

Water Poverty in Rural Ethiopia: Effects on Women, Health and the Poverty Cycle

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Abstract

Millions of people suffer from water poverty worldwide. Specifically, the rural regions of Ethiopia are plagued by the lack of access to adequate water sources. Ethiopia's arid climate is especially unforgiving to the women whose primary role is to collect water from distant sources. Among their other responsibilities, water retrieval inflicts the highest level of stress upon a woman, physically and psychosocially. The task of water collection has been gender specific to Ethiopian women for generations and their time spent traveling to and from water sources implies significant opportunity costs. While access to water in these rural communities has improved, there is a continuous need for the development and modernization of water retrieval methods.

I. Introduction

Drought continually plagues Africa's arid environment. In particular, Ethiopia's diverse topography influences the average rainfall within various regions. Some areas in Ethiopia receive a meager 250 mm or less of annual rainfall.¹ But the land is not the only thing that is thirsty. More than half of Ethiopia's 85 million people lack access to safe drinking water. While many Ethiopians face a daily burden of acquiring safe water, people in industrialized countries take for granted their accessibility to safe water.

Each year, 40 billion hours are devoted to securing water in Sub-Saharan Africa.² Women in Africa and Asia walk an average of 6 kilometers (3.7 miles) to a fresh water source.³ The time-consuming pursuit for water diminishes a woman's opportunity to an education and to earn an income. Distance to fresh water therefore binds these women to their gender roles within the household, inhibiting them from stimulating economic growth.

In this article, the advantages and disadvantages of water resource development are reviewed based on (1) a brief literature review that emphasizes the urgency to provide affordable access to fresh

¹ Unites States Department of Agriculture (2003).

² Ray (2007), p. 428.

³ United Nations Human Rights, UN-HABITAT, and World Health Organization (WHO) (2010).

drinking water; (2) an empirical background section which includes a brief history of Ethiopia and its government, trends in population growth, and economic and social development; (3) a discussion section which further evaluates Ethiopia's state of water poverty, the obstacles it places on economic growth, and its influence on gender roles and negative effects on health. The article shows that increasing access to fresh water will provide health benefits for the whole country, create new opportunities to women, help tackle the distance barrier to water, and facilitate the empowerment of Ethiopians by reforming their economic geography.

II. Brief Literature Review

Ethiopia is one of many developing countries in the world that faces an ongoing battle with water scarcity. On average, a human should consume 1.9 liters (about half a gallon) of water each day to satisfy the basic physiological need for hydration. The following recent publications provide many details on the negative implications that the distance to safe water has on women and economic development.

- Guy Howard and Jamie Bartram (2003) discuss the links between hydration, food preparation and basic hygiene. This article provides a detailed study of a human's basic needs and the importance of domestic water supplies in leading a healthy, productive lifestyle. Howard and Bartram highlight that distance is the key factor negatively contributing to the battle against water poverty. The study concludes by noting the outcomes of granting basic access to water on a community's health, literacy rates and socio-economic status.
- Isha Ray (2007) wrote an article titled "Women, Water and Development." The article details the obligations of women in developing countries. Ray highlights the central role of a woman in her household: A woman is responsible for retrieving sufficient water supply for the family, and in some cases, enough for personal agricultural plots and livestock. The author cites the Global Water Partnership's four principles on water resource management as: holistic, participatory, equity/gender and economic-based, while emphasizing the role of water as a dominant economic good. The author also provides details on the definition of "access" to water as 1 kilometer or closer from the home to the source. According to this, Ray concludes that nearly 60% of Africans lack such "access." In addition, the article outlines the positive correlation between a low Gender Development Index (GDI) and the failures in providing access to safe water.
- The Economist Intelligence Unit (EIU) (2008) published a *Country Briefing* titled "Ethiopia Economy: Water Fall?" which provides statistics that identify water as a key economic indicator in Ethiopia's agrarian-based economy. The article reveals that inaccessibility to water and severe drought restrains the quality of life of its citizens, consequently placing hardship on the Ethiopian economy. Ethiopia has the potential to be one of the fastest growing economies in Africa, yet its productivity is dependent upon an uncontrollable force: weather. When water levels fall short, the agriculture-based economy and ultimately human life are negatively affected.
- The multifaceted topic of water poverty in Ethiopia is brilliantly discussed by Stevenson et al. (2012) in a medical study entitled "Water Insecurity in 3 Dimensions: An Anthropological Perspective on Water and Women's Psychosocial Distress in Ethiopia". The authors analyze the pressures placed upon Ethiopian women over time due to the arduous task of transporting their family's daily water supply. The scholars outline the dimensions of water insecurity as:

adequacy, access and lifestyle. Their research based on rural communities in Ethiopia's South Gondar zone of Amhara indicates the elevated levels of psychosocial distress that gathering water day after day has on female citizens. The scholars conclude their article with explanations on how global health disparity and water scarcity work in tandem.

III. Empirical Background

III.1. Ethiopian History and Government

Ethiopia is the oldest independent nation in Africa. Located in the Horn of Africa, Ethiopia has sufficient natural resources including gold, copper, platinum and unexploited natural gas. In 1974, there was a period of civil unrest and a socialist military-based committee called the “*Derg*” assumed power over Ethiopian territory. Lieutenant Colonel Mengistu Haile Mariam was the head chairman and operated his totalitarian-style government with extreme militarization. Influenced by the Soviet Union and other socialist countries, the *Derg* executed suspected traitors of government during a period called “The Red Terror.” Once the *Derg* collapsed, Ethiopia experienced devastating drought and famine. Ultimately, the Federal Democratic Republic of Ethiopia was established in 1995, which marked a positive and critical moment for the future of Ethiopia.⁴

III.2. Ethiopia's Economy

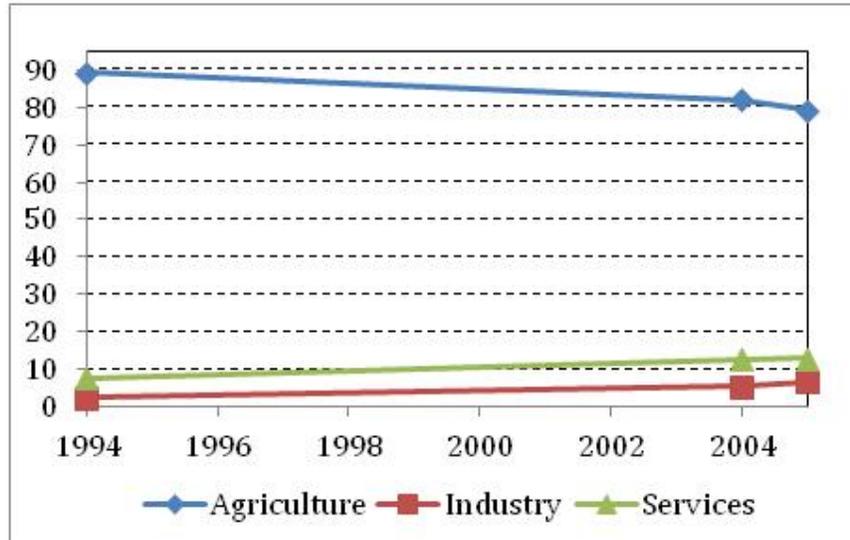
The Ethiopian economy is agriculturally based; agriculture accounts for 40 percent of the country's GDP. Coffee is Ethiopia's largest export. Agriculture employed nearly 90 percent of the working population in 1994. By 2005, employment in agriculture decreased to 79 percent of the working population as some new jobs were found in industrial and services sectors (see Figure 1). Employment in the industry sector is however still very marginal (far less than 10 percent of total employment).

Figure 2 shows Ethiopia's and Sub-Saharan Africa's Gross Domestic Product (GDP) per capita in constant 2005 international dollars over the last three decades. It can be inferred that the economy of Ethiopia as well as of Sub-Saharan Africa (SSA) stagnated until the early 2000s, with lots of instability. During 1981-2010, Ethiopia reached its lowest level of GDP per capita in 1992, with a GDP per capita of only \$432 (in constant 2005 international dollars). In 1992, Ethiopia's GDP per capita was 23 percent lower than it was in 1983. SSA reached its lowest level of GDP per capita during 1981-2010 in 1994 (with constant 2005 international dollar of 1,486), which was 15 percent lower than it was in 1981. GDP per capita only started to increase significantly since the early-2000s. By 2010, Ethiopia reached a GDP per capita of \$934 (in constant 2005 international dollars), while SSA reached a GDP per capita of \$2,025 (in constant 2005 international dollars).⁵

⁴ Federal Democratic of Ethiopia (2003).

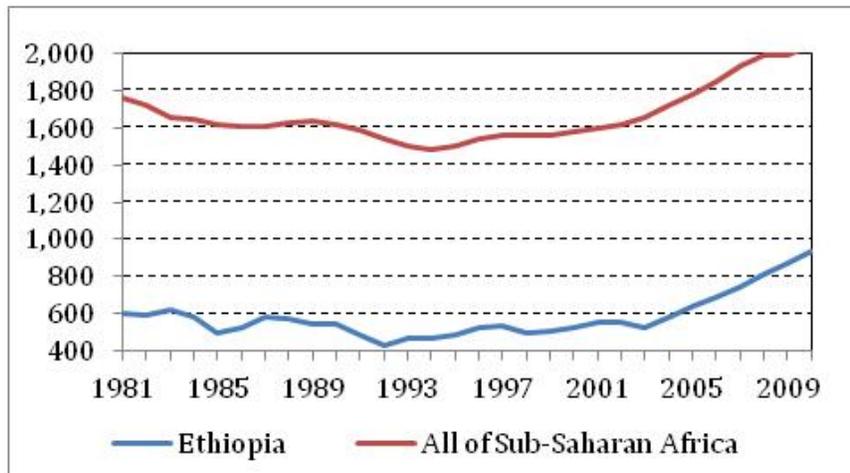
⁵ Calculations by the author based on World Bank (2012).

Figure 1: Sectoral Employment (in percent) in Ethiopia, 1994-2005



Source: Created by author based on World Bank (2012).

Figure 2: GDP per capita, PPP (in constant 2005 international \$), 1981-2010

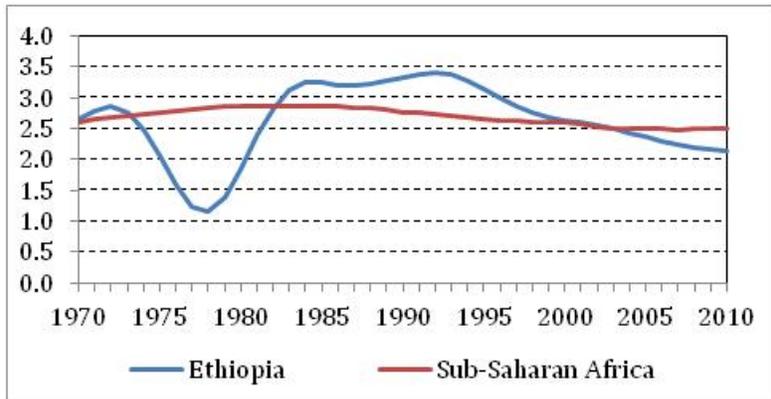


Source: Created by author based on World Bank (2012).

III.3. A Diverse People with a Means for Social Development

Ethiopia has an extremely diverse population. This country is home to 80 different ethnic groups, seven different languages and its most populous city is its capital, Addis Ababa with 2.3 million people. In terms of population growth, Ethiopia witnessed a sharp increase from the mid-1970s until 1985. Meanwhile, SSA's annual population growth remained relatively stable at about 2.5 percent.

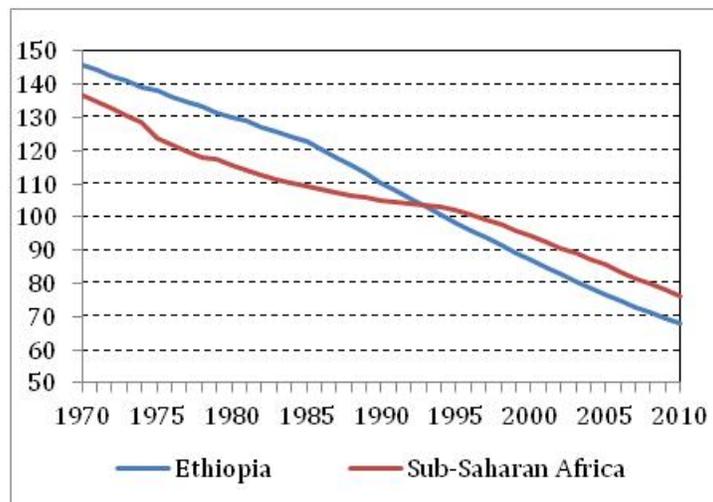
Figure 3: Population Growth (in percent), 1970-2010



Source: Created by author based on World Bank (2012).

In 1978, the United States contributed \$282 million in military support and \$366 million to assist Ethiopia in its agriculture, education, public health and transportation sectors.⁶ Statistics indicate positive transformations in the public health sector after these foreign aid investments. In 1965 (which is the earliest year for which there is reliable data), Ethiopia’s infant mortality rate stood at 153 deaths per 1,000 live births, but it then decreased to 67.8 by 2010 (see Figure 4).⁷ The maternal mortality rate shows similar trends, see Figure 5. When comparing progress in reducing infant and maternal mortality rates of Ethiopia and Sub-Saharan Africa (SSA), Ethiopia surpasses SSA. While these figures are encouraging, the key to prolonged success in the health sector is to continue efforts toward enhancing sanitation and water accessibility.

Figure 4: Infant Mortality Rate (per 1,000 live births), 1970-2010

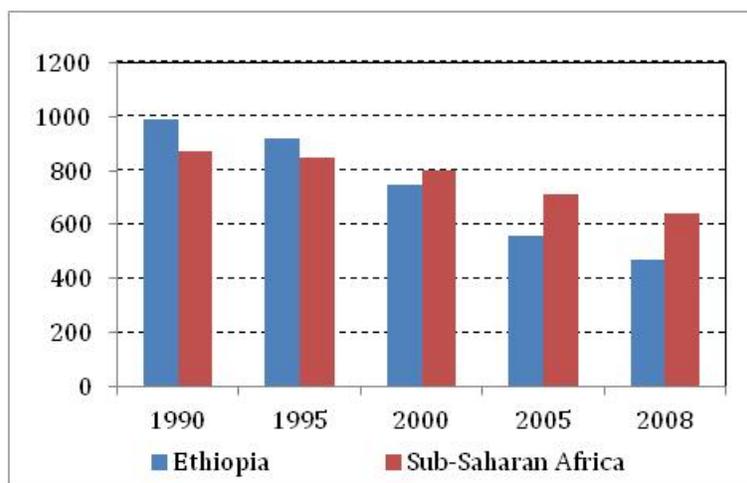


Source: Created by author based on World Bank (2012).

⁶ Federal Democratic Republic of Ethiopia (2003).

⁷ World Bank (2012).

Figure 5: Maternal Mortality Ratio (modeled estimate, per 100,000 live births), 1990-2008



Source: Created by author based on World Bank (2012).

IV. Discussion

Unsafe water is responsible for 80 percent of all sickness in the world. Safe water supply and adequate sanitation to protect health are among the most basic human rights.⁸ The following discussion will analyze the repercussions of water insecurity on a localized scale as we examine rural Ethiopia and the stresses that water inaccessibility places on the general population's health (women in particular), and how water poverty affects local Ethiopian economies.

IV.1. Water and Sanitation Statistics

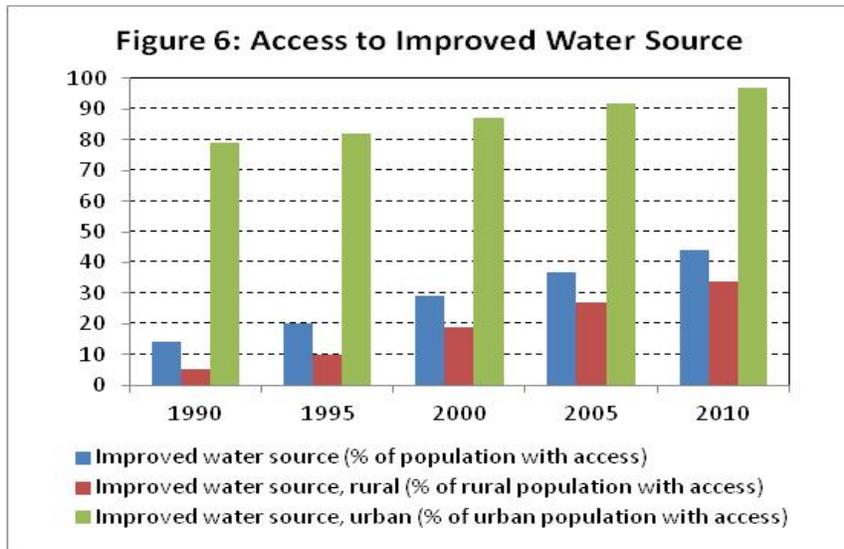
Worldwide, 884 million people drink water from unclean sources, which is responsible for high mortality in some developing countries.⁹ In fact, water-borne diseases kill 3.4 million people each year.¹⁰ These numbers could easily be reduced if actions were taken to increase water accessibility and provide individuals sanitation. In order to understand Ethiopia's rank on the water and sanitation deficiency scales, we first analyze statistics relative to these topics and the region.

Figure 6 shows the access rates to safe water for the whole of Ethiopia as well as disaggregated for the urban and rural areas from 1990-2010. Despite huge differences in access rates to safe water between urban and rural populations, Figure 6 shows that considerable progress that has been made in Ethiopia during the last 20 years. In 1990, only 5 percent of the rural population had access to safe water. By 2010, that percentage has increased to 34 percent. For the urban population, the access rates have increased from 79 percent in 1990 to 97 percent in 2010. Taking into account that most of Ethiopia's population live in rural areas, the national average of access to safe water increased from 14 percent in 1990 to 44 percent in 2010.

⁸ United Nations Human Rights, UN-HABITAT, and World Health Organization (WHO) (2010).

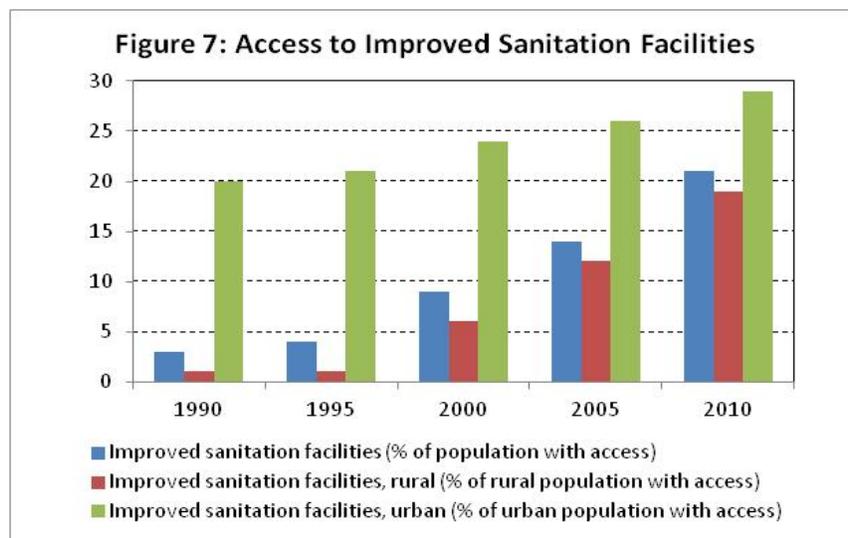
⁹ Stevenson (2012), p. 392.

¹⁰ Women's Environment and Development Organization (2003), p. 1.



Source: Created by author based on World Bank (2012).

Figure 7 shows the access rates to improved sanitation facilities for the whole of Ethiopia as well as disaggregated for the urban and rural areas from 1990-2010. Like for access to safe water, despite huge differences in access rates to improved sanitation facilities between urban and rural populations, Figure 7 shows that considerable progress that has been made in Ethiopia during the last 20 years. In 1990, only 1 percent of the rural population had access to improved sanitation facilities. By 2010, that percentage has increased to 19 percent. For the urban population, the access rates have increased from 20 percent in 1990 to 29 percent in 2010. The national average of access to improved sanitation facilities increased from 3 percent in 1990 to 21 percent in 2010.



Source: Created by author based on World Bank (2012).

These positive developments in water and sanitation had a variety of very positive impacts in Ethiopia. For example, in 2000, 37.9 percent of Ethiopian children under five were receiving treatment for diarrhea via oral rehydration and continued feeding. However, by 2005, this heartbreaking percentage fell to 15 percent.¹¹ Nonetheless, continual efforts must be made to provide Ethiopians with safe, accessible water and basic sanitation.

Water insecurity can be defined as “insufficient and uncertain access to adequate water for an active and healthy lifestyle.”¹² Without access to water, an individual who is already fiscally poor could additionally suffer from poor health. Table 1 defines the levels of water poverty as “optimal, intermediate, and basic or no access” to a water source. This table emphasizes that people living in “no access” regions are likely to have poor health. Due to the distance to a source, the volume of water an individual can carry back to their household is limited. Therefore, one must ration out their water, rarely having enough for personal hygiene purposes and which usually has poor drinking quality.

Table 1: Service level descriptors of water in relation to hygiene

Service level description	Distance/time measure	Likely quantities collected	Level of health concern
No access	More than 1000m or 30 minutes total collection time.	Very low (often less than 5 l/c/d).	Very high as hygiene not assured and consumption needs may be at risk. Quality difficult to assure; emphasis on effective use and water handling hygiene.
Basic access	Between 100 and 1000m (5 to 30 minutes total collection time).	Low. Average is unlikely to exceed 20 l/c/d; laundry and/or bathing may occur at water source with additional volumes of water.	Medium. Not all requirements may be met. Quality difficult to assure.
Intermediate access	On-plot, (e.g. single tap in house or yard).	Medium, likely to be around 50 l/c/d, higher volumes unlikely as energy/time requirements still significant.	Low. Most basic hygiene and consumption needs met. Bathing and laundry possible on-site, which may increase frequency of laundering. Issues of effective use still important. Quality more readily assured.
Optimal access	Water is piped into the home through multiple taps.	Varies significantly but likely above 100 l/c/d and may be up to 300l/c/d.	Very low. All uses can be met, quality readily assured..

Source: Howard and Bartram (2003), Table 6, p. 22.

IV.2. Women and the Binding Barriers of Distance to Water

An article titled “Women, Water and Development” by Isha Ray (2007) defines “access” to water as the distance from the home to the source being 1 kilometer (=0.6 miles) or closer. The author concludes that nearly 60 percent of Africans lack such “access.” The 2009 World Development Report on “Reshaping Economic Geography” emphasizes this theme of “distance” as one of its

¹¹ World Bank (2012).

three dimensions of economic geography. The negative effects of the “distance” variable are witnessed at the local level when analyzing the distance to a safe water source from a rural Ethiopian home or village. “Water access in Ethiopia is strongly influenced by place of residence, with an estimated 81% of urban but only 11% of rural households having access to improved water sources.”¹²

In a study titled “Water Insecurity in 3 dimensions: An anthropological perspective on water and women’s psychosocial distress in Ethiopia” Edward G. J. Stevenson et al. (2012) highlight the impacts of rural Ethiopia’s water access issues on women. Their study was based in the rural region of Amhara, Ethiopia and emphasizes the implications of the distance variable on women. In some areas of Ethiopia like Amhara, the distance that a woman travels to water sources is dependent upon the season. According to a poll of 325 women across five Amharan provinces (see Figure 8), 8 percent travel more than 60 minutes to a rainy season water source. During dry seasons however, the women travel additional miles to water, which takes more time out of their day. 15 percent say they travel more than 60 minutes to their primary dry season water source. Keep in mind, additional “queuing time” is spent waiting in line at each source to physically fetch the water.¹⁶ This time spent commuting to and from the water source had negative health effects not only bodily effects but in mind and spirit.

Figure 8: Ethiopia and its 9 Regional States

(Afar, Amhara, Benishangul/Gumuz, Harari, Oromia, Somali, Tigray, and the Southern Nations, Nationalities and People's Regional State (SNNPS))



Source: <http://www.ethiopia.gov.et/English/Information/Pages/RegionalStates.aspx>.

The Earth is our home, and as living things we are all entitled to our human right to water. The following excerpt from a National Geographic article, titled “The Burden of Thirst” (Rosenberg, 2010, first paragraph), lends the perspective of a young Ethiopian woman named Aylito Binayo and her daily water-related struggles.

¹² Stevenson (2012), p. 392.

Aylito Binayo's feet know the mountain. Even at four in the morning she can run down the rocks to the river by starlight alone and climb the steep mountain back up to her village with 50 pounds of water on her back. She has made this journey three times a day for nearly all her 25 years. So has every other woman in her village of Foro, in the Konso district of southwestern Ethiopia. Binayo dropped out of school when she was eight years old, in part because she had to help her mother fetch water from the Toiro River. The water is dirty and unsafe to drink; every year that the ongoing drought continues, the once mighty river grows more exhausted. But it is the only water Foro has ever had.

Stevenson and his researchers utilized quantitative and qualitative methods of study to gain numerical perspective on water scarcity in the South Gondar region of rural Ethiopia. In a study of 70 Amharan women, 18.5 percent admitted they have kept a girl home from school to assist with water collection. Similarly, Aylito was denied the ability to go to school due to responsibilities to her mother and the household. However, the distance barrier is only so strong and will not stop a human from satisfying their physiological need for water—no matter how strenuous the journey is to a source. With increased accessibility to water, it would take each woman less retrieval time and suffer fewer opportunity costs. As a result, these women would not take away something almost as valuable as quenching their thirst—a young girl's education.

Being in a state of water poverty bears negative implications upon women in regions suffering from drought or those left vulnerable to the distance barrier. Ethiopian gender roles obligate women to accomplish time-consuming chores that support the household. This female responsibility to collect water “inhibits women's and girl's involvement in other activities such as education, income generation, cultural and political involvement and rest and recreation.”¹³

Stevenson et al. (2012) quantify that the responsibility of water collection gives Amharan women a surprising sense of entitlement. To these women, water collection is one of the few activities that do not require consulting the head of the household. Conversely, when making other decisions such as budgeting income or visiting a medical clinic, 60-80 percent of the women reported that their husbands were solely responsible.¹⁴ The duty of water collection and distribution defines these women, however they are proud to complete the task no matter how arduous. Reportedly, when a woman finishes her chores thoroughly in communities within the Amharan region—particularly water retrieval—they earn high levels of respect and are characterized as quality wives or mothers.¹⁸

There is an unexpected gratification that Ethiopian women gain from the dependence others have on them for water.¹⁵ Encouraging projects that establish more accessible water sources help develop a Westernized view within the communities. These women have so much potential in life, yet the majority of their time on Earth is constrained to fetching water. Being in a state of water poverty inhibits young girls who must help draw water instead of continue their education—and education is only one of the many negative factors and contributions to the poverty cycle. What these women do not see is that their time spent collecting water is undermining the development of their female world.

¹³ Women's Environment and Development Organization (2003), p. 2.

¹⁴ Stevenson (2012), pp. 3-4.

¹⁵ Ray (2007), p. 422.

IV.3. Negative Implications of Distance on the Health of Women and Others

Global health disparity and water scarcity work in tandem. The dimensions of water insecurity as defined by Stevenson et al. (2012) include adequacy, access and lifestyle. A woman's health is hindered without suitable access to water and sanitation.¹⁶ Stevenson's study uncovered that an individual's lack of access to water results in much more than physical health concerns, but reaches a social dimension. Stevenson's studies in Amhara indicate the high levels of psychosocial distress, not to mention physical ailments that afflict these women.

Ethiopian women endure their journey to water sources no matter the distance, season or time commitment. A startling 62 percent of the Amharan women interviewed admit to using unprotected water sources for drinking during the rainy seasons, and 64 percent confess to taking this health risk in the dry seasons.¹⁷ Illnesses contracted from drinking impure water include diarrhea, malaria, schistosomiasis, arsenic poisoning, trachoma, and hepatitis.²⁰ Imagine the sickness that can be avoided as long as a more pure water source is established.

Aside from water-borne diseases, the task of collecting water can have negative effects as well. Stevenson's study of water insecurity in Amhara, Ethiopia indicates elevated levels of psychosocial distress that gathering water day after day has on female citizens.²¹ "In villages with taps, daily water collection has been reduced to less than 30 minutes, and the time thus freed is generally spent resting and sleeping."¹⁸ The Qoma province of Amhara has the most constrained access to water and 44 percent of women claim they travel 60 minutes or more to a water source. Stevenson et al. (2012) found that the women here ranked water-related stress as their highest source of anxiety above sickness, food shortage and even death.

IV.4. Negative Implications of Distance on Economy

Analyzing water poverty in Ethiopia exposes the obstacles that distance burdens upon economic growth. Day to day life for women in rural Ethiopia and numerous other water scarce places on Earth is entirely consumed with collecting water. Take a moment to estimate how one woman could contribute to the economic productivity of their household if the majority of their time did not revolve around water. Be sure to account for the travel time to and from a source, as well as time purifying that water.¹⁹ If the hours an Ethiopian woman spent collecting water were used for the production of goods and services, local and national economies would encounter noticeable growth.

Burdened with a long journey to a reliable water source to provide for their families, women are unable to become productive, contributive members of society. Nearly 40 billion hours per year are spent collecting water in Sub-Saharan Africa, equivalent to an entire year of labor in the French workforce.²⁰ Economic opportunity costs are endured daily due to distance and the time and effort devoted to water collection limits income-generating opportunities.

Regardless of what could become of the rural Ethiopian economy with increased accessibility to water, the women there are still accountable for providing water for their thirsty families, washing clothes and maintaining their household. Ethiopian women (and women worldwide) usually run

¹⁶ Women's Environment and Development Organization (2003), p. 1.

¹⁷ Stevenson (2012), p. 396.

¹⁸ Gibson and Mace (2002), p. 631.

¹⁹ Women's Environment and Development Organization (2003), p. 4.

²⁰ Ray (2007), p. 422.

the “care economy” of their household, e.g., they are engaged in the preparation of food and other products for local markets.²³ With responsibilities like these, Ethiopian women demonstrated extreme levels of commitment, revealing their capability to find ways that minimize the time they devote to water collection.

As pointed out by Ray (2007), supported by the World Bank and the United Nations Development Program (UNDP), the development of successive generations of hand pumps evolved to the point where it was simple enough that rural women readily undertook the installation and maintenance of the pumps. “Installing and taking care of the pumps gave women much-appreciated control over both water and technology.”²¹ Furthermore, hand pumps (like the Afridev Pump) allowed women to maintain their traditional role of water collection with easier access to a cleaner source. No longer confined to the previously unproductive means of water collection, they became part of something technologically important and beneficial to their community in terms of improving health, gender roles and the economy. Hence, Ray (2007) claims that women can be recognized as key participants in efforts to alleviate poverty and achieve social transformation.

IV.5. Progress and Future Promise

Slowly but surely, intervention projects have provided rural Ethiopia with increased water access. According to New Business Ethiopia (2012), as of a 2010, the Government’s *Growth and Transformation Plan of Ethiopia* helped increase water supply coverage to 91.5 percent in urban areas and 62 percent in rural areas.²² These promising statistics were made possible by the Ethiopian government’s proactive “Universal Access Plan II” to provide 98.5 percent of its citizens with access to safe water.

With the promise of government commitment, Ethiopia’s water scarcity issues would be resolved over time. It is the labor saving technologies like the Afridev Pump that according to Gibson and Mace (2002) serve one purpose: to introduce savings in the time and energy that women allocate to water collection to work. These technologies are what will reform the water-collection methods of rural Ethiopia. A study of the Arsi province in Southern Ethiopia by Gibson and Mace (2002) highlights the positive impacts of labor-saving technologies in rural Africa. Gibson and Mace’s studies quantify the advantages that water access technology can have on a community. Their case study centers on the efforts of the Hitosa Gravity Water Supply Scheme, initiated in 1996, to reduce women’s physical strains and time commitments of collecting water through installing village water taps. By reducing their long and arduous trips, the community noticed considerable improvements in women’s energy budgets. The case study in Arsi is an indication that the water-scarce regions of Ethiopia can develop more efficient plans for providing water access.

V. Conclusion

Today, water insecurity continues to plague millions of people worldwide. A water source is insecure if it contains inadequate or unsafe water. Ethiopia is one of many water-scarce countries in Sub-Saharan Africa with 30 percent of the population lacking access to safe drinking water. In the rural village of Qoma, Ethiopia, 98 percent use unprotected water, taking an immense health risk with each sip. While progress has been made in granting access to water and providing sanitation in both rural and urban areas of Ethiopia, rural communities remain significantly behind.

²¹ Ray (2007), p. 430.

²² The progress reported for the rural population is considerably above that of the World Bank (2012).

In rural Ethiopia, women suffer the brunt of their inconvenient water situation because many of them have to travel miles to reach a safe water source. Often times, they make this journey carrying loads of water equivalent to their body mass. It is the distance barrier to a water source that is responsible for binding Ethiopian women to their domestic gender roles, while they have potential to accomplish so much more in life. These women also endure negative psychosocial effects as their family's water-collector.

Aside from the social and health-related implications of distance to water sources on rural Ethiopian women, there are economic implications as well. If a woman's efforts in water collection were converted into compensated labor, local productivity rates would rise, influencing GDP and income per capita. This lack of access to water due to the distance barrier of economic geography negatively affects various aspects of life of an Ethiopian woman.

Rural Ethiopian communities must establish goals towards modernizing their methods of water collection; otherwise they will be forever bound to their gender role of water retrieval. According to Howard and Bartram (2003), the outcomes of granting basic access to water affect a community's health, literacy rates and socio-economic status. It takes time and patience for an initiative like the Arsi Province's Hitosa Scheme to make a difference in a given community, but these positive results are well worth the wait. With government commitment and the participation of rural Ethiopian communities, the cycle of water poverty can be eradicated and positive improvements made in the lives of women bound to water-collection.

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