



<b>DREF n° MDRTV002</b>	<b>GLIDE n° <a href="#">DR-2021-000120-TUV</a></b>
<b>Final Report; Date of Issue: 28 April 2022</b>	<b>Operation Timeframe: 4 months</b>
<b>Operation start date: 23 August 2021</b>	<b>Operation end date: 31 December 2021</b>
<b>Host National Society: Tuvalu Red Cross</b>	<b>Operation budget: CHF 30,155</b>
<b>Number of people assisted: 6,837 (1,477 households) (3,629 males, 3,208 females)</b>	
<b>Red Cross Red Crescent Movement partners currently actively involved in the operation:</b> The Tuvalu Red Cross Society is supported in-country by the International Federation of Red Cross and Red Crescent Societies (IFRC) and the International Committee of the Red Cross (ICRC)	
<b>Other partner organizations actively involved in the operation:</b> Public Works Department (water division), Department of Disaster Management (NDMO), Kaupule of Funafuti, Tuvalu Meteorological Service, Water Scarcity Project, Live and Learn Project.	

## A. SITUATION ANALYSIS

### Description of the disaster

Tuvalu is highly reliant on rainfall as the primary source of fresh water<sup>3</sup>. There are no rivers on the islands, and groundwater is extremely limited<sup>4</sup>. Rainwater is harvested and stored in household tanks, island community and church tanks, cisterns, and a large government cistern. Funafuti's water harvesting system is inherently sensitive to dry spells because it depends entirely on rainfall, and is affected by the timing, frequency, and intensity of rainfall<sup>5</sup>. Groundwater resources, where available, are brackish and exposed to saltwater intrusion from flooding, rising sea levels, and human and animal waste contamination.

When TRCS shared the July 2021 National Early Action Rainfall (EAR)Watch, the suggested climate outlook forecasted normal rainfall for three months. However, Nanumea, Funafuti, and Niulakita were at drought levels in June, while Nui received a drought warning. The table below captures the drought levels and warning for Nanumea, Funafuti, Niulakita and Nui from January to June 2021.

<b>Tuvalu Met Service EARWatch</b>	<b>June 2021</b>	<b>May and June 2021</b>	<b>April to June 2021</b>	<b>January to June 2021</b>
Nanumea	Drought	Drought warning	Drought	Drought
Funafuti	Drought	Drought	Drought warning	Drought warning
Niulakita	Drought	Drought watch	Drought warning	Drought warning
Nui	Drought warning	Drought warning	Drought warning	Drought warning

*Drought levels for local EARWatch stations in Tuvalu. These are a reliable indication of the overall drought situation across the country (source: Tuvalu EARWatch)*

The regional RCRC EARWatch indicated that Tuvalu was in 'Dry Warning' in June-Aug 2021, as rainfall for the previous three months was at the lowest 25 per cent of the historical record. The likelihood of proceeding to seriously or severely dry conditions in the coming months was increased, and suggested

preparedness and early actions were advisable given past and future seasonal data<sup>1</sup>. Tuvalu relies almost solely on rainwater for consumption, indicating that continued monitoring and data collection would be of high value, as the situation can deteriorate rapidly.

Government reserves data was only available until May, and flagging tanks were at only 38 per cent of their capacity. Despite this, the government did not declare a state of emergency as the nature of drought in Tuvalu was complex and changing. TRCS is an active member of the Drought Committee (DC) in Tuvalu and worked closely with the DC to monitor the situation, following the EARWatch information that led to planning EWEA in early July 2021.

There was then an episode of rainfall in mid-July, which ended the government's water distribution activities in Funafuti. However, as Tuvalu is so dependent on rainfall, it is documented that long-term impacts can still take effect despite this kind of short-term water relief, especially when the outlook is as forecast. This is especially the case if household-level water tank information is not known.

This potential cycle is known to continue for months, so understanding the water security situation was the first part of the early action planned.

### **Summary of response**

TRCS monitored signs of potential drought from July 2021 onwards, using regional and national rainfall and outlook data. TRCS monitored whether the dry conditions the Northern islands faced in that period were causing water stress in the community. Preparedness and early actions were advisable, given past (and future) seasonal data.

The operation consisted of the following:

- Household Surveys: covering questions on water usage, access, consumption, management, impacts as well as drought awareness (messaging and information) and support needed. (All households, Funafuti and all six Northern Islands)
- Rainwater Tank Sounding: TRCS carried out a basic process to determine the water depth in a rainfall water tank. The manual process is undertaken by striking the side of the tank, where the sounds determine the level. (all households, Funafuti and all six Northern Islands)
- Standard Operating Procedure (SOP) development for drought in all six Northern Islands, using the Funafuti drought plan as a blueprint.
- Sharing of IEC materials related to droughts to 677 households at Funafuti, 377 households on Northern Islands (Nanumea, Nanumanga, Nui) and 419 households on Nui and surrounding islands (Vaitupu, Nukufetau)
- Data analysis of household survey and Water Sounding: TRCS, supported by IFRC, analyzed the data collected to identify any key areas of impact, numbers of people affected, the expected effects and the likely timeframes to determine if there was any need to prepare to respond with certain activities.
- Lessons Learned Workshop (delayed and scheduled outside the DREF period of operation, March 2022)

TRCS now plans to strengthen its capacity for data collection through further KOBO Survey training of the volunteers, which includes the National Disaster Response Team, Branch Emergency Response Team, and Community Emergency Response Team. The team is now aiming to transition assessments to the KOBO platform including, for example, reporting on stocktakes at Island Disaster Preparedness depots.

From the implementation this operation, the National Society at the national level continues to strengthen its networking and partnerships through:

- i. An establishment of a partnership with the University of the South Pacific on the "Understanding existing community participation in early warning systems and independent early actions for drought

<sup>1</sup> According to the NZ National Institute of Water and Atmospheric Research (NIWA), as of 3 August, Tuvalu was predicted to have below normal rainfall for the next three months, while in the seasonal forecast, there was 91 per cent chance of below rainfall outlook for August to October with a high confidence rating.

in Tuvalu" project, which conducted more detailed drought surveys on selected households on Funafuti.

- ii. Successful securing of project grant under the UNDP Gov4Res for Nui Island to conduct maintenance on all household water catchments, which directly used findings from these surveys – household survey and water sounding.
- iii. Potential follow up projects on Nanumea, Nanumaga and Niulakita island under the Empress Shoken Fund (ESF) to conduct maintenance on all household water catchments on the island directly using findings from this operation.
- iv. Strengthening relationships with NDMO and wider members of the drought committee significantly by providing the platform to develop Drought SOPs for all Northern islands for the first time in Tuvalu.
- v. Expanding the awareness and critical value of using early warning information to take appropriate and relevant early action based on identified evidence, data and need. It is an opportunity to ensure early warnings continue to be well integrated with disaster management planning and preparedness to protect life, livelihoods and assets before disaster strikes. Evidence from this Survey indicated high and concerning needs; TRCS would have been well placed ahead of time to provide critical support in advance of a potential crisis.

At the National Society branch level, the team have worked with the Island Disaster Committee members and relevant personnel in the WASH sector and NDMO and have successfully developed and endorsed the Island Drought SOPs. The SOPs strengthen the island governance system in responding to similar disasters in the near future and support more resilience and prepared communities.

### **Overview of Host National Society**

TRCS has been implementing significant COVID-19 activities in partnership with the Ministry of Health and mobilized more than 50 volunteers across Tuvalu since July 2021. It carried out risk communication and community engagement, such as raising awareness among different target communities, youth groups, primary schools, kindergartens, and people living in islets. The TRCS also launched radio, TV, and social media campaigns about WASH messaging. The TRCS team has also been heavily involved in the vaccine rollout across the country.

While TRCS volunteers were trained on epidemic control for volunteers (ECV) and COVID-19 components to assist the Ministry of Health in responding to the pandemic, TRCS also followed the regional and national forecasts that indicated the upcoming extended dry period and participated in DC meetings.

Early Action completed by the National Society included the following:

- Training for 17 TRCS volunteers on conducting water sounding at the household level.
- Initial sounding for all 677 households on Funafuti in coordination with Public Works Department
- Conducted initial sounding for all 377 households on Northern Islands (Nanumea, Nanumanga, Nuitao)
- Conducted initial sounding for all 419 households on Nui and surrounding islands (Vaitupu, Nukufetau)
- Completed data collection upload with KoBo Toolbox and carried out needed analysis – not possible with KoBo; therefore, copies were transcribed to MS Excel.
- Conducted training for 55 TRCS volunteers on conducting a preliminary WASH needs assessment survey, including a refresher session on Kobo Toolbox completed. However, field teams were unable to use KoBo due to challenges with the tool.
- Conducted preliminary WASH, health, and livelihoods household level drought impact assessment during same community visit as the water sounding activity
- Conducted distribution of drought posters to all 1,477 households across 7 islands

### **Overview of Red Cross Red Crescent Movement in country**

TRCS has a longstanding working collaboration with the IFRC and the ICRC in implementing various programmes. During the operation, the IFRC country cluster delegation (CCD) Suva and ICRC have been working closely to provide technical support to TRCS and share information at regional and sub-regional levels. ICRC is providing support to TRCS through the Climate Action initiative, which included

onboarding a national climate action officer in November 2021. This appointment supports the remainder of the DREF implementation.

ICRC and IFRC assisted TRCS in its media approach and coverage for COVID-19 and WASH-related activities. TRCS disseminated key drought messages, ensured previous drought awareness messaging, COVID-19 handwashing messages aligned within a water scarcity context, using WHO Handwashing alternatives and recommended scenarios based on COVID-19 in Tuvalu.

IFRC also provided technical support to TRCS in related activities and potential drought response in Funafuti, including developing the Emergency Plan of Action for the DREF request and coordinating with TRCS for information sharing with the Movement and external partners. The IFRC CCD in Suva and the IFRC Asia Pacific Regional Office (APRO) provided further coordination support for information sharing and resources.

### **Overview of non-RCRC actors in country**

The National Disaster Management Office (NDMO) and Tuvalu Meteorological Service (TMS) coordinated with TRCS to carry out the activities proposed in the EPoA. NDMO were directly involved in the logistical organization as well as leading on the development of the drought SOPs at the island disaster council level supported by TRCS,

- Several meetings were held on an ongoing basis with NDMO to ensure current and up to date information is shared.
- All actions were completed in coordination with the Drought Committee members, who were updated regularly. A final feedback session is planned for end of March as part of the planned Lessons Learnt Workshop.
- It was not required to coordinate or scale up a plan in response to the findings. Though there were some instances of identified water stress, scarcity, and related needs, these were not significant or widespread to launch a response. This was discussed in coordination with NDMO as data from the household surveys and water soundings were analyzed.
- Recent coordination during the National Climate Outlook Forum in Tuvalu continues partnership coordination and enhanced ways of working with Tuvalu Met service, whose objectives are aligned with Early Warning Early Action (EWEA) themes.
- The Tuvalu National Drought Committee (DC), which TRCS co-chair, was activated on 5 July and agreed to meet weekly to provide updates on both thresholds (rainfall received and government water reserves). The Ministry of Public Works has established seven water distribution points operational since 12 July on Funafuti. All households could collect six buckets of water (approximately 60 litres per household per day). These were ceased in August 2021 as intermittent rain occurred. However, TRCS continued to update members of the DC on activities under this operation, progress and later, findings.
- Of note is the variation in average household size across the island groups. As a guide on Funafuti, the average household has eight members (according to the 2017 census). Technically, according to Sphere standards, families this size are entitled to about 120 litres daily, equivalent to 12 buckets per day. Therefore, the daily allocation of 60 litres per household is below the recommended Sphere standards for water supply, where each person requires a minimum of at least 15 litres per day. Gathering data on current water availability at the household level across the seven affected islands (through the water sounding activity) enabled a better understanding of water access, stress, and gaps in household-level water management skills.

### **Needs analysis and scenario planning**

According to the NIWA rainfall outlook for August to October 2021, there was a 91 per cent chance for below-normal rainfall for Tuvalu. In addition, the Tuvalu Met Services (EARWatch) observes that various parts of Tuvalu were already at drought or drought warning levels.

Under national and local drought monitoring plans for Tuvalu and Funafuti, the government declares a drought state of emergency if two thresholds relating to rainfall and government water reserves are met. Specifically, when cumulative rainfall recorded in the past three months is below the 10<sup>th</sup> percentile, when government water reserves are below 50 per cent and when all private residential water reserves are below 30 per cent.

However, using the government's declaration as a trigger for early warning and early action (EWEA) was challenging, as data is not readily available or up to date. In anticipation of the deteriorating scenario, TRCS is applied to anticipatory action through the DREF for needs-based and timely support to potential drought-affected communities by gathering data to better understand the household level situation.

The national society is proactive about anticipatory action as they have experience supporting communities during a severe drought in 2011. The 2010 to 2011 drought demonstrated that government and community storage on the main island of Funafuti can be depleted in less than two weeks. This is because Tuvalu relies almost exclusively on captured rainfall for its drinking water, supplemented by a limited desalinated supply which has also seen operational, maintenance and repair challenges<sup>2</sup>. Tuvalu communities and government continued to suffer drought impacts from 2010 to 2011 for almost three years. Some of the impacts were seen as follows:

- **Health impacts:** due to lack of safe water, diseases spread, especially when hygiene practices are reduced, and clean and safe water is unavailable for drinking and bathing. Outbreaks of diarrhoea and sickness are linked to poorly managed, inadequate waste disposal, which contributes to increased health risks and environmental degradation. This was seen in the survey conducted; however, it was noted that these were infrequent isolated incidents.
- **Food security issues:** severe water shortages led to a loss of crops critical for food security. The land was mostly unsuitable for farming, allowing few crops to grow. The limited crops that could grow in a hostile atoll environment — such as coconut, breadfruit, bananas and pulaka — wilted, became inedible or died. Soils of Tuvalu do not hold moisture well and it takes less than a month for crops with shallow roots to become water-stressed. Giant swamp taro, a core crop for socio-cultural and food security in atoll islands and planted in excavated pits reaching the water table, showed a high degree of stress caused by exposure to prolonged water stress salt-coated soil left by high evaporation of water in the pulaka pits. People were forced to practice negative coping mechanisms using any savings to purchase expensive imported food. The responses related to food security and livelihoods were extensive and varied. While no discernible trends were identified, low-level knowledge of water management and monitoring skills impacted households' abilities to manage these challenges.
- **Social impacts:** Droughts also had significant socio-economic impacts, and during extreme events, community gatherings were cancelled, and schools and government offices were closed.
- **Livelihoods:** Tuvalu's economy is dominated by subsistence farming and fishing activities, providing approximately 40 per cent of employment. Whilst Funafuti dominates the job opportunities in the public sector, almost all fishing, agriculture, and handicraft manufacturing take place on the outer islands. Agriculture practices involve cultivating trees and crops and raising a limited number of pigs and chickens. Crop production is primarily for subsistence, and home gardening is practised but constrained by damage caused by roaming animals (pigs and chickens), lack of inputs and water availability.

As the above challenges from 2010-11 and current reflections show, vulnerabilities remain for Tuvalu's atoll communities and must be considered as dry periods occur. TRCS assessed the current context during the household survey to support the recent dry period, collecting data on water access and usage and on health, livelihoods, and food security. This ensured data-informed decisions around any subsequent intervention by TRCS, especially if the drought worsened. It allowed for evidence-based decisions around 'interventions or not' and ensured response options were needs-driven. As mentioned above, no immediate needs were flagged. However, the need for long term investment in water management and rainwater harvesting maintenance, monitoring and repair was identified as a major gap.

### Risk Analysis

The key risk foreseen was that of TRCS volunteers and staff acquiring COVID-19 infection during the drought operation, should a community outbreak happen. The TRCS ensured that all volunteers and staff engaged in the operation had adequate knowledge about the virus, knew where to access personal protective equipment as necessary and were insured. In addition, they were re-orientated on personal

<sup>2</sup> Assessment Report: Existing Desalination Units In Tuvalu, [SPC 2020](#)

protective measures, which considered drought and COVID-19 response. No community COVID-19 outbreaks occurred during the operation.

Risk area	Mitigation Strategies	Outcome
The public complains about our volunteers' conduct during the survey and at water distribution points	All volunteers to be used to be briefed using the SMEAC <sup>3</sup> briefing and to be also briefed on the Code of Conduct, Child Protection Policy, and Fundamental Principles before deployment. All volunteers deployed to sign the Code of Conduct. All volunteers deployed to use TRCS high visibility vests when on duty.	Whilst there were some complaints of "survey overloads" and "too many surveys – not enough action," volunteers were briefed to explain that collecting the data would provide information to the National Drought Committee to make better decisions.
Negative media coverage related to the handling of the response operation	Proactive communication with media and stakeholders. Community engagement and accountability. Thorough needs analysis, planning, prioritization, and reporting.	The media would only either report what we updated on social media, or they would confirm with our communications team before airing any news.
Scaling activities in areas new to the NS, outside the technical scope	Identify red lines based on a do no harm approach and the existing technical capacity of the National Society	
Social unrest and community resistance; stigma against humanitarian workers and volunteers	Gathering and analysis of community perceptions Community engagement and accountability Evidence-based action with community and media stakeholders	

## B. OPERATIONAL STRATEGY

### Proposed strategy

The following activities ensured the inclusion of the most vulnerable affected population as described below.

- Carried out a continuous needs assessment and analysis**  
 The assessments were carried out considering gender balance and household dynamics. TRCS ensured compliance with the minimum standards for PGI, as supported by CCD PGI technical team. Breakdowns of beneficiaries are available in the analysis.
- Modified operational plan based on results of feedback surveys and systems.**  
 Due to delays with data collection and transportation delays with the boat schedule frequently changing between the outer islands and Funafuti, the TRCS team had to adapt the timeframe and the logistical approach. While this did not impact the data collected or the quality, the impact on later being able to analyze the information in a timely way was compromised. To ensure the team could reflect on their findings in an appropriate timeframe (to launch any response if needed) the team, with the support of IFRC, had a reflections session to hear the 'on the ground observations', key messages from households and overall review of water tank capacity in real-time. This enabled a rapid review to be completed and quickly identified that no immediate needs were flagged to launch a response, leading to the fuller analysis of the results.

<sup>3</sup> Situation, Mission, Execution, Administration, Command

- **Ensured integrated programming between Areas of Focus is being ensured.**  
The DRR and WASH activities were both fully integrated, as the Water Sounding, SOP development, Drought awareness materials and *household* survey were completed with *the* same communities at the same time by the same volunteers and staff.
- **Ensuring local government participation** - NDMO accompanied TRCS on the data collection and assessment exercise and co-led with the IDC development of SOPs.
- **Community engagement** - TRCS continued to inform communities of operational activities and progress, including progress, findings, and next steps. To date, households have been given opportunities to participate in the operation through water sounding training and sharing information in the survey. In addition, several members of the communities in each location have participated in the development of IDC SOPs for drought. No complaints were received during the operation; however, concerns about the number of surveys being conducted were raised. TRCS explained the role and purpose in detail and ensured consent before continuing.
- **Promoted early recovery.**  
As the approach was developed to understand any response needs and highlight issues with water security – the activities were able to support discussion for *the* next steps in communities. These didn't require response interventions but flagging ongoing, long term resilience-building support and general sustainable development in water management.
- **How was the household assessment carried out?**  
Household surveys were carried out on all islands where the survey was carried out: (1) Nanumea; (2) Nanumaga; (3) Niutao; (4) Nui; (5) Vaitupu; (6) Nukufetau, and (7) Funafuti. Planning was based on a 5-day data collection.
- **Each surveyor was to conduct at least eight household surveys per day**, and each water-sounding surveyor was to conduct water soundings on at least 24 households per day.

Location	2020 Households	Number of volunteers conducting household survey	Daily average of households per volunteer	Number of volunteers conducting water sounding	Daily average of household per volunteer
Nanumea	122	3	8	1	24
Nanumaga	118	3	8	1	24
Niutao	137	3	8	1	24
Nui	120	3	8	1	24
Vaitupu	192	6	7	2	20
Nukufetau	111	3	8	1	24
Funafuti	955	24	8	9	21

- **Consultation with assisted communities:**
  - Households on all islands were sharing their fatigue with surveys as they could not see the outcomes of the many surveys conducted at the household level.
  - Some households were sceptical of how Tuvalu Red Cross could assist them with this exercise as they associate Tuvalu Red Cross with relief items distribution.
  - Households on all islands shared that the best way any organization could help them with water storage is to provide an additional 10,000-litre water tank.
  - Many families were not aware of how much water they used daily. After estimating their daily water usage, they were worried as they did not have sufficient water storage capacity to support them for a long time.
  - Some families in Funafuti shared that it was the Government's responsibility to ensure that all Tuvaluans should have sufficient water storage capacity.
  - Many families recommended that all houses have a minimum of one 10,000 litre water tank.

- Families on Vaitupu were unsure how much water was used daily when their water tanks were full, further stating that they would only monitor their water usage when there was no rain for a couple of days.  
Families on Vaitupu also queried whether there was any assistance from the government or any other project for damaged guttering.
- **Feedback mechanisms were put in place:**
  - Feedback mechanisms existing at the island level include:
    - Household feedback was identified in the survey.
    - Individual branch chat group where all headquarters staff are included where branch members can provide community-level feedback.
    - The communications team on Funafuti developed a feedback mechanism where community members can provide feedback directly to branches, which then provided feedback to headquarters.
    - Findings and lessons learnt to be shared with the communities in March 2022
- **Provide information that demonstrate how programmes have been adapted based on input from the people involved in the operation.**
  - The DREF survey has identified potential programming that Tuvalu Red Cross can implement, as a follow-up to the DREF survey. These areas are mainly focused on building water management expertise. The projects below were identified as a result of the DREF surveys:
    - Partnership with the University of the South Pacific on the "Understanding existing community participation in early warning systems and independent early actions for drought in Tuvalu" project conducted more detailed drought surveys on selected households in Funafuti.
    - Project on Nui Island to conduct maintenance on all household water catchments under the UNDP Gov4Res grant directly using findings from this operation.
    - Potential follow up projects on Nanumea, Nanumaga and Niulakita island under the Empress Shoken Fund (ESF) to conduct maintenance on all household water catchments on the island directly using findings from this operation.
  - Capacity building training for Tuvalu Red Cross included:
    - KOBO Survey training for volunteers to be included in the National Disaster Response Team, Branch Emergency Response Team, and Community Emergency Response team curriculums.
    - All assessments are to be transitioned to the KOBO platform. All assessments are to be done on the KOBO platform, including reporting on stocktakes at Island Disaster Preparedness depots.
- **How has the National Society ensured community participation, building on local capacities and knowledge?**
  - By conducting household surveys, Tuvalu Red Cross has ensured that viewpoints of all members of the community have been incorporated. If focus group discussions were done, there was the risk of participants deferring to the elder (or chief) to provide answers during the discussion.
  - By using volunteers based on the outer islands for data collection, we have ensured that branches have increased capacity in data collection.
- **Process on community engagement – DC, IC, Community members' disaster committees**  
To develop the Island Drought SOPs, the Island Disaster Committee members and relevant personnel in the WASH sector were invited to the consultation along with the Island Disaster Committees and NDMO.
- **Have specific needs been considered in relation to gender, ethnicity, age, disability, people living with HIV/AIDS, or other factors that may increase vulnerability?**

As the survey was conducted at the household level, all community members were included and covered in the data collection. In addition, during the development of the SOPs and during the Water Sounding training the team worked to ensure fair and safe inclusion of women across these activities.

- **What mechanisms or steps were put in place to enhance transparency and accountability, such as monitoring, reviews, audit etc.?**

Weekly check-in meetings were held between the TRCS team and IFRC to ensure compliance with plans and capturing challenges. This process was reflected at the field level where TRCS contacted Branch level colleagues and volunteers to identify challenges and report on progress.

- **What actions were taken to capture, analyze and share data, information and lessons learned from the project with partners involved in the response and beyond?**

Initial lessons learned from DREF survey have been incorporated into current Tuvalu Red Cross programming in 2022. A full lesson learned workshop will be completed in March this was unable to be completed during the DREF timeframe.

## C. DETAILED OPERATIONAL PLAN



### Water, sanitation, and hygiene

People reached: 6,837 (1,477 HHs)

Male: 3,629

Female: 3,208

#### WASH Outcome 1: Immediate reduction in risk of waterborne and water-related diseases in targeted communities

Indicators:	Target	Actual
# of people (1,755 HHs) indirectly reached with awareness campaign activities etc.	10,204 (1,755 HHs)	6,837 (1,477 HHs)

#### WASH Output 1.1: Continuous assessment of water, sanitation, and hygiene situation is carried out in targeted communities

Indicators:	Target	Actual
# of integrated assessments completed in targeted islands	7	7

#### Narrative description of achievements

Early Action completed by the National Society included the following:

#### Household surveys on Nanumea, Nanumaga, Niutao, Nui, Vaitupu, Nukufetau, and Funafuti islands

Island	Total no. of households (2017 census)	Total no. of households surveyed under DREF operation	Reach
Nanumea	122	122	100%
Nanumaga	118	118	100%
Niutao	137	137	100%
Nui	120	120	100%
Vaitupu	192	192	100%
Nukufetau	111	107	96%
Funafuti	955	677	71%
<b>TOTAL</b>	<b>1,755</b>	<b>1,473</b>	<b>84%</b>

**Total islands reached: 7**  
**Total households reached: 1,477**  
**Total households reached: 84%**

Overall: Total Population Reached	Male	Female
0 to 5 years	574	451
6 to 12 years	566	474
13 to 17 years	257	230
18 to 29 years	671	529
30 to 39 years	558	438
40 to 49 years	313	331
50 to 59 years	331	328
60 to 69 years	247	255
70 to 79 years	92	132
80 + years	20	40
<b>TOTAL</b>	<b>3,629</b>	<b>3,208</b>

**Total population reached: 6,837**  
**Total number of people with disability: 56**  
**Total >80: 56**

#### Finding highlights:

- When developing the EPoA, IFRC and TRCS used information from past droughts and periods of extended dry period to identify what could be the impact being faced by the general population, particularly from June to Dec 2020. These included potential issues with health, food security, livelihoods, and water access. Although the results showed some challenges in these areas there were no significant challenges identified by the survey team.

What was discovered is shared below:

- No extreme needs requiring a response were identified. Concerns related to water stress though evident in some HHs on some islands, were not significant enough to scale a response.
- Findings were varied across all islands for changes in water usages due to the dry period, with most islands showing some changes to how they use water, but not flagging any extreme changes

or major concerns (e.g., findings were mainly noting manageable responses such as rationing, reducing, saving water with only 9 per cent of respondents flagging certain activities with 'not enough' water).

- Health data highlighted no major concerns, but data collected will inform any TRCS health, DRM, WASH interventions moving forwards.
- Only in Vaitupu did more than 50 per cent of those surveyed suggest relief items would be valuable, and this needs to continuously be monitored which will inform TRCS health, DRM and WASH interventions moving forward.

### Two key findings for Early Warning Early Action

- The biggest area of need flagged to support drought preparedness is 'Repair guttering and roof', 'Repair water tanks and cisterns' and 'Repair leaky pipes, taps, etc'. This means water capture is compromised – i.e., when it does rain, households must be able to capture water in the most optimal way.
- In addition, HHs surveyed showed limited knowledge of their overall water needs and water usage, making water management in dry periods, very difficult.

Water Sounding Survey at household level on Nanumea, Nanumaga, Niutao, Nui, Vaitupu, Nukufetau, and Funafuti.

Island	Total no. of households (2017 census)	Water sounding training date	Total no. of households water sounding conducted	Reach	Start date	End date
Nanumea	122	25/09/2021	122	100%	27/09/2021	02/10/2021
Nanumaga	118	16/09/2021	118	100%	20/09/2021	24/09/2021
Niutao	137	20/09/2021	137	100%	21/09/2021	25/09/2021
Nui	120	09/10/2021	120	100%	11/10/2021	15/10/2021
Vaitupu	192	18/10/2021	192	100%	18/10/2021	22/10/2021
Nukufetau	111	11/10/2021	107	96%	11/10/2021	15/10/2021
Funafuti	955	03/09/2021	677	71%	06/09/2021	10/09/2021
<b>TOTAL</b>	<b>1,755</b>		<b>1,477</b>	<b>84%</b>		

- Water sounding data flagged no major concerns. Most water tanks either half full or full, with only 7 per cent of tanks surveyed overall were found empty and all of these were second tanks)

### Distribution of drought awareness IEC materials

Island	Total no. of households (2017 Census)	Total no. of households reached with IEC drought awareness posters	Reach	Start date	End date
Nanumea	122	122	100%	27/09/2021	02/10/2021
Nanumaga	118	118	100%	20/09/2021	24/09/2021
Niutao	137	137	100%	21/09/2021	25/09/2021
Nui	120	120	100%	11/10/2021	15/10/2021
Vaitupu	192	192	100%	18/10/2021	22/10/2021
Nukufetau	111	107	96%	11/10/2021	15/10/2021
Funafuti	955	677	71%	06/09/2021	10/09/2021
<b>TOTAL</b>	<b>1,755</b>	<b>1,473</b>	<b>84%</b>		

- All households survey received drought awareness posters in Tuvaluan.

### Challenges

#### KOBO training

While most of the volunteers on Funafuti were relatively competent at using the KOBO platform, it was found through the survey and data collection that volunteers on the outer island were not competent

at using KOBO. This moved the operation to paper-based data collection, which had significant impacts on timing, collection of information from the outer islands, and later data analysis.

The main challenges were seen with data collection and analysis. Future assessments will be developed considering these issues and capacity building plans will be considered.

## **Lessons Learned**

### **KOBO training**

- When conducting surveys on the outer island, one-day training on data collection is not sufficient for inexperienced team members. In the future: Either a staff member or an experienced volunteer remains on the island to conduct a more thorough training for data collectors. The experienced volunteer can also provide a daily quality check, or Tuvalu Red Cross ensures that KOBO training is incorporated into their annual capacity building training.
- The survey was ambitious and underestimated the capacity of volunteers to perform tasks such as daily data entry into pre-prepared Excel sheets (in English) after the KOBO approach was not possible. This should be considered for any future surveys in the planning session. (Using KOBO minimizes this)
- More KOBO survey practice is needed. The volunteers (even on Funafuti, are still less experienced in using KOBO). Open-ended questions requiring a description are a challenge, and training and practice will be required to improve.


### **Delays due to manual data entry of surveys**

- For future paper surveys, a team of data entry staff and volunteers were required as the team needed to move away from KOBO. This added time and cost to the budget.
- For paper surveys in the outer islands, it is better to send a team member from headquarters rather than rely on capacities on the outer islands. The team member from headquarters will act as the focal point for collecting all data on that particular island and can work to upskill local volunteers throughout the intervention.

### **Quality of information in DREF surveys**

- More training is required with volunteers on the concept of the survey. Instead of a one-day training that was done during the DREF survey, a two- or three-day training would ensure that the volunteers are fully cognizant of the survey questions and how to capture and analyze the data obtained.
- Also, rather than carrying out the surveys in one week, it might have been more beneficial to carry out the survey in a two-week period.

Given the expected period of extended dry period, it could have been assumed to launch an immediate response. However due to the understanding of the context, it was clear on the ground up to date information was required related to household level of water access first. As rainwater harvesting systems are almost solely relied upon to capture water, the team was required to survey the tanks and gather household level information to understand if water scarcity was an issue or not. The results showed that most water tanks either half full or full, (with only 7 per cent of tanks surveyed overall were found to be empty and all of these were second tanks). The Early Warning Early Action was found to be the right approach to take, and whilst not highlighting an immediate response need, flagged some key water management, maintenance monitoring challenges overall which required follow up with TRCS. Future TRCS programmes and projects have now been informed using this information.

 <p><b>Disaster Risk Reduction</b>  <b>People reached:</b> 6837 (1477 HH)  Male: 3629  Female: 3208</p>																							
<b>Outcome 1: Communities in high-risk areas are prepared for and able to respond to disaster</b>																							
<b>Indicators:</b>	<b>Target</b>	<b>Actual</b>																					
<i>An estimated 10,204 people (1,755 HHs) indirectly reached with awareness campaign activities etc.</i>	10,2014 (1755HHs)	6837 (1477 HHs)																					
<b>Output 1.1: Communities take active steps to strengthen their preparedness for timely and effective response to disasters.</b>																							
<b>Indicators:</b>	<b>Target</b>	<b>Actual</b>																					
<i>Villages reached with awareness campaign activities (radio, TV, social media etc.)</i>	7	n/a																					
<i>6 SOPs developed with participation and feedback from the community (CEA)</i>	6	6																					
<b>Narrative description of achievements</b>																							
<b>Development of Island Drought SOPs for Nanumea, Nanumaga, Niutao, Nui, Vaitupu, and Nukufetau.</b>																							
<table border="1"> <thead> <tr> <th>Island</th> <th>Date Of Drought Sops Development</th> <th>Has Kaupule Endorsed Sops?</th> </tr> </thead> <tbody> <tr> <td>Nanumea</td> <td>25/09/2021</td> <td>Yes</td> </tr> <tr> <td>Nanumaga</td> <td>16/09/2021</td> <td>Yes</td> </tr> <tr> <td>Niutao</td> <td>20/09/2021</td> <td>Yes</td> </tr> <tr> <td>Nui</td> <td>09/10/2021</td> <td>Yes</td> </tr> <tr> <td>Vaitupu</td> <td>11/10/2021</td> <td>Yes</td> </tr> <tr> <td>Nukufetau</td> <td>08/10/2021</td> <td>Yes</td> </tr> </tbody> </table>			Island	Date Of Drought Sops Development	Has Kaupule Endorsed Sops?	Nanumea	25/09/2021	Yes	Nanumaga	16/09/2021	Yes	Niutao	20/09/2021	Yes	Nui	09/10/2021	Yes	Vaitupu	11/10/2021	Yes	Nukufetau	08/10/2021	Yes
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<p><b>Island Drought SOP development team:</b></p> <ol style="list-style-type: none"> <li>1) <b>Luka Selu</b> (NDMO)</li> <li>2) <b>Tauala Katea</b> (Tuvalu Met Service)</li> <li>3) <b>Tavau Vaaia</b> (Tuvalu Met Service)</li> <li>4) <b>Tusi Finikaso</b> (Tuvalu Red Cross)</li> </ol>																							
<p>All 6 Island Disaster Councils/ Kaupule(s) on Nanumea, Nanumaga, Niutao, Nui, Vaitupu, and Nukufetau have confirmed via NDMO that they have approved and endorsed the developed Drought SOPs. These were developed using the Funafuti drought plan, and for the first time, the Northern Islands have an SOP in place for drought.</p>																							
<b>Challenges</b>																							
<b>PLANNED ACTIVITY</b>	<b>RATIONALE for not carrying out activity</b>																						
(1) 1 hour recorded show on Radio Tuvalu and Tuvalu TV to update the public on drought preparedness and a talkback show	By the time the DREF operations started, rain had fallen on Funafuti and the consensus from the Drought Committee was that people would not be receptive to the drought preparedness messaging on radio and TV as they had water in their tanks. So, drought preparedness messaging was limited to social media (Facebook) pages of (1) Tuvalu Red Cross Society; (2) Tuvalu Met Service; and (3) Tuvalu Department of Disaster Management.																						
(2) Hygiene-related drought awareness messaging on Radio Tuvalu and Tuvalu TV																							
<b>Lessons Learned</b>																							
Continued communication with key stakeholders was key to ensuring TRCS could share plans and activities and ensure they remained fit for purpose. The decision to adapt the awareness to focus more generally on preparedness for drought reflected the needs and the discussions with other stakeholders.																							

<b>Strengthen National Society</b>			
<b>Outcome S1.1: National Society capacity building and organizational development objectives are facilitated to ensure that National Societies have the necessary legal, ethical, and financial foundations, systems and structures, competences, and capacities to plan and perform</b>			
<b>Indicators:</b>		<b>Target</b>	<b>Actual</b>
<i>An insurance framework for national staff and volunteers with active provider/s</i>		yes	n/a
<b>Output S1.1.4: National Societies have effective and motivated volunteers who are protected</b>			
<b>Indicators:</b>		<b>Target</b>	<b>Actual</b>
<i>100% of mobilized volunteers are insured</i>		yes	n/a
<b>Narrative description of achievements</b>			
All 56 mobilized volunteers are insured.			
<b>Outcome S3.1: The IFRC secretariat, together with National Societies uses their unique position to influence decisions at local, national, and international levels that affect the most vulnerable.</b>			
<b>Indicators:</b>		<b>Target</b>	<b>Actual</b>
<i>At least 2 lessons learned findings are actionable and result in changes at the NS, local, national, or international level</i>		yes	n/a
<b>Output S3.1.2: IFRC produces high-quality research and evaluation that informs advocacy, resource mobilization and programming.</b>			
<b>Indicators:</b>		<b>Target</b>	<b>Actual</b>
<i>1 lesson learned workshop report produced</i>		1	n/a
<b>Narrative description of achievements</b>			
<b>PLANNED ACTIVITY</b>		<b>RATIONALE for not carrying out the activity</b>	
Lessons learned workshop with stakeholders		This activity was not carried out, as data collection was done manually (paper-based). This led to a long duration of data entry which delayed the analysis of all data collected during the DREF validity period. The lessons learnt workshop with stakeholders and volunteers is planned for March 2022.	
<b>Challenges</b>			
Mobilizing the volunteers simultaneously. It was difficult as volunteers were also engaged with the vaccination rollout. However, TRCS showed strong volunteer management and support. Future operations will consider the lessons as per the above activities to ensure volunteers have the knowledge and expertise to carry out their roles effectively.			
<b>Lessons Learned</b>			
Findings from the surveys and other activities will inform further activities and strategic plans for the NS and the learnings from the operational aspects. In addition, TRCS has looked to utilize the information gathered broadly and ensure it is shared and used to enable effective decision-making related to water management and community preparedness.			

## D. THE BUDGET

The unspent balance of CHF 21 will be returned to DREF pot.

The major donors and partners of the Disaster Relief Emergency Fund (DREF) include the Red Cross Societies and governments of Belgium, Britain, Canada, Denmark, German, Ireland, Italy, Japan, Luxembourg, New Zealand, Norway, Republic of Korea, Spain, Sweden, and Switzerland, as well as DG ECHO and Blizzard Entertainment, Mondelez International Foundation, and Fortive Corporation and other corporate and private donors. The IFRC, on behalf of the National Society, would like to extend thanks to all for their generous contributions.

Full financial report is attached at the end of this report.

## Contact information

### Reference documents

Click here for:

- Previous Appeals and updates
- Emergency Plan of Action (EPoA)

**For further information, specifically related to this operation please contact:**

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## How we work

All IFRC assistance seeks to adhere to the **Code of Conduct** for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGO's) in Disaster Relief and the **Humanitarian Charter and Minimum Standards in Humanitarian Response (Sphere)** in delivering assistance to the most vulnerable. The IFRC's vision is to inspire, encourage, facilitate, and promote at all times all forms of humanitarian activities by National Societies, with a view to preventing and alleviating human suffering, and thereby contributing to the maintenance and promotion of human dignity and peace in the world.

The IFRC's work is guided by Strategy 2020 which puts forward three strategic aims:



**Save lives.**  
protect livelihoods,  
and strengthen recovery  
from disaster and crises.



Enable **healthy**  
and **safe** living.



Promote social inclusion  
and a culture of  
**non-violence** and **peace**.

# DREF Operation

Selected Parameters			
Reporting Timeframe	2021/08-2022/03	Operation	MDRTV002
Budget Timeframe	2021/08-2021/12	Budget	APPROVED

## FINAL FINANCIAL REPORT

Prepared on 25/Apr/2022

All figures are in Swiss Francs (CHF)

### MDRTV002 - Tuvalu - Impending Drought

Operating Timeframe: 23 Aug 2021 to 31 Dec 2021

#### I. Summary

<b>Opening Balance</b>	<b>0</b>
<b>Funds &amp; Other Income</b>	<b>30,155</b>
DREF Allocations	30,155
<b>Expenditure</b>	<b>-30,134</b>
<b>Closing Balance</b>	<b>21</b>

#### II. Expenditure by area of focus / strategies for implementation

Description	Budget	Expenditure	Variance
AOF1 - Disaster risk reduction	19,504	30,134	-10,630
AOF2 - Shelter			0
AOF3 - Livelihoods and basic needs			0
AOF4 - Health			0
AOF5 - Water, sanitation and hygiene	7,938		7,938
AOF6 - Protection, Gender & Inclusion			0
AOF7 - Migration			0
<b>Area of focus Total</b>	<b>27,442</b>	<b>30,134</b>	<b>-2,693</b>
SFI1 - Strengthen National Societies	1,578		1,578
SFI2 - Effective international disaster management	1,136		1,136
SFI3 - Influence others as leading strategic partners			0
SFI4 - Ensure a strong IFRC			0
<b>Strategy for implementation Total</b>	<b>2,714</b>		<b>2,714</b>
<b>Grand Total</b>	<b>30,155</b>	<b>30,134</b>	<b>21</b>

# DREF Operation

Selected Parameters			
Reporting Timeframe	2021/08-2022/03	Operation	MDRTV002
Budget Timeframe	2021/08-2021/12	Budget	APPROVED

## FINAL FINANCIAL REPORT

Prepared on 25/Apr/2022

All figures are in Swiss Francs (CHF)

### MDRTV002 - Tuvalu - Impending Drought

Operating Timeframe: 23 Aug 2021 to 31 Dec 2021

### III. Expenditure by budget category & group

Description	Budget	Expenditure	Variance
<b>Logistics, Transport &amp; Storage</b>		<b>205</b>	<b>-205</b>
Transport & Vehicles Costs		205	-205
<b>Personnel</b>	<b>18,149</b>	<b>12,939</b>	<b>5,210</b>
National Society Staff	2,133	3,290	-1,157
Volunteers	16,016	9,649	6,367
<b>Workshops &amp; Training</b>	<b>2,054</b>	<b>5,318</b>	<b>-3,263</b>
Workshops & Training	2,054	5,318	-3,263
<b>General Expenditure</b>	<b>8,112</b>	<b>9,834</b>	<b>-1,722</b>
Information & Public Relations	7,275	7,500	-225
Office Costs	178	290	-112
Communications		137	-137
Financial Charges		7	-7
Other General Expenses	658	1,900	-1,242
<b>Indirect Costs</b>	<b>1,840</b>	<b>1,839</b>	<b>1</b>
Programme & Services Support Recover	1,840	1,839	1
<b>Grand Total</b>	<b>30,155</b>	<b>30,134</b>	<b>21</b>