

Water is essential to life



Chris Huber / World Vision

Honduras: Community members worked with World Vision to construct a new water pipeline to bring clean water, like the cup on the left, to replace the dirty water from the community well, on the right.

Water

Water is essential to life! It is vital for human health, food production and economic development, as well as ecosystems and living organisms. People are putting pressure on this precious resource. In the past 100 years, world water use has increased more than twice as fast as the population has grown.

World Water Day

is held each year on
March 22

See www.worldwaterday.org

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How much water do people need?

The United Nations says each person requires between 20 and 50 litres of water every day for their basic needs – drinking, food preparation and hygiene. In contrast each household in New Zealand uses on average 250-300 litres of water per person per day. The amount of water people use is directly related to how easy it is for them to get it and how affordable it is. People use more water when it's piped to their homes.

How many people don't have access to enough safe water?

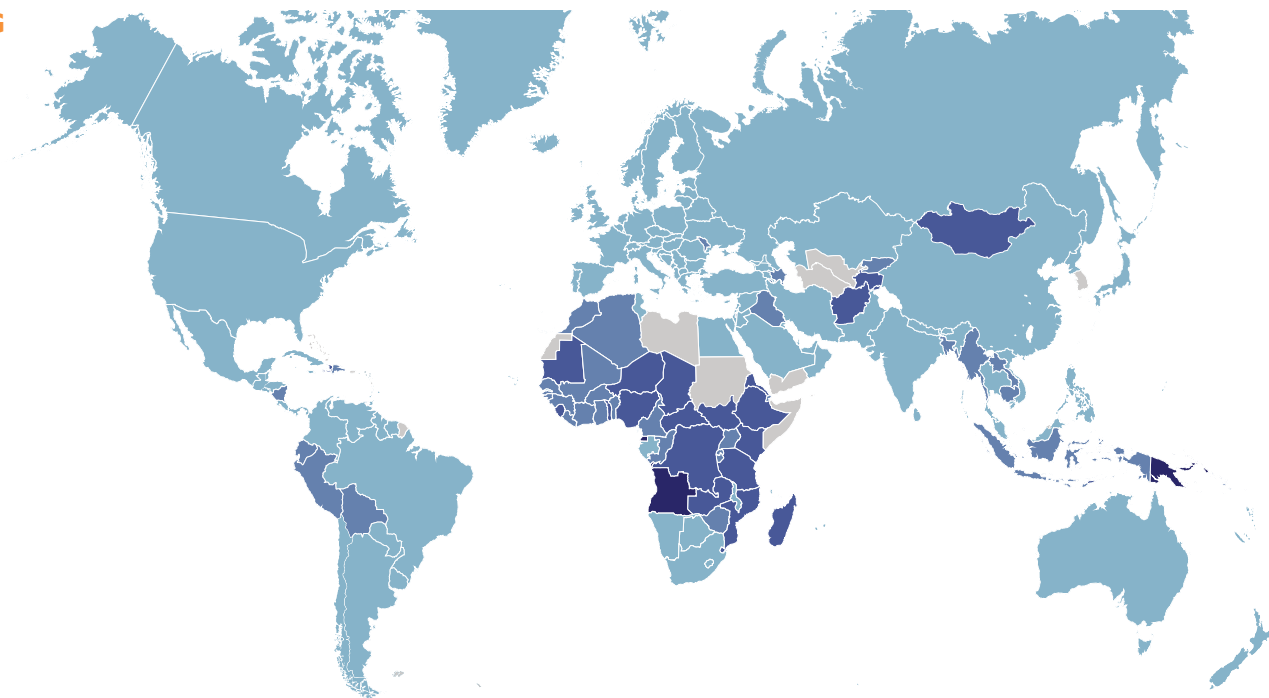
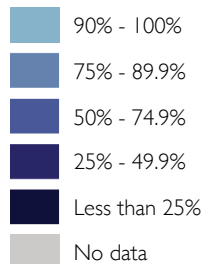
Around the world, people's access to water varies not just by the amount they use, but also by how safe it is to drink and where people get it from. In 2015, 663 million people did not have access to safe drinking water. According to UNICEF 4 billion people experience water shortages for at least one month of the year. As a result, water scarcity affects more than 40 per cent of the world's population.

How do people get water?

Nine out of 10 people in the world get water from an improved source. An improved water source is one that is protected from contamination. This might be a tap in their house or garden, but it is more likely to be a public well, tank or protected spring that they have to walk to carrying a bucket. However, in rural Africa fewer than six out of 10 people get their water from an improved source.

PEOPLE USING SAFE WATER

Proportion of population using an improved water source in 2015



Source: http://www.who.int/gho/mdg/environmental_sustainability/water/en/

For families who have to walk to collect water, women and girls carry this responsibility 80 per cent of the time. In total, women and girls around the world spend about 200 million hours collecting water, including walking and waiting in queues. As a result, they have less time and energy to grow food, earn an income or gain an education.

In cities, people often have to pay for water to encourage more efficient water use. However it disadvantages those who cannot afford to pay, while those who can afford it may not change their wasteful habits. People living in poverty are less able to afford the increased costs for water supply.

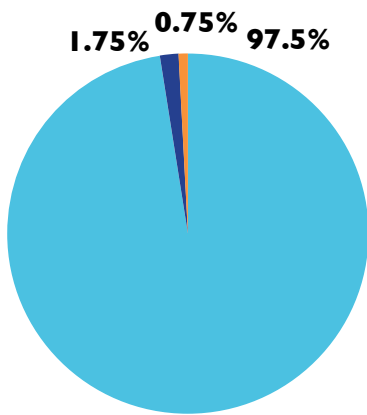


Kenya: With no water available nearby, these girls have dropped out of school to walk 21km each way to collect water for their families.
Charles Kariuki / World Vision

Why is access to water unevenly spread?

Not everybody in the world has access to the same amount of safe water. There are different reasons for this.

Limited supply: People need water that is easy to get to and safe to drink. Although 74 per cent of the earth's surface is covered in water, less than one per cent is fresh water that people can easily reach.



THE WORLD'S WATER

- Unusable salt water
- Inaccessible fresh water in ice caps or deep underground
- Fresh water that is easily reached

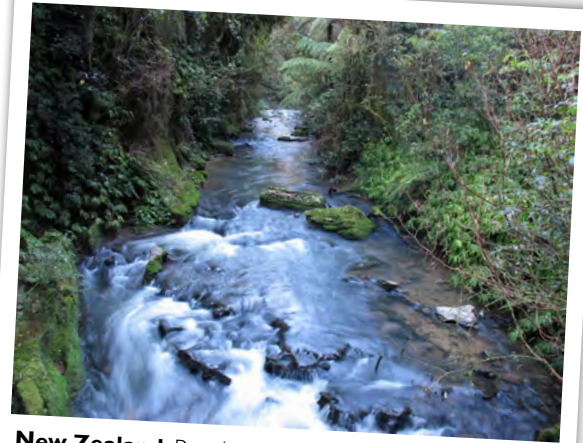
Location: Fresh water is unevenly distributed within and between countries. Climate, terrain and latitude affect the amount of fresh water available for people in each place.

Population distribution: Access to water varies between cities and rural areas. In cities many people have water piped to their homes, while people living in rural areas or poorer parts of a city often have to walk to a shared tap or wait for tankers to deliver it. Of the 663 million people who don't have access to safe drinking water sources, 522 million of them live in rural areas (2015).

As cities grow, water systems come under increased pressure, meaning some people or some parts of the city may not be able to access enough water.

Do we have enough water in New Zealand?

New Zealand has a large quantity of fresh water available. However, this water is not always located close to where people need to use it. Economic and population pressures of the past, present and future are causing risks for the quality of fresh water in New Zealand and this affects the lives of people and the environment.



New Zealand: People living in New Zealand often take fresh, clean water for granted.
Andrew Finn



Uganda: Everyone needs water for drinking, food preparation and hygiene, however millions of people can only get unsafe water from ponds that are far from their homes.

Jon Warren / World Vision

Wealth: Richer people can more easily afford to buy water and are more likely to have it piped to their homes. Wealthier lifestyles have increased demands for water e.g. watering gardens and cleaning cars. These lifestyles also include eating more meat and buying more consumer goods, both using a lot of water to produce.

Pollution: Water and land pollution reduce the amount of fresh water available. Where local and government regulations don't protect water resources, water can become polluted with waste, industrial discharge and agricultural run-off.

Geopolitical boundaries: Many countries rely on water from large rivers which flow through other countries. Dams, irrigation systems, as well as flooding and erosion, affect water access for people in countries upstream or downstream.

What are the effects of not enough safe water?

Poor health

Human health depends on there being enough water that is clean and safe, and good toilets (sanitation). In developed countries, like New Zealand, water and sewerage services are taken for granted, but in developing countries they are much less common. Lack of water makes hygiene and sanitation difficult which can spread illnesses such as diarrhoea.

More than 2 million people die every year from diarrheal diseases, mostly children. Children who have diarrhoea are unable to process the nutrients from their food, leading to malnutrition and even stunting. Stunting is an effect of under-nutrition that means children do not grow properly, causing them to be shorter than expected for their age and affecting their brain development.

Loss of productivity

Unsafe water causes sickness which has an economic effect because adults can't work. Children who are sick cannot learn properly, and this reduces their education, future job opportunities and income.

Reduced food production

Water is vital for food production. About 70 per cent of the available fresh water in the world is used to irrigate crops. Irrigated land is twice as productive as rain watered cropland. Yet many communities don't have access to enough water to grow crops to feed their families – it's either not available nearby, there are ongoing droughts, or there are disagreements over water access rights.

Migration

People cannot survive when there is no water where they live. Lack of water during drought causes migration, often to cities. However these places might also lack enough water, food or work and lead to extreme poverty or conflict.

Conflict

Lack of water can lead to conflict. Population growth and economic pressures increase demands on water leading to the possibility of conflict between countries and between the rural and urban areas within countries.



Bangladesh: Washing hands after using the toilet is an effective way to stop illnesses from spreading.
Jamal Uddin / World Vision



Rwanda: Drip irrigation using recycled plastic bottles is a way to conserve water when growing food.
Eugene Lee / World Vision

“Water, like religion and ideology, has the power to move millions of people. Since the very birth of human civilisation, people have moved to settle close to it. People move when there is too little of it. People move when there is too much of it. People journey down it. People write, sing and dance about it. People fight over it. And all people, everywhere and every day, need it.”

Mikhail Gorbachev
President, Green Cross International

Source: Peter Swanson's Water: The Drop of Life, 2001

How can we ensure all people have access to safe water?

It will require cooperation at local, national and global levels to ensure all people have access to their right to water. The United Nations, world leaders, governments, organisations like World Vision, and communities all have roles in improving access to water.

The United Nations General Assembly has set Sustainable Development Goals for everyone in every country across the globe. The 2030 targets aim to end all forms of poverty, fight inequality and injustice, and protect the environment. Goal 6 aims to "Ensure access to water and sanitation for all", and focuses on:

- Making water safe to drink
- Reducing water pollution
- Increasing water-use efficiency and reducing water scarcity
- Integrating international water resource management
- Supporting developing countries to improve water and sanitation
- Helping local communities get involved

People in New Zealand can also play their part by using water efficiently, e.g. turning off the tap when cleaning your teeth and having a shorter shower.

“Water is fundamental for life and health. The human right to water is indispensable for leading a healthy life in human dignity. It is a pre-requisite to the realisation of all other human rights.”

Source: United Nations Committee on Economic, Cultural and Social Rights (2002)



Papua New Guinea: Community members worked with World Vision to increase access to safe water and improve hygiene. Steven Doe / World Vision



Timor-Leste: Community taps bring water to within 100 metres of homes. Mariano Pinto / World Vision

“Since 1990, 2.6 billion people have gained access to improved water and 2.1 billion have gained access to improved sanitation. During the same period, the under-5 mortality rate dropped 53 per cent, from 91 deaths per 1,000 live births in 1990 to 43 deaths per 1,000 live births in 2015. Access to water and sanitation played an important role in helping to save the lives of millions of children.”

UNICEF

Source: Thirsting for a Future: Water and children in a changing climate (2017)

How is World Vision improving access to water?

World Vision uses the integrated community development approach called WASH which stands for water, sanitation, hygiene.

Communities work with World Vision to develop appropriate safe water sources. This might mean drilling deep wells to reach aquifers far below ground; hand-drilling wells when the water table is closer to the surface; protecting the source of a fresh water spring and piping water to nearby communities; or setting up rainwater collection and storage systems. World Vision also helps farmers to access water to use for agriculture, e.g. through irrigation systems or dams. This helps farmers to increase the amount of food they grow.

To ensure long-term sustainability of the water sources, World Vision helps communities to establish water management committees to maintain and operate them. These committees collect small fees to pay for repairs as needed — an approach that ensures communities have the knowledge and financial resources to keep the water sources working smoothly.

Teaching communities to build toilets and handwashing stations is another important aspect of the WASH approach, and helps to ensure that water-borne illnesses don't spread. Water committees educate their communities about safe water storage, health, hygiene and sanitation.



Cambodia: Two new 20,000 litre water tanks service a water system which provides safe water for 150 families.
Loeurt Lun / World Vision

How does World Vision help communities lacking water?

Water on a hill in Vanuatu

The people of southwest Tanna Island used to walk down steep hills to collect water from creeks, ponds and springs. Many children suffered from malnutrition and were often sick from water-borne illnesses.

To improve access to safe water, 10 communities of southwest Tanna partnered with World Vision and the Vanuatu government, with funding through the New Zealand Government's NZ Aid Programme. Engineers designed suitable water systems, and the communities negotiated ongoing access to water sources and also fenced the water catchment and tap areas.

World Vision trained water management committees to maintain eight water systems using basic plumbing skills. This integrated project also included building toilets and educating people how to ensure good health and hygiene. Now 96% of the community have access to safe water all year whereas no one did prior to the project, and stunting of children under 5 years old has reduced from 50.5% to 34.5%.

Improved access to water as well as good sanitation, hygiene and health has made a huge difference for children in southwest Tanna.



Vanuatu: Community members work with a World Vision engineer to pipe water from the source to community access points.
Elizabeth Brown

Water pipes and canals in Tanzania

In Magugu, difficulties in getting enough safe water affected people's health and made it difficult to grow food. Girls and women walked for more than 30 minutes to collect water, which often came from murky ponds.

World Vision worked with the community to construct new water points in three villages, each with a tap and enclosure to prevent water contamination. One is next to a primary school so students and teachers don't have to go far to get water.

Improved irrigation canals now bring more water to fields so farmers can grow rice and vegetables all year.

Shabani says: "Before the irrigation scheme was constructed, villagers used to cultivate once a year by depending on seasonal rains only. This was because they could not get water during the dry season."

The irrigated fields produced 20 per cent more rice, giving families extra income to improve houses or buy more desks for the school.

In the Magugu community, improved access to water has led to better health, improved crops and increased incomes.



Tanzania: Shabani shows some of the vegetables he has grown.
World Vision

Water in a dry environment in Afghanistan

Badghis, in northwest Afghanistan, is one of the country's driest provinces and has a long history of conflict. During 2013 and 2014, there wasn't enough rain or snow to replenish water systems. By mid-2015, community leaders were concerned about low water levels in wells and karez (traditional underground canals). Women and boys spent an hour and a half each day collecting water from unsafe sources. The dry conditions also meant families couldn't grow enough food. Water-borne illnesses and diarrhoea were common, contributing to childhood malnutrition.



Afghanistan: Hand-pumped wells provide safe water close to home.
World Vision

During 2015 and 2016, the Badghis community and World Vision partnered with the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) to improve access to safe water for 75,000 people in 27 communities.

Together they constructed 120 water catchments which store rain and melted snow. They built 58 new hand pump wells, repaired 95 wells, protected two springs and built a 13km water pipe system with three water tanks. World Vision provided water filters and chlorine for families and schools.

Each community established a gender-balanced WASH group including two teachers, two community health workers, a religious leader and a women's group member. The groups learned to manage water resources, share health and hygiene messages, and train people to construct toilets to ensure sustainability of the improvements.