

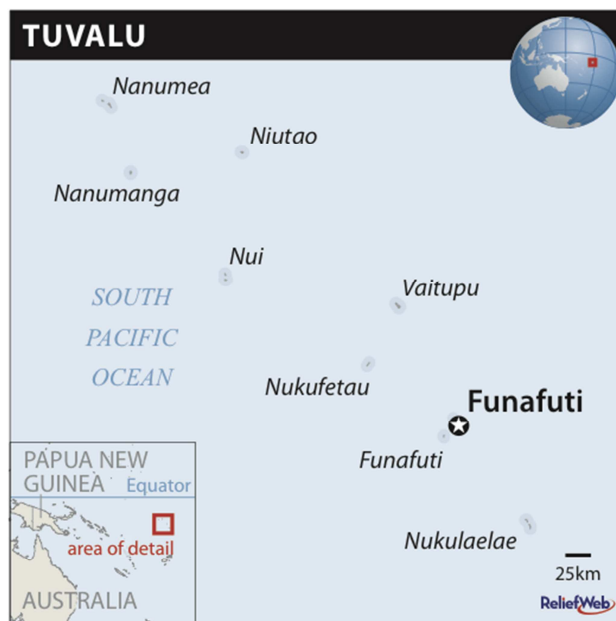


This report is produced by the OCHA Regional Office for the Pacific (ROP) in collaboration with the Government of Tuvalu and the Pacific Humanitarian Team. It covers the period from 27 to 31 March 2015.

## Highlights

The highlights below are based on the information from the central, northern and southern islands for the period 27-31 March 2015. The report includes new information from the agriculture and health teams that visited the northern and southern islands and public works team in Nui.

- A total of 39 homes were totally destroyed (12 in Nui Island, 15 in Nanumea, and 12 in Nanumanga).
- The Nanumanga clinic suffered severe infrastructure damage.
- The clinic in Niutao Island was partially damaged.
- Eleven graves in Nanumea Island were damaged, resulting in human remains being brought to the surface.
- There are reports of increased mosquito and fly breeding and a strong stench from decaying organic matter in all six affected islands.
- The Aedes Egypti mosquito, a known carrier of Dengue fever, was identified in the northern islands of Nanumea, Nanumanga and Niutao.
- Communities are depending on canned food as home food production has been compromised by saltwater intrusion.
- DFAT and MFAT have committed resources (funds) to support crop replanting and fisheries in the outer islands.
- The state of emergency for TC Pam has been lifted.
- A French military plane delivered emergency supplies including the school back packs from UNICEF that were awaiting delivery in Nadi, Fiji.
- Teams of Red Cross Volunteers have been on the forefront of emergency response in the affected islands distributing emergency supplies and creating awareness on public health and hygiene as well as clean-up operations.
- The general elections were held on 31 March and voting took place peacefully and a government will soon be formed.



Map Sources: UNCS, Gov't of U.S.A.  
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Map created Jun 2010 – [www.reliefweb.int](http://www.reliefweb.int)

## Situation Overview

The Government-led emergency response to victims of Tropical Cyclone Pam is still ongoing in Tuvalu. The situation in the outer islands is normalizing as most affected people have returned to their homes. The Government and humanitarian partners continue to deliver protein-rich food, shelter kits, fuel, generators, water treatment tablets, kitchen kits, clothes and medical supplies to the eight outer islands with recent supplies (30 March) having reached the southern islands. Construction materials and tools are also being provided to the affected communities. Eighty per cent of the affected areas have restored electricity, internet and telephone connections.

All eight islands have been assessed. Assessment reports from the northern islands indicated significant cyclone related damages in Nanumanga and Namumea while in the southern islands, Nukulaelae experienced the worst damages due to flooding.

Teams from the Public Works Department (PWD) and Solid Waste Agency of Tuvalu (SWAT) deployed to Nui have assisted with clean-up operations and the construction of temporary shelters. Tuvalu Red Cross Society (TRCS)

has distributed non-food items that include tarpaulins, blankets, water containers, water purification tablets, kitchen sets, mosquito nets, clothes among others. Nine Red Cross Volunteers were part of the PWD team that participated in clean-up operations in Nui.

Water, medicine, shelter and food identified as priority needs have so far reached all the eight islands with a second load of both food and non-food items being delivered to central and northern islands.

However an outbreak of influenza was reported in Nukulaelae resulting in the school being closed for a week to reduce the risk of spread of the infection.

Although immediate relief needs have been met in all islands, there is a need to develop concrete plans for the utilization of the funds donated and financial support pledged by the international community. An analysis of the use of the assistance provided thus far will be conducted, and a plan is being developed by the Government to determine the existing response gaps. Both DFAT and MFAT have engaged government to make commitments on the utilization of donated funds to support recovery programmes in agriculture, health and fisheries.

## Assessments

### Nui

- Weather monitoring equipment was inundated.
- Additional food supplies were delivered to the island.
- 12 displaced families in Nui have moved out of the school and are living with relatives.
- The Public Works Department (PWD) and the Solid Waste Agency of Tuvalu (SWAT) have been busy clearing up debris and repairing the community hall and the surroundings.
- A strong stench was emanating from the graveyard recently damage by high sea storms.

### Nukufetau

- All people reported displaced have returned to their homes.
- Large areas of the seawall are damaged as a result of storms surges and wave action.

### Vaitupu

- No major damage was caused on the island and life has gone back to normal.
- Relief supplies including medicines have been distributed.

### Nanumanga

- One nurse's quarters, women's ward, dispensary office, hospital's toilets, the Sanitation Aide's office, a local kitchen and a water tank at the hospital were totally damaged.
- A second nurses' quarters, a children's ward, the men's ward at Nanumanga hospital were partly damaged;
- The ramp at the harbour still remains damaged and blocked by large boulders.
- 12 families displaced are still living in the evacuation centre.
- Sand, organic waste and other debris still littering the environment.
- 11 Water samples collected were found satisfactory.
- 34 families (98 people) have no access to clean water and are relying on water from the community water that has 3 months water supplies.
- 23 water samples were analysed and were found satisfactory.
- The Tuvalu Red Cross Society distributed water treatment tablets and advised the communities on how to utilise the tablets.

### Nanumea

- Debris is blocking road access.
- The desalination system is currently not function as it needs some repair work.
- 15 homes were totally damaged.
- About a dozen houses on the western coast remain at risk of inundation as the seawall has been damaged.
- 11 graves were damaged by the strong storm waves.
- There are reports of increasing mosquito and fly breeding in the unused ferro cement tanks on the island.

### Niutao

- One wall of the hospital was damaged.
- Medical supplies were however not damaged.

- The islands need additional fuel for the generator providing electricity.

**Nukulaelae**

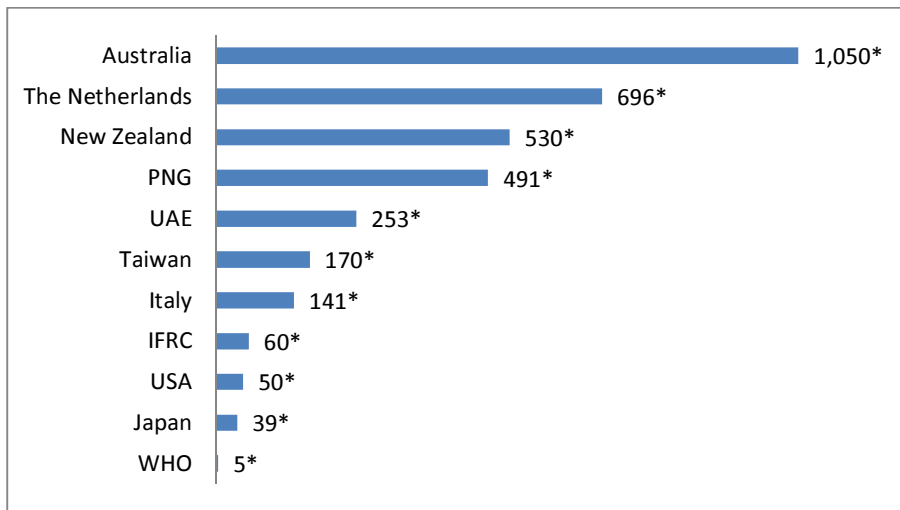
- Several homes were flooded.
- Five household water systems were damaged.
- The overall amount of water available on the island now will last for 5 months.
- The clinic was flooded and there need to assess the vulnerability of the clinic to future cyclone related flooding and damages.
- School has been suspended due to the ongoing influenza outbreak.
- Influenza cases were reported but have stabilized although some residual cases are still being reported. Medicines for managing influenza were in short supply during the outbreak period.
- Limited land area is major constraint in disposing solid waste properly on the island.
- Crop damages ranged from 45-90% for the various food crops with 80-90% of pulaka pits damaged, 75% of home gardens damaged by saltwater intrusion.
- The Nafanua patrol boat delivered additional vaccines to the island.

**Niulakita**

- There are fears of unstable ground on which homes have been built particularly of the western part of the island.
- Most families lost their belongings.
- The mobilization of emergency assistance for the affected communities needs to be improved through adequate disaster preparedness.
- The island experience general delays in emergency response.

## Funding

Total contributions to the emergency response have been tracked by the Ministry of Foreign Affairs. The total amount of in-kind, cash and pledge donations to relief and recovery efforts is approximately AUD\$ 3.5 million (US\$ 2.7 million).



\*Thousand Australian Dollars

## Humanitarian Response

The Government is leading response efforts across all clusters supported by humanitarian and bilateral partners.



**Needs:**

- There are no immediate emergency shelter needs and temporary shelter needs are being dealt with

- In Manutalake village (Nui) with 70 houses, 9 houses are reported to be completely destroyed while 10 are reported to be partially destroyed. The remaining 51 houses are flooded, with inundation across the entire village, 24 local kitchens have also been destroyed. Similarly in Alamani (Nui) with 75 houses, 3 houses are reported to be completely destroyed, one is reported to be partially destroyed and 47 flooded. The remaining 24 houses were reported to be unaffected.
- Requests for blankets, mats/mattresses, cooking utensils, soap, flashlights, stoves and water containers;
- There is need to include tents as part of emergency shelter for people displaced by disasters.

**Response:**

- No immediate need for construction of shelters for the central islands and government is assistance for displaced families to return to their dwellings.
- A team from PWD and Red Cross Volunteers has been deployed to support repairing the community hall to accommodate the 10 families temporarily living in the school in Nui.
- Tuvalu Red Cross Society (TRCS) has dispatched 150 shelter kits, 20 bales of used clothing as well hygiene kits to Nui and Nukufetau based on initial assessments. Supplies of shelter kits have also been distributed to northern Islands.
- The TRCS is mobilizing additional clothing and will be distributing 20 more bales of clothing.
- TRCS has been requested to include tents in its future emergency supplies to be pre-positioned in the outer islands
- Supplies of tarpaulins, chain saws, generators, tool kits, wheel barrows, shovels and spades, fuel pumps and food together with 1.3 tonne of medical supplies donated by the New Zealand Government arrived on Hercules C130 military aircraft.

**Gaps:**

- Information on emergency shelter supplies received distributed and in stock has not been compiled.



## Water, Sanitation and Hygiene (WASH)

**Needs:**

- Septic tanks damaged due to inundation are in need to be repaired.
- Debris including asbestos in the affected islands needs to be collected and properly disposed of to prevent health and environmental hazards.
- Some water cisterns/tanks have been destroyed and require replacement
- In the medium term, it is important that the water treatment and public health messaging is continued and rain water harvesting systems restored ahead of the coming dry season.
- There is need to provide water testing kits (colilert water testing kits, salinity water testing kits and growth media).
- The shredder in Nui Island is broken down.

**Response:**

- A PWD team has been deployed to repair the damaged septic tanks.
- The Solid Waste Agency of Tuvalu (SWAT) conducted clean-up operations in Nui.
- Red Cross distributed water purification tablets and provided advice to communities on how to utilize the tablets.
- Rapid assessment teams tested 23 water samples for salinity and Ecoli and found all samples satisfactory.
- Additional water containers and WASH items were received through the Tuvalu Red Cross Society.
- UNICEF in collaboration with SPC and Red Cross is facilitating information dissemination for the Ministry of Health to advise communities on measures to protect their health.
- WHO also provided IEC materials for public health messaging, and 300 emergency water testing kits for water quality monitoring in affected communities.

**Gaps:**

- Limited land area is major constraint in disposing solid waste properly on the island.
- There is an urgent need to remove asbestos identified on the islands given health implication.



## Health & Nutrition

**Needs:**

- Currently there is no electricity in the hospital in Nui.
- The Ministry of Health requested additional supplies of the following items:
  - Albendazole (27 Bottles) and DEC (27 Bottles) for deworming exercise.
- There is need to support clean operation to reduce the amount debris around homes to reduce mosquito breeding.
- Meeting the need for psychosocial counselling is still outstanding.
- Southern most islands have not received any medical supplies to date.

**Response:**

- School suspended on Nukulaelae Island due to threats of spreading of the influenza outbreak has resumed classes.
- UNICEF has procured an assortment of medical and non-medical supplies that have been delivered to central island and northern Islands.
- Additional supplies of re-hydration supplies have been received and there is now adequate stocks of rehydration solutions.
- The Tuvalu Red Cross Society (TRCS) with support from the Samoa and Fiji Red Cross Societies distributed hygiene kits, water containers, mosquito nets, mosquito coils and kitchen sets.
- Medical staff mobilized by DFAT in collaboration with Fiji National University (FNU) visited the northern and southern Islands. The team compiled a set of recommendations that government is currently considering for the short and medium terms.
- A midwife, 2 medical officers, trauma counsellor, intensive care nurse, public health nurse and pharmacist from the Fiji National University, supported by DFAT arrived on 26 March 2015.
- A trauma psychologist from Fiji National University has been deployed to provide trauma counselling in Nui Island.
- WHO has provided some chemicals for vector control targeting marshy and swampy areas if necessary.
- Continuous monitoring of the influenza outbreak is ongoing in all the islands and additional medicines and vaccines have been delivered to Nukulaelae Island.

**Food Security & Livelihoods****Needs:**

- There have been requests for high protein food as on island as food stocks are low and gardens have been badly impacted.
- There is only one functioning boat in Nui thus limiting fishing and fishing has also been compromised due to lack of fuel.
- Negotiations are underway to allow fishing within conservation areas and traditional no take areas.
- Salinity and pH of island soils has been compromised by sea water and debris inundation. This is likely to impact crop production in the short to medium term but will improve with ongoing seasonal rainfall which is anticipated to be above average in the short to medium term.

**90%**

Crops damaged in Nui and Nukufetau.

**25%**

Crops damaged in Nanumanga, Nanumea and Nuitao.

**Response:**

- The Tuvalu Government and its partners distributed protein rich tin foods and limited rice stocks to the islands.
- The Tuvalu Disaster Committee has provided rice, sugar, flour, biscuits, 6,000 litre of petrol, cooking gas and gas cookers.
- 16.3 metric tonnes of rice was received on the New Zealand C130 military plane and has been distributed to the outer islands.
- Taiwan government has confirmed food aid support of 50-100 metric tonnes of rice.
- Two ships with food supplies will arrive in Funafuti with food stocks to replenish existing supplies,
- The government is proposing that there is a minimum of 2 weeks food supply in each of the islands until the affected communities are able to resume fishing and other livelihoods activities to support household food security.
- The Korean Fishing Trawler has pledged to provide 5 metric tonnes of while the other fishing companies have pledged 3 tonnes.

- Communities are being advised to harvest the damage root crops in affected pulaka pits before their quality is affected from the inundated salty water.
- The Tuvalu Auckland community has pledge to supply 6 containers of non-perishable food.

**Gaps:**

- Household food security has been seriously been disrupted by the saltwater inundation. Breadfruit trees, pulaka plants (swamp taro), taro, bananas, vegetable gardens were affected by saltwater inundation and are yellowing. Root crops are hardest hit and may not recover. There is inadequate manure or peat to use as growing media. There is thus need for communities to be supported to replant root crops and vegetables.
- The state of damage to the island fisheries has not been determined

**Education****Needs:**

- One classroom in Nanumanga is derelict and requires to be rehabilitated.
- Sanitation facilities in schools used as evacuation centres were inadequate and were overwhelmed.

**Response:**

- The Ministry of Education Youth and Sports (MEYS) is working closely with UNICEF to conduct a detailed assessment on the impact of the cyclone on schools.
- The School Supervisory Unit from MEYS will commence outer islands visits/assessments. However the assessment has been rescheduled following the disruption of ship schedules to the rough seas.
- An assessment on the schools used as evacuation centre is being conducted to determine their capacity to accommodate displaced people.
- Supplies of school bags with stationery donated by UNICEF were delivered on 29 March 2015. Some 36 boxes of the school bags will be sea freighted from Suva to Funafuti later in the month of April 2015.

**Gaps:**

- There is currently no information on the impact of education for the schools in the northern and southern islands.
- School sanitation facilities used as evacuation centres were not functioning before TC Pam and need to be rehabilitated.

**Early recovery****Needs:**

- Pulaka pits (traditional root crop production areas) in some areas have been inundated, and will require reestablishment.
- There are plans to establish nurseries on each island but there is inadequate peat moss and or manure as well as polythene.
- World Bank is conducted a desk rapid 'loss and damage assessment' to estimate housing, agriculture and infrastructure losses (sea walls, roads, sanitation facilities). The estimated loss is currently at 4.5 million US dollars (7.5 per cent of GDP).

**Response:**

- The Department of Agriculture has been advised to draw up a proposal for recovery of household food production.
- The Tuvalu Government deployed a public works team to assist families to return to their homes, repair community halls used as shelters, and to help in the clean-up of flood debris in Nui Islands.
- The consignment of tools, generators and recovery equipment donated by the government of New Zealand have been delivered and are currently being distributed to the outer islands.
- Communities are making their efforts to rebuild their lives and the situation is gradually normalizing.
- There is need for the government and its partners to scale up early recovery in supporting communities to rebuild disrupted livelihoods and damage infrastructure.

- DFAT and MFAT have committed funds to support disaster recovery efforts in support of the agriculture and fisheries sectors. Maritime safety, fishing boats and fishing equipment are the components the support will also include.
- World Bank is ready to finance recycling of hazardous waste (batteries and asbestos) up to USD 286,000 and asked the Government to explore this opportunity.
- UNDP is mobilizing resources to support debris management and is in discussion with SWAT to support clean-up operations.

## General Coordination

- The National Disaster Committee (NDC) is meeting regularly to coordinate response efforts.
- TC Pam foreign relations Sub Committee (of the NDC) is meeting daily at 3:00 pm with on-ground partners who are actively helping coordinate the response and collate assessment information.
- There has been a move to establish two working groups modelled around the cluster system to provide for more focussed discussion around sector specific issues. These working groups have yet to meet.
- World Bank is ready to finance recycling of hazardous waste (batteries and asbestos) up to USD 286,000 and asked the Government to explore this opportunity.
- Samoa provided a patrol boat that was being used to transport assessment teams and deliver relief supplies. The boat left Tuvalu at the end of its mission on 29 March 2015.
- There is ongoing need to manage staged deployments to Tuvalu to ensure that international support meets ongoing government response needs and that incoming support/human resourcing does not overwhelm local capacity and facilities.

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