

# CLEAN WATER AND SANITATION

RESOURCE FOR TEACHERS AND FACILITATORS





Water is a vital for life. We use it daily for drinking, washing, cooking, hygiene and growing food. However 785 million people lack even a basic drinking-water service, including 144 million people who are dependent on surface water. (WHO 2019)

By 2025 it's predicted that half of the world's population will be living in areas where demand for water will exceed the supply. Use this resource to explore the impact water insecurity has on the lives of people in developing countries and the work Concern undertakes in our WASH (Water, Sanitation and Hygiene) programmes to achieve targets set out in SDG 6.

## CLEAN WATER AND SANITATION - THE FACTS

- 2.2 billion people around the world do not have safely managed drinking water services (World Bank 2020)
- 4.2 billion people do not have safely managed sanitation services (World Bank 2020)
- 3 billion lack basic handwashing facilities (World Bank 2020)
- 2 billion people (at least) use a drinking water source contaminated with faeces (WHO 2019)
- A person dies from dirty water every 10 seconds (WHO 2019)
- Over 800 children die every day from disease cause by lack of clean water, sanitation and poor hygiene (UNICEF 2020)



## ACTIVITY ONE: How much water do I use?

🕒 40 minutes

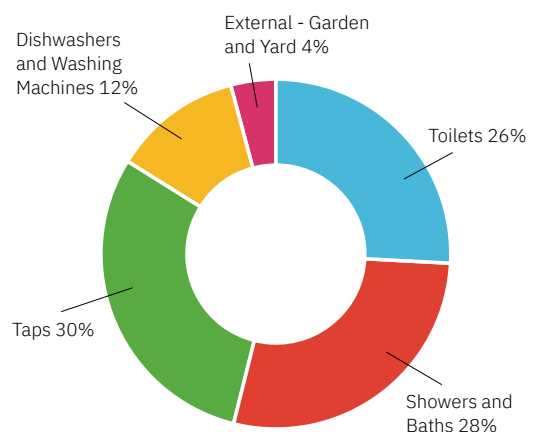


### Instructions:

- Before displaying the water figures (on the right under pie chart) ask each student to think/pair/share and roughly estimate how many litres of water they use each day
- Display the water figures on an IWB for the class
- Individually/ in groups ask the students to work out how much water they use per day/week/month/year using the figures provided
- Find the average water used for each group and the class
- Tell the class that in developing countries people often are forced to survive on approx 20L of water per day. Ask the students to decide how they would use their 20L allowance
- Discuss the consequences of limited water access on hygiene/nutrition/gender. This could be used as a starting point to examine water use in the school and promote water conservation in the community

## WATER CONSUMPTION IN IRELAND:

On average an Irish person uses 129 litres of water a day.



5 minutes in the shower = 50L

Cooking and drinking = 15L

Brushing teeth with the tap off = 1L

Washing hands = 15L

Flushing the toilet = 6L per flush

One cycle on the washing machine = 45L


Washing the dishes = 10 litres

Keeping animals = 30 litres



As a follow up activity listen to the Podcast 'Water Water Everywhere' by Climate Queens.

## ACTIVITY TWO: How wells impact the lives of women and girls in Liberia

 50 minutes



All Photos: Gavin Douglas/Concern Worldwide 2019

This is the Sadah Smith and her daughters Darling Girl, Praise and Praises. They live in Toe Town, Liberia. The village is in a remote region surrounded by swathes of jungle. Until recently the village had no well or pump and the family of nine could only access water via a long journey to the local creek. Concern Worldwide installed a village pump and well in early 2019.

Sadah used to rise at 6am to gather water for daily chores and during the dry season, 4am, to ensure that herself, her husband and 7 children would have adequate water. Because there is little or no rain during the dry season, the water in the creek would be reduced to little more than a murky mess contaminated by debris, insects and animal faeces. Darling Girl (10), seen above, often collects the muddy creek water in a jerry can to help her mother. The journey to the creek would often take over an hour and the return journey would be made harder due to the heavy containers of water.

If contaminated, the water made the whole family ill, causing the children to miss school and their parents to remain out of work. They often were treated at home as the nearest free hospital is hours away. If the water in the creek was too poor to even consider drinking, Sadah or the children would be forced to travel to the nearest village.

As well as cooking and looking after the household chores Sadah also works harvesting palm in order to ensure the family can afford to send their children to school. School fees cost about 5000 Liberian dollars and this excludes the cost of uniforms.

The installation of the well and water pump in Toe Town by Concern has changed the lives of the family but particularly the girls' lives for the better. It is located near the family home and now provides easy access to drinking water. This saves valuable time for mothers and girls of the village while also ensuring illnesses like diarrhoea and dysentery no longer keep people from school or work. Each day Praises helps her mother prepare rice before going to school where the children learn the alphabet and numbers and play football and baseball. The children now have the chance to play when they get their homework done each day. Praises wants to be a teacher when she grows up.

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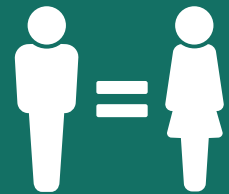
## Instructions

- Share the story of the Smith family with the class.
- Lead the students through a thought tracking exercise by reading the story aloud. The students should mime the story stopping in freeze frame at different points. Tap them on the shoulder when in freeze frame and ask them to express a thought or emotion they are feeling at this time.
- In pairs ask students to create two mind maps/brainstorms – one ‘Before’ and one ‘After’ the installation of the well and water pump. Students should include emotions that Darling Girl/Praises/Sadah would have felt.
- Ask students to storyboard their own daily water story – it could be a weekday/weekend/special day etc. This could be written, illustrated etc.
- Repeat the thought tracking exercise using some of the students’ storyboards. Compare and contrast students’ experiences with those of the Smith family through each step of the storyboard. Are the emotions/experiences the same/different?
- Debrief the class by discussing how water impacts their lives/the lives of those in developing countries.
- This exercise could be repeated with a story of someone from a country that has experienced flooding such as Bangladesh or Malawi.
- Use the facts below about gender and water to extend the activity and look at the challenges girls and women face in developing countries due to lack of water and sanitation.



## Gender Equality and Water

Women and girls are responsible for water collection in 8 out of 10 households with water off premises (WHO 2017)



Reducing the time it takes to fetch water from 30 to 15 minutes increased girls’ school attendance by 12% according to a study in Tanzania (UNICEF 2017)

In Sub-Saharan Africa women and girls spend 40 billion hours a year collecting water and carry an average of 5 litres of water (UNICEF 2016)

In Malawi, the UN estimates that women who collected water spent 54 minutes on average, while men spent only 6 minutes (UNICEF 2016)

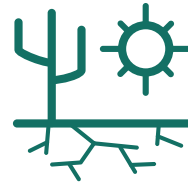
As well as taking responsibility for collecting water for households, women and girls in developing countries lack vital facilities to manage their menstrual hygiene. If this is the case in schools, many girls will drop out which impacts on their education.



A lack of privacy for women and girls increases the risk of sexual violence and often if toilet blocks are not lit properly, women will not use them as they fear for their safety.

The average journey to collect water is 6km (WHO 2017)

# WATER AND CLIMATE CHANGE



9 out of 10 climate disasters are water related. (World Bank 2020). These disasters can take the form of drought in some parts of the world or as storms and flooding in others.

Climate change is projected to reduce the amount of surface and ground water available, especially in regions which are already dry (arid/semi-arid). This is causing people to migrate from their homes to a different part of their country or another country in order to survive. It's feared that by 2030 desertification may lead to the displacement of millions of people in arid and semi-arid climates.

## KEY WORDS:

- **Surface water** - rivers and lakes which are sources of water for drinking and cleaning.
- **Ground water** - the water in the ground found in rocks, sand and soil which irrigates crops and eventually finds its way into rivers and lakes.



## WORLD WATER DAY 22ND MARCH

World Water Day has been celebrated annually since 1993. Each year the UN chooses a different theme to focus on different aspects of water insecurity. Check out the world water day website [www.worldwaterday.org](http://www.worldwaterday.org) to find out more!

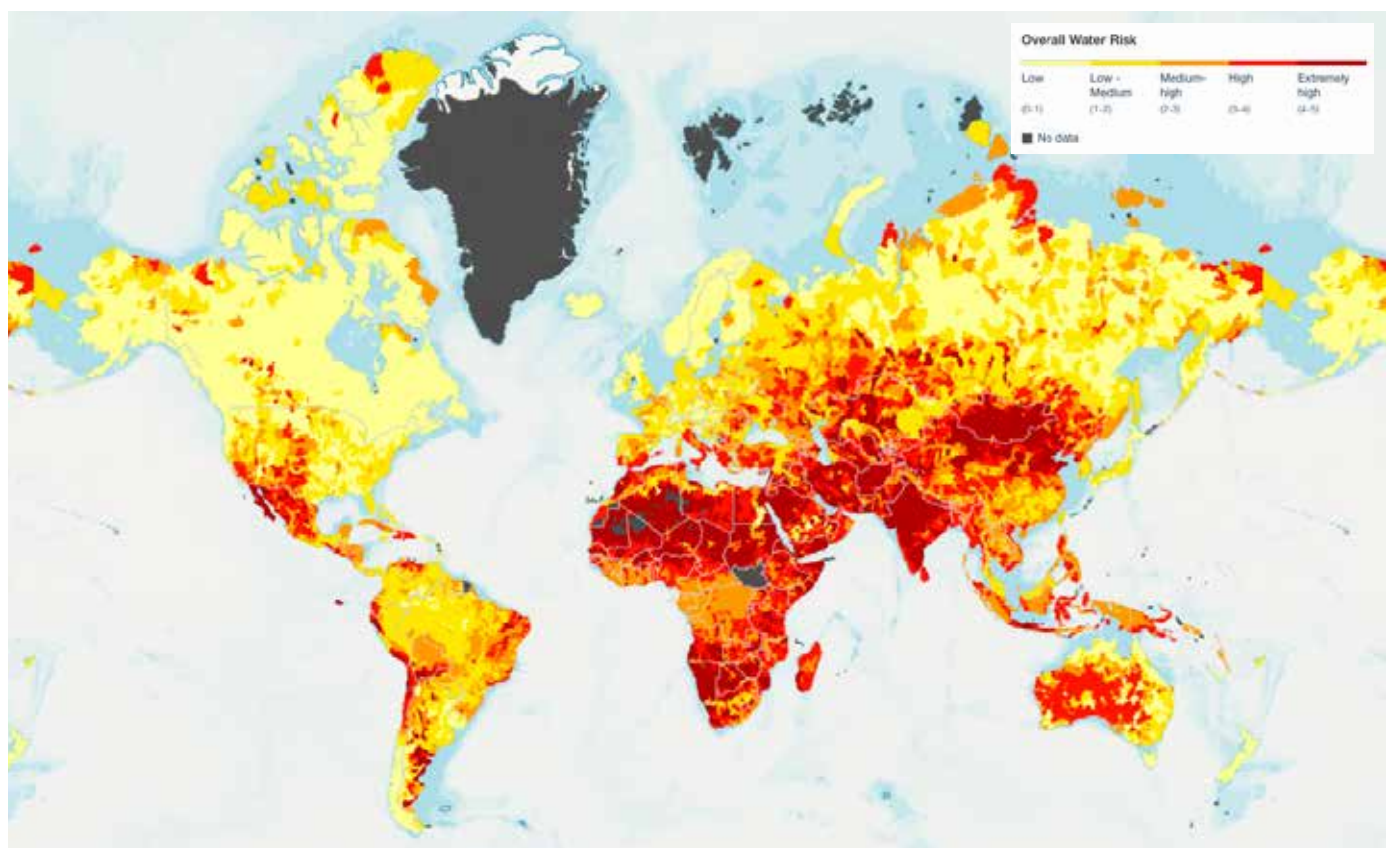
## DISCUSSION POINTS



- What are the consequences of water insecurity?
- What do you think that the implications are for the whole global community?
- What knock on effects do you think there will be to achieving the other SDGs if people don't have access to water?

# WATER INSECURITY IN THE WORLD

World Resources Institute 2020



## Sanitation saves lives

Proper sanitation saves lives and helps the most vulnerable families around the world protect themselves from illness and disease such as diarrhoea, cholera, dysentery and Hepatitis A. Diarrhoea remains a major killer but is largely preventable; 297 000 children aged under 5 die each year from diarrhoea (WHO 2019).

Some 2 billion people do not have access to basic sanitation services such as a toilet or latrine. (WHO 2017).

Children under five living in countries affected by protracted conflict are on average, nearly 20 times more likely to die from diarrheal diseases caused by a lack of safe water, sanitation and hygiene than by direct violence (UN 2019)



A makeshift latrine on the shoreline of Cité Soleil in Port au Prince. Photo: Kieran McConville / Concern Worldwide 2019

**WORLD TOILET DAY  
NOVEMBER 19TH**

November 19<sup>th</sup> has been designated as World Toilet Day by the UN to highlight those living in extreme poverty lacking sanitation.



## Handwashing and COVID-19

Washing your hands thoroughly with soap and clean water is THE most effective way of preventing the spread of bacteria and disease. There is no evidence to say the antibacterial soap is more beneficial than regular soap (CDC 2020).




Childhood deaths from diarrheal disease have fallen by nearly 60 per cent in the last 30 years alone as access to handwashing facilities has increased. In 2017, 60% of the global population (4.5 billion) had a basic handwashing facility with soap and water available at home; however 18% (1.4 billion) still had no handwashing facility at all.



1. A pedal operated handwashing device created by the team of Concern Worldwide, Chad. Photo: Abakar Hassab / Concern Worldwide 2020
2. Soap distribution at COGEHA in Folakawa, Tahoua, Niger. Photo: Marie Rabo / Concern Worldwide 2020
3. A community volunteer is using a handwashing kit in Chad. Photo: Concern Animator Abdelkerim 2020

## ACTIVITY THREE: Dragon's Den

 80 minutes

Concern is always eager to innovate and use new ideas in our WASH programmes



Some innovations such as solar water pumps are more high tech than others. Often simple adaptations can make a huge difference and Concern encourages communities to build their own handwashing stations with local and non-expensive materials such as the 'Tippy Taps' in Niger.

Here are some images of innovative ideas in our WASH programmes.



Paylaai from Satla Bheel village Pakistan fills water from the newly installed water plant using a solar pump. Photo: Concern Worldwide 2017



Foot operated water taps being used in an IDP Camp in Somalia. Photo: Feysal Abdisalan / Concern Worldwide 2020



Fadima is using a tippy tap, at a Covid-19 awareness and soap distribution in Niger. Photo: Marie Rabo / Concern Worldwide 2020



Hadiza demonstrates good hand washing technique she was taught using a tippy tap in Niger. Photo: Marie Rabo / Concern Worldwide 2020

### Preparation

Ensure the students are familiar with the Dragons Den/Shark Tank type TV programmes. Ask 3 teachers/ students to attend as the 'dragons' to act as judges

Gather paper, recyclable materials, cardboard, lego bricks, play doh etc which students could use to make models

You can ask the students to research innovation in water and sanitation

### Instructions

- Show the students the images of the innovations and materials used by Concern. More can be found online or on our youtube channel  
[www.concern.net/what-we-do](http://www.concern.net/what-we-do)  
[www.youtube.com/user/concernworldwide](https://www.youtube.com/user/concernworldwide)
- Divide the class into 4 groups. Each group should work on a different concept based on their unique budget, with the aim of providing clean water and sanitation to the those living in extreme poverty
  - Group 1 - €5 Idea
  - Group 2 - €5000 Idea
  - Group 3 - €5m Futuristic Idea
  - Group 4 - €5bn System Change Idea
- Each group must draw/illustrate/build the product and be able to demonstrate how it would be used, have an estimated cost of materials, and decide what country it would be used in. Each group should be given time to develop a 3-5 minute presentation. They may use the internet to research where possible
- Each group must then present in front of the 'dragons' while the rest of the class listen
- The dragons can ask questions of the students and can decide to invest or not. (Investing can be a simple Yes/No). The idea with the most investors will be declared the winner
- This exercise could be extended on by making detailed models/prototypes and displaying them in school

# Take Action



**“The body of the earth is of the nature of a fish... because it draws water as its breath instead of air.”**

Leonardo Da Vinci



## Lack of clean water and sanitation must be addressed because

- Water management is key to achieving the Sustainable Development Goals by 2030 and combatting the effects of climate change
- It causes millions of deaths each year that are preventable
- It increases infant mortality rates
- It promotes gender inequality and limits access to education for millions of girls and women
- It is causing the displacement of millions of people

## SPEAK ACT DO

Speak, Act, Do is a programme to support students and teachers in taking action on important global issues which impact our world!

Choose a topic, do your research, organise two actions (a Concern action and a local action) to address a global justice issue and then share this with other schools at our Agents of Change event!

**Visit our website to find our simple guide to Speak Act Do or email [schools@concern.net](mailto:schools@concern.net) to find out more.**

Below are a few ideas about how you can get involved!



### Concern actions

- Hold an event to mark World Water Day on March 22<sup>nd</sup> and talk about it on social media
- Create a video to promote the use second clothes and materials/ foods that do not require large amounts of water during production
- Create a podcast to create awareness of SDG6

### Local Actions

- Organise a walk for water in your school or local community to highlight the distances women and girls walk to collect water. Don't forget to carry a jerry can or bucket while walking if you can!
- Conduct a water audit in your school or at home and promote water conservation locally
- Try and challenge yourself to live off of 20 litres of water for one day to experience how people in developing countries have to limit their water use and intake
- Organise peer workshops about the different aspects of SDG 6 such as gender, climate migrants, health-

