

CLEAN WATER AND SANITATION

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A small, vibrant green seedling with several leaves is growing out of a crack in a grey, textured concrete surface. The background is a blurred, dark grey concrete wall with some faint, reddish-brown stains or cracks.

WHO ARE THE UNITED NATIONS?



Founded: 1945

Headquarters: New York City, USA

Leader: Secretary-General
(Antonio Guterres)

They are an international organisation of one hundred and ninety three Member States (when the organisation was founded, there was fifty one Member States) who are committed to maintaining international peace and security, developing friendly relations among nations and promoting social progress, better living standards and human rights.

WHAT IS THE ISSUE?

We need water to stay fit and healthy. It keeps our body working well. This is because everyday we lose a lot of water from sweating, breathing and going to the toilet. Therefore, it is a necessity for humans to survive. The lack of access to sufficient, safe and affordable water, hygiene facilities and sanitation can have a devastating effect on a person's health, dignity and prosperity.

The human body is made up of an average of 60% water. The brain is approximately 73% water. We require a minimum of 2.4 litres of water a day to make up for all the water lost through daily activities. When a person does not have access to safe water sources, they are at risk to water-borne diseases, including cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio. It also exacerbates malnutrition and childhood stunting.

Access to clean water is essential for development of a country. When people do not drink enough water, they become sick and weak. This means they cannot work or care for their family. Without water, countries struggle to grow economically, impacting their development. Once people have access to clean water, they can practice good hygiene and sanitation.



Every day, approximately 1000 children die due to preventable water and sanitation related diarrheal diseases.



2.2 billion people lack access to safe drinking water.



2.4 billion people lack access to basic sanitation services, such as toilets and showers.

WHY DOES A SAFE WATER SUPPLY AND GOOD SANITATION MATTER?

The risk of water-borne diseases would be reduced.

Levels of poverty would be reduced.

Workers would have increased productivity.

Life expectancy would increase.

Child deaths would be reduced.

More children would go to school. This would help them escape poverty in the future.

Countries' economic growth will be boosted.

Therefore, once a country has reached levels of good sanitation and a safe water supply, they can focus on development. This reduces poverty and lowers the death rate.

Safe- protected from or not exposed to danger or risk. The water must be free from micro-organisms, chemical substances and radiological hazards that could place a threat to a person's health.

Sufficient- enough/adequate. The water supply must be enough and meet each person's domestic and personal needs.

“The right to water means that everyone is entitled to have access to acceptable, safe, sufficient, physically accessible and affordable water for domestic and personal use.”

Acceptable- suitable. Water should be of an agreed colour, odour and taste for each personal or domestic use.

Affordable- inexpensive/ reasonably priced. Everyone should be able to buy it, rich or poor.

Physically accessible- everyone has the right to access water. Supply should be in close proximity, or at a reasonable distance from each house. Water should also be provided in schools, hospitals, at the workplace, in detention centres and at refugee camps.

Culturally acceptable- sanitation that is acceptable within a culture. These are methods that are allowed to be practiced without hindrance and objection, such as norms, traditions, religion, language, ethics and values

Sanitation- the process of keeping places clean and healthy, especially by providing a sewage system and a clean water supply

Hygienic- conducive to maintaining health and preventing disease, especially by being clean

“The right to sanitation means that everyone is entitled to have physical and affordable access to sanitation, in all elements in life. Sanitation must be safe, hygienic, secure and socially and culturally acceptable and that provides privacy and ensures dignity.”

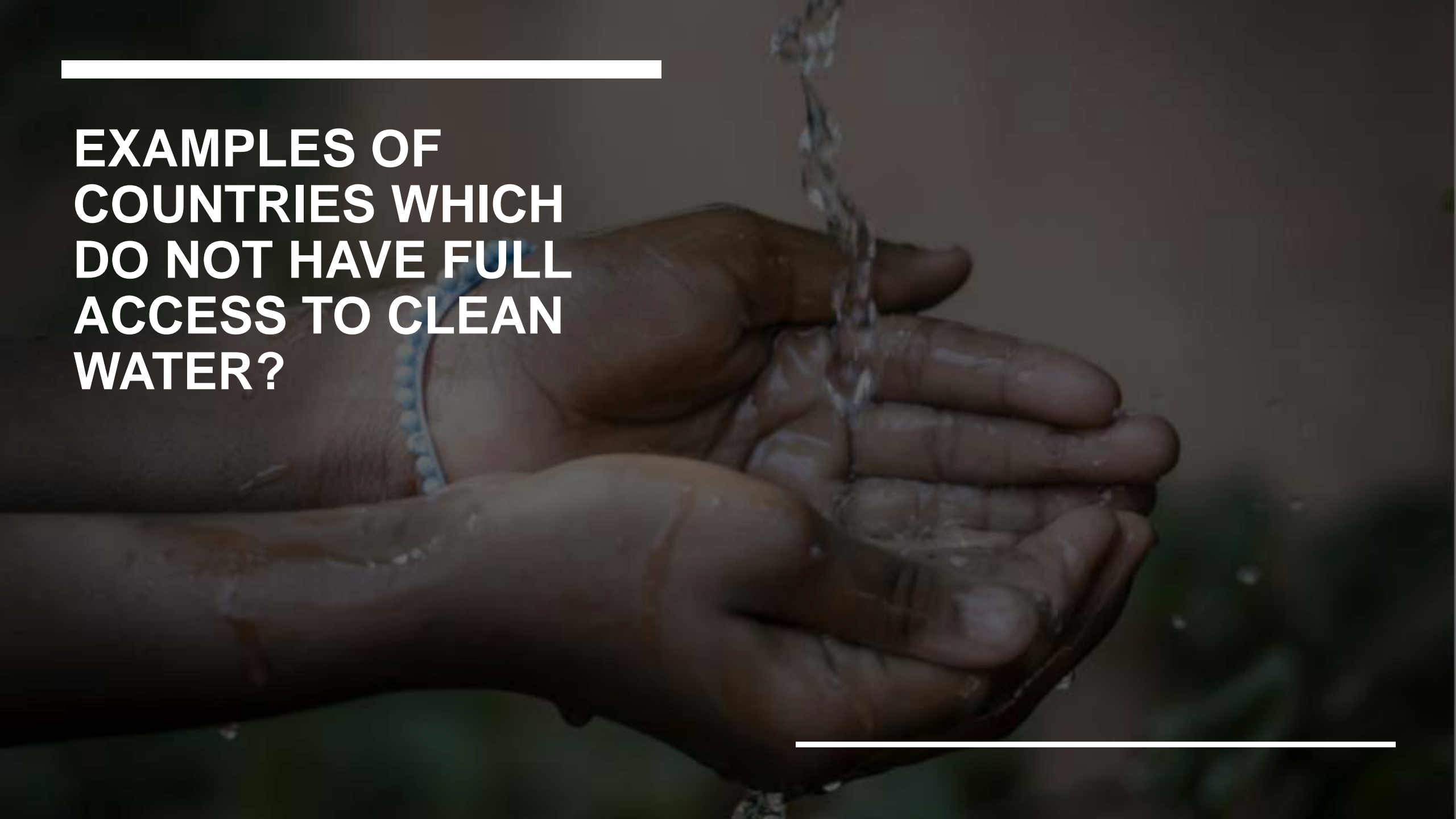
Secure- sanitation that is safe and always there

Socially acceptable- sanitation that is accepted as normal or appropriate within a social culture or subculture

Dignity- the state or quality of being worthy of honour or respect

Privacy- the state of being free from public attention

**EXAMPLES OF
COUNTRIES WHICH
DO NOT HAVE FULL
ACCESS TO CLEAN
WATER?**



ETHIOPIA



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- Almost 60% of the population lack basic access to drinking water.
 - Instead, they drink from contaminated hand-dug wells, ponds and unprotected natural springs.
 - 22% of the population openly defecate.

PAPUA NEW GUINEA



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- In 2017, 41% of the population had basic access to clean water.
 - 87% of the population lack basic sanitation services, meaning they don't have access to a toilet.
 - 51% of the population drink water from ponds, rivers, lakes and swamps.

THE REPUBLIC OF CHAD



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- 61% of people in Chad are without basic water access.
 - 67% of the country practice open defecation.
 - There has been slow progress in Chad due to the history of the country, which has been marked by instability and violence.

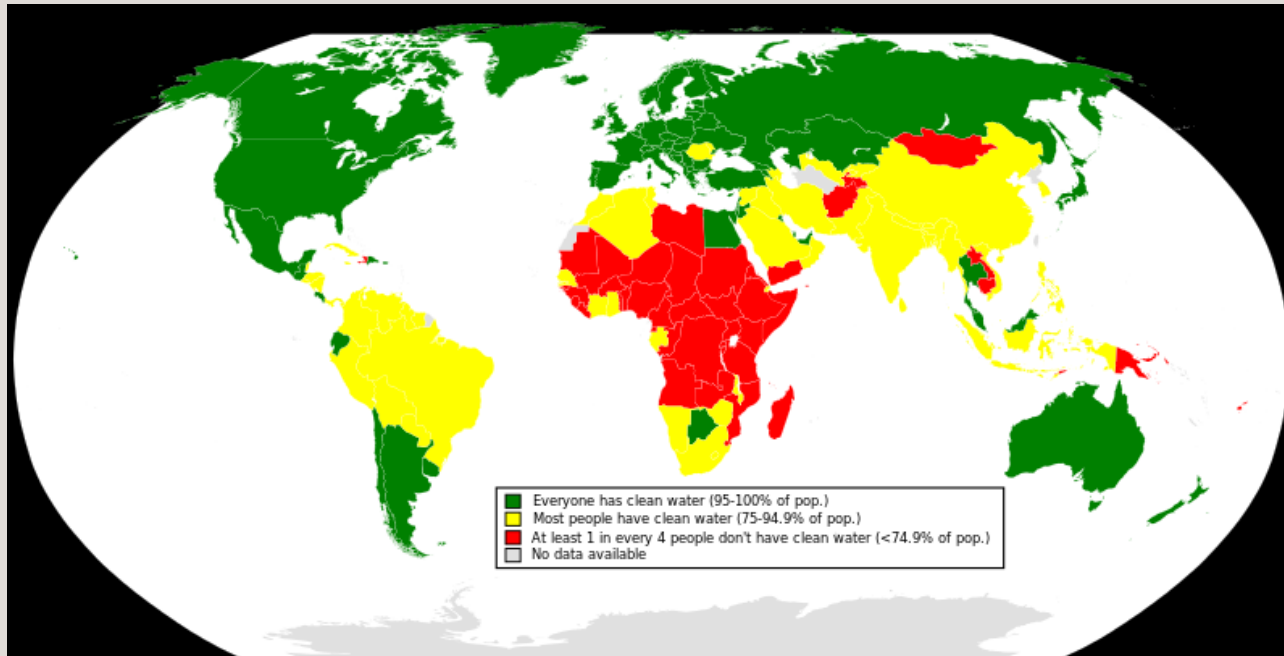
UGANDA



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- Half of the population cannot gather safe drinking water in under 30 minutes from home. Most families depend on water from a faraway community or across difficult terrain.
 - Since 2005, access to a basic level of safe drinking water has increased by 17%.
 - Open defecation has decreased by 50% since 2005.

Why do sub-Saharan countries suffer?

Distribution of water across the world



From these last few slides, I can see that the countries who struggle the most accessing water are those in Africa.

Poverty is a barrier to access to water and sanitation. The countries in the sub-Saharan are some of the world's poorest countries.

They receive a plentiful supply of rainwater, however, it is seasonal and unevenly distributed, leading to frequent droughts and floods.

There is also inefficiently run sewage systems, meaning that 90% of the sewage that the Africans generate, are disposed into water bodies and left untreated.

Reasons why people do not have access to clean water

It is now 2021 and there are still 2.2 billion people who lack access to safe drinking water – this is a basic human right that no one can survive without.

The main reasons why people don't have access to clean water are:

1. Lack of infrastructure and poor management of services
 - Governments need to do more in ensuring water supplies and sustainable and commit to improving infrastructure.
2. Poverty and inequality
 - It is a human right to have access to water, sanitation and hygiene facilities, yet some are unable to access these services due to their ethnicity, gender, social status, disability or inability to afford it.
3. Climate change
 - The weather is unpredictable and extreme. Long periods of drought can affect clean water supplies. On the other hand, flooding can pollute clean water sources and cause outbreaks of disease.
4. Population increase
 - The world's population is predicted to grow to 8.5 billion by 2030 and 9.7 billion by 2050. With the population increasing, there is going to be an even higher demand on already scarce and fragile water sources.

**EXAMPLES OF
CURRENT
PROJECTS
WORKING TO
RESOLVE THIS
ISSUE**



Ethiopia



The World Bank have been working with the Ministry of Health and the Addis Ababa Water and Sewage Authority to ensure that all healthcare facilities have around-the-clock access to water. In addition, they have replaced and rehabilitated water pumps and boreholes to provide services to those living in Addis Ababa (a densely populated urban area).

They have also encouraged people to get an education. In 2000, the general education system had 7.1 million learners. It has expanded to 26 million in 2019.

This shows how effective these schemes can be and how helpful they are to the local communities. More people being educated means that they have a better chance of escaping poverty and developing as a country.

Uganda



This Gold Standard Project provides clean drinking water to small rural communities by repairing and drilling new boreholes (boreholes are water wells that allow water to be extracted from the ground).

By providing clean water, the people no longer need to purify water through boiling. This takes pressure off local forests (the predominant source of firewood) and reduces greenhouse gas emissions.

The project has helped 5,700 people.

Women use to spend on average 2 hours and 50 minutes per day collecting water. Now this project has taken place, they spend 47 minutes per day.

**WHAT ARE THE
BARRIERS TO
RESOLVING THIS
ISSUE?**

MONEY



Neither the people or the local governments have the money needed to supply their communities with the water they need to survive. Therefore, it needs to come from elsewhere (in a developed region).

The countries need to find help from developed regions because they are the only way they can get the money without harming the people even more. Lowering people's income to raise money to solve the issue of clean water and sanitation will only cause other issues. This may include starvation due to the citizens not being able to afford food with their new, lower income.

AREAS OF CONFLICT



It is very hard to help an area get access to water if they are in a war. Whether this is a civil war or between different countries, the violence can limit the amount of help developed countries can give. Other people are less likely to help someone if they are at risk in doing so.

This is also linked to the money barrier because the region that is in conflict is more likely to spend their money on funding the war than improving their country's water and sanitation services.

CORRUPTION



Developing regions are more likely to have a corrupt government. The government use the money they have on themselves and not the country. Therefore, there is a large wealth divide between the government (the rich) and the other citizens (the poor).

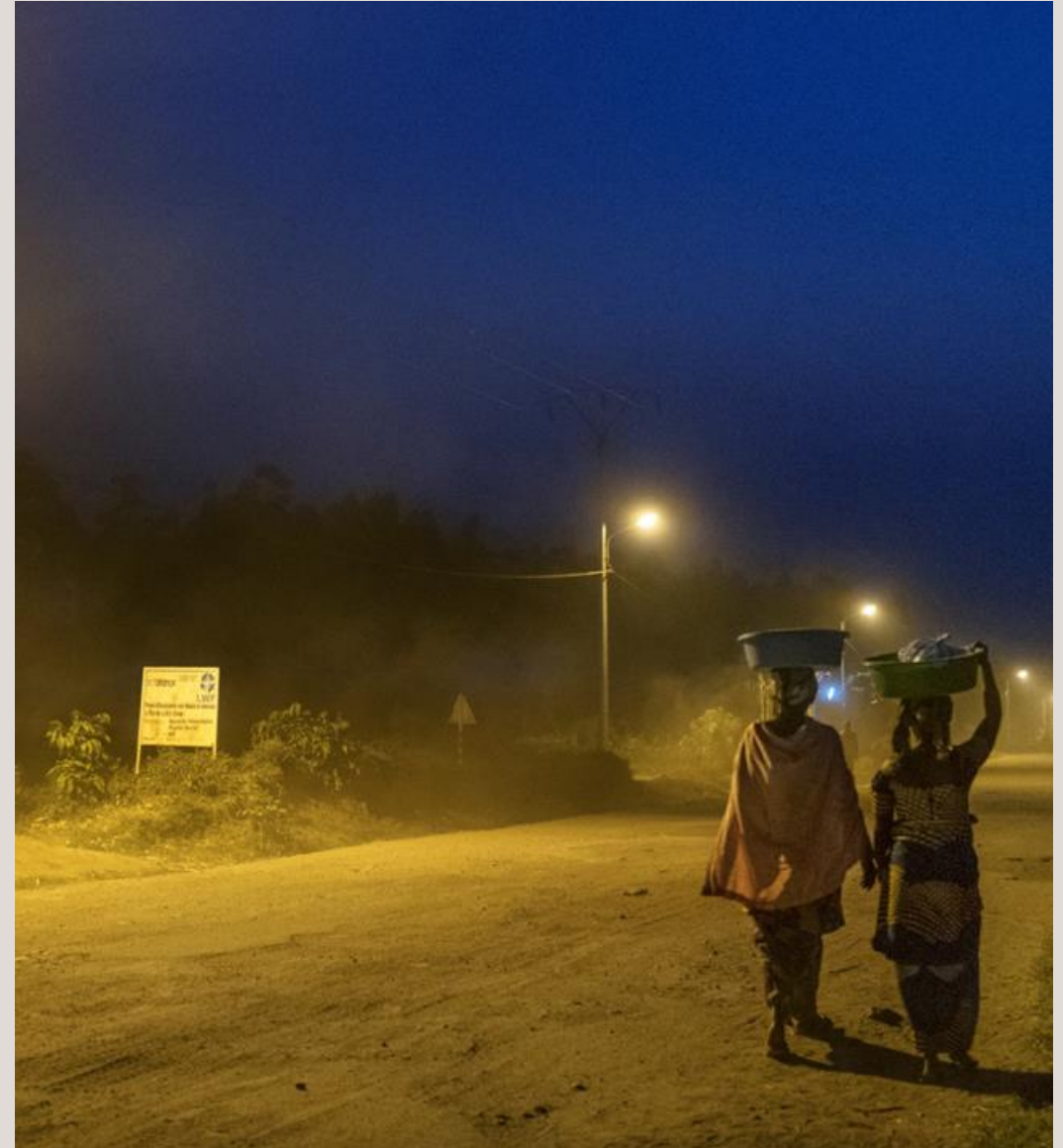
In terms of aiding a country with a corrupt government, you need to make sure the money you raise actually gets used appropriately to improve the clean water and sanitation services in the country.

A way to combat this barrier is to work directly with the government or do charity work by sending volunteers to the area to construct these services.

LACK OF INFRASTRUCTUR E

If a country does not have a water pipe system set up and in place, it takes a lot more time, money and effort for the country helping them to donate. This is the easiest way to supply the whole area with water. Therefore, the charitable country have to dig up a new system which is hard to do and requires more skilled workers.

The country would also need a sewage system. This would improve the hygiene and sanitation services. A sewage system requires pipes underground in order for it to work most efficiently.



INDUSTRIAL WASTE



When companies do not dispose of their industrial waste appropriately, the waste contaminates the air, water and soil. This is common in developing countries because little attention is paid to environmental protection, there are no pollution control techniques, and environment standards are not present or are poorly implemented. Water companies are known for dumping their waste into rivers. Welsh Water was discovered to be one of the worst offenders with its Aberbaiden Plant dumping sewage illegally into the River Usk for 12 consecutive days in December 2020.

Some industries dump toxic or hazardous substances (such as chromium, mercury and lead) into rivers and lakes where people collect their drinking water from. This causes multiple health problems when the metals are left untreated.

All of this causes a problem when trying to start up a clean drinking water system because you have to either treat the water in the rivers and lakes or you have to find a non-polluted water source.

**HOW WOULD I
RESOLVE THIS
ISSUE?**



Solution to access to clean

water

Firstly, I would get developed country's governments (such as the USA, Germany and the UK) to encourage large water companies (e.g. Nestle) to install clean water pumps in the villages in developing countries. The water companies could set up factories there providing locals with employment. However, this would be on the terms that they follow environmental regulations of the developed country. This would prevent water pollution and toxic waste products being released into the environment. The factories get water for a very small price. If the local governments or the citizens pay this price, everyone could have safe access to water. The factories could also provide employment. This generates an income for the people, which could potentially help them escape poverty and increase the development of the country.

In areas where this is not possible, I would introduce water recycling systems. Water recycling is the process of the reclamation and the reuse of water. This comes from: stormwater, rainwater which has reached the ground; rainwater, direct rainwater capture; greywater, water used in bathrooms, kitchens and laundry and finally treated effluent, sewage that has been appropriately treated. Water recycling uses basic biological, chemical and physical principles to remove contaminants from water.

I would raise money to buy personal filter straws. These allow you to drink from any water source excluding urine and salt water. They remove up to 99% of all bacteria and contaminants in water. The technology works by passing water through an extremely fine medium – this traps dirt and bacteria in its pores. The final product is clean and drinkable water. This means that everyone would have access to drinking water no matter if there is a pump or not in the area. It also means that the people drink water that does not cause harmful diseases.

Solution to poor sanitation

To solve the issue of poor sanitation, I would install solar powered urine diversion toilets into the villages of developing countries. They are affordable and low maintenance. It can be installed in rural areas and is one of the most effective composting toilets in the world. They are 100% waterless and chemical free. This toilet comes attached with a solar powered fan. This means it is also eco-friendly because the energy released does not produce greenhouse gases into the atmosphere. The fan dries out the human excreta until it is eventually used as manure. The solar powered urine diversion toilet runs for 24 hours a day and it is user-friendly.

I think educating people in the villages about good hygiene would benefit them. Most of the citizens who have poor sanitation, do not know how just washing their hands could help them. I would run workshops in schools and workplaces explaining the importance of good hygiene.

In conclusion, I believe that these third world countries cannot solve these problems by themselves. The solutions lies with collaboration from developed countries, multi-national corporates and international charities to work with local governments to ensure resources do not fall into the wrong hands.