

SUNSHINE AND SEA WATER

Tuvalu – Every child has the right to fresh water.

Water is our most precious resource. Without water we cannot live. Uninterrupted access to plentiful water makes our lives easier and is something we can easily take for granted here in New Zealand.

For the people living on the Pacific Island Nation of Tuvalu the true value of water is certainly appreciated. Although surrounded by oceans of sparkling blue sea water, fresh drinking water is becoming increasingly scarce. Rainfall patterns are changing, and Tuvalu can no longer rely on the rain it used to receive in the cyclone season. For the past three years the tiny Pacific nation has been gripped by a severe drought, and very little rain has fallen in that time.

On September 28th 2011, a state of emergency was declared due to the extreme lack of fresh water on Tuvalu, and rigid water rationing was put in place. Although the recommended water allocation is 100 litres per day per person, water has been rationed down to mere 40 litres per day per family. Many families have up to ten people and they must eke out the water to cater for all of their family's needs, including cooking, cleaning, washing and drinking.

Turning to the sea for help

Sea water is undrinkable; however sea water and sunshine are proving to be the solution to the problem of a lack of fresh drinking water. Sea water can be made drinkable through a process of desalination. UNICEF, The Red Cross, the Australian and New Zealand governments have responded to the crisis by providing desalination units. Desalination units remove the salt from sea water making it drinkable.

The UNICEF desalination unit is very special as it is the only solar powered desalination unit. It is providing fresh water by harnessing the natural resources of sunshine and sea water without causing any pollution. The desalination plant can produce up to 6000 litres of fresh drinking water with no fuel costs. This is also important as fuel is very expensive in the Pacific and most households cannot afford to purchase large amounts of fuel. The desalination unit has been set up at the Nauti School, meaning it can stay open so families can receive their much needed water supply and their children can continue with their education.

For the people living in Tuvalu the future is very worrying due to a lack of regular rainfall, a limited ability to store fresh water and no ground water. Problems such as scarce fresh water supplies, food insecurity and rising sea levels, makes the long term future of Tuvalu seem extremely uncertain. Meanwhile the desalination unit provided by UNICEF will help in the short term by providing a source of fresh water to help ease the hardship people are facing on the tiny island nation.



Tuvalu – Mini Study

Find out 5 facts about Tuvalu, and compare your information with a partner.

- Where is Tuvalu located?
- How many islands or atolls make up Tuvalu?
- What is the population of Tuvalu?
- When is the cyclone season?
- What other name has Tuvalu been known as?

Think of 3 more interesting facts to find out and add them to your study to make yours slightly unique. You can also include drawings and photos to make your work more interesting.

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Sam collects his family's daily water ration of around 40 litres. Because there are 10 people in Sam's family this means they only have access to 4 litres a day each for all of their needs; drinking, cooking, washing, and bathing.

Investigation



Investigate your own water use

- How much water do you use on a daily basis?
- Log all the activities that require water, such as bathing, drinking, your share of the dishes, and so on.
- Try and estimate the amount of water you use for each activity and add that up to calculate your use each day.
- Sort your water use list into most essential to least essential.

Share your list with a small group; discuss why some uses of water are more important than others. Families in Tuvalu have been rationed down to 40 litres a day, many families have around 10 people in them this means each person only has 4 litres a day to use.

- How does this compare with the water you use each day?
- If you were rationed down to 4 litres what activities would you have to cut out?
- How would this change your life style?

Even though we seldom have water restrictions in New Zealand, that is no reason to waste water. Survey your school or home and see if there are areas where water is being wasted and provide solutions on how this can be reduced or stopped. For example do you leave the tap running while you brush your teeth? Are there any leaks at home or at school that could be fixed?

- By analysing how much water you use and comparing it to the rationing situation in Tuvalu you may have an insight into how the people of Tuvalu are struggling. Remember Tuvalu is also very hot with average temperatures of 28°C.

Creative Writing - Imagine you are living in Tuvalu with only 4 litres of water a day. Remember the water must be collected and brought to your home - there is no running water on tap. Write a short story communicating the challenges of your situation.