

Forum: The Environment Committee

Issue: Ensuring access to clean water in Sub-Saharan Africa

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Introduction

While access to safe water and sanitation have been recognized as priority targets through the Millennium Development Goals (MDGs) and the Johannesburg plan of action of the World Summit on Sustainable Development (WSSD), there is increasing recognition that this is not enough.

In the MDG goal, goal seven attempts to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. Although more than 2.1 billion people have gained access to improved drinking water sources since 1990, a significant proportion of those in the Sub Saharan region still lack the access to clean and safe water due to the fact that an approximate level of 40% of the Sub-Saharan African population still practice open defecation (WHO, 2011)

It is currently estimated that 1.1 billion people in the world (nearly 1 person in every 8) lack access to improved water supplies from protected sources and 2.6 billion people lack adequate sanitation. Instead, their access to dirty water leaves them sick and if this trend continues to be passed down to future generations, leaving them hopeless and thus, in search of a better and healthier lifestyle. Without clean drinking water, life becomes very hard to lead especially since access to clean and safe drinking water is a right that every human being should have access to. It is known that absolute poverty has become a crucial crisis in the African region. Some of the main causes of poverty include but are not limited to; political instability, conflicts between ethnic groups as well as both manmade and natural disasters.

The underlying cause of such poverty and low living standards that is brought a long with is the lack of access to clean and safe water. The global health burden associated with these

conditions is staggering, with an estimated 4000 to 6000 children dying each day from diseases associated with lack of access to safe drinking water, inadequate sanitation and poor hygiene, such as diarrhea. But those who die are by no means the only children affected. Many millions more have their development disrupted and their health undermined by diarrheal or water-related disease.

Not only is it an insurmountable hindrance to health and safety to the individual but this also means that these people, in the rural regions of the Sub-Saharan Africa, are deprived of the water needed to grow food required not only for the subsistence but regional economy. With children looking for clean drinking water during the day, it prevents them from going to school, obtaining an education and relieving themselves of what seems to be the trap of the 'poverty spiral'. Upon solving the issue of ensuring access to clean and safe drinking water, children are able to return to school and women can be empowered to establish small business and help their husbands with tending the fields – safeguarding the household's supply of food and ensuring food security, at least on a local level thus eventually lifting the African's out of the lowest living standards.

Sub-Saharan Africa is a region affected badly by the lack of access to clean and safe drinking water, namely because of its countries affected by conflict. The UN estimates that Sub-Saharan Africa alone spends 40 billion hours every year with collecting water. This is equal to France's entire workforce in one whole year. Local people spend 3 hours each day, fetching water. With their other needs, the hours lost to gathering water are often the difference between time to do a trade and earn a living and not.



Caption #1; Map showing the countries of Sub Saharan Africa

Definition of Key Terms

Clean drinkable water

Water that does not contain harmful bacteria, toxic materials, or chemicals.

Waterborne disease

A type of disease whose causative agent is either carried or spread by water.

Water stress

A state in which inadequate water supplies limit economic development and food production and affects human health and well-being.

Water Governance

Administrative, political, social, or economic systems (i.e. mechanisms, laws, institutions, processes, etc), that are meant to develop and manage water resources and the accessibility and delivery of it.

Borehole

This is a hole driven into the ground to obtain geological information about the area, release water, etc.

Tubewell

This is a well made by driving a tube into the earth to a stratum that bears water. A tube well is a type of water well with a length of a 100–200 mm (5 to 8 inch) wide stainless steel tube or pipe is bored into an underground aquifer.

Underground Aquifer

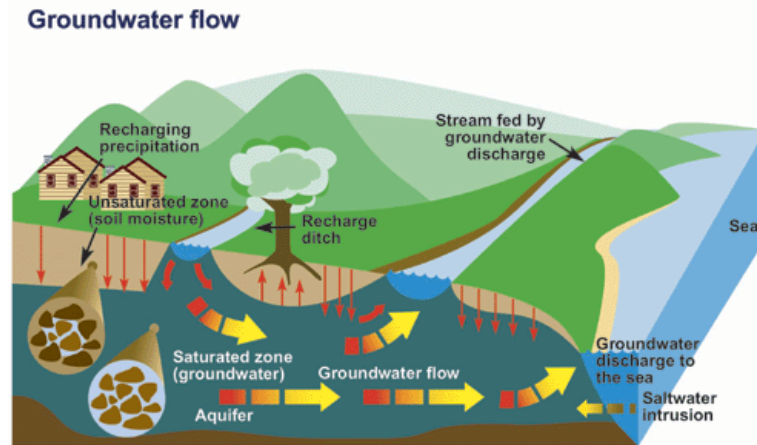
An aquifer is a body of saturated rock through which water can easily move. The movement of the water through the aquifer removes many impurities and it is often cleaner than water on the surface. Aquifers are natural filters that trap sediment and other particles (like bacteria) and provide natural purification of the ground water flowing through them. In recent years there have been many discoveries of aquifers in the Sub Saharan region, especially in the drought-hit areas

Water Security

Water security has been defined as the reliable availability of an acceptable quantity and quality of water for health, livelihoods and production, coupled with an acceptable level of water-related risks.



Caption #2: Image of a solar tube well



Caption #3: Diagram showing groundwater flow and location of unground aquifers

History

Status of ensuring access to clean water in Sub-Saharan Africa

Freshwater resources are vital for meeting basic human needs and inadequate protection of the quality and the supply of freshwater can set important limits to sustainable development. This apparent water shortage is predicted to degrade as a result of several factors such as population growth compounded by continued rural-urban migration, pollution of surface water sources, and an increase in the standard of living resulting in growing demand. Although governments sometimes respond to countering extra demand by increasing the water supply for urban dwellers - a somewhat practical solution, which is becoming more and more difficult as sources of clean water become geographically more distant, making it more expensive to develop. Obstacles to accelerating the rate of progress in Sub-Saharan Africa include conflict and political instability, high rates of population growth, and low priority given to water and sanitation.

The UN heightened the emphasis given to water issues in the 1992 Rio summit and Agenda 21. These principles and goals were reaffirmed at the World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa from 26 August to 4 September 2002. The Johannesburg summit launched a series of programs and efforts by various UN affiliated agencies to address fresh water and sanitation. These efforts are aimed at mobilizing international and domestic financial resources at all levels, technology transfer, promotion of best practices, and supporting capacity-building for water and sanitation infrastructure and services development, while ensuring that such infrastructure and services meet the needs of those living in poverty stricken areas, such as in the Sub Saharan Region.

The General Assembly further proclaimed, in its resolution (Reference: A/RES/58/217), the period from 2005 to 2015 the International Decade for Action, 'Water for Life', commencing on World Water Day, 22 March 2005 along with another resolution in 2010 (Reference: 64/292) which recognized that safe, clean drinking water and sanitation is a human right essential to the full enjoyment of life and all other human rights. It called on United Nations Member States and international organizations to offer funding, technology and other resources to help poorer countries scale up their efforts to provide clean, accessible and affordable drinking water and sanitation for everyone.

Key Issues

Slow progress in ensuring access to clean water

Although the World Health Organisation (WHO) and UNICEF (United Nations Children's Fund) have established a Joint Monitoring Programme for Water Supply and Sanitation (JMP) monitors progress towards the Millennium Development Goal (MDG) target to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation, it faces challenges in monitoring the access to safe and cleaned water. Its reports have found that since 1990, the use of surface water sources as a source of water has decreased significantly and accounts for only a small proportion of drinking water sources in most regions. For example, only 2% of the rural population in Southern Asia and 5% of the rural population in South-Eastern Asia use surface water sources. However, in contrast, in Sub-Saharan Africa 20% of rural dwellers still rely on surface water sources – often contaminated with water borne diseases such as cholera. The further eradication of dracunculiasis or Guinea worm, a disease spread through the use of contaminated water, is also a priority. Symptoms include secondary bacterial infections and can cause permanent disability if joints are infected and become locked.

Overall however, since the year 1990 the Sub-Saharan Africa has significantly increased, from 49% to 60%, reaching 126 million additional people in urban and 111 million in rural areas. At the same time, the number of people in rural areas relying on surface water declined by 22 million from 34% in 1990 to 20% in 2008 but this is still a concerning figure in relation to the rest of the world.

Faulty utilities

Across rural Sub-Saharan Africa, an average of 36% of hand pumps is non-operational at any given time, and in some countries, it is estimated that more than 60% of hand pumps are non-operational. The reasons for such low levels of rural water supply sustainability are multifaceted and include limited demand, lack of affordability or acceptability among communities, limited sustainability of community management structures, inadequate supply chains for equipment and spare parts, insufficient government support, and environmental issues .

Social

disparities in Sub-Saharan Africa

Perhaps another issue that can be considered an underlying cause to the lack of improvement in solving the region's poverty crisis as well as the security of clean and safe drinking water arises from the growing gap between the rich and the poor. Urban-rural disparities in access to improved drinking-water sources are large – with 86 per cent coverage in urban areas, compared to just 42 per cent in the countryside. These disparities are greatest in Ethiopia, with 81 per cent coverage in urban areas and 11 per cent coverage in rural areas.

The richest 20% in Sub-Saharan African countries are over twice as likely to use an improved drinking water source as the poorest 20% (UNICEF 2010)[1]. For example, in much of sub-Saharan Africa, higher-income households with the connections to utilities such as running water exploit the gains from water, which are sold at prices below the level needed to cover operations and maintenance costs.

High cost of water provision

Throughout the Sub-Saharan African region, there are areas where water and sanitation services are more easily accessible than others. This can be due to geography, climate and the economic and political history of the individual countries. However, in poor and conflict-prone areas, water services are meager and most areas have no infrastructure at all. Small-scale providers, whom operate independent from the government, supply an approximate of 50% of the urban population in the Sub-Saharan African region. This leads to high prices per unit of water and poor water quality of which are an inherent barrier to the

provision of safe drinking water.

Major Parties Involved and Their Views

National Efforts

Ghana

Although Ghana is abundant in terms of its natural resources, many of its people are unemployed or live in poverty. This is because its access to basic services is often inadequate, affecting people's health and preventing them from escaping poverty. 3.5 million people in Ghana lack access to an improved water source. With the help of WaterAid (an NGO) Water, sanitation and hygiene education projects are currently being carried out in six out of ten of the country's regions, helping the country to improve its access to water and sanitation for Ghana's poorest people. Community-led solutions and systems are also being put in place to help empower local communities and people so that the importance of helping themselves escape poverty is clear.

Tanzania

The government of Tanzania had a major sector reform process since 2002, guided by the National Water Policy in 2002. The policy aims to achieve sustainable development through efficient utilization of water resources and increasing availability of water services. As part of its reform, the government of Tanzania further reached to the Ministry of Education and Vocational Training for school sanitation and hygiene education. Since the beginning of the program in Tanzanian schools, its efforts on the local scale have shown promising results including less absenteeism due to diarrhea.

Cote d' Ivoire

A national water fund (Fond National de l'Hydraulique, or FNH) was established to support major public investment. A new tariff policy was also implemented with a single nationwide tariff, which allowed for cross subsidization, allowing for cheaper water. The subsidy for the household connections comes from surtax on water bills administered by a public-sector fund. This internal cross-subsidy avoids dependence on external funding

sources, and can be maintained in the long term. Although there were other countries in the West African region, which were nationalizing their water utilities, Côte d'Ivoire granted SODECI (a private Ivorian company) a nation wide contract giving it responsibility for operating the water supply systems in the country. The reform led to major advances in the water sector nationwide. The private operator achieved reasonable levels of operational efficiency.

Ethiopia

Ethiopia is another country especially in need of clean drinking water. The state has a population estimate of 82 million. 42% percent of the population has access to an improved water supply and only 11% have access to clean sanitation. The lack of water contributes to a high infant mortality rate (77/1,100 live births) [2], health problems, as well as a lack of education. Women and children are burdened with the task to get water, sometimes walking up to six hours to collect water from unprotected pools of water that might be contaminated.

Kenya

In Turkana, Kenya's largest region, people there regularly experience drought-related emergencies. Less than half of its population, of who are mostly nomadic herders and small-scale farmers, have source of water nearby. Typically, most of the people people have to travel almost an hour to find hand-dug well, usually of the basic sort and are often contaminated. Thus, making water-related diseases relatively common - including killer illnesses such as cholera and diarrhea. Although the Kenyan authorities recognize the problems related to a lack of clean and safe drinking water, the authorities don't have the money to improve the situation. With NGO's like OXFAM who work in countries like Kenya, they are able to build new, environmentally-sustainable water points, which will be managed and maintained by local people - especially women. Additionally, replacing existing inefficient or expensive diesel-powered pumps with durable, cost-effective modern versions. This can allow for increased supplies of clean and safe water on average at least 20 liters of water a day per person. This will enable the country to cut down the number of people as well as animals contracting water-borne diseases and infections. Along with this scheme, OXFAM also educates community members to become trained village pump mechanics who will help maintain the water pump in order to ensure clean and safe access to drinking water.

International institutional arrangements and efforts

The United Nations continuously supports and promotes countries to ensure that its citizens have access to clean and safe water.

European Union

The European Union is a large benefactor of development programs for the sanitation of water. An example includes the ACP-EU Water Facility, which is a developmental cooperation between the European Union and the countries of the African, Caribbean, and Pacific Group of States (ACP) to tackle poverty by boosting local economies and strengthening governance. The Commission finances most of its development programmes for African, Caribbean and Pacific (ACP) partner countries through the European Development Fund (EDF). An allocation of €200 Million from the 10th European Development Fund (EDF) has been allocated to the Water Facility, increased by € 12 Million contribution made from the Spanish government. Approximately 14.5 million people have benefited from access to safe water made under the previous Water Facility. The ACP-EU Water Facility was set up in 2004 with the principal objective of providing water and basic sanitation to the poor and improving water management and governance in African, Caribbean and Pacific countries. Under the 9th European Development Fund, € 497 million was allocated to the ACP-EU Water Facility.

United Nations and other organizations

UN Water facilitates the World Water Assessment Programme. They monitor the world's water resources and provide recommendations on prospective actions that can be carried to take to tackle the issue of ensuring people around the world with clean and safe drinking water. It also publishes a World Water Development Report (WWDR) the latest being the one published in 2012 [3]; every three years, which: monitors changes in the issue and tracks progress towards achieving targets.

WHO and UNICEF have created the Joint Monitoring Programme (JMP) on Water Supply and Sanitation, which provides regular global reports on water and sanitation. . The

JMP publishes a report every two years, which presents an update on the progress made towards reaching the MDG target for drinking water and sanitation. The JMP analysis focuses on two proxy indicators, one for drinking water supply and one for sanitation. Although it monitors the progress made on access to clean water, it is complementary to that of other monitoring mechanisms for water and sanitation, such as the UN-Water Global Annual Assessment of Sanitation and Drinking Water (GLAAS) and the Millennium Development Goals Country Status Overviews (MDGCSOs). The monitoring programme also provides global, regional and national statistics on populations' use of improved drinking water sources.

UNICEF is also currently promoting an additional target alongside those of the MDGs, which is to ensure that all schools have adequate child- friendly water and sanitation facilities, along with hygiene-education programmes.

Timeline of Relevant Resolutions, Treaties and Events

| Date | Description of Event |
|-------------|---|
| 1939 – 1945 | (World War II): water quality in various nations in Sub-Saharan Africa is severely impacted by agricultural and industrial chemicals. |
| 1997: | The first World Water Forum was held in Marrakech, Morocco |
| 2000 | The goal to "Halve, by 2015, the proportion of people without sustainable access to safe water and basic sanitation." was made. |
| 2002 | The United Nations proclaimed the Right to Water, which is said to be "indispensable for leading a life in human dignity" and "a prerequisite for the realization of other human rights." |
| 2003 | UN water is established |

Evaluation of Previous Attempts to Resolve the Issue

There are several areas where additional work needs to be done if the MDGs for water and sanitation are to be met by 2015 because currently, it is an unrealistic situation for all countries in

the Sub Saharan Region to complete MDG Goal seven. An estimated additional investment of US\$ 11.3 billion per year is still needed to achieve the target at the global basic level.

Possible Solutions

The provision of community education needs to be enforced in order to raise public awareness. This shouldn't be in only one specific region, namely the Sub-Saharan African region but rather on a global scale. Educational campaigns when conducted with the partnership of local governments and community groups can help reduce the incidence of diarrhea through the means of educating mothers to wash their hands with soap after changing diapers. Progress should be made on the issue of open defecation through imposition of laws banning open defecations as well as implementations of basic hygiene practices in schools and educations, and through such reforms, no individual should practice it post 2014.

For the year 2020, it is predicted that the majority of rural dwellers (an estimated 57%) will collect their drinking water from community sources such as boreholes, tubewells, protected springs and protected wells. Out of the commonly used technologies, only boreholes and tubewells appear to be more resilient to most climate changes. In rural Sub-Saharan Africa, 32% of people who use an improved drinking water source rely on boreholes or tubewells, most of which are equipped with hand pumps.

However a different approach to development would be to improve the physical infrastructure of the rural regions. Improved communication methods, buildings and road networks can allow for a better and more cohesive exchange of knowledge and information between the rural and urban environments as well as the delivery of supplies or migration of villagers; should the need apply.

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