

START Network Alert 630 Tuvalu (Drought) – Learning Grant



Water and Hygiene Assessment Findings Report Executive Summary

CARE Australia and Live & Learn Environmental Education (LLEE) Tuvalu

April 2023

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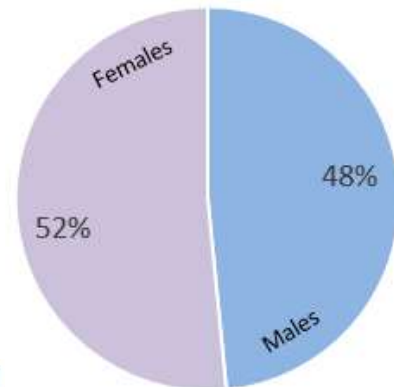
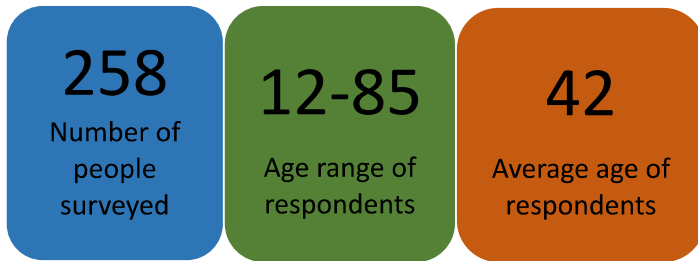
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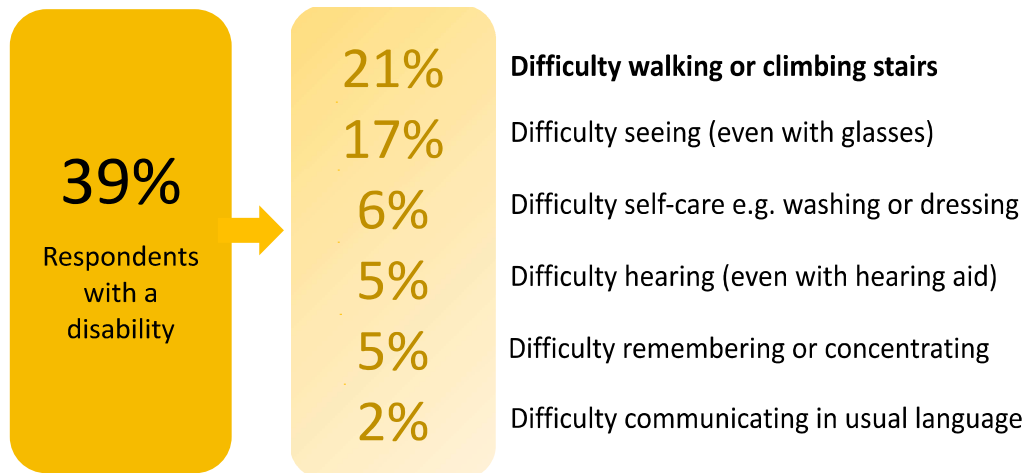
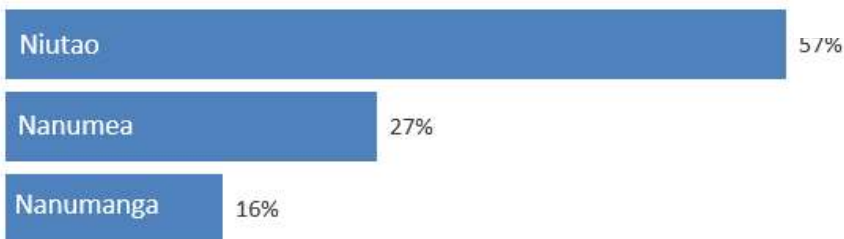
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START Learning Initiative

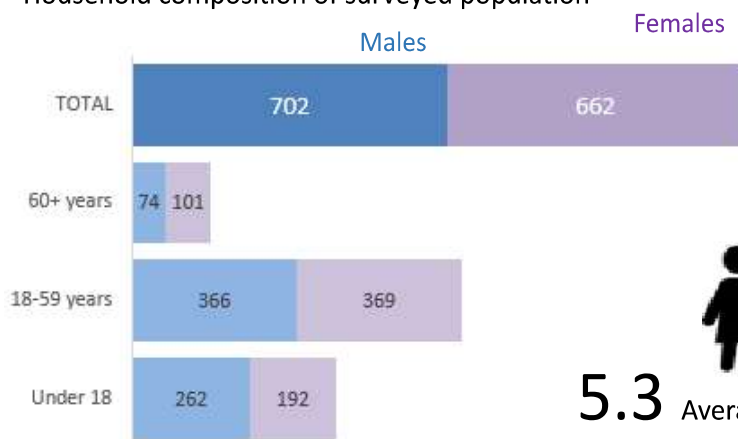
Demographics of surveyed population (n=258)



% of respondents by location

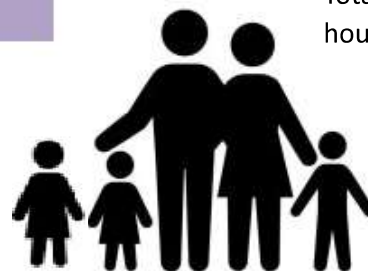


Household composition of surveyed population



1364

Total number of household members



5.3 Average number of people per household

Survey Findings

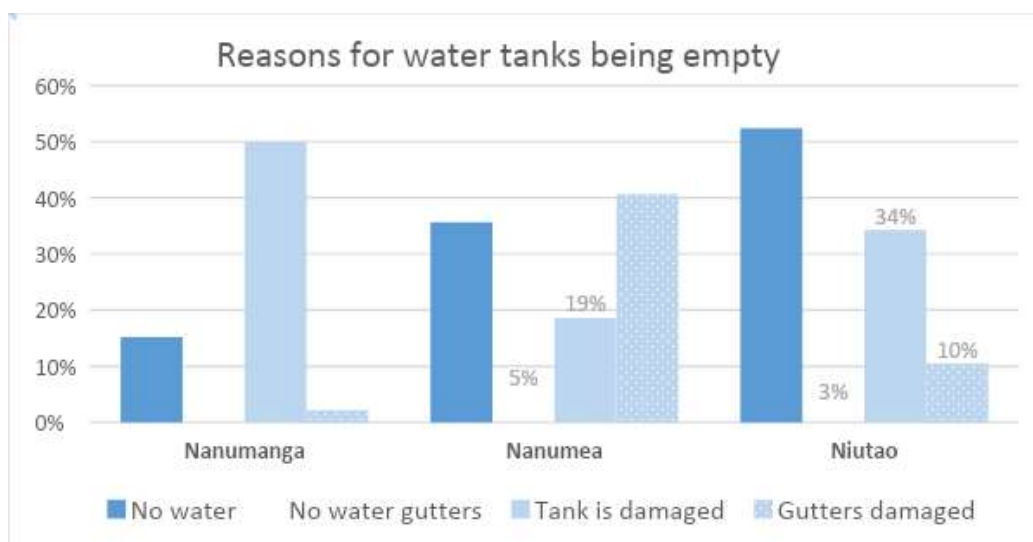
Background

In July 2022, the Government of Tuvalu declared a State of Emergency due to worsening drought conditions across the country. The northern islands were severely impacted, particularly Niutao, where local actors had to turn to distributing bottled water in response to a critical undersupply of household water for drinking and general purposes.

This survey was completed as part of a grant under the START learning initiative, and the main purpose was to conduct a water and hygiene focused needs assessment for drought-affected populations on the three northern islands of Nanumea, Nanumanga and Niutao, with a particular focus on gender and inclusion. The northern islands can be difficult to reach and are often not included in research projects for this reason. Conducting a needs assessment provides data that national and local actors can use to inform ongoing drought response efforts, particularly around longer-term, equitable access to water, as well as assisting in better planning and delivery in future responses. The number of people surveyed was 258, representing 22% of the total population aged 13 and over (although a few 12 year olds were included). A survey conducted in October 2022 by the Tuvalu National Disaster Management Office provided a starting point for the START learning grant exercise.

Household water sources

A **water tank at home was the most commonly reported primary water source (97%)** for households in the Northern Islands, according to the recent [National Drought Household Assessment \(DHA\)](#) conducted in October 2022 by the Tuvalu National Disaster Management Office in partnership with UNOCHA. The most commonly reported secondary water source in these areas was a community water tank. 78% of respondents in Nanumea and 41% of respondents in Niutao reported their families using well water, while this was 0% in Nanumanga. For those who reported having low or empty water tanks at home, they were asked the reason(s) for this. In Niutao, the most reported reason was ‘no water’ (52%), which makes sense during a drought, however in Nanumanga, the most reported reason was ‘tank is damaged’ (50%), and in Nanumea it was ‘gutters damaged’ (41%).



Water quality

DHA respondents were asked if they think the water provided by desalination units is safe to drink, with a yes/no response option. Interestingly, in Nanumea, 87% of respondents said ‘yes’, however in

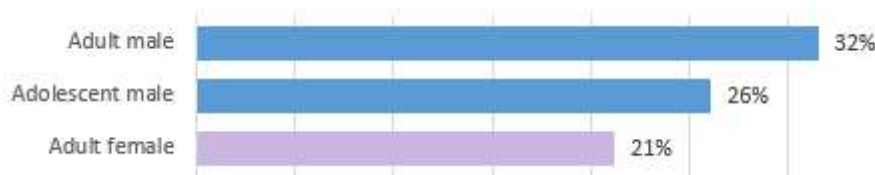
both Nanumanga and Niutao, 'yes' responses were less than one third of the surveyed population. Our own survey asked people in Nanumea to rate the quality of water from the START-funded filtration unit, with 78% rating it as 'excellent' and 19% rating it as 'good'.

Survey Findings

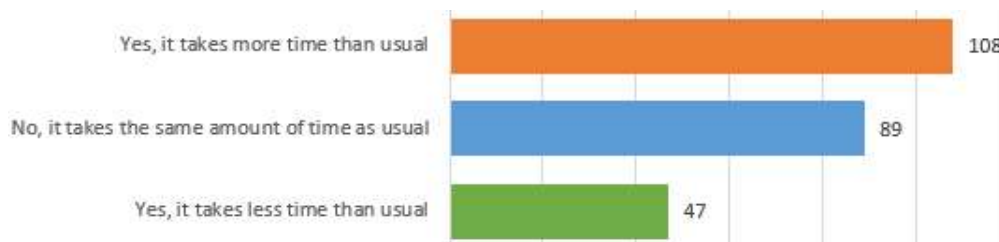
This section presents the findings from the START learning grant survey.

Household water collection

Males are more commonly collecting household water than females, with most of these falling into the general adult age group (i.e. neither a child nor an elderly person). The category most commonly cited as being involved in household water collection was adult males, followed by adolescent males and adult females. As more than one person can be responsible for water collection within a household, more than one response category could be selected for this question.



When asked if water shortages have impacted how long it takes for their household to collect water, **108 respondents (44.3%) said that it has resulted in a time increase**, 89 respondents (36.5%) said that it has not had any time impact, and 47 (19.3%) said that it has resulted in a time decrease.

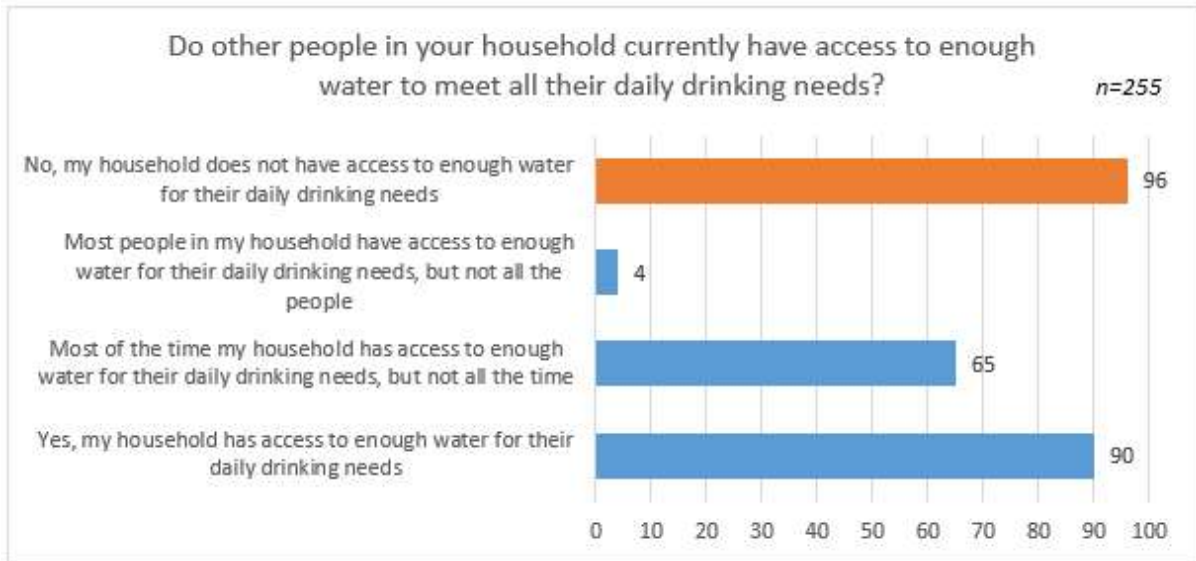


Access to water

When asked if they personally have access to sufficient drinking water, 97 people said they do not, 85 people said they do, and 73 people said they do most but not all of the time. The remaining 3 people selected 'prefer not to answer' and have been removed from the data. This is visualised as percentage of respondents by sex below:

	Males	Females	Total
Yes, I have access to enough water for my daily drinking needs	38.7%	28.2%	33.3%
Most of the time I have access to enough water for my daily drinking needs, but not all the time	21.8%	35.1%	28.6%
No, I do not have access to enough water for my daily drinking needs	39.5%	36.6%	38.0%
	100%	100%	100%

When asked the same question about their household members, **96 respondents (38%) said that they do not have enough drinking water**, 90 (35%) said that they do, and the remaining 69 (27%) said that it was true most of the time, or for most people in the household:



When combining the responses people gave for both personal and household-wide challenges with accessing sufficient drinking water, the top five responses are:

1. **Transport** (76 responses)
2. **Lack of buckets/containers** (42 responses)
3. **Lack of water storage** (37 responses)
4. **Not enough water tanks in place** (35 responses)
5. **No/poor/broken water gutters** (34 responses).

When asked if they personally have access to sufficient water for personal hygiene, just over half of respondents said 'yes' (after removing 10 'I don't know' responses and 10 'Prefer not to answer' responses). These responses are shown in the table below, by sex.

	Males	Females	Total
Yes, my personal hygiene needs are being met	56%	48%	52%
Yes, but there are some limits	12%	25%	19%
No, my personal hygiene needs are not being met	32%	27%	29%
	100%	100%	100%

For all people who answered 'no' to this question, a follow up question was asked to explore what specific needs are not being met and why. While not everyone directly answered the first part of this question, the most commonly cited hygiene needs *not* being met were:

1. **Bathing/showering** (19 responses)
2. **Washing clothes/laundry** (14 responses)
3. **Washing hands** (5 responses)

As with access to drinking water, respondents were also asked the same hygiene question of *other* people in their household. Their responses are tabled below.

In general, do you feel that your household's current personal hygiene needs are being met?	Total
Yes, the personal hygiene needs of people in my household are being met	120
The personal hygiene needs of my household are sometimes being met	34
The personal hygiene needs of some people in my household are being met, but not all people	27
No, the personal hygiene needs of people in my household are not being met	43
I don't know	16
Prefer not to answer	18

Removing all null responses from the data set, **54% of the 224 respondents for this question indicated that yes, they feel that the personal hygiene needs of their household members are being met.** 27% felt that they were somewhat being met, which was a fairly even mix of all members' needs sometimes being met and some member's needs being met, while other members missed out. The remaining 19% said that no, the personal hygiene needs of their household members are *not* being met overall. For this group, a follow up question was posed to explore what specific hygiene needs of household members are not being met and why. Their top three responses are summarised below:

1. **Bathing/showering** (21 responses)
2. **Washing clothes/laundry** (17 responses)
3. **General household cleaning** (6 responses)

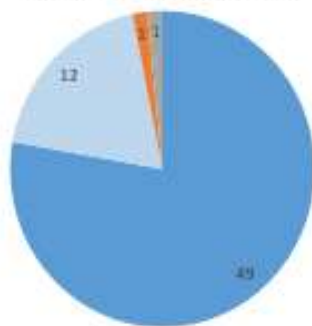
Throughout the whole survey, there were a significant amount of comments made by respondents that there is not enough water to go around currently, and **even for households with their own water tank or cistern, these are not able to provide enough water to meet all household needs during a drought**, with the exception of smaller households (i.e. three people or less).

Follow up on water filtration units in Nanumea

(n=62)

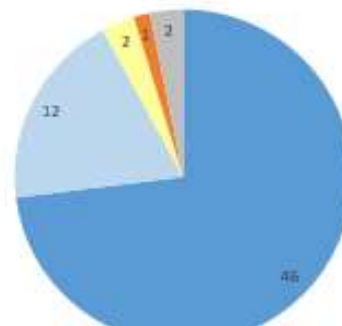
When asked 'What impact has the installation of the water filtration unit had on your household's ability to access enough water', **86% of respondents reported a positive impact**, 13% reported no change and 2% of respondents answered 'I don't know'. None of the respondents reported it having a negative impact.

How would you rate the **QUALITY** of the water provided by the new filtration unit?



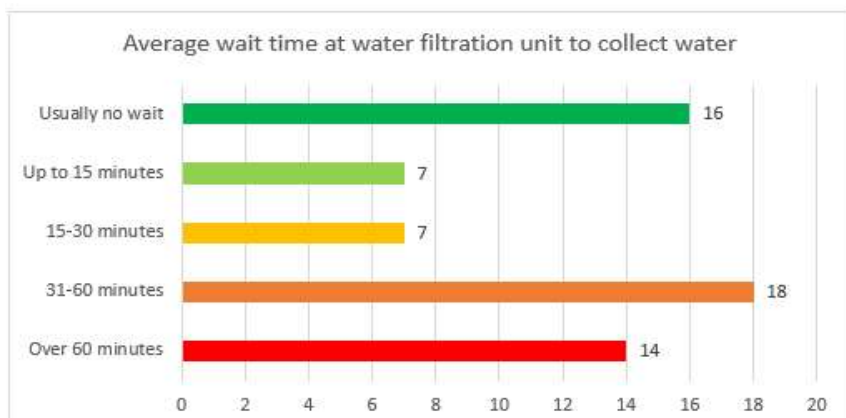
■ Excellent ■ Good ■ Poor ■ Don't know

How would you rate the **QUANTITY** of the water ration being provided at the new filtration unit?



■ Excellent ■ Good ■ Okay ■ Poor ■ Don't know

When asked to rate both the quality and quantity of the water being provided through the filtration units, respondents answered in an overwhelmingly positive way, with **97% rating the quality and 92% rating the quantity as being 'excellent' or 'good'**. In terms of wait times, the survey found that 48% of



people are waiting less than half an hour, 29% are waiting half an hour to one hour, and 23% are waiting over one hour.

A question was asked on who in the community had provided input into where the water filtration unit would be located, with **100% of respondents answering the 'Kaupule Island Council'**. People were then asked who in the community is responsible for managing or maintaining the filtration unit, with 81% again saying the Kaupule Island Council and the remaining 19% selecting 'other'. All but one of these 'other' respondents stated that a 'committee' or specifically a 'committee selected by the Kaupule' were responsible for maintenance.

Respondents were asked if the water filtration system is safe and accessible to all community members, with **75% saying 'yes'**, 8% saying 'no' and 17% indicating that it's safe and accessible to *some* but *not all* community members. A follow up question was asked to 'no' or 'some' respondents (n=16) as to why they felt it was not safe and accessible to all people, however five people did not provide a response and one just said "yes". Of the remaining 10 people, four of them indicated that more filtration units are needed as the current ones cannot meet community-wide water needs, three people mentioned access being 'unfair' (although two didn't explain how and one said "*some people can access while some couldn't*"), one person said the unit is sometimes out of order, one said there is not enough water storage, and one person said "*few people can use water from the unit*". It appears that accessibility was framed in terms of everyone being able to take water from the source rather than a physical kind of accessibility; **there was no mention of people with disabilities – physical or otherwise – experiencing issues with accessibility.**

The final question for respondents in Nanumea was whether they were satisfied overall with the water filtration unit, to which **98% of people said they were 'satisfied' or 'very satisfied'**.

Safety at water collection points

Respondents who had previously indicated that they are involved in collecting water for their household (n=84) were asked if they feel safe when visiting the water collection point. Reassuringly, **95% of respondents indicated that 'yes', they feel safe when visiting water points.** Survey results show that 4% said 'no' (meaning they do not feel safe when visiting water points), and 1% said 'I don't know'. The 'no' respondents were only three people; 2 females and 1 male, including 2 people with a disability (1M/1F), while one female with a disability selected 'I don't know' to this question. It seems this issue of safety should be further looked into and addressed. Overall, 98% of males and 91% of females answered 'yes' to this question. For those who indicated that others besides themselves were partially or wholly responsible for water collection in their household (n=225), they were asked if they feel that it is safe for those *other* people to visit the water collection point. When removing six people who said 'I don't know' and one person who preferred not to answer this question, **the survey found that 78% of people felt it was safe for others to visit water points, while the remaining 22% felt it was not.** Because most people indicated that more than one person in their household is involved in water collection, it is not possible to disaggregate the yes/no results according to particular sex and age categories of people; that is, we don't know if these responses directly relate to say female children or elderly people in particular, or if they are common across all categories of household members.

Again, a follow up question was asked to those who indicated that the water source is not safe for either themselves or someone in their household to visit (n=51), to explore why they answered in this way. Interestingly, responses found the main two issues to be **overcrowding** and the **risk of catching a disease or other illness** while at the water point (10 responses each). Five respondents

stated that the water point is a long distance from their homes (which would seem to indicate an accessibility issue to be addressed), but nobody made any specific mention of the risk of attack when collecting water. There was only one mention of the risk of traveling in the dark to collect water, but again, no direct mention of the risk of a human attack, which is often a key concern for water collectors in many parts of the world. Others mentioned the risk of missing out on water if arriving too late, and the water collection process being long and tiring, however these are more nuisances than direct safety risks. It is somewhat surprising that the risk of human attacks was not mentioned given that this is a universal issue.

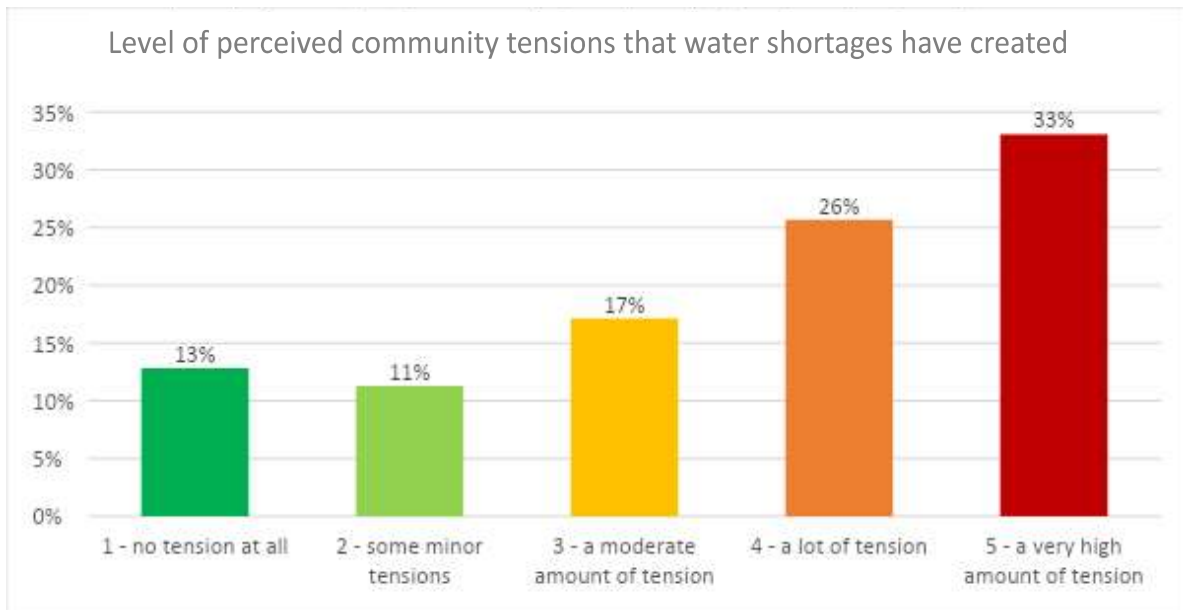
Follow up on dignity kits distributed to women and girls

(n=74)

- **100% of respondents were satisfied with the quality of kit items:** 97% 'very satisfied' and 3% 'satisfied'.
- **100% of respondents were satisfied with the quantity of kit items:** 93% 'very satisfied' and 7% 'satisfied'.
- **100% of respondents were satisfied with the timeliness of when they received the kit:** 96% 'very satisfied' and 4% 'satisfied'.
- **100% of respondents were satisfied with the process of how they received the kit:** 38% 'very satisfied' and 62% 'satisfied'.
- **99% of respondents were satisfied with the way they were treated by distribution staff:** 89.19% 'very satisfied', 9.46% 'satisfied', and 1.35% 'prefer not to answer'.
- **97% of respondents indicated that had a need for the items provided in the kits:** 92% said 'Yes, very much, it was important to me' and 5% said 'Yes, but it was not a priority need'. 1.35% said 'No, I didn't need it but I will use it', and 1.35% said 'No, I didn't need the kits and don't have a use for it'.
- **The most commonly used menstrual hygiene management (MHM) product was disposable pads** (55%), followed by reusable pads (48%) and loose cloth or rags (32%). Most women (73%) reported using only one MHM product, while 19% used two different products and 8% used a combination of all three products to manage their periods.
- **59% of respondents reported that recent drought conditions and water availability have had an impact** on which products they are currently using to manage their period. Of these 'yes' respondents, only one of them was located in Nanumanga, representing 7% of the surveyed population there; this is in contrast to Nanumea and Niutao where 'yes' responses represented 68% and 63% of the surveyed population respectively. The most commonly mentioned reason for this change was a **lack of water for either washing reusable pads or cloth/rags and their own bodies** during menstruation. There were also several mentions of switching from reusable (i.e. washable) materials to disposable pads during the drought, in order to conserve water.
- **The most commonly cited challenges that women and girls are facing with MHM during drought conditions were:** 1) a lack of water for washing reusable MHM products, clothing and bodies; 2) Disposable pads running out of stock in shops, and; 3) Experiencing 'abnormal' or heavy bleeding during menstruation.

Community tensions

Respondents were asked to rate on a scale of 1 to 5 the level of tension that water shortages have created between individuals, families or groups within their community, with 1 being no tension at all and 5 being a very high amount of tension. Their responses are summarised below:



We can see from the graph that **59% of people feel that water shortages have created significant tensions in communities** (i.e. gave a rating of 4 or 5). 28% of people felt there had been ‘some’ to ‘moderate’ tensions (i.e. gave a rating of 2 or 3), while the remaining 13% felt there had been no tensions (i.e. gave a rating of 1). Respondents who gave a rating of 2 or higher were then asked if they could explain what they think causes the tensions and how it is affecting individuals, families and groups within the community.

Very few people could articulate what specifically about drought conditions were causing tensions and how this plays out, with most people reiterating the point that there is not enough water to meet all household needs, more water tanks/cisterns are required, guttering needs to be fixed or installed etc. Several respondents mentioned community water rations or restrictive rules around water access as being problematic (particularly for larger families), although it was also recognised as a key way that community leaders are managing household water access and avoiding a complete exhaustion of available water sources. Only four respondents mentioned people fighting over water, which suggests that while tensions may be present, they have not (at least yet) escalated into aggressive behaviour for the most part.

Broader impacts of drought

Respondents were asked the open-ended question ‘*How has the drought affected you?*’ with the most common responses being summarised below:

1. **Sickness, disease or other type of illness** (29 responses)
2. **Loss of crops, vegetables or gardens** (26 responses)
3. **Dust** due to dry land (24 responses)
4. **Reduced frequency of bathing** due to water shortages (20 responses)
5. **Reduced frequency of washing clothes** due to water shortages (16 responses)

Other frequently cited effects related to difficulties in keeping livestock, reaching water sites, loss of trees, increased heat, the tiring process of finding and/or collecting water each day, and stress/worry over water availability and access. Several people also mentioned that their families are sleeping near water sources such as wells, ponds or lagoons to increase water access.

“The drought affected us in so many ways for example, additional chores to our family in collecting water, prolonged waiting time, ration is not enough for our livestock, people are not happy because they cannot bathe thoroughly, not enough water to do laundry and drinking” (Male, 29, Nanumea)

“It affects me physically, mentally and spiritually. All my normal chores are affected by the drought; I stopped caring for my garden due to drought and it’s so hot to work in the garden. There’s a lot of dust, many people were coughing...” (Female, 52, Niutao)

When asked if they had any other comments to share about current or future drought-related needs in their household or community, respondents overwhelmingly used this opportunity to request assistance with increasing water access, predominantly through the provision of more water tanks, cisterns or reverse-osmosis/water filtration units.

Recommendations

The following recommendations are for all actors supporting communities in the Northern islands, whether national government, local authorities or non-government organisations such as Live and Learn Tuvalu:

Water Access and Safety

1. In response to immediate water needs, **consider using water trucks to refill household or community-based water tanks and cisterns**, with priority going to households with a higher number of elderly, chronically ill or disabled members, as well as households with no or few able-bodied men.
2. **Conduct a full audit of all existing water sources** for two purposes: a) to record how many water tanks/cisterns each household currently has and how many people they serve, and b) to check for water infrastructure that requires repair (or potentially replacement). According to the NDMO's recent survey, Nanumanga appears to have significant issues with damaged tanks, while in Nanumea, damaged gutters is the key issue. There have also been several reports of broken reverse-osmosis (RO) units in Niutao. This audit could be the basis of seeking funding to tackle infrastructure shortfalls.
3. **Provide additional water tanks/cisterns/RO units to communities in the northern islands**, based on the audit outlined in recommendation 3 (and/or repair existing damaged infrastructure where possible). If community-based, these should be placed in different locations to existing water sources, to maximize household reach and minimise people's travel time to the nearest water source. If provided at the household level, any household of four or more people should have two water tanks/cisterns; possibly a third for very large households. This will help families to better manage droughts in the future, which may become a more common occurrence with predicted El Nino conditions ahead. Improving access to water sources can also enhance the overall safety and well-being of the community. Improving the efficiency of water collection methods could help reduce the time spent at water points and alleviate the concerns of respondents regarding potential risks while collecting water.
4. If funding allows, **consider piloting the use of products that assist people to manually transport water** that could help ease the burden of having to manually carry water buckets and containers long distances by hand; this is a particular problem for elderly people and anyone without a reasonable level of physical strength.
5. The **issue of safety should be further examined**, and where concerns remain, efforts should be made to **improve safety measures** and address the concerns of these respondents. This could include measures to reduce overcrowding, improve lighting in the area for those who collect water in the dark, and ensure better security to reduce the risk of disease transmission or potential attacks.
6. Some respondents mentioned the risk of missing out on water if arriving too late and the process being long and tiring. This should be considered in planning for future drought responses.

Water and hygiene products

7. **Provide water-free hand sanitiser to households to support good hand hygiene** when water and soap are not consistently available, to help manage the spread of typhoid and other communicable diseases.
8. **Provide additional buckets and water storage containers to households to increase people's capacity to both draw water and to store water safely at home**, once collected from community sources.
9. **During droughts - consider distributing disposable pads to women and girls especially if current stock issues persist in tandem with insufficient water to properly wash reusable products.** This provision becomes even more critical for women with heavy menstrual bleeding, who may require additional pads to manage their menstrual needs effectively. Alternatively, work with local vendors to secure consistent stocks of disposable pads. During drought conditions, **monitor the stock levels and implement measures to avoid shortages.** This could include strategic stockpiling, alternative distribution channels, or supporting local production of disposable pads. **Provide comprehensive menstrual health education** that addresses the challenges faced during drought conditions. **Teach women and girls how to manage heavy bleeding effectively and provide information on measures to maintain personal hygiene when water is limited.**
10. **As part of standard practice even in non-drought periods -** Given the high level of satisfaction with the MHM kits, **continue distributing these kits to women and girls in the community during non-drought periods.** Ensure the kits **include both reusable and disposable options** to cater to individual preferences and circumstances. **Emphasise the importance of reusable MHM products**, such as cloth/rags and reusable pads, during training and awareness campaigns. Encourage women and girls to adopt these products, especially during periods of water scarcity, to minimise waste and conserve resources. **Collaborate with local suppliers and retailers to ensure a consistent supply of disposable pads. Support research and development efforts to find sustainable and eco-friendly MHM solutions** that are suitable for use during drought conditions. This could include exploring biodegradable disposable pads or reusable products with minimal water requirements for washing.
11. **Support the Kaupule to establish hardware stocks of common spare parts required for good functioning of water tanks and associated guttering that can be sold to local community members.** This will help to ensure that once tanks are in place and connected, households are able to maintain functionality and make any required repairs over time.

Water rationing

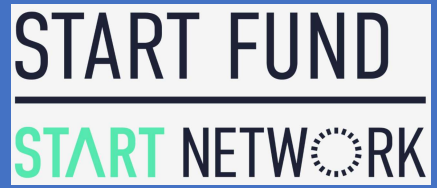
12. **Adjust household water rations on the number of people living in each house** rather than applying a blanket ration to all households. Allocate higher water quotas to households with more people and lower quotas to small or single-dweller households. Consider the needs of people with disabilities during rationing.

Capacity building

13. **Deliver (refresher) training to community members on how to best maintain household water tanks and/or cisterns**, including how to conduct basic repairs for common issues such as damaged gutters.
14. **Consider opportunities to raise community awareness about water conservation practices and better water usage** to maximise the benefits of the provided resources.

Future research

15. The survey highlights that it is not possible to disaggregate the results based on the sex and age categories of respondents. Future surveys should be designed to capture data in a way that allows for better analysis of specific vulnerabilities and safety concerns based on gender, age and other relevant factors. This will aid in tailoring interventions to meet the specific needs of different household members.
16. There were several respondents who selected "I don't know" when asked about safety concerns. Further research or follow up questions may be necessary to understand the reasons behind these responses and uncover potential safety issues that respondents might be hesitant to mention.



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