation guidance, COVID19 support team
3.	Tonga Police	Member- First Responder	First responder, security, safety, evacuation lead, COVID19 support team
4.	Tonga MET	Weather forecast and early warning	Provide weather advice on conditions and warnings

5.	Ministry of Transport		Provision of transport, COVID19 support team
6.	Ministry of Health	Lead- HN WASH Cluster	Advise on current COVID19 status and protocols and other health matters. Also advise on post cyclone health concerns (eg typhoid, dengue fever,
7.	Ministry of Infrastructure	Lead- Shelter Cluster (Reconstruction)	Critical infrastructure maintenance, general public infrastructure maintenance, general community infrastructure
8.	Ministry for Internal Affairs	Lead- Safety and Protection Cluster	Focus on disability, women and youth, elderly populations, engage closely with NGOs
9.	Department of Communication	Lead- Emergency Tele Communication Cluster	Direct communication with media, Communication with public (quell misinformation/ info-demic) via media
10.	Tonga Power	Member- Essential Services Cluster	Essential service provider
11.	Tonga Water Board	Member- Essential Services Cluster	Essential service provider
12.	Tonga Communications Corporations	Member- Essential Services Cluster	Essential service provider
13.	Tonga Red Cross	Member- First Responder	community engagement, relief items, psychosocial support
14.	Digicel	Private Company	Essential service provider
15.	NGOs and Humanitarian Agencies (for example, MORDI, Tonga Trust, Caritas etc.)	Humanitarian Stakeholders	community engagement, provision of relief items

Stakeholder engagement and coordination

Internal stakeholder

NEMO's internal stakeholders are the Departments within MEIDECC as well as other Ministries of the Government of Tonga. NEMO works closely with the other Departments, for example, for cyclones the key agency providing technical guidance is Tonga MET. In terms of cyclone preparedness, NEMO works closely with other Ministries and NGOs by ensuring any messaging for communities, schools, vulnerable populations are appropriately packaged.

First Responders

The First Responders consists of His Majesty's Armed Forces (HMAF), Tonga Police, Tonga Fire and Emergency services and are involved in response and recovery.

Initial engagement in the event of a cyclone, with first responders occurs when the Director of NEMO is notified that the Fua'amotu Tropical Cyclone Warning Centre (TCWC) has been activated. The Director of NEMO notifies the Emergency Operations Committee that they are on standby (ready to be activated) which includes senior members from the agencies that form the First responders' team who will then make necessary arrangements to activate their response mechanisms in line with their standard operating procedures.

Cluster Engagement

Tonga uses the cluster system approach to respond immediately to provide effective relief to the affected populations. The cluster system is a coordinated whole of government, whole of community approach to responding to disasters.

The table below lists each cluster that is named according to focus area for disaster responses and is lead by the agency with key technical expertise in that focus area. It is also supported by other agency/ies and civil society organisations as well as the lead UN body.

There are 10 clusters currently operational in Tonga. Senior Ministry staff are members of the National Emergency Operations Committee and are alerted at the same time the NEMC is placed on standby.

Cluster	Lead Agency	Supporting agency	Co-lead Agency/ Body
Logistics & coordination	NEMO, MEIDECC		World Food Programme (WFP)
Health & Nutrition, Water and Sanitation and Hygiene (HN WASH)	Ministry of Health		World Health Organisation (WHO)
Education	Ministry of Education		UNICEF
Reconstruction	Ministry of Infrastructure		International Federation of Red Cross (IFRC)
Food Security & Livelihood	Ministry of Agriculture, Food and Forestry	Ministry of Fisheries	WFP
Safety & Protection	Ministry of Internal Affairs	National Disability Council, Women's Crisis Centres	UNICEF, UNWOMEN
Emergency Shelter & Non-Food-Items	NEMO, MEIDECC	Tonga Red Cross	IFRC
Emergency Telecommunications	Communications Department, MEIDECC		WFP
Critical Services	Ministry of Public Enterprise	TCC and Digicel	World Bank (WB) and Asian Development Bank (ADB)
Economic & Social recovery	Ministry of Finance		UN, WB and ADB

External stakeholders and donor mapping

Additional agencies and organisations have a role in the recovery phase depending on the nature and scale of the damage.

These include the international and regional UN and humanitarian and aid agencies below:

UN & FUNDING AGENCIES	
World Health Organisation (WHO)	Technical support
World Food Programme (WFP)	Technical support to NEMO
UN Office of the Coordination of Humanitarian Affairs (OCHA)	Technical support to NEMO
Asian Development Bank (ADB)	Funding
World Bank (WB)	Technical advice to NEMO
INTERNATIONAL GOVERNMENT AGENCIES	
Japanese International Cooperation Agency (JICA)	Funding, equipment for relief efforts
China Aid	Funding

Australia Aid (Australian High Commission)	Funding, supplies for relief efforts, technical advisors
NZ Aid (NZ High Commission)	Funding, supplies for relief efforts, technical advisors
US AID	Funding
INTERNATIONAL NGOs	
Oxfam NZ	Relief supplies
CARE International	Relief supplies
Live and Learn	Relief supplies

Preparedness: Getting Ready

NEMO is working to put systems, procedures and planning in place for effective preparedness and response throughout the year to enhance its readiness for any external events and shocks. Given November to April is cyclone season and Tonga is very likely to face up to 3 cyclones each year one of category 3 or above, the actions below is focused for the upcoming cyclone season, with COVID19 considerations.

Below are the actions identified as priorities for NEMO:

Emergency relief items and Prepositioning

NEMO Warehouse stocktake is conducted outside of cyclone season and at the end of October each year, before cyclone season commences. Stocktake will be conducted after each tropical cyclone (over Category 3) or declared disaster when stock has been accessed and distributed. Stocks will be pre-positioned with all information on the stock database. This will also include the prepositioned stock of key partners - Red Cross, Caritas, Tonga National Youth Council and MORDI Trust Tonga. The stocks will also include population specific goods as well, such as hygiene kits, wheel chairs and / or stretchers and extra crutches and walking sticks to ensure plans are inclusive.

Immediate relief items would include and cover basic needs such as food, water, medicines (if needed), clothing, hygiene kits and temporary shelter (tents).

Cyclone related preparations will be made based on COVID19 consideration, in line with Tonga's National Action Plan COVID 19 that outlines phases (of community transmissions).

- NEMO will continue to promote COVID safe practices when preparing for potential cyclones with particular focus on the phase that Tonga is in, when the initial *alert* is issued. NEMO will work closely with the Ministry of Health (MoH) to provide updates on any changes, while also monitoring the situation.
- If in Phase 1, preparedness and prevention and Phase 2, virus detected – early response. Planning as per current practice, communities will be encouraged to practice physical distancing, continue with regular handwashing and using hand sanitation products and coughing/ sneezing into elbow.
- If in Phase 3, then people will be strictly advised to wear masks and practice physical distancing. There will be a maximum number allowed at the one centre that will not allowed to be exceeded due to COVID safe restrictions.

NEMO will work with the District and Town Officers to reconfirm the list of evacuation centres (and prepare separate isolation units for COVID19, if required).

NEMO with MoH will plan for extra contingencies, which includes:

- Extra PPE ordered and stored (PPE – masks, gloves, coats)
- Extra personnel for evacuation centres and to conduct COVID screening and at isolation areas
- Extra evacuation centres to be able to practice physical distancing measures as there will be a change to maximum capacity levels
- Training of community members on how to manage the evacuation centre and collect data.

Communication

- NEMO will establish a separate communications platform (using whatsapp or viber or other social platform) one for NEMO internal operation, and other for 'First Responder.
- This forum will be for NEMO and first responders as a direct way to communicate with each other, should the need arise. As a requirement, the representative from the relevant first responder agency should have the authority to make a decision on behalf of their agency in the initial stages of alert.
- These communication platforms will be reviewed each year at the start of cyclone season.
- NEMO will also establish a communication platform with all the initial damage assessment (IDA) teams in Tongatapu and separately with the Districts. The relevant District Disaster Management officer will manage their teams and provide information to alert their IDA team to be prepared, as soon as safe to commence assessment following an event. A full list of IDA members is to be held by the appropriate officer.
- NEMO also proposes to establish a communication platform to be able to determine what the surge capacity is from international stakeholders, should the need arise. A list of primary contacts from foreign government agencies has been compiled, as well as a list of Regional organisations contacts.
- At the start of each cyclone season, NEMO will request information from the regional organisations on what support they are able to provide to support with Tonga's preparedness, from a regional perspective. This will assist in highlighting the gaps.

Public messaging and information

Once NEOC is activated, all public information & warnings is to be shared once published by Tonga MET. These messages will be shared on NEMO website and also via NEMO's social media platforms.

The key messages for a tropical cyclone will vary between stages as outlined below.

Preparation	<ul style="list-style-type: none"> (a) Know risks from tropical cyclone events and prepare evacuation bags (72 houa kato) and plans; (b) Pack masks, and hand sanitisers in evacuation packs (c) Actively monitor alerts, warnings and situation updates by tuning into Tonga Broadcasting Corporation radio station; (d) Check on neighbours and family members and offer support to those less prepared and those unable to prepare as well (e) Prepare property for the event as best as possible to minimise damage;
Response	<ul style="list-style-type: none"> (a) What actions to take in response to the actual event/ tropical cyclone; (b) Locations of evacuation centres and what evacuees will need to bring with them (for example, 72 hour bag); (c) Repeat messages on COVID safe practice, if leaving home and evacuating to safer places – family and friends or evacuation centre; (d) Likely timeframes for the event; (e) Any emerging safety or security issues associated with the event; and (f) Where to go for further information or assistance.
Recovery	<ul style="list-style-type: none"> (a) What the impact of the event was on the region or particular areas including degraded infrastructure or essential services; (b) What actions authorities are undertaking to address the impacts and what the priorities are, for example - the three staged assessments to be conducted with affected communities (immediate situation overview, initial damage assessment, comprehensive damage assessment) (c) Likely timeframes for recovery of critical services; (d) Any no-go areas or transport corridors that are unavailable; and (e) Location of and where to go for additional information.

Evacuation Centres

Working with MIA and Town Officers, NEMO will prepare a list of potential evacuation centres to be used and also contact/community focal points/property owner for the evacuation centre management.

The facility owners or one of their delegates will manage evacuation centres. The Chair of the Village Emergency Management Committee or their delegate will manage community halls that will be used as an evacuation centre.

Each Evacuation Centre will need to:

- adhere to COVID safe protocols as outlined by MoH,
- have a limit to the number of people it can take if there are COVID community transmissions,
- be well lit for safety purposes particularly for women and girls with easy access to ablution facilities,
- have an accessible area for people with disability where they have easy access to ablution facilities,
- have a safe space for women and girls only, perhaps sectioned off with easy access to ablution facilities,
- provide water, food, toiletries, hygiene kits, and safe sleeping spaces (keep families together) with a safe place for women and girls and accessible areas for persons with disabilities and the elderly,
- provide the Town or District Officer with regular updates about the number of people at the centre (as per form). This information will be provided to the EOC/ ECC, noting names of evacuees are not required when submitting to NEOC.

The Evacuation Centre manager and fellow volunteers and first responders are encouraged to sign a code of conduct to ensure safety and protection for the vulnerable who will be in their care during the time of a severe tropical cyclone while at the Evacuation Centre.

Activation of National Emergency Operations Centre (NEOC)

The NEMC will activate the National Emergency Operations Committee (NEOC), whose primary function is to coordinate the deployment of resources and share information on the impending hazard, before, during and after, to minimise the negative impacts on life, property, infrastructure, the economy, the community and the environment.

NEOC's response to a tropical cyclone will be implemented in three phases (Preparation, Response, and Recovery) and will be controlled in accordance with the *Emergency Management Act*.

The degree of activation will be scaled to suit the magnitude, nature, locations and duration of the disaster. For example, a Tropical Cyclone may only pass through the northern islands of the Niuaus with no impact on Vava'u and Ha'apai and Tongatapu, so the coordination will be focused on Niuaus on this occasion. Vava'u and Ha'apai District Emergency Management Centres may not need to be activated.

Communication will follow NEMO's regular communication channels until unable to do so.

- Internet and email access will be available for all agencies within the NEOC with most communication, if not in person, via email. In light of COVID19 protocols, other agreed platforms will suffice (for example, zoom or skype or whatsapp or viber).
- Distribution of situation reports will be via email / the internet until the ability to do so is lost.
- All communication deemed significant is to be recorded in the disaster management system.
- NEMO will have the ability to use two way radios and also has the use of satellite phones, should regular communication channels be lost.

NEMO is the designated lead agency for overall control of tropical cyclone response and recovery operations, with close technical advice based on Tonga MET information, and activity specific advice from relevant lead agency, for example, evacuations through Tonga Police.

All stakeholder agencies and the public will be given access to appropriate, timely and accurate information wherever possible.

For NEOC to commence operations they need to be in the following activation level:

Level	Meaning
Readiness	<ul style="list-style-type: none"> when Tonga Met advises that there is a <i>tropical disturbance</i> that is likely to enter or is forming in Tonga waters, and may have an escalated level (of rain, wind and swell) and indicates that this plan may be invoked. The Director of NEMO will declare this stage in force and alert relevant parties to prepare. Agencies may want to activate their business continuity plans, as Tonga Met will do.
Standby	<ul style="list-style-type: none"> when Tonga Met advises that there is a <i>tropical depression</i> that is likely to enter or is forming in Tonga waters, at a level that may escalate. the Director of NEMO will declare this stage in force and notify all relevant parties to prepare.
Activation	<ul style="list-style-type: none"> when Tonga Met advises that there is a (<i>severe</i>) <i>tropical cyclone</i> entering or forming in Tonga waters. NEMC Chair will formally advise that NEOC and DEOC should be activated
Stand down	<ul style="list-style-type: none"> when Tonga Met advises that there is no further threat from the cyclone/ depression/ disturbance, and all critical infrastructure and essential services has been restored to working order. The NEMC Chair (with support from NEMC) advise of stand down activation level

Early warning and Evacuation notice

As the tropical cyclone moves closer to communities, NEMC or the DEMC will need to make a decision to advise the potential affected population to remain at home for shelter, or if it is deemed safer, to move to family or the closest community evacuation centre. In most cases it would be best that the communities remain at home, however if it is anticipated that it will be safer to move to an evacuation centre this decision will need to be communicated ideally 24 hours before the cyclone reaches the community. This will also give vulnerable populations time to evacuate or move shelter.

There are four stages to an evacuation process, with the first few stages on pre-movement and includes the decision to remain in place or to evacuate. All Tongans are encouraged to prepare themselves with a 72 houa kato in preparation for a tropical cyclone and should they need to evacuate. This kato should include basic relief items for each member of the family.

The decision for a full community forced evacuation will be made by NEMC. This decision will be made several hours before it is too risky (cyclone or depression enters or is close to entering Tonga marine waters/ EEZ) to do so shortly after NEOC has been activated.

Also, in light of COVID, based on the recommendations by the Ministry for Health (MoH), the Tonga Police and relevant first responders will prepare and activate all evacuation centres during the alert stage. Based on COVID level in the community, MoH will advise on creating “bubbles” for safety purposes. Refer to table (below) on Warnings for proposed evacuation timing.

Evacuations will be conducted and lead by Tonga Police and completed at least 5 - 6 hours before the cyclone arrives and before it is deemed unsafe to do so. Ideally evacuations will occur during daytime hours and this will need to be considered in the planning. It is important to ensure that the safety of the first responders is also a priority when planning for evacuations. The vulnerabilities of possible evacuation routes should also be assessed, especially with high risk of flooding.

Consideration and decisions about evacuating the repatriated passengers at each of the quarantine facilities (Makeke Camp, Tanoa International Hotel, Taliai Camp and Kupesi International Hotel) will also be made. This will be based on the following – anticipated/ predicted path of the Tropical Cyclone and category, current COVID rate in community, time and availability of other proposed accommodation sites. For example, based on TC Yasa’s approach, repatriated passengers at Makeke Camp were evacuated to Kupesi International Hotel, due to the lack of cyclone proof facilities at Makeke and for their safety. The Ministry of Health will contact the evacuation facility for repatriated passengers to ensure that COVID safe protocols are applied at the new venue, and before, during and after transportation. Tonga Police will support the evacuation, noting they will need to check for extra personnel and request support from Tonga Fire and Emergency Services and HMAF for support and protection.

In the event of a tropical cyclone, any evacuation must be completed before wind conditions prohibit outside movement (i.e. regular wind gusts > 100kph). For planning purposes these winds should be expected 3 to 6 hours before the tropical cyclone centre enters Tongan waters.

Special weather bulletins for tropical cyclone will be issued by Tonga Met every 3 hours.

The following timeline will be used by NEMC when considering an evacuation.

The timeline shown is approximate only (in the ideal case) and will vary depending on the features (intensity, velocity of winds) of cyclone.

Proposed Evacuation timeline (to be used as a guide only)

Time before 100kmh wind gusts	Warning	Comments (COVID in community)
Twenty four (24) to forty eight hours	Tropical disturbance detected – readiness/ standby / ALERT	➤ Review evacuation centres (and isolation centres) & determine evacuation routes
Eighteen (18) hours	Tropical disturbance detected – standby / WARNING	➤ Commence public messaging on location of evacuation centres and encourage families with elderly, persons with disabilities and pregnant women or mothers with
Twelve (12) hours	Tropical depression/ cyclone – activation / WARNING	➤ CONFIRM FINAL EVACUATION DECISION (COMMENCE COVID community evacuation) ➤ ALL VULNERABLE (PERSONS WITH DISABILITIES, ELDERLY, PREGNANT WOMEN) to commence evacuations (if required)
Nine (9) hours	Tropical cyclone – activation / WARNING	➤ Community evacuations occurring
Six (6) hours	Severe Tropical cyclone - activation	➤ Evacuations proceeding
Three (3) hours	Severe Tropical Cyclone - activation	➤ ALL EVACUEES SHOULD BE IN EVACUATION CENTRE. EVACUATIONS COMPLETED
ZERO (0) hours	Severe Tropical Cyclone - activation	➤ NO EVACUATIONS
Plus three (3) hours	Severe Tropical Cyclone - activation	➤ Await Tonga Met advice / updates
Plus three (3) to six (6) hours	Severe Tropical Cyclone - activation	➤ Await Tonga Met advice/ updates (determine if COVID cases in community can remain in same place to isolate (at the one venue) with MoH providing in person support)
Plus six (6) hours	Tropical Cyclone - activation	➤ Await Tonga Met updates and clearance from NEOC on critical

		infrastructure and essential service restoration
Plus 12 hours	Tropical Depression – activation/ stand down	➤ Await Tonga Met updates and clearance from NEOC on safety for evacuees to return home/ assess damage
Plus 12 hours	Stand down	➤ Commence initial damage assessment (community officer)

In light of COVID, more personnel (from Ministry of Health and first responders) will be required to transfer those isolated due to COVID to another isolation unit with physical distancing measures strictly in place and hand washing facilities and hand sanitisation products in place.

Cluster Activation for response

The Cluster system will be activated to initiate the commencement of damage assessments to be able to respond immediately, effectively and with a needs based focus so affected communities are the first ones to receive support. Each Cluster will also have to ensure they have liaised closely with the Safety and Protection cluster whose needs are considered in any immediate relief and response planning.

RESPONSE: Reaching the people

Reaching the most vulnerable

In a Tropical Cyclone, Tonga’s vulnerable population is more likely to be exposed and susceptible to the risks of a cyclone. It is more imperative than usual to ensure their needs are considered in NEMO’s preparedness, relief and response plans and that the safety and protection of women and children, persons with disabilities and elderly and the sick are always included.

Currently through the established Cluster system, the Safety and Protection cluster focus is on populations that are deemed to be at a higher risk to the negative impacts such as the elderly, persons with disabilities and women and children. As per key messaging, everyone in the community is encouraged to be prepared in the first instance, including vulnerable persons and communities by preparing food, water and shelter items that will enable affected persons to have food, water, clothing and temporary shelter for 72 hours while awaiting immediate relief efforts to reach them. NEMO is working with the Ministry of Internal Affairs who are the Government agency that focus on vulnerable groups and the Safety and Protection Cluster Lead to ensure that persons with disabilities and other groups are included in the planning process for their own preparedness and NEMO’s relief and response efforts.

Once the National Emergency Operations Centre has been activated by the Director of NEMO, members of NEOC will be advised and informed. These members will need to notify and action their response plans as soon as possible which includes alerting the Cluster focal point. It is imperative the Cluster Lead of Safety and Protection immediately notify their key stakeholders and provide as much information as possible on the cyclone based on the updates provided by Tonga MET.

NEMO will also engage directly with the vulnerable populations and their advocates as and if required.

Public request for assistance

Once the NEOC is activated, all requests for assistance from the community will be initially dealt with by the NEOC. NEMO has a designated toll free number for public use, only for customers of Tonga Communications Corporation. At this stage, Digicel customers will need to pay for any calls they make to NEMO/ NEOC.

A log of requests and actions taken is to be documented in a designated logbook. The designated logbook will collect details of issue, next steps, NEOC actions, and outcomes. NEOC will designate roles for personnel to contact District and Town officers on a regular basis, this will be at

least once per shift. The Manager of the shift will determine the number of times necessary to make contact or the timeframes (for example, every hour or two hours).

NEOC will contact relevant first responders to fulfil request immediately. The first responders are to provide this service as soon as it is safe to do so and will need to advise on potential timeframe to minimise any further risk to the caller. For example, the power may be cut off from the winds and rain of the tropical cyclone in a community, Tonga Power Limited (TPL) will respond at the safest opportunity to reconnect the community.

The District EOCs will need to provide regular updates as this will assist in developing regular situation reports. NEMO will also review the log of requests to assist with the initial decisions for assessment and relief and recovery efforts for affected communities.

Initial Damage Assessment

NEMO, with support from partners, will conduct a series of assessments to understand the extent of the needs of the affected population and to be able to provide timely relief and support, as required.

The aerial assessment will be conducted with drones across affected communities and villages to determine the extent of the damage caused. An aerial assessment can also be conducted with planes, though further external support will be required for this option. This assessment needs to be conducted within the first 72 hours, when safe to do so.

Following the initial aerial assessment, an assessment on the ground will be conducted, lead by NEMO, with the Clusters and relevant partners and will require personnel and assessment stationary (or equipment) and knowledge. Currently NEMO and the Clusters and partners use Kobo Toolbox to conduct the initial damage assessment. If this is unavailable, Town and District Officers and volunteers will be trained prior to the assessment to ensure that the data collected is accurate, reliable and valid. The assessments also consider the needs of women and girls, the elderly and persons with disabilities, with specific questions to capture their needs. All the data collected is private and confidential (de-identified) with key demographic information collected. This initial damage assessment will provide information on immediate needs and instigate the next phase of the provision of relief items (food, water, shelter, and medicine) commencing with the affected population.

- a. NEMO will also review the District Emergency Management Committees (DEMC) situation reports as it will provide information on the immediate needs of the affected community. The information will be included in the initial damage assessment report. The report should contain recommendations on how best to support the affected communities with their recovery efforts. The outcomes of damage and when and how it is repaired will be provided back to DEMC by NRMC. This will add to the recovery process and be in line with the “build back better” aim.
- b. NEMO will work through the established Cluster system to develop a comprehensive detailed damage assessment report, conducted within 4 weeks of the disaster. This is the post disaster needs assessment (PDNA). NEMO will also work closely with regional partners, UNDP, World Bank, ADB and other stakeholders to finalise the PDNA for submission to the NRMC and regional and international stakeholders. This assessment will contribute to decisions made as part of the recovery response.

Critical services

NEMO will consider the following vulnerabilities in the response to a disaster:

- *Transportation* to / from other islands. Travel to the northern islands may be hindered significantly before, during and shortly after the event. Pending the impact of the cyclone and the location, deployment of supplies may not be possible. During the cyclone, people and assets may be subject to isolation or restricted mobility. Stocks should be available on the island, should the need arise. NEMO will hold complete lists of stocks available on the different islands with and including stocks held by Red Cross, Caritas, MORDI Trust. This information will be updated regularly on the shared database, especially after a disaster.

- **Communications.** The initial impacts of tropical cyclones including loss of power in some areas or damage to telecommunications infrastructure, communications to and from some organisations or localities may be difficult. This may impede the ability to request or coordinate assistance at the local level. Should there be a loss in communication from NEOC's end; NEMO will revert to the use of a satellite phone or a two-way receiver/ transmitter. NEMO and first responders will use this method to communicate if there are power losses. The Communications Division of MEIDECC, during non-cyclone season, have set up one way radio transmitters to communities and businesses across Tonga, specifically in the event of a disaster.
General communication for the communities and population is through Tonga Communication Corporation (TCC) who closely monitor their communication networks and assess and restore as soon as safe to do so. The Emergency Telecommunications Cluster will also be monitoring communication networks
- **Power:** The impact to this critical service will greatly impede NEMO and partners ability to coordinate assistance at the local and district and national levels. Consideration and planning needs to be made for back-up power in various locations, with priority for critical services. Noting these critical services should have back up plans as part of their business continuity plans. NEMO has a generator and holds a number of generators at the warehouse as part of the contingency plan and as relief items for affected communities. The decision on the distribution is with NEMC (or NEOC) for affected communities. The Critical Services Cluster will be monitoring the supply of power during Tropical Cyclone events and provide support to the affected communities, as required.
- **Water:** As part of preparedness, all persons/ households are encouraged to prepare or pack for 72 hours without water, regardless of whether they choose to shelter at home or evacuate to an evacuation centre. X% of households have a rainwater tank or access to a rainwater tank should access to regular water be cut off in the event of a disaster. It is critical that Tonga Water Board has a backup plan to ensure clean water is made available to affected populations at the earliest and safest opportunity to do so. The WASH Cluster will be monitoring the impact of the Tropical Cyclone event on water supplies and is prepared to provide water and provide water cleaning/ filtering services, to the affected communities, as required.
- **Fuel:** As part of preparedness and before the emergency operations centre is activated, NEMO in Nuku'alofa, Ha'apai, Vava'u and 'Eua and the Niuas will need to conduct a quick assessment on fuel stocks through the relevant local fuel suppliers and provide an update to NEMO HQ. If there are low stocks in the outer islands, NEMO should notify petrol suppliers immediately with a request to update stockpile to these areas immediately or at the earliest and safest opportunity to do so. NEOC, DEOC, First responders vehicles should ensure their stocks are ample during the disaster and plan accordingly.

Approach for Emergency Response

Logistics

The logistics and coordination of the supply of relief items will be conducted based on the Cluster system. NEMO as lead agency for the Logistics and Coordination Cluster will coordinate the supply working closely with the other Clusters, especially the Safety & Protection cluster, to ensure that the items are distributed to the affected communities only, prioritised by need and vulnerability. Stock stationed at NEMO warehouses will be ready for distribution and coordinated by NEMO.

Fua'amotu International Airport

Any supplies dropped at Fua'amotu International Airport will follow COVID safe guidelines. No personnel from the aircraft supplying international goods will be allowed to disembark. All personnel will be required to wear full PPE when receiving imported stock on arrival. All of the usual import regulations as guided by COVID safe protocols currently in place is to be followed. Immediately after the required 3 days to clear the imported goods, the stock is to be

transferred to NEMO warehouses for appropriate distribution to the affected populations. The distribution will be based on needs as identified in the initial damage assessment and/or from an initial analysis of logged requests and District Situation reports.

Nuku'alofa Wharf/ Naval Base

Any supplies brought in by naval ships to the wharf will follow COVID safe guidelines. The drop off of supplies will be conducted so it is contactless between personnel.

Should there be consideration of personnel providing support, it will need to be specified technical expertise not available in Tonga. The personnel will need to have COVID tests every 72 hours until the 21-day period is over (commencing from day one of their travel). The personnel will need to work in COVID safe bubbles and in locations where the affected community will not come in to contact with any cyclone related personnel. This option will only be considered and decided by NEMC and Cabinet pending the magnitude, size and location of the disaster caused damage.

Relief Distribution

NEMC will determine, based on the magnitude of the impact of the disaster the level of support needed and the needs assessment, and including whether to include a funding appeal and if so, specify who and where the funds will be directed to for accountability and transparency.

The capability of the local response is based on the magnitude of the impact and location of the disaster caused damage.

NEMC will determine, at the recommendation of NEMO, when and how prepositioned stocks should be accessed and distributed to affected communities, based on their needs with relevant evidence available, such as from the reports into NEOC and the situation reports developed.

The NEOC will forward any requests beyond the capability of the local response to the NEMC to determine next steps, for example, to seek support from international sources or from other regional agencies or international NGOs via the local NGOs, based on the outcomes from the aerial, initial and detailed damage assessments.

International assistance

NEMO and NEMC will advise Cabinet to approve to activate any related agreements (regional and international) to access international aid and support.

NEMC will recommend to the Prime Minister's Office to declare a State of Emergency for the cyclone which will trigger current protocols to enable the support of international humanitarian agencies, if required.

As there is prepositioned stock available from international aid agencies, NEMO and the Clusters will be able to access these immediately and distribute in an equitable manner to affected communities only.

For the supply of immediate relief items from international agencies, due to the COVID 19 State of Emergency that Tonga is currently under, the strict COVID safe protocols must be adhered to.

Currently international humanitarian agencies are not required nor requested to provide personnel to support Tonga's relief and recovery, unless they undergo current arrival requirements, which includes:

1. COVID pre-test before departure with a negative result within 72 hours of departing,
2. 14 days quarantine with two tests (or every 72 hours),
3. 1 week isolation – with no movement outside of property,
4. A final clearance letter from MoH advising that person has fulfilled all COVID safe obligations

The provision of much needed supplies from and through international humanitarian agencies will be conducted in a contactless manner.

RECOVERY: Building Back Better

The recovery efforts will be focused on supporting the people / communities, environment and infrastructure and the economy and livelihoods to recovery.

Recovery for Tonga will be in two phases and the following is an example of items required:

- Short-to-medium term - shelter kits, generators, kitchen sets, tarpaulin covers, jerry cans.
- Long-term – recovery that becomes business as usual, and focuses on building back better into current development strategies.

Noting that the provision of immediate relief is in the response process.

This plan focuses on immediate provision of relief items and provision of items to assist with short-term recovery and processes. The processes are to accurately identify the immediate and short-term needs of the affected population. These needs identified from the damage assessment reports conducted by NEMO and partners will be submitted to NEMC for approval.

NEOC will transfer reporting arrangements to NERC, in the aftermath of the cyclone. As part of the transition from the functions of NERC to the NERC, NEMO will provide a summary on outstanding actions and tasks with an update on each including timeframes. Noting any funding donated or provided in the form of grants has to be used specifically for what the donors have earmarked it for. This promotes transparency and accountability.

The recovery will flow into current development strategies overseen by the relevant Ministry / Department ensuring that following the cyclone, the Government of Tonga is focused on 'building back better'.

Annexure A: Key Responsibilities for Tropical Cyclone

Organisation	Preparation Phase	Response Phase	Recovery Phase
National Emergency Management Committee	<ul style="list-style-type: none"> ● Maintain situational awareness of the developing event ● Be prepared for activation including the provision of appropriate personnel to the NEOC 	<ul style="list-style-type: none"> ● Provision of response and recovery strategies, priorities and directions to internal MEIDECC business units and the NEOC and to DEOC to support recovery efforts to 'build back better' ● Activate NERC in anticipation of next phase ● Support coordination of efforts for immediate relief to affected areas 	<ul style="list-style-type: none"> ● Referral to NERC, activate National Emergency Recovery Committee ● Commence formal request for support, following the completion of IDA, for financial or material support ● Determine with appropriate advice where all financial and material donations will be applied to based on needs considering donor requirements in distribution. ● Ensure all decisions made are focused on building Tonga's resilience to 'build back better'
NEOC / NERC	<ul style="list-style-type: none"> ● Active monitoring of alerts and warnings from the Tonga Met and from other local data (DRR or MET communities) ● Determine the likely outcomes for the specific tropical cyclone event and plan and coordinate resource positioning. ● From the potential outcome, determine what the needs will be and initiate early requests from external stakeholders who regularly support NEMO through key donations ● Coordinate alerts and warnings to members of the public. ● Coordinate Council support to disaster operations. ● Coordinate external agency support to disaster operations. ● Coordinate communications with the community through the Media Liaison team. ● Establish liaison linkages with key stakeholder organisations including relevant authorities, agencies, NGO's and businesses. ● Maintain situational awareness of the event. ● Coordinate public safety activities (road closures, door knocks etc). 	<ul style="list-style-type: none"> ● Continued monitoring of forecasts and situation updates from the Tonga Met and local data sources ● Manage the information flow by providing timely accurate warning and situation updates. ● Include information on COVID safe measures, pending community transmissions, with warnings and updates ● Support and coordinate any urgent repairs to critical infrastructure and essential services to ensure Tongan communities are impacted as minimally as possible, during the cyclone, in the safest manner possible ● If needed, coordinate the set-up of evacuation centres with appropriate support for the evacuees with information and support services at the evacuation centres ● Coordinate response to public requests for assistance ● Support coordination of distribution of essential items to affected population ● Support coordination of requests from the field 	<ul style="list-style-type: none"> ● Continued monitoring of forecasts and situation updates from the Tonga Met and local data sources ● Ensure COVID safe practices are applied in any coordination of recovery events ● Coordinate restoring critical infrastructure and essential services ● Coordinate aerial and initial damage assessment teams and distribution teams and develop schedule for affected population ● Support and coordinate closure of evacuation centres ● Support and coordinate distribution of relief items ● Commence planning for detailed damage assessments ● Ensure all financial and material donations are tracked and used as required by donors, based on needs as identified by initial damage assessment and comprehensive damage assessment ● Commence handing over recovery activities to relevant government agency ● Coordinate community recovery activities and resources including; information, personal support, specialist counselling, mental health and community services. ● Restoration of infrastructure as soon as practical to allow resumption of normal operations for the community as soon as practical. ● Liaise with external stakeholders to determine recovery priorities, resourcing and coordination. ● Coordinate distribution of relief items and coordinate aerial and initial damage assessments post cyclone ● Develop monitoring tool to track all response and recovery donations from different agencies
NEMO	<ul style="list-style-type: none"> ● Monitoring and dissemination of warnings from the Tonga Met ● Increasing community awareness through engagement and education ● Through MEIDECC Communications team, manage any media queries ● Maintain all contact lists for NEMC, NEOC, NERC and Clusters 	<ul style="list-style-type: none"> ● Support NEOC in implementing all NEMC approved strategies and plans to provide a response that will assist recovery efforts to 'build back better' ● Support and keep informed on the distribution of immediate relief items to affected communities. 	<ul style="list-style-type: none"> ● Implement recovery structures and supporting resource management mechanisms ● Support NERC to determine distribution of donations from donors based on damage assessment reports and closely track and monitor distribution of donations for accountability and transparency purposes

	<ul style="list-style-type: none">● Develop roster of NEMO staff in preparation for appropriate activation level● Manage events in line with the priorities and planning principles outlined this plan and other DRR related documents.● Provide advice to Chair NEMC.● Issue community information / advice.● Maintain situational awareness of the event through Tonga MET.● Maintain situational awareness of COVID through Ministry of Health.● Provide situation updates to the NEMC.● Request assistance through NEMC if required.● Convene the NERC as soon as practical.		<ul style="list-style-type: none">● Provide update to affected populations in the Districts on recovery based on damage assessment needs and referral to relevant government agency
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Annexure B: Preparedness & response functions of key stakeholders

Organisation	Supporting Agencies	Key Tasks	Key Decisions
Tonga Met	NEMO	<ul style="list-style-type: none"> Provide tropical cyclone watches and warnings and weather forecast to NEOC including predicted storm surges or flooding information. 	
Police/ HMAF	HMAF/ Police / Fire and emergency services / marine services	<ul style="list-style-type: none"> Maintain law and order. Traffic and crowd control. Provide Emergency Response Direct and conduct evacuations applying COVID safe practices, using PPE gear and extra personnel. Security of damaged / evacuated areas. Monitoring coastal areas re boat users. Traffic Management Designation and activation of Evacuation routes, Emergency Service routes and alternate routes for the public. Provide public information on road status and closures. Coordination of resources required for road closures and road clearances to ensure key routes remain open. Relocate essential resources to safe areas as required. Repair or make safe to the public any area impacted by the event. Stockpile the following in preparation for emergency deployment: sandbags, sand, road base, barricades, mesh, A-Frames, road hazard signage, flash lights. Respond to road and drainage incidents. Support debris and tree clean up (ground work only). Provide barricades and equipment for response and traffic operations. Provide materials for recovery operations. 	<ul style="list-style-type: none"> Directed Evacuations. Road closures Alternate route designation. Allocation of resources to response and recovery operations
Ministry of Health	Red Cross	<ul style="list-style-type: none"> Technical advice for evacuation in light of COVID Pre hospital emergency treatment and transport of casualties. Evacuation of persons with medical conditions. Medical and health support. Isolation units and COVID screening at evacuation centres. Provision of more PPE gear for first responders and customer facing roles 	<ul style="list-style-type: none"> Confirm COVID level to apply to evacuation, damage assessment and recovery processes
Tonga Power	HMAF	<ul style="list-style-type: none"> Protect and repair power infrastructure and prioritised restoration of power to affected areas. Isolation of network where necessary. Provide situation updates to NEOC and NMRC to assist with response and recovery planning. 	
Digicel/ TCC	Other telecomms	<ul style="list-style-type: none"> Protect and repair key communication infrastructure. Provide temporary / mobile communications equipment. Provide situation updates to NEOC and NEMO to assist with recovery planning. 	
Tonga Water	Tonga Power	<ul style="list-style-type: none"> Maintain water quality and supply. Manage sewerage overflow related issues. 	<ul style="list-style-type: none"> Allocation of resources to response and recovery operations

	Ministry of Health	<ul style="list-style-type: none"> ● Be prepared to 'close down' infrastructure. ● Liaise with MoH regarding public health warnings. ● Relocate essential resources to safe areas as required. ● Repair or make safe to the public any area impacted by the event. ● Provide materials for recovery operations. 	<ul style="list-style-type: none"> ● Deactivation of critical infrastructure
Red Cross	Caritas Act for Peace Tonga National Youth Council	<ul style="list-style-type: none"> ● Coordinate and support persons with disabilities, elderly, women and youth in communities, during evacuation, at evacuation centres and on return to home. ● Provision of immediate relief items such as shelter kits, hygiene items, 	<ul style="list-style-type: none"> ● Ensure these communities are included and supported
