

Forum:	United Nations Habitat (UN-Habitat)
Issue:	Ensuring Universal and Equitable Access to Safe and Affordable Drinking Water for All (SDG 6)
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Introduction

The sixth sustainable development goal is to ensure access to water and sanitation for all. AN essential part of our world we want to live in is to ensure everyone has clean, accessible water for all and there is sufficient fresh water to achieve this. More than 5 million people including children die every year from diseases associated with scarce water supply, hygiene, and sanitation due to bad economics or poor infrastructure. Currently, more than 2 billion people are living with the risk of reduced access to fresh water resources. By 2050, at least one in four people is likely to live in a country affected by chronic or recurring shortages of fresh water. Water scarcity and poor water quality, as well as lack of sanitation negatively, contribute to food scarcity, livelihood choices and educational opportunities for families living in poorer communities. Droughts in some of the world's poorest countries worsen hunger and malnutrition. Fortunately, there has been much improvement regarding access to drinking sources and water sanitation, now 90% of the world's population now has access to improves fresh drinking water. This has been achieved through an increase in investment in the management of fresh water facilities.

Definition of Key Terms

Droughts

Droughts occur when a period of low rainfall leads to a shortage of water. Droughts affect some of the world's poorest countries, which worsen both hunger and malnutrition. It also involves water shortages, crop damage, steam flow reduction and depletion of groundwater and soil moisture. They are the combined result of climate and human activities in that area. However, there has been great progress made in the past decade regarding access to drinking sources in countries affected by droughts.

Water Scarcity

Water Scarcity is defined as the lack of sufficient available water resources to meet the demands of water usage in the region. Around the world, more than 1.2 billion people lack access to clean drinking water. According to the United Nations Development Program, most countries have enough water to meet household, industrial, agricultural, and environmental needs. However, due to the lack of means to provide it in an accessible manner causes many countries and regions to experience water scarcity. This poor management of the sufficient available water resources is referred to as economic water scarcity. The reduction of water scarcity is a goal of many countries and governments.

Waterborne diseases

Waterborne diseases refer to the conditions that are caused by pathogenic microorganisms that are transmitted through water. It often spreads while bathing, washing, drinking water or by eating food exposed to contaminated water. Another way this disease spreads is through flooding which disperses fecal contaminants increasing the risk of outbreaks of waterborne diseases such as cholera. Additionally, droughts cause water shortages which increase risks of diarrhoeal disease. Common symptoms include diarrhea and vomiting as well as skin, ear, respiratory, or eye problems. Water Borne diseases are responsible for 2 million deaths per year, which the majority of victims under the age of 5. Climate-change often causes flooding and droughts which severely impacts household water and sanitation infrastructure which increases the risk of spreading these waterborne diseases.

Diarrheal diseases

Diarrheal diseases are a collection of diseases caused by multiple viral, bacterial, and parasitic organisms that share the common symptoms of diarrhea, defined as the passage of three or more loose or liquid stools per day. Diarrhea can last several days and can leave the body without the water and salts that are necessary for survival. This disease is the second leading cause of death in children under 5. It is responsible for killing around 525,000 children every year. In the past, for most people, severe dehydration and fluid loss were the main causes of diarrhea deaths.

Quality Water

The United Nations General Assembly defines quality water as costing less than 3% of household income, 50-100 liters of water per person per day, free from microorganisms, chemicals, and radiological matter, follows cultural, gender, lifecycle, and privacy, within 1000 meters from home, and able to be collected in less than 30 minutes.

Water Sanitation

Water sanitation refers to public health conditions related to clean drinking water and adequate treatment and disposal of human excreta and sewage. In order to improve sanitation and access to clean drinking water, there needs to be increased investment in the management of freshwater ecosystems as well as sanitation facilities on a local level in several developing countries within Sub-Saharan Africa, Central Asia, Southern Asia, Eastern Asia, and South-Eastern Asia. According to the United Nations Development Program, most countries have enough water to meet household needs, however, due to poor management and lack of sanitation facilities many people lack access to fresh drinking water. Fortunately, over 90% of the world's population has access to improved sources of drinking water due to great progress made in the past decade regarding drinking water sources and sanitation.

Poor Hygiene

Poor hygiene is one of the leading reasons why so many diseases are spread. In many parts of the world, there is little to no awareness of good hygiene practices and their role in reducing the spread of diseases. These diseases that can be transmitted include diarrhea, cholera, dysentery, typhoid, and polio. Diseases due to poor drinking-water access, unimproved sanitation, and poor hygiene practices cause 4.0% of all deaths and 5.7% of all disability or ill health in the world. Unfortunately, it's often the case that even when people do have knowledge about good hygiene, they lack the soap, safe water, and washing facilities they need to make positive changes in their community.

Contaminated water

Water contamination, also known as water pollution, is the contamination of water bodies, including lakes, rivers, oceans, and groundwater, usually as a result of human activities. Water contamination results from contaminants being introduced into the natural environment. The most common causes of water pollution include Agriculture runoff, where contaminants including fertilizer, pesticides, insecticides, herbicides, and other pollutants are carried into water bodies. This in return contaminates the water sources in which communities drink from causing many people to fall ill.

Sustainable Development Goals (SDGs)

The UN Sustainable Development Goals (SDGs), also known as the Global Goals, was a universal call to action adopted by all United Nations Member States in 2015. These goals aim to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. SDG number 6 calls on all member states to allow everyone to access clean water and sanitation. This is an essential part of the world we want to live in. There is sufficient freshwater on Earth to achieve this. Due to bad economics and poor infrastructure, millions of people die every year from diseases associated with inadequate water supply, sanitation, and hygiene, which all negatively impact food security, livelihood choices and educational opportunities for poor families. At the moment, more than 2 billion people live

with the risk of reduced access to fresh water and by 2050, at least one in every four people is likely to live in a country with recurring water shortages.

Background Information

UNICEF WASH initiative

UNICEF WASH, an acronym that stands for “water, sanitation, and hygiene”, the initiative aims at providing universal, affordable and sustainable access to WASH. It’s a key public health issue within international development and is the focus of Sustainable Development Goal 6. Without access to WASH many diseases and time burdens prevent adults from earning a living or kids from receiving an education. Additionally, the establishment and maintenance of WASH would be able to provide employment. Access to WASH will help drive progress towards the SDGs concerns with poverty, work, and economic growth but as well help achieve gender equity. Those who bear the burden of collecting water and caring for relatives are women and girls, who often miss out on education due to domestic roles assigned to them.

Wash and education

Many people in low-income communities with no access to WASH are unable to attend school since they are sick with a diarrhoeal disease, or, particularly girls, are spending large parts of their day fetching water for their families. For children who are in school, it might be no better, many of these communities still lack access to adequate water sources, forcing children to learn while they are dehydrated and unfocused. Additionally, pupils are being forced to use inadequate bathrooms or going to the toilet outside school grounds. For girls, easy access to safe drinking water, sanitation facilities, and toilet facilities can be the difference between receiving an education or dropping out. Furthermore, if students were to be taught about better hygiene, it could begin a lifetime of better health for not only children but also their communities.

WASH and health

With universal access to WASH, there is a potential to save the lives of the hundreds of thousands of people who currently die every year due to lack of clean water and diseases directly caused by unsafe water, inadequate sanitation, and poor hygiene practices. It could drastically reduce child malnourishment. Today 50% of child malnutrition is associated with unsafe water. Additionally, during pregnancy, childbirth, and post-natal care, medical staff, expectant mothers and their families will be better equipped to ensure newborn children are given the safest and healthiest possible start in life.

Reach of unsafe water on public health

Water is an essential resource for health and wellbeing, and the lack of clean accessible water causes many more problems.

The spread of waterborne diseases

Contaminated water often contains diseases that are undetectable to the human eye. Sources of water such as rivers, lakes, or runoff that are unfiltered can all cause the spread of diseases. A common practice of people without proper bathrooms plumbing is defecating in shallow holes, which allows bacteria and disease to spread from the hole to nearby water sources, further contaminating the water.

Hospital contamination

In some low-income hospitals, the water used is still contaminated with disease. Patients already susceptible to diseases have much higher rates of death when drinking unsafe water. The small and contained hospital space may also make these diseases easily spread between patients, sometimes causing outbreaks of disease in hospitals. Furthermore, doctors using unsafe water to sanitize themselves and instruments risk infecting patients during surgeries with disease, which causes many deaths??

Breeding of mosquitoes

Many families that don't have water filtration systems store water in tubs, which allows mosquitos and other insects to lay eggs in. Not only does this increase the mosquito population, but also the spread of diseases carried by mosquitoes. Better storage practices could solve this problem, but the installation of water pipes would be a permanent solution.

Social and economic impact

Water accessibility indicates the social and economic wellbeing of people. Achieving clean water would greatly improve the family atmosphere.

Women and children collecting water

Because many rural towns don't have access to water resources such as local wells, women and children have to spend hours commuting to far off lakes and rivers. On top of common household responsibilities, women must spend hours collecting water. This prevents women from contributing to the workforce by getting jobs or supporting local businesses. This additional burden of getting water forces mothers to spend less time caring for the family such as cleanliness and home education. Often, the water that these women bring isn't enough to support

the family's needs, so children must also assist in getting water. This prevents them from attending school from a young age, and will likely never receive an education in their lifetime. The lack of education is especially prevalent in young girls, as household chores like getting water are deemed as a feminine role and so girls are more often taken away from school to join their mothers. Because children, especially girls, don't receive education, they may be illiterate and be stripped of the chance of better high paying jobs. Generations are stuck at a level of poverty because their lack of education prevents them from improved economic statuses. The installation of better access to water, such as wells, will greatly reduce the time and manpower needed to collect water. Women would have more time to access more job opportunities and improve family dynamics, and children would be able to attend school and a chance to receive better jobs in the future.



Caption #1: Mothers and children collecting water from a water reservoir in a nearby village

Economic burden of disease

Because of the dangers of polluted and unfiltered water, there is a high chance of disease and illness for people who drink bad water, especially children. Children are the most susceptible to disease because of their weaker immune system, and face the threat of crippling illnesses or even death when drinking bad water. While not all families without clean water are in the same economic situation, most often, they are big families with multiple children, and many may die before the age of 5 from waterborne diseases. This poses an economic threat to the family as the cost of medicine and treatment may use up a large percentage of their savings, and the constant setbacks of sickness may prevent them from having enough money for household improvements such as filtered water. While very unfortunate, the death of young children is also costly as they have yet to contribute positively to family earnings. This cycle keeps generations in poverty. There are many factors to the early death of children and financial setbacks, but reliable water greatly contributes to the well being of a family.

Major Countries and Organizations Involved

UNICEF

The United Nations Children's Fund provides humanitarian and developmental aid to children around the world.

The Water Project

The Water Project is one of the many non-governmental organizations (NGOs) providing water and sanitation services to communities in sub-Saharan Africa. The lack of clean water is a health crisis, so both governmental and non-governmental organizations work to improve the water situation. NGOs often rely on donations which gives them a very limited budget, so a more reliable and long-lasting solution to water sanitation is government-assisted.

Food and Agricultural Organization

The Food and Agricultural Organization is a specialized agency of the United Nations

World Health Organization

The World Health Organization is a specialized agency of the United Nations that is concerned with international public health. It was established on 7 April 1948, and headquartered in Geneva, Switzerland. WHO has a large database on health statistics globally, and conducts research on various health issues, such as water and sanitation. In regards to water accessibility, WHO supports the implementation of water supply systems as well as emergency solutions to many areas in need.

Timeline of Events

Date	Description of event
July 28, 2010	The United Nations General Assembly passes a resolution declaring that access to safe drinking water is a basic human right.
January 1, 2016	Sustainable Development Goals are adopted by world leaders at a UN Summit to be achieved by 2030. The sixth goal is water and sanitation for all.
1918-1919	The 6th major cholera outbreak kills 800,000 people in India. Because of improvements in water and sanitation, there was no effect on Europe and North America. This outbreak would be the last in most parts of the world.

Relevant UN Resolutions and Treaties

- The Human Right to Water and Sanitation, 28 July 2010, (**A/RES/64/292**)
- The Human Right to Safe Drinking Water and Sanitation(Edit of resolution above), 24 March 2011, (**A/HRC/RES/16/2**)
- Universal Declaration of Human Rights, 10 December 1948, (**Resolution 217 A [III]**)
- ECOSOC General Comment No.15: The Right to Water, 20 January 2003, (**E/C.12/2002/11**)

Possible Solutions

In order to improve access to safe drinking water, **water facilities such as wells need to be developed and located near communities in need**. Additionally, implementing rainwater harvesting systems to collect and store rainwater for drinking or recharging underground aquifers. Build wells to extract groundwater from underground aquifers. These drinking sources need to be available at all times and free of fecal and other contaminants. Bringing a safe water supply close to households is essential to prevent WASH-related disease. Approximately 1 million people die each year due to lack of access to fresh, clean drinking water as well as adequate sanitation which could be reduced with access to safe water or sanitation. Access to safe water and sanitation contributes to improved health and helps prevent the spread of infectious diseases.

Not only do communities need access to safe drinking water **they also need to be able to drink water that is free from contaminants**. In order for this to happen facilities and services for safe management and disposal of human urine and feces are necessary. 'Safely managed sanitation services' means using an improved sanitation facility. Not only could these facilities provide communities with clean water but they also have the potential to provide jobs and combat unemployment. Additionally, good hygiene habits need to be promoted through education. For example, proper handwashing with soap and water can reduce diarrhea. This can be achieved by providing homes and communities with water-treatment capability through the use of filters and solar disinfection to make drinking water safe. Another solution to achieve this might be to promote low-cost solutions, such as chlorine tablets or plastic bottles that can be exposed to sunlight, to improve water quality.

Sustaining existing water supply systems continues to be a major challenge. **It is necessary to develop the capacity of communities to manage, repair and maintain water systems**. This can be achieved by supporting governments and communities to conduct real-time monitoring to help improve sustainability.

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