



Tropical Cyclone Winston Response Plan

This Response Plan was developed by the Government of the Kingdom of Tonga and humanitarian and development partners, following Tropical Cyclone Winston which struck the Vava'u island group, in central Tonga, from 16-19 February 2016. It has a 6 month timeframe and aims to facilitate coordination of the humanitarian response and strengthen early recovery planning by documenting cluster plans and identifying gaps and requirements.

The Response Plan is meant to be a concise response strategy to address acute needs based on available information and reasonable inference. The Plan outlines roles and responsibilities, specific cluster/sector response plans and activities, and where possible funding requirements. In light of the haste in which this first edition of the Response Plan was prepared, it will be revised as more information emerges.

**Collaborative efforts of the National Emergency Operations Committee (NEOC) and
partners
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Kingdom of Tonga**

CONTENTS

1. EXECUTIVE SUMMARY	4
2. CONTEXT AND HUMANITARIAN CONSEQUENCES	5
3. RECOVERY PLAN	7
EDUCATION	10
SHELTER.....	10
FOOD SECURITY/LIVELIHOODS	11
ROLES AND RESPONSIBILITIES	12

1. EXECUTIVE SUMMARY

Tropical Cyclone Winston, a Category 4 system with winds over 120 kilometers per hour and gusts around 170 kilometers, passed directly over the Vava'u island group between 16–19 February 2016. An estimated 2,700 people (or around 18% of the population) were directly affected and an estimated 230 buildings (homes, schools, the hospital and community and Church halls that were being used as evacuation centers) were damaged.

The Government of Tonga and humanitarian and development partners such as the Governments of Australia and New Zealand, the Red Cross and OXFAM have provided emergency relief assistance to affected communities in the aftermath of the disaster. In parallel, Government-led Joint Rapid Needs Assessment Teams were deployed to Vava'u on 20/02/2016 to assess the extent of damage to agricultural crops and school buildings, where damage was thought to be most severe. Given the localized nature of the damage, the level of response has not necessitated a significant response. However, Government and humanitarian and development partner support will be needed to meet priority needs in the months to come, particularly in terms of a likely spike in food prices and the importance of providing a safer and more resilient learning environment for Vava'u's student population.

In February, the National Emergency Operational Committee (NEOC) decided that a 6-month Response Plan to address the immediate-to medium-term needs of the affected population was necessary. The National Emergency Management Office (NEMO) coordinated the overall response while the Ministries of Agriculture and Education undertook rapid needs assessments in their sectors based on feedback from the town officer and community groups.

This Response Plan was developed by the Government of the Kingdom of Tonga and its humanitarian and development partners with a 6 month timeframe. Based on the needs identified priority areas of the response are in **Food Security/Livelihoods, Education and Shelter**. The Response Plan aims to facilitate coordination of the humanitarian response and early recovery by documenting cluster response plans and identifying gaps/requirements for response. In total, xx activities have been articulated.

The immediate recovery and reconstruction requirements over the next 6 months amounts to TOP\$4.7 million, all which are unmet. The requirements per the priority clusters are summarized below:

Cluster/Sector	Requirement (TOP)	Met (TOP)	Un-Met (TOP)
Education	\$1,000,000	000.0	\$1,000,000
Food Security/Livelihood	\$564,930	000.0	\$564,930
Shelter (Residential Housing)	\$2,599,478	000.0	\$2,599,478
<i>SUB-TOTAL</i>	<i>\$4,164,408</i>	<i>000.0</i>	<i>\$4,164,408</i>
Building Facility Cluster – Government Building (Hospital & MEIDEC building)	\$85,000	000.0	\$85,000
Community Buildings – community halls & church buildings	\$443,050	000.0	\$443,050
<i>SUB-TOTAL</i>	<i>\$528,050</i>	<i>000.0</i>	<i>\$528,050</i>
TOTAL	\$4,692,458	000.0	\$4,692,458

The scope and emphasis of the Response Plan is on immediate humanitarian needs and medium-to long-term needs of the affected population through recovery and reconstruction planning.

2. CONTEXT AND HUMANITARIAN CONSEQUENCES

2.1 Context

Tropical Cyclone Winston first appeared as a tropical depression at 4pm on Monday 15 February 2016 and developed into a cyclone between Fiji and Tonga. With the system heading towards the northern islands of Tonga, the NEOC put the Emergency Operations Centre (EOC) on standby at 11:30am that day and 27 Tropical Cyclone advisories were issued for Tonga. The District Emergency Management Committees on the outer islands were alerted at 11:40pm following the activation of NEOC. General Public awareness on TV and radio were undertaken that same night.

2.2 Humanitarian consequences and needs analysis

Priority areas for in the response are food security/livelihoods, education and shelter.

Food Security/Livelihoods. Extensive loss of crops will have detrimental impacts on household food security and could be exacerbated by sharp food price increases given limited food supply. Emergency relief aid has been provided by the government, Tonga Red Cross, NGOs and development partners. Food rehabilitation through replanting of crops will need to be funded to ensure availability of food in households from April to June.

In addition, livelihoods have been affected by the loss of income from the main export crops of kava and vanilla, employment, access to markets and impacts on the business community (formal and informal). These are largely driven through damages to crops such as kava, vanilla, root crops (e.g. taro, sweet potato and yam) and bananas.

Education. 3 Government primary schools (Taoa, Holonga and Houma) with more than 200 students suffered water damage but closer inspection revealed structural damage that requires building back better, particularly for storm surges of category 4 or higher in the future. There is an urgent need to ensure students can return to a safe learning environment as soon as possible. Returning to school will enable students to participate in activities designed to help them share, talk about and deal with the trauma of the cyclone.

Shelter. The majority of the 319 households with damaged or destroyed homes have been provided with either a tarp, tent and or shelter kit. The homes will not only need to be rebuilt but climate-and disaster-proofed to minimize damage in the event of future natural disasters.

The scope and emphasis of the Response Plan is on immediate humanitarian needs and medium-to long-term needs of the affected population. This requires close attention to recovery and rehabilitation needs. In light of this, to coordinate the preparation and implementation of a more detailed recovery and reconstruction plan.

2.3 Response to date

NEMO coordinated the overall response while officials from the Ministries of Internal Affairs, Infrastructure, Agriculture and Education were dispatched to scope out the extent of damage to buildings and crops. Several humanitarian partners, including Tonga Red Cross Society, the Caritas National Youth Congress and OXFAM have been providing assistance since the beginning of the response.

Development partners such as the Governments of Australia, Japan, and New Zealand are awaiting the completion of this Response Plan before finalizing arrangements for relief and rehabilitation support. Even so, emergency relief supplies for vulnerable families and people who found shelter at evacuation centres were distributed following the rapid needs assessments. The relief supplies included tarpaulins, hygiene kits, water containers, blankets, mosquito nets, and tents. The Government of New Zealand purchased fuel for the military Barge “Voea Late” to support humanitarian operations and assist distributions in Vava’u. The Tonga Red Cross and the Caritas National Youth Congress have assisted the National Emergency Management Office in assessment and distributions.

The response to date has been summarized in the following table:

	Cluster/ Sector	Response to date	Implementer
1	Health	<ul style="list-style-type: none"> • Health assessments undertaken by MoH Health Inspectors • Hospital operational 	Ministry of Health World Health Organization
2	Education	<ul style="list-style-type: none"> • Damage assessment of educational facilities in Vava’u completed • Clean-up of schools started 	Ministry of Education and Training Ministry of Infrastructure Government of New Zealand
3	Shelter	<ul style="list-style-type: none"> • Damage assessment of residential houses completed • Provision of 32 tents • Distribution of 199 tarpaulins 	Tonga Red Cross Society National Emergency Management Office OXFAM Caritas National Youth Congress Government of New Zealand
4	Food Security and livelihoods	<ul style="list-style-type: none"> • Assessment of agriculture damage and loss completed • Rapid assessment of impact to livelihood and businesses 	Ministry of Agriculture, Food, Forestry and Fisheries Ministry of Internal Affairs Ministry of Tourism Food and Agriculture Organization OXFAM Tonga Chamber of Commerce Tonga Business Enterprise Centre Government of New Zealand
5	Logistics/ Transport	<ul style="list-style-type: none"> • New Zealand support charter flights transporting rapid assessment personnel to Vava’u • Mobilisation of patrol boat for transport of relief items during the first week of response 	His Majesty’s Armed Forces Governments of Australia and New Zealand

3. RECOVERY PLAN

Clusters	Degree of Damage		Response Plan	Assessment	Estimate Cost (TOP\$)	Donor Agency
	Minor Damage	Major Damage				
Shelter Cluster						
Residential Homes	Partial damage; to roof, or windows		Restored damages to existing buildings	275 residential homes were reported with minor roof/structural damage i.e. roof missing or damage windows/doors	\$2,015,278	
		Severely damaged or fully destroyed	Rebuilding destroyed buildings	44 households were reported completely destroyed; majority were timber made houses;	\$584,200	
Education Cluster						
School Buildings		Most sustained water damages. Taoa Government Primary School suffered structural damage to the trusses and wall connection	Climate proofing and build back better and propose these classrooms be replaced	3 Government Primary Schools reported water damage within classrooms (i.e. GPS Taoa - 3 classrooms to be replaced, GPS Holonga - 3 classrooms retrofit and GPS Houma - 2 classrooms retrofit) (8 classrooms x 50 square meters x \$2500)	\$1,000,000	
Health and WASH Cluster						

Clusters	Degree of Damage		Response Plan	Assessment	Estimate Cost (TOP\$)	Donor Agency
	Minor Damage	Major Damage				
Hospital	Partial damage to Prince Ngu Hospital roof		Replacement of ridge capping	Prince Ngu Hospital reported damage to its roof along with water entering the building	\$50,000	
Building Facility Clusters - Government Building						
MEIDECC and Lands and Survey Office	Partial damage to its roofing		Partial damage to its roof and removal of asbestos required		\$35,000	
Building Facility Clusters - Community Buildings						
Church Buildings		Fully destroyed		Tonga Constitution Church building (Mataika) was the only church completely destroyed	\$75,000	
	Partial damage roof/structural		Repair and retrofitting	5 other church buildings reported damaged with minor roof/structural damages (Catholic church Pangaimotu; Constitution church Falaleu; Free Wesleyan Church, Makave; Church of Tonga; and Free Wesleyan Church, Okoa)	\$31,350	

Clusters	Degree of Damage		Response Plan	Assessment	Estimate Cost (TOP\$)	Donor Agency
	Minor Damage	Major Damage				
Community Halls	Partial damage to roof/structural		Retrofitting town halls to cater for all evacuation purposes; Replacement and repairing roof and other structural damaged to community and town halls are conducive as provide shelters and evacuation centers in emergency situations.	7 community halls and 1 church hall reported damaged with minor roof and/or structural damage (villages include: Okoa, Tua'nuku, Longomapu, holonga, Talihau, Houma and Ha'akio, Falaleu)	\$336,700	
Agriculture Cluster						
Agriculture (all crops including vegetables, root and cash crops)		The agriculture sector was significantly damaged	Need for fast yield seedlings for both outer islands and main land; provisions of assistance for ploughing for main land farmers; and agricultural tools for outer islands.	The extent of damage to the agriculture sector due to TC Winston is high priority and there is a need to ensure and prevent crop/food shortages on this island.	\$564,930.00	
TOTAL	\$4,692,458					

NEEDS ANALYSIS: EDUCATION

Lead Agency	Ministry of Education
Key Partners	NEMO, MOI, MOH and MAFFF
Contact Information	Mr. Claude Tupou CEO Ministry of Education Tel: 23511, Email: claudetupou@gmail.com

The Ministry of Education and Training aims to partner and work with all its key stakeholders and willing donors to assess the full extent of damage caused by Tropical Cyclone Winston and the financial cost of replacing, repairing and restoring essential services, resources and physical environments for learning and teaching in Vava'u.

Assessments to date clearly indicate the following priority and urgent needs:

- Clearing and cleaning of school buildings and compounds;
- Provision of safe drinking water and adequate sanitation; and
- Replacement of curriculum materials and repair of school buildings.

The Ministry wishes to emphasize the crucial need for timely decision making, effective implementation and prompt delivery of the activities that it has identified and outlines in the proposed sector activities below.

MET acknowledges that other needs or requirements will arise as it continues to work on the restoration of the education sector in Vava'u.

NEEDS ANALYSIS: SHELTER

Lead Agency	NEMO (Emergency Shelter) / MoI (Housing Reconstruction)	
Key Partners	TRCS, Ministry of Infrastructure; Australia DFAT, New Zealand MFAT, Caritas, JICA, Asian Development Bank, World Bank and China Aid.	
Contact Information	Leveni Aho, Director, NEMO, MEIDECC	Fotu Veikune, Senior Architect, Ministry of Infrastructure

Of the estimated 1200 households¹ throughout all affected communities an estimated 44 homes were destroyed and 275 homes were heavily damaged bringing the total number of homes requiring reconstruction to 319². The majority of households have been provided with either tarps (199) or tents (32).

Affected households can be broadly broken down into the following:

1. Families with partial damaged homes.
2. Families with fully destroyed homes, with tents or shelter kits.
3. People living in damaged homes requiring varying levels of rehabilitation.

The first group will urgently require tents or shelter kits. All families in the first two categories will require transitional shelter while efforts are undertaken to repair and rebuild their homes which will take an estimated 12–18 months. Families in all three categories will need to be considered in a Shelter strategy that clearly identifies the priority groups to be targeted, addressing the needs of the most vulnerable as a priority. Ensure that safer building practices are used in all repairs and reconstruction. Develop 'Build Back Better' information handouts to be shared amongst the community.

² Estimate based on rapid assessment survey of February of damaged and destroyed buildings: 275 partial destroyed buildings and 44 fully damaged buildings (total 319 damaged and destroyed buildings requiring reconstruction).

NEEDS ANALYSIS: FOOD SECURITY/LIVELIHOODS

Lead Agency	Ministry of Agriculture and Food, Forests and Fisheries (MAFFF)
Key Partners	FAO, Food Security Clusters, SPC LRD, New Zealand Government, MORDI Tonga Trust, UNDP, Tonga National Youth Congress, OXFAM
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The affected population will be without local staple food supply by end of March 2016 and until at least mid-April when the first harvest from fast-growing food crops is anticipated. Furthermore, given the impact on leafy foods such as vegetables, which is near total, this will undermine protein content of the affected population's diet. Other impacts on the agriculture sector include significant numbers of fallen trees which hamper transportation and mobility of farming communities, and will likely foster pests and disease. As such, the necessity to rapidly clear land and plant fast yielding crops such as sweet potato, corn and leafy vegetables is of critical importance.

The livelihoods of the affected populations have thus been impacted in terms of food security, loss of income, labour and employment, access to markets and impacts on businesses. This is primarily due to damages to crops such as kava and vanilla, the tourism industry and small businesses as well as inter-island transportation. Women have mainly been affected through the loss of raw materials e.g. weaving material (pandanus crops, estimated to be completely destroyed and with a recovery period of 12 months). There are few alternative income generating activities for women and as such this has reduced income options for the coming period. There has also been a significant increase and reliance on family remittances and donations from overseas and in Tongatapu.

Overall the impact on the welfare of the people will require immediate to medium-and long-term action. Approaches to address these issues could include, in the short term, cash-for-work (e.g. for debris clearance, repair of small-scale infrastructure, cleaning of water tanks) which helps to sustain household income whilst the local economy recovers; and provision of equipment and tools for farmers. Medium-term livelihood recovery programmes would include support to the production of longer-term food crops (cassava and taro) for local consumption and sale in support of household food security and lack of dependence on food aid; increased production capacity for mat weavings and handicraft making in support of household income generations; supporting access to markets; and training and marketing programmes for small scale businesses (formal and informal). There is a concern that if these issues are not addressed soon, that this could encourage a degree of migration away from the local economy and increased pressure on households and infrastructure on Tongatapu.

ROLES AND RESPONSIBILITIES

At national level the main coordination body for TC Winston response is the NEOC which has central control over disaster operations. The NEOC has overseen initial damage assessments to determine the priority needs of those affected and has convened regular meetings to review emergency operations and take policy and operational decisions for the operation. The NEOC fully informs Cabinet on its decisions and operations.³

Under the NEOC rests the NEOC “Working Group” with operational focal point in each Ministry.

In March 2016, the NEOC took the decision to develop this Response Plan to address the immediate and short terms needs of the affected population for 6 months. Since the Plan has been developed around 3 key sectors, clusters for each key sector were formulated to ensure a coherent approach. The relevant ministries for each cluster were appointed to coordinate the work of the cluster (assessments and implementation of response activities). These are as follows:

National Cluster	Responsible Ministry
Education	MoE
Food Security/Livelihoods	MoAFFF
Housing reconstruction	MoI

From March 2016, cluster leads facilitated a series of meeting to share information, analyze data, and develop cluster specific response plans. All clusters will continue to be convened as needed to monitor and adjust planning as implementation proceeds across a range of areas and early recovery activities begin to take shape. The NEOC is over all responsible for monitoring the Plan. A review of the Plan should be considered after four to six weeks in light of the evolving situation to take into consideration any new or emerging needs identified and the activities to address them.

Under the Emergency Management Act (2007) a National Emergency Recovery Committee (NRC) has been established and can be convene as needed following a disaster. The function of this committee is to coordinate and provide oversight of recovery and reconstruction work. The committee is represented mainly by central line agencies and NGOs.

To ensure adequate capacity in NEMO and Ministry of Finance to support the NEOC and the NRC, an Early Recovery coordinator is recommended at national level for a period of 3 months in addition to 12 month Early Recovery Advisor based in Vava’u supporting the Office of the Governor.

³ For a detailed description of the functioning of the NEOC, please refer to the Tonga Emergency Management Act 2007.