

Back to the Basics: Clean Water Needs in Africa

Kristen A Holt

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George Mason University

Abstract

Almost a billion people on this planet live without clean water. In Africa, two out of five people do not have access to clean water. This paper dives into the problems facing the African water crisis, the consequent issues that occur along-side this need, and the programs that are currently working towards leveling this inequality. The majority of the research for this paper came from internet resources, specifically the WHO/UNICEF Joint Monitoring Program, which gathers data from multiple localized sources and combines them to create a complete statistical-analysis on the need for water in under-developed countries around the world.

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Introduction

Unsafe water is the leading cause of sickness and death, with 3.41 million people dying each year from water, sanitation, and hygiene-related causes. It is estimated that nearly ten percent of the global disease burden could be reduced through improved water supply, sanitation, hygiene, and water resource management. Lack of access to safe water is a logistics, funding, and efficiency issue that should be addressed with a stronger focus on sanitation, overall health, and the well-being of these impoverished communities.

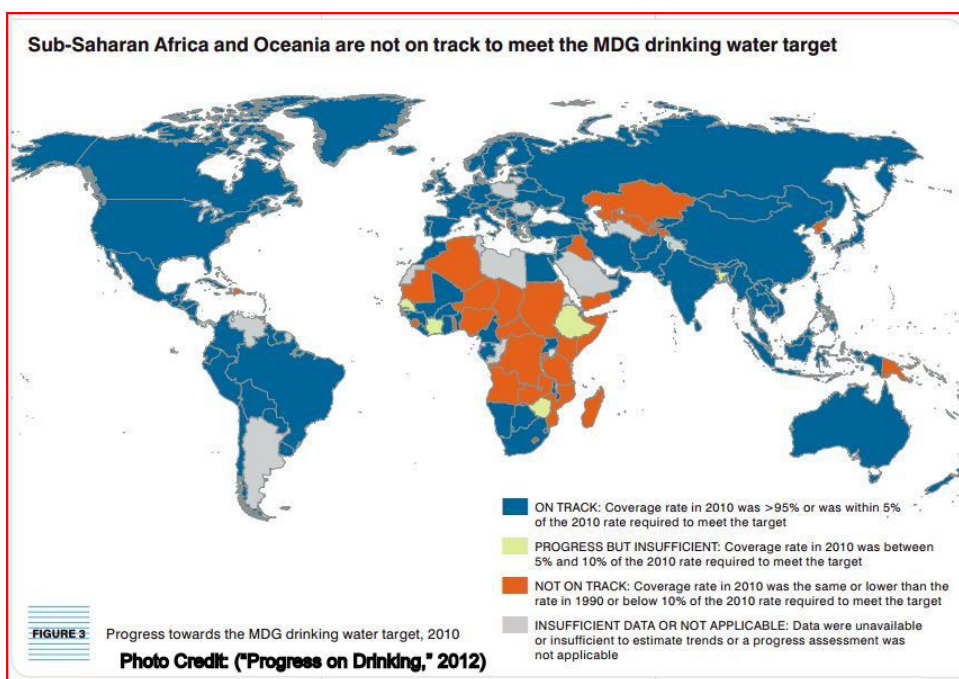
Methodology

In 1977, the United Nations ‘Water Conference’ set up the International Drinking water decade, which was aiming to make access to clean drinking water available across the world from 1981-1990. This first water decade saw water brought to over 1.2 billion people and sanitation improvements to 770 million, but many of these countries were unable to keep up with the need (Srinivas). At the end of this decade, the World Health Organization (WHO) and the United Nations Children Fund (UNICEF) established a Joint Monitoring Program for Water Supply and Sanitation, or the JMP. Their mission statement declares that “The overall aim of the JMP is to report globally on the status of water supply and sanitation sector, and to support countries in improving their monitoring performance to enable better planning and management at the country level.” The JMP reports every two years on progress towards the access to drinking water, sanitation, and related targets under Millennium Development Goal 7. Their reports are based on data gathered from individual

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household surveys and censuses, and include recent and older data sets that they have acquired over the years ("Progress on Drinking," 2012).

According to the WHO/UNICEF Joint Monitoring Program, "Access to safe water is measured by the proportion of the population with *access* to an *adequate amount* of *safe* drinking water located within a *convenient distance* from the user's dwelling." The words that are italicized are defined individually at the country level, and "access" is interpreted as



actual use by the population ("Access to safe,"). The 2012 JMP report found that the Millennium Development Goal drinking water target, which halves the proportion of the total population without

sustainable access to safe drinking water between the years 1990 and 2015, was in fact met in 2010, which is five years ahead of schedule. Despite this agreeable news, much of the world still lacks safe drinking water, and is very unlikely to meet the MDG sanitation target, which is just, if not more important. Over 780 million people are still without access to improved drinking water sources, and 2.5 billion lack improved sanitation. According to the trends formulated from previous reports, these numbers will remain high through 2015: a

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projected 605 million without improved drinking water sources and 2.4 billion still lacking access to improved sanitation ("Progress on Drinking," 2012).

Case Studies

A study by A. O. Nyong and P.S. Kanaroglou on the Sahel region of northeastern Nigeria found that the Katarko village relies entirely on natural sources of water such as rainfall and groundwater, based on data over an eight-month period. Most of these households were found to prefer poor quality water that is found closer to their homes than traveling long distances and spending extra time at the water sources to obtain good quality water. This poor water quality and unhygienic sanitation contributed to the high incidence of diarrhea and other illnesses in the village (Nyong & Kanaroglou, 1999). This study shows exactly why developing countries need to have close, hygienic water sources for the towns and villages to use on a regular basis. With an approved drinking water source close to the families, overall health would be improved immediately. Also, since the majority of the burden of hauling water falls on the women and children in the villages, who on average have to walk almost four miles to retrieve the water, they would have significantly more time to spend on education, parenting, and other important facets of life that are often overlooked.

According to the JMP, an improved drinking water source is “One that, by the nature of its construction, adequately protects the source from outside contamination, particularly fecal matter. An improved sanitation facility is one that hygienically separates human excreta from human contact” (Progress on Drinking, 2012). One program that is working to solve this water crisis is Water.org, a non-profit organization co-founded by Matt Damon and Gary White. Water.org has transformed hundreds of communities in Africa, South Asia, and

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Central America by providing safe water and sanitation. They work with local partners to deliver innovative solutions for long-term success. Water.org believes that the people in developing countries know best how to solve this water crisis, so they forge partnerships with indigenous organizations that are part of the local culture. Because of this, the solutions are tailored to the needs of each community, instead of a complicated technological fix that the community cannot maintain. Since Water.org projects involve locally available technology, the materials needed are readily available, and therefore projects can quickly and easily be created and repaired. Water.org also holds intensive training seminars throughout the project explaining the link between health and hygiene. Being able to link sanitation with common health concerns increases the community commitment and involvement, and therefore the health benefits of the newly improved water systems.

For example, Water.org recently completed the task of bringing pour-flush toilets to the Ndeeba Catholic Church in Rubaga, Uganda. Prior to this, the community had been using polythene bags as toilets and throwing the waste into open drainage channels. The community has now embraced these pour flush toilets as the solution to the sanitation problem that had been greatly affecting them, and feel a responsibility towards the upkeep of the new sanitation standards. They instituted a user committee which comprised of three community users and four local leaders, and have executed proper operations and maintenance of the new facilities. This simple solution managed to almost completely remove the environmental and health hazards associated with improper waste removal in the town of Rubaga ("Water.org : The," 2013).

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According to a 2004 World Health Organization study that evaluated the costs and benefits of water and sanitation at a global level, achieving the MDG target for water and sanitation would also produce considerable economic benefits. According to their study, in developing regions every US \$1 invested in water and sanitation yields an economic return anywhere from \$5 to \$28. Therefore, achieving the MDG target, using the basic standards of service and technology, would require an estimated additional investment of about \$11.3 billion per year, resulting in an annual economic benefit of \$84 billion. They also stated that the failure to adequately invest in the water and sanitation target would cost \$84 billion each year in lost lives, economic productivity, educational opportunities, and healthcare. For example, Africa loses 5% of its GDP and 12% of its healthcare budget annually as a result of death and illness easily attributed to poor sanitation and unsafe drinking water ("The economic case,").

Conclusion

The prospective advances from an investment in water and sanitation are undeniable. Healthy living conditions go beyond the immediate humanitarian and health benefits; water and sanitation investments are a positive economic contribution. Nearly ten percent of the entire global disease burden could be reduced through improved water supply, sanitation, hygiene, and water resource management. This lack of access to safe water is a logistics, funding, and efficiency issue that should be addressed with a stronger focus on sanitation, overall health, and the well-being of impoverished communities. The continued struggle for these developing countries should no longer include a basic sanitation need: clean water.

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