Global Majority E-Journal

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Cover Design
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ISSN 2157-1252

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Global Majority E-Journal

Volume 4, Number 1 (June 2013)

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Making the Rice Bowl Bigger: Agricultural Output and Rural Poverty in Thailand

Lila Rieber

Abstract
This article examines agricultural output and rural poverty in Thailand, a transforming economy in which agriculture plays a shrinking but still important role. It analyzes the effectiveness of strategies to reduce poverty and increase output, while noting that these can exacerbate inequality. These strategies range from investing in human development, to agricultural research and development, to financial and trade policies. Strategies to minimize inequality without stifling growth are briefly covered. Also considered is the future of the Green Revolution: how can Thailand maintain technological progress and increases in total factor productivity while minimizing degradation of the environment?

I. Introduction
Thailand has experienced high GDP growth in the past several decades, changing from a low-income to middle-income country. This has been accompanied by an increase in agricultural output, which is both a cause and effect of GDP growth. Though agriculture has declined in relative importance in the economy, it remains an important means of reducing rural poverty, which is still a problem in Thailand. Income inequality means that though the incidence of poverty has decreased, the severity has increased at least in relative terms.

This paper examines strategies to increase agricultural growth in Thailand, with a specific focus on rural poverty reduction. These include investment in agricultural research and development, investment in machinery and other agricultural capital, increased cultivation of land, sustainable irrigation, and investment in human capital. Wise macroeconomic policies are important as well, though their effects can be complex. This paper also looks at other strategies for reducing rural poverty, including migration and a shift of employment to non-agricultural activities. In addition, the growing issue of environmental degradation is examined.
II. Brief Literature Review

There are various publications that have focused on examining Thai agriculture within the last 15 years, including among others Coxhead and Plangpraphan (1998), Krasachat (1999), Mundlak, Larson and Butzer (2004), and most recently, Suphannachart and Warr (2011).

Coxhead and Plangpraphan (1998) describe the changes in agriculture in the 1970s-1990s in Thailand. This was a period of remarkable economic growth and investment, but agriculture did not share in most of these gains and declined as a fraction of GDP. The authors emphasize that a decrease in the importance of agriculture is typical for countries experiencing fast growth and industrialization and is not a problem per se. However, they argue that helping the agricultural sector has implications for poverty reduction. For example, if migrant workers returned to rural areas from the cities, it could help alleviate urban unemployment. Yet workers are reluctant to return to rural areas because of the increased mechanization of agriculture. If agriculture were more significant in the economy, it could provide a “safety net” for economic slowdowns. The authors also model investment in agriculture and show that it largely depends on non-agricultural factors. For example, it decreases with increased investment in other sectors of the economy.

Krasachat (1999) showed that the growth in Thai agriculture in the 1960s-1990s was due to increases in cultivated land through deforestation but that this was unsustainable. Though economies of scale exist for all periods between 1972 and 1994, the coefficient of returns to scale has decreased. He states that there is still room for growth through increasing cultivated land but that technical advances will play a greater role in the future. In the past technical progress was low because of government policies such as tariffs and price controls. There was negative technical progress between 1972 and 1977. Technical progress in the following periods was positive but low.

Mundlak, Larson and Butzer (2004) argue that, while total factor productivity (TFP) was important in increasing Thai agricultural output during the Green Revolution of the 1960s and 1970s when technology was improving rapidly, today the major limitations in output growth are the availability of capital and land. They favor public investment in infrastructure and capital, as well as the relaxation of rules governing capital markets. According to their estimates, accumulations in capital, land, labor, and other factors accounted for 73 percent of agricultural output growth in Thailand between 1981 and 1995. They predict that major changes in technology will be less important in driving output growth. Instead, reducing constraints to the spread of available technology will be important in growth.

Suphannachart and Warr (2011) show that public investment in agricultural research and development (R&D) is effective in increasing agricultural productivity in Thailand by increasing TFP. The rate of return to investment was estimated to be 30 percent higher than that of a typical public investment. Part of this is due to a lack of private investment in agricultural science because of the challenge in profiting from it. Thus they recommend increasing investment in R&D and improved collaboration between domestic and foreign research agencies to improve productivity and thus output growth.

III. Empirical Background

In the 1970s, the Green Revolution brought improvements in agricultural technology to the developing world, leading to great increases in agricultural productivity. In Thailand one of the most important changes was the introduction of modern varieties of rice. There was also a rise of
labor-saving technology: power tillers were introduced in the 1960s, mechanical threshers in the 1970s, and labor-reducing methods of planting in the 1980s. Between 1987 and 1998, total labor in most regions declined by half or more (Isvilanonda, Ahmad and Hossain, 2000). Agricultural growth increased in this time.

At the same time, the economy as a whole was booming, with an average GDP growth rate of 8.5 percent between 1970 and 1995 (World Bank, 2012). Thailand’s transition from a low- to middle-income country is a regional success story: the Philippines, for example, experienced little more than half this growth in the same time period. Though there were many factors in Thailand’s growth, agriculture was particularly important, accounting for over half of total growth between 1961 and 1967 (Mundlak et al., 2004).

As Figure 1 shows, since 1980, Thailand’s GDP per capita in purchasing power parity (PPP) has been significantly higher than the average in East Asia and the Pacific (EAP). Between the late 1980s and 1996, Thailand’s GDP per capita increased at a faster rate than the EAP average. There was a slight dip coinciding with the financial crisis of 1997, but growth recovered in 1999. GDP per capita has continued increasing since then, albeit at a lower rate.

**Figure 1: GDP per capita in Thailand and EAP, 1980-2010**

![GDP per capita graph](image)

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

In 1980, life expectancy in Thailand was 65 years, approximately the same as the average in EAP. However, it then increased dramatically during the economic boom of the 1980s, before leveling off and falling slightly in the early 1990s (see Figure 2). Life expectancy in the late 1980s significantly exceeded the average in the region, but the gap has narrowed since then.
Figure 2: Life Expectancy at Birth in Thailand and EAP, 1980-2010

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

Figure 3 shows GDP growth and the contribution of agriculture to GDP between 1960 and 2010. Between 1960 and 1985 growth was volatile, fluctuating between about 5 and 10 percent and averaging 7.1 percent. In 1986 the country began experiencing a boom due to increased foreign direct investment as part of the “Asian economic miracle”. Growth peaked at 15.7 percent in 1987 and remained relatively high, until a financial crisis in 1997 plunged the country into a deep recession, with growth of -10.5 percent in that year. However, growth quickly recovered in the following year and remained moderately high during the 2000s, though with a mild recession due to the 2008 world economic slowdown.

The contribution of agriculture to GDP declined swiftly and steadily between 1960 and 1994 as the country became more industrialized. The decline leveled off in 1994 as the Asian miracle began to fall apart and the growth rate dropped. This suggests that the agricultural sector was not affected to the same degree by the crisis, as most of the capital had flowed to the industrial sector. In recent years agriculture has started to rise slightly as a percentage of GDP. In 2010, agriculture represented 12 percent of the Thai economy.

The number of rural poor has declined in Thailand. Between 1987 and 1998, poverty declined from 52.0 percent to 40.4 percent of the rural population. However, the intensity of poverty has increased, as measured by the poverty gap index and the squared poverty gap index (Isvilanonda, Ahmad and Hossain, 2000).
IV. Discussion

IV.1. Inequality in a Transforming Country

The 2008 World Development Report (WDR) describes the role of agriculture in three types of countries: agriculture-based, transforming, and urbanized. Thailand is best classified as a transforming country, one in which agriculture no longer represents a large portion of economic growth, but most of the poor live in rural areas. In 2010, 10.4 percent of the rural population was below the poverty line, compared to 3 percent of the urban population.

Inequality is common in transforming economies, particularly between rural and urban areas. Inequality increased between the 1980s and 1990s (Isvilanonda, Ahmad and Hossain, 2000), though it has since decreased. Thailand’s Gini concentration coefficient was 40.0 in 2008, which is still relatively high for East Asia. The WDR’s policy recommendations focus on providing pathways out of poverty for the rural population, while avoiding subsidies. They propose that transforming countries should facilitate migration to urban areas while also encouraging the expansion of industry to rural areas, as China has done. This appears to be happening in Thailand: non-farm activities (including labor, construction, and service industries) accounted for 34.3 percent of rural income in 1998.

Even those who do not work in these industries directly are affected, as remittances from family members represent a rising share of rural income. Remittances have a strong negative correlation (-0.46) with rural poverty. However, the rise of non-farm employment has not been evenly distributed in rural areas. Non-farm employment accounted for 30 percent of total inequality in 1998 (Isvilanonda, Ahmad and Hossain, 2000).
For the population that remains in farming, the WDR recommends a shift to high-value crops. Again, this is in progress in Thailand. Non-rice crops (including water chestnuts, vegetables, mulberry trees, soybeans, and sugarcane) have increased as a share of income. In 1987 they represented 20.5 percent of rural income. By 1998 that had increased to 34.5 percent. However, the rise in these profitable crops has contributed to regional inequality. Shortages of water in the northeast region mean that farmers cannot devote much land to high-value crops. Non-rice crops are more common in the central plains. High-value crops contribute the most to inequality, accounting for about half of total inequality in 1998 (Isvilanonda, Ahmad and Hossain, 2000).

IV.2. Factors Affecting Agricultural Output Growth and Rural Poverty

Agricultural growth is key to reducing poverty in developing countries. Chien, Sukprasert and Thaipakdee (2011) tested whether agricultural growth led to overall economic growth, or vice versa. They found that there is a virtuous cycle between agriculture and GDP, with each contributing to the other. The impact of agriculture on economic growth is 0.142, and the impact of economic growth on agriculture is about ten times higher.

Several papers have analyzed the impact of different variables on agricultural output growth. One that has been the subject of much focus is total factor productivity (TFP). Particularly during the Green Revolution, increases in TFP were important as technology improved. Suphannachart and Warr (2011) emphasize the importance of TFP in minimizing environmental impacts and making good use of scarce natural resources. They found that TFP accounted for 20.74 percent of crop output growth between 1971 and 2006. However, they do not show how TFP has changed as a share of output over time. As Mundlak et al. (2004) argue, TFP was more important in the 1960s and 1970s when high-yielding varieties of crops were first introduced. In more recent decades, capital and inputs such as fertilizer have been the main limiting factors in agricultural output growth. They find that TFP accounted for 34 percent of growth between 1961 and 1980, and 27 percent of growth between 1981 and 1995. The growth of TFP has been slowing: from 1.27 percent annually between 1971 and 1981, to 0.87 percent annually between 1981 and 1995.

The slowdown in TFP progress suggests an opportunity for increased investment in agricultural research and development. Suphannachart and Warr (2011) analyze the impact of these investments and finds that they are cost-effective. The marginal internal rate of return is found to be 29.5 percent, better than that of most public spending. In the short run, TFP increases by 0.16 percent for every 1 percent increase in agricultural research spending. In the long run, the increase is 0.07 percent, an effect that is lasting. In addition to domestic research, foreign research produces long-term increases in TFP. The authors recommend increasing cooperation between Thai and foreign agricultural research, which is currently minimal.

Several other variables also affect TFP growth. State variables, including capital availability and product demand, affect technology implementation. They accounted for 89 percent of TFP between 1981 and 1995 (Mundlak et al., 2004). As discussed below, capital also influences output growth directly. The effect of market forces on productivity and output is demonstrated by the increase in TFP associated with an agricultural commodity boom (Suphannachart and Warr, 2011). However, the elasticity of agricultural output with prices is small: 0.034 (Mundlak et al., 2004). Another important state variable is infrastructure (Suphannachart and Warr, 2011; Mundlak et al., 2004). The adoption of modern varieties of rice provides an example of how resource availability affects technology implementation. Though modern varieties have a
moderate impact on poverty, with a correlation of -0.45, their spread has been constrained by lack of irrigation (Isvilanonda, Ahmad and Hossain, 2000). Limitations on land have also been a constraint on the spread of new technology (Mundlak et al., 2004). Mundlak et al. (2004) recommend investments in infrastructure and liberalizing capital markets to increase the availability of technology. However, Suphannachart and Warr (2011) find no evidence that trade openness has a statistically significant effect on TFP.

Capital accumulation accounted for 73 percent of output growth between 1981 and 1995, an increase from the previous decade. The marginal rate of return for capital is 20 percent, and the elasticity is 0.415 (Mundlak et al., 2004). However, the correlation between household non-land assets and rural poverty is weak, with a regression coefficient of -0.036 (Isvilanonda, Ahmad and Hossain, 2000).

Land is another important factor in growth, but quality is at least as important as quantity. Irrigated land is more than twice as productive as rain-fed land (Mundlak et al., 2004). Owning land per se is not correlated with a reduction in poverty, but irrigation has a strong negative correlation with poverty (-0.70) (Isvilanonda, Ahmad and Hossain, 2000). However, it appears that the marginal value of irrigated land on output is less than that of rain-fed land, because the elasticity is lower (0.132 compared to 0.248) (Mundlak et al., 2004).

Labor has declined in importance in agriculture with the rise of labor-saving techniques. Though modern varieties of rice are more labor-intensive, mechanization has more than made up for their increase in demand for labor. In addition, new planting techniques saved labor (Isvilanonda, Ahmad and Hossain, 2000). Between 1970 and 1995, demand for labor grew more slowly than output did. The elasticity of labor is fairly low: 0.144 (Mundlak et al., 2004).

IV.3. Macroeconomic Factors

Macroeconomic policies, including financial, trade, and monetary policy, can significantly affect agriculture. In most cases, macroeconomic instability is predicted to decrease production. For example, the effect of inflation on production is negative. In Thailand, inflation has a particularly strong effect, with an elasticity of -0.323, compared to -0.104 in the Philippines (Mundlak et al., 2004).

The effects of financial instability, particularly exchange rate volatility, on agricultural markets are less clear. On the one hand, if producers are neutral or positive toward risk, then changes in the exchange rate can have a positive effect on exports, because they can wait for favorable terms of trade to sell their products. On the other hand, many agricultural products are perishable, so producers are risk-averse. Thus, May (2010) concludes that it seems more likely that exchange rate volatility would decrease agricultural exports. May (2010) models the effects of exchange rate volatility on exports of five important agricultural commodities: maize, rice, rubber, sugar, and tapioca. As predicted, fluctuations in exchange rates decreased export volume and value. This was shown to be due to a shift to selling in the domestic market rather than international markets, not because of an overall decrease in productivity. Exporters are thus hurt more by exchange rate volatility. If the rural poor own small farms that mainly produce for domestic markets, they will not be significantly affected by exchange rate volatility.

One of the major policy decisions for developing countries is whether to have a floating or fixed exchange rate. An exchange rate pegged to that of a trading partner can provide more stability but only if the business cycles of the countries are in sync. Otherwise, significant imbalances can
result. In addition, fixed exchange rates are vulnerable to speculation, as demonstrated by the 1997 Thai financial crisis, which forced the country to switch from a fixed to floating exchange rate. However, floating exchange rates are often more volatile, due to political pressures and bad monetary policy. Because agriculture is a risk-averse industry, a fixed exchange rate seems to provide the greatest benefit.

Another macroeconomic variable with complex effects is global food prices. Though increases in food prices may be expected to help farmers, especially given that Thailand is a net food exporter, they can also harm poor consumers, who tend to spend a large portion of their budget on food. The effects on household expenditures are even more complicated than they appear at first glance, because demand and prices for other consumer goods shift with changes in food prices. The effects on profits are also complex and can vary between industries. Increases in food prices are assumed to cause greater agricultural output, which leads to higher demand for unskilled labor, increasing input costs for other industries (Warr, 2008). However, Mundlak et al. (2004) find that the elasticity of agricultural output with prices is low (0.034).

Between 2003 and 2008, both nominal and real prices increased for several agricultural commodities and inputs. The real prices of major Thai agricultural exports (rice, sugar, and cassava) increased by 62-212 percent. For Thai imports (maize, soybeans, wheat, petroleum, and urea), the increase was even greater, ranging from 124-316 percent. The rise in export prices increased GDP and total household consumption in all three cases but also increased the poverty incidence. This is shown to be because the rise in prices hurts households. Though farm owners benefit from the increased returns to land, farm workers, small business owners, and all other rural and urban groups are harmed, so the net effect is negative.

It was estimated that the 211 percent rise in rice prices led to an increase in poverty from 13.7 percent of the total population to 14.1 percent, or 240,000 people. As expected, increases in import prices also increase poverty. The increase in the prices of maize, soybeans, and wheat increases household expenses, while the increase in the price of agricultural inputs, urea and petroleum, decreases profit for farmers. However, the effect size for crops other than rice is not as large, because they are not as nationally important. In total, price increases increased poverty incidence by 0.68 percent of the population (Warr, 2008). Because rises in global food prices have been common in recent years, it is important for the Thai government to recognize the negative effects this has on the poor. The fact that Thailand is a net food exporter is no reason for complacency.

IV.4. Environmental Degradation

Many of the technologies of the Green Revolution, though beneficial to production, result in environmental degradation. These include pesticides, fertilizers, and mechanization, which decrease soil quality and biodiversity and result in contamination of food and water. Between 1963 and 2003, the percentage of farmers using only chemical fertilizers increased from 8 percent to 35 percent. Meanwhile, the percentage of farmers using only organic fertilizers decreased from 26 percent to 7 percent. Between 1978 and 2003, the percentage of farmers using chemical pesticides increased from 45 percent to 74 percent (Jiang et al., 2007). Though agricultural output increased between the 1960s and 1980s, this was due to an increase in cultivated land, not intensification. In fact, crop yields per unit of land began to decrease in the early 1980s because of a decline in soil quality (Phantumvanit and Sathirathai, 1988).
Another important form of environmental degradation has been deforestation, which has been a problem throughout the twentieth century. Between 1961 and 1986, the percentage of forested land in Thailand declined from 53 percent to 19 percent. About 80 percent of this was due to the conversion of forestland to farmland (Phantumvanit and Sathirathai, 1988). The percentage of forested land continued to decline dramatically between 1990 and 2005, though it has recovered somewhat since then (Fig. 4).

![Figure 4: Forested land area in Thailand (as percent of total land), 1990-2010](image)

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

Thai environmental policy has been improving in recent years. In the Ninth National Development Plan in place between 2002 and 2006, the government emphasized sustainable agriculture. One example of a success story has been the introduction of fruit trees, vegetables, and flowers to local farmers. The diversity of species grown by farmers has greatly increased, and farming is now less dependent on rice. This not only improves the health of the land but also decreases risk to farmers (Jiang et al., 2007). Also, as noted above, non-rice crops are often more valuable and can reduce poverty. On the other hand, high-value crops such as vegetables, herbs, flowers, ornamental plants, and orchard trees use the most fertilizer per unit area (Jiang et al., 2007).

However, this may be outweighed by their higher value. According to very rough calculations\(^1\), one dollar of rice requires 0.11 kilograms of pesticide. A dollar of lettuce, a common crop in Thailand, requires 0.06 kilograms of pesticide. Thus some high-value crops may be more efficient, though more detailed calculations are needed. Fertilizer use per unit land area decreases consistently with farm size (Jiang et al., 2007). It is unclear why this is the case. It may be that

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larger farms take advantage of economies of scale, but it is also possible that larger farms grow different crops. To decrease the impact of chemical pesticides and fertilizers, Jiang et al. (2007) recommends a switch to more disease- and insect-resistant crops that do not require as much fertilizer. This is perhaps a role for genetically modified (GM) crops. They also recommend soil improvement and crop rotation to lessen land degradation.

One opportunity to promote sustainable agricultural practices is strengthening property rights. Without formal ownership of land, farmers do not have incentive to invest in their current farmland. Instead, they continually abandon land and cultivate new land through deforestation. They also may be unable to properly invest in their land because they cannot take out loans to purchase fertilizer and other resources, due to lack of collateral (Phantumvanit and Sathirathai, 1988). There is empirical evidence that ownership of land leads to more sustainable practices, because farmers have more interest in long-term benefits. There is a negative correlation between land ownership and chemical fertilizer use (Jiang et al., 2007).

Though proper incentives can help improve environmental quality, due to the externalities involved in land degradation, Jiang et al. (2007) recommend that the Thai government and NGOs should subsidize sustainable land management. For example, this can be done by offering subsidized credit to farmers practicing sustainable techniques, as well as tax reductions and credits for inputs in sustainable techniques. In addition, improved infrastructure, communication, and training can promote the spread of sustainable practices.

V. Conclusion

Thailand is in many ways a typical transforming economy. It has made the transition from a low-to middle-income country and is now in the process of industrialization. Agriculture has declined in importance and today only contributes 12 percent to GDP. However, it can still be an important driver of GDP growth and reducing rural poverty.

This paper has demonstrated the tradeoffs that exist in agricultural policy. First, what is good for output growth may not be good for the poor. This is demonstrated by the rise in global food prices, which benefits agricultural producers but is shown to increase poverty on net, because consumers must spend more of their budget. Even in a country that is a net food exporter, rising food prices are a concern. Second, what is good for some of the poor may not be good for inequality. Non-farm jobs are an important path out of poverty for many, but their benefits have been unequally distributed and have led to a rise in inequality. High-value crops are also an important source of income but have mainly benefited certain regions. Inequality is a particular concern in transforming economies, so it is important to design policies that minimize it. Third, what is good for agricultural output and the rural poor in the short term may not be good for the environment. The Green Revolution was powered by technologies such as chemical fertilizer and pesticide that can harm the environment. These may decrease the productivity of land in the long term.

Fortunately, certain policies address multiple issues. For example, it is possible to help both the environment and the rural poor by strengthening property rights, which gives farmers incentives to invest in their current land instead of cultivating new land. Targeted subsidies can also help the rural poor, while encouraging responsible environmental practices. Thailand has been a success story, and with the right policies it can achieve sustainable prosperity.
References


Gender Discrimination: A Problem Stunting Honduras’ Entire Economy

Rachel Lomot

Abstract
Honduras is a developing country located in Central America that has been notorious for its maltreatment of women and the prevalence of sex and labor trafficking. However, in the last decade many laws have been put in place by the Honduran government to provide rights and protection to its women. Despite legislation, many women still face daily domestic violence and discrimination in the work place. The country still lives by its machismo values, meaning that it is a male-dominated society. Women are half the population, and thus have the potential to be a huge benefit in the economy. Until women can enter into the workforce the Honduran economy will stay as stunted.

I. Introduction
Honduras is one of the poorest countries in Latin America. According to the Human Development Index (HDI), Honduras is the sixth least developed country in Latin America and the Caribbean (LAC), after Haiti, Nicaragua, Guatemala, Guyana, and Bolivia. There is an unemployment rate of 40.7 percent and 17.9 percent of their population lives on less than $1.25 per day. An often overlooked contribution to these vast problems is gender discrimination.

Honduras is a patriarchal society, especially in rural areas. Men make all of the decisions in the household. The male population chooses when women become pregnant, how many children they have, what their daily chores are, and how far their education goes. This leaves the female population without confidence to take a stand against the many injustices done to them. It also hinders the economy because women are half the population and when they are allowed to enter the economy they often create sustainable jobs and better opportunities for their children.

The patriarchal society, or as called in Honduras, machismo, contributes to many problems. Honduras has become a center for sex trafficking where thousands of women and children are trafficked within the country each year. The government has adopted a number of policy

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1 World Bank (2012).
reforms; however, they are not being implemented well due to the immense amount of organized crime and poverty within Honduras. The deeply rooted cultural system of machismo creates a patriarchal-power dynamic and leaves women behind.

This article argues that gender discrimination in Honduras is hurting the overall economy and keeping Honduras in the developing world. It provides an overview of why gender discrimination is so prevalent in Honduras and why all of the initiatives of the Honduran government have failed because of the ingrained gender roles. Following this introduction, the article is structured into a brief review of the literature, some empirical background, three discussion sections reviewing a) recent trends in fertility and maternal mortality, b) the contribution of Honduran women to the economy, and c) violence against Honduran women. The article closes with some conclusions.

II. Brief Literature Review

In recent years, the issue of gender inequality has become a more pressing issue. Researchers and humanitarians have become intrigued in how the gender gap shapes development issues. There are many studies on this topic; the following ones are some of the most influential ones specifically related to Honduras.

- Carmen Diana Deere, Gina E. Alvarado and Jennifer Twyman (2010) point out various gender gaps in Latin America, focusing on poverty, headship, and asset ownership. They provide a detailed discussion on the gender wealth gap within households. They conclude that the fact that women cannot make money or household decisions leads to a society accepting women’s bodies as things to market.

- In a book entitled “Questioning Empowerment: Working with Women in Honduras”, Jo Rowlands (1997) found that when women are empowered, the entire community becomes empowered. She also concludes that if there was more women empowerment, there would be less human trafficking.

- A book by David E. Guinn and Elissa Steglich (2003) goes into further details regarding the Honduran sex trafficking situation. It gives a detailed description of why sex trafficking happens in the region and why Honduras is such a large epicenter for sex trafficking. It also gives a variety of policy advice and examples. The preface holds a powerful first-hand story of a girl who was sex trafficked but escaped.

- A study entitled “Opening Cracks for the Transgression of Social Boundaries: An Evaluation of the Gender Impacts of Farmer Research Teams in Honduras” by Sally Humphries and Lauren Classen (2012) gives a concrete example of what can be done to empower women and keep them out of the sex trafficking industry. They also review a program, called CIAL (Comite de Investigacion Agricola Local or CIAL), which educated women on agricultural work and taught both men and women about the opportunity they would have if women enter the agricultural sector. The study shows that after increased knowledge and encouragement from their husbands and friends, women in Honduras were able to be productive in agriculture. Once the gender stereotype was broken down, both men and women were more confident and more productive in their work.
III. Empirical Background

The problems Honduran women face with gender discrimination are mirrored by the slow socio-economic advancement of the country as a whole. Honduras is behind the average for Latin America and the Caribbean (LAC) in most areas. This section provides some empirical background by comparing the evolution of Honduras’ GDP per capita, life expectancy and adult literacy rates with that of the average of developing countries in LAC.

Figure 1 shows the evolution of GDP per capita adjusted for differences in purchasing power for Honduras and LAC from 1980 to 2010. During these 30 years, Honduras’ GDP per capita has increased by $699 (or 24.8 percent), while GDP per capita of the average developing country in LAC has increased by $2501 (or 33.5 percent). Figure 1 also shows clearly that Honduras has fallen further behind LAC during the last decade. Several factors have caused the slow growth in Honduras; an often overlooked factor is the lack of women entering the economy.

![Figure 1: Honduras’ GDP per capita Compared to LAC, 1980-2010](image)

Figure 2 shows life expectancy for Honduras and LAC from 1980 to 2010. It shows that Honduras was able to narrow the gap from 4.9 years in 1980 to 1.1 years in 1998, but since then, the gap has been increasing slightly, reaching 1.3 years in 2010.
Figure 2: Honduran Life Expectancy Compared to LAC, 1980-2010

![Life expectancy graph](image)

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

Figure 3 shows that Honduras ranks behind LAC in terms of literacy. Between 2001 and 2010, Honduras saw an increase in literacy rates of less than 5 percentage points. In 2009, the average developing country in LAC had a literacy rate slightly above 91 percent; however, in Honduras, the most current data available (20010) shows that its literacy rate is slightly below 85 percent.

Figure 3: Recent Adult Literacy Rates in Honduras and LAC

![Literacy rate graph](image)

Source: Created by author based on World Bank (2012).
A main factor needed to increase GDP per capita in Honduras is to increase the availability of high-quality education. Thus far, Honduras has not created a good public education system, especially in the more rural areas. Students are forced to walk miles in order to reach their classrooms, which are overcrowded and often undersupplied. Similar to many other countries in LAC, women are not necessarily excluded from education (as male and female school enrollment ratios are basically the same, in Honduras, the female enrollment ratio is actually slightly higher than the male school enrollment ratios), but the quality of Honduras’ education system is very poor.  

IV. Fertility and Maternal Mortality

Like in most developing countries, Honduran women have many children. This comes from either pressure from their husbands and/or the need for old-age social security. As seen in Figure 4, the births per women in Honduras are considerably higher than in LAC, though the difference has narrowed in the last two decades. Many Honduran women do not have access to modern contraceptives, either their husbands do not allow them to use modern contraceptives or they cannot afford them because they are too poor. The abundance of children keeps Honduras in the poverty cycle because poor families cannot afford to care for their children properly.

Figure 4: Fertility Rates in Honduras and LAC, 1980-2010

High fertility rates often coincide with high maternal mortality rates; and this certainly holds true in Honduras. As seen in Figure 5, Honduras has a much higher rate of maternal mortality than

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2 Based on data provided by the World Bank (2012).
the average developing country in LAC, though the difference has narrowed more recently. High maternal mortality leads to a variety of social complications, thus keeping GDP per capita growth low in Honduras.

**Figure 5: Maternal Mortality in Honduras Compared to LAC, 1990-2010**

Maternal mortality is a significant gender issue of this century. In developing countries, women often become pregnant very young and go without adequate healthcare. As seen from Figure 4, Honduras has a high fertility rate, meaning that women are having many children and are more likely to face maternal mortality issues. However, according to a study by Syracuse University Professor Jeremy Shiffman (2007, p. 798) “safe motherhood has become one of the country’s foremost health priorities, and between 1990 and 1997, the country experienced a 40% decline in its maternal mortality ratio.” Although the maternal mortality ratio in Honduras is still significantly higher than Latin America’s average, it is a success story and the Honduran government should follow their policies with maternal mortality in all areas of gender issues.

When international actors interacted with local Honduran officials repeatedly, it made the message clear to the Honduras government that maternal mortality should be put on the agenda. Shiffman (2007, p. 1) states that the “case is revealing because international officials concerned with safe motherhood interacted repeatedly with Honduran health bureaucrats throughout the decade, and because these interactions resulted in successful policy transfer, implementation and
impact.” Gender issues are hard to approach, but with pressure from the international community Honduras can fight these issues.

As documented in Shiffman (2007), in the 1980s, safe motherhood emerged as a national priority after an international conference in Nairobi, Kenya, sponsored by international organizations such as the World Bank, the World Health Organization, the United Nations Population Fund (UNPFA), and the United Nations Development Program (UNDP). After the Nairobi conference, Honduras became extremely involved in stopping maternal mortality. The health minister made various media statements about the critical situation in Honduras and reached out to UNFPA for funding a national program. Furthermore, the United States has been part of an active role in decreasing maternal mortality in Honduras. In 1968, the United States Agency for International Development (USAID) supported a program by the Honduran government which worked to create a project for the health of Honduran mothers and infants. Shiffman (2007), states that between 1990 and 1997, seven new hospitals were opened, 13 birthing centers, 36 medical health centers and 266 rural health centers.

As seen in Figure 5 above, maternal mortality rates have continued to decrease since the 1990s. In 2008, the number of deaths per 100,000 births decreased to 110. From 1990 to 2008 the ratio decreased by about half and is nearly at par of the average developing country in LAC. Although gender inequality is still prevalent in Honduras, the safe motherhood infrastructure created during the 1990s shows that improvements can be made through international pressure and action.

V. Women’s Contribution to the Economy

Women could be a great asset for Honduras and drastically raise their GDP per capita; however, the contemporary living style of Honduras promotes gender roles which do not allow women to enter the main workforce. In Honduran culture, especially in rural areas, women are seen as the workers of the home and are not to get jobs in the cities or work on the farms. There is little paid work available for women, and what is there is restricted to service industry and assembly plant work. Due to this, as seen from Figure 6 below, Honduran women have on average a much lower participation in the work force than Latin American women. Women are often controlled by their husbands, and unless he gives her permission to find a job, she cannot search for a job without fear of domestic violence. If women were given the same freedoms to choose their jobs as men are given, then they would be able to find work in all sectors, not just in the service industry or assembly plants. With women in the workforce the GDP per capita for Honduras would increase drastically.

Rowlands (1997) examines how little work there is for women in Honduras. She states (p. 35) that “paid employment in agriculture for women is not widely available.” Although there are employment opportunities in the urban areas, many women live in the rural areas and cannot access that work. Honduras is an agriculture-based economy, around one half of the 7.5 million Hondurans live in rural areas. The job market is limited when living in a rural area. However, being a woman in rural areas, the job market is almost non-existent.
The limited job market for women leads them to either join informal sectors, such as prostitution, or to confine themselves to their households. Furthermore, due to limited economic opportunities for women in rural areas, many women attempt to search for jobs in the cities and become then victims of human trafficking. A survivor’s story in the book by Guinn and Steglich (2003, p. 4) tells how she was thrown into an unwanted job because she was in the city searching for work: “He deceived me by telling me that I was going to work at a factory where he was working in Guatemala, that it was a maquila and I would be earning well...And he told us that we could come along without a problem, that he would pay for all the expenses.” Unfortunately, this is not an original story. Many young women go to the cities in search of work. In most cases, they are uneducated and do not know the difference between honest and false job offers. The lack of opportunity for women drives them to make these rash decisions and leads to unwanted outcomes, such as trafficking.

The article, *Poverty, Headship, and Gender Inequality in Asset Ownership in Latin America* by Deere, Alvarado and Twyman (2010) also describes how little economic opportunities there are for women. It notes (p. 2) that ‘there is ample evidence that women are generally at a disadvantage in the labor market due to occupational segregation, the characteristics of female employment—such as its more sporadic and part-time nature—and outright discrimination.’ As the article states, this is not because of women lacking ability, but because of static gender roles. Women are seen as below men and incapable of doing jobs other than housework or raising a family.

Similarly, Humphries et al. (2012, p. 2081) state that the “traditional notion of ‘paternity’ or masculinity, is conceived by respondents in biological terms, encompassing the idea that man’s role is that of indisputable family head and responsible—as the material provider—for the
welfare of the family.” When this is the case women are continuously put down by their husbands or other male family members, forcing them to believe their work is not valued, which creates insecurities in the women and keeps them from searching for a job.

A poignant solution to this problem is to promote agricultural education for women. Honduras was part of a program (Comite de Investigacion Agricola Local or CIAL) that gave women the opportunity to work in agriculture. The CIAL program attempted to give women working in rural Honduras more self-confidence through providing them with the basic farming abilities. CIAL was a success. If this program were scaled up, women would not need to venture into the cities for economic opportunities, where they are more likely to be trafficked or led into prostitution. Humphries et al. 2012, p. 2083) came to the conclusion that an “overwhelming theme emerging from the responses was that women are increasingly making more informed decisions to leave the house, participate with local organizations, take on leadership roles in the community, manage household finances and make agricultural decisions.”

Furthermore, CIAL also helped educate men. It taught the husbands of these women that women could do the work, and once the men saw evidence of this, they were more willing to allow women to find agricultural work. One woman’s husband reported: “If the men humiliate the women, the women of the CIAL can defend themselves because they feel important, they feel like persons” (Humphries et al., 2012, p. 2084). With women entering the agriculture work force they will make Honduras more productive and, with the extra money, provide education for their children and thus advance the next generation to higher paying jobs.

As seen in Figure 7 below, when comparing Honduras’ GDP per capita growth from 2000-2010 the data follows overall the same pattern as Honduras’s percentage of female participation in the labor force. The only discrepancy is due to the 2009 world recession, which was too strong to reflect the slight increase in the female labor participation rate. Female labor participation is obviously only one contributing factor to how well Honduras’s economy does, but Figure 7 shows that there is some correlation. With programs to enhance women’s appearance in the labor force (like CIAL) Honduras’s economy has the potential to improve greatly.

**Figure 7: GDP per capita Growth Compared to Female Labor Participation, 2000-2010**

![Graph showing GDP per capita growth compared to female labor participation rate from 2000 to 2010.](image)

Source: Created by author based on World Bank (2012).
VI. Violence against Women

Static gender roles in Honduras have also allowed domestic violence to become prevalent throughout much of the country. Domestic violence keeps women out of the economy through the fear instated in them by their husbands or fathers. When women grow up with violence they accept violence, this creates an environment of low self-confidence and leads them to pursuing violent jobs. There are two main factors which come out of the frequent gender-based violence in Honduras: a large trafficking industry and women’s self-exclusion from the job market due to low self-confidence.

VI.1. Sex Trafficking

Honduras is an epicenter of trafficking in today’s world. Thousands of women are trafficking out of and within Honduras each year. Langberg (2005, p. 133) states that “trafficking in Latin America is fuelled by several factors: poverty, political and social violence, gender attitudes leading to inequalities, and a general indifference toward women, adolescents, and children.” When there is indifference towards women, the traffickers can use them as leverage for money rather than treat them as persons. Dehumanizing a group of people has always been a successful tactic to achieve power. In Honduras there is “social tolerance to sexual abuse, discriminatory stereotypes of women and children victims of sexual exploitation, and a culture that discourages reporting those suspected of trafficking make the crime less visible.”

This social tolerance towards violence creates an environment where trafficking can be done visibly and without punishment.

In Honduras, there is legislation to sentence traffickers to jail, but it is not heavily policed and is often forgotten about. The contemporary social environment keeps the police force from looking into trafficking situations very heavily because they will not trust the young women who tell them the stories. It is very rare that young women tell their stories in the first place. However, unless their stories are told this industry will continue to prosper because the “responsibility for the prosecution rests almost entirely on victims, who are not coming forward with their experiences due to shame, lack of protection, and a lack of confidence in the system.”

Girls feel constricted by the gender roles, they have been taught their entire lives to not speak out and to listen to their male counterparts. Often, girls who are sex trafficked have been abused domestically in the past and believe violence to be normal. Due to cultural factors, this industry is not being taken seriously and victims are staying victims.

VI.2. Women’s Confidence

Domestic violence is correlated to low self-esteem. In Honduras, women experience a significant amount of domestic violence because it is seen as the norm and husbands do not know how to ‘control’ their wives otherwise. Due to this environment, many women do not enter the workforce because they feel they cannot perform adequately.

As Figure 3 shows, Honduras has had a consistent lower rate of women in the labor force than Latin America since 1990. Women have the same ability as men to perform, however the environment created through violence shows otherwise. As reported by Humphries et al. (2012,
one woman that participated in the CIAL program stated: “Before I couldn’t [attend workshops outside the community] because my husband didn’t like it and on top of that there was no opportunity to work with an organization and now yes, because my husband has become aware that I have a lot of capacity”. Without structured education programs, like CIAL, women have no way of understanding that they can do more than work in the house. Due to the social structure of Honduras’s rural environment, staying home is all women know.

Mental health problems are an often side effect from domestic violence, and with the prevalence it has in rural and urban Honduras it is not shocking that many women cannot enter the workforce. Domestic violence puts women down and causes her to lose all appreciation for herself, this often leads to depression. As Campbell (2002, p. 1333) notes: “Depression in battered women has also been associated with other life stressors that often accompany domestic violence, such as childhood abuse, daily stressors, many children, changes in residence, forced sex with an intimate partner, marital separations, negative life events, and child behavior problems.”

A study done in the nearby country of Nicaragua notes that 70 percent of women who report having emotional distress attribute the feeling to intimate partner violence. Emotional stress placed on Honduran women has kept, and will continue to keep women from pursuing careers. Domestic violence is not the only reason women do not enter the workforce, but it is a large contributing factor.

VII. Conclusion

The Honduran government has adopted many laws and regulations regarding gender issues. For example, the Honduran government accepted the United Nations (UN) Charter which abolished all forms of discrimination against women, it instated the Agricultural Modernization Law in 1993, which removed blatant work-related discrimination against women, and in 1989 a National Policy for Women was agreed upon.

However, gender inequality remains a huge problem in Honduras, especially in rural Honduras, because enforcement is low and laws are easily navigated around. Honduras needs a combination of grass-root programs like CIAL. Grass-roots programs can educate women and bring them success in their communities and confidence in their households. Furthermore, as proven by the success Honduras has had with reducing maternal mortality, when the government interacts with the international community they are pressured to accept certain standards.

Discrimination against women contributes to Honduras’s failing and unstable economy. If women were allowed to enter the job market and had safe jobs to apply for, each household could make twice as much and could be twice as productive. Children would be able to be sent to school and each generation’s productivity will increase. However, women are held back. Many of them cannot enter the workforce because of fear of domestic violence. Many times, they also cannot find a job because they lack self-confidence. They do not know how to work efficiently because they have never been trained to work. Women are left behind – and it is hurting the entire economy.

Gender discrimination is the issue of this generation. Countries like Honduras are facing dramatic problems such as poverty, maternal mortality, economic instability, and environmental

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changes. Many have attempted to find solutions for these problems by looking thoroughly at each issue. However, the solution is simple: girls. When girls have the power to make their own choices they send their children to school, work hard at a job and contribute to their community. When the world decides to take a look at the real issue of gender inequality and the deeply rooted social norms that contribute to it, progress will be seen. Honduras is not an exception, when their female population is allowed to prosper they will find economic progress and stability.

References


Poverty and Gender Inequality in Post-War El Salvador

Olivia Bell

Abstract
This article analyzes the rise and fall of poverty and gender discrimination in El Salvador, with a focus on the 1992-present post-war era. Graphs containing official World Bank data on employment rates, school enrollment, poverty headcounts, and GDP growth are provided as both background information and correlating visuals for the discussion topics. The paper explores the ways that trends in poverty and gender inequalities overlap and provides examples as to how the violent civil war left an impact on life in El Salvador. Post-War reforms and programs are studied and conclusions are made as to the most effective ways to reduce and end poverty and gender inequality in El Salvador.

I. Introduction
In the past 20 years, El Salvador has been infamous for war, poverty, and violence. Images of horrible uprisings and innocent deaths splashed across television screens around the world in the 1980s, as one of the bloodiest wars to date raged on in Latin America. The Salvadoran Civil War, lasting from 1980 to 1992, left a deep imprint on El Salvador’s economy and society.

The effects of the end of the civil war are reflected in socio-economic progress made in El Salvador since the war’s conclusion. Violence still remains prevalent in the country, but somehow Salvadorans have managed to slowly improve living conditions by reducing poverty and empowering women. The changes are not monumental, but visible in various social indicators.

Poverty and gender inequality are two of the underlying factors that both contribute to and are products the vicious cycle of violence that El Salvador has suffered from. This article analyzes the trends of poverty and inequality in El Salvador over the years and considers how an end to the violence and corruption can help diminish their presence in the country.
II. Brief Literary Review

Following its twelve-year civil war, El Salvador received worldwide notoriety and attention for a violent and impoverished culture. Consequently, extensive research has been conducted on the country in the years since. The following articles are four of the most comprehensive analyses of the past and current poverty, equality and economic growth in El Salvador.

- In “The Myths of Violence: Gender, Conflict, and Community in El Salvador” author Mo Hume (2008) breaks down the effects of different political and social structures on life in El Salvador following the Salvadoran War. According to Hume, violence in El Salvador remains at a dangerously high in the years since the war has ended. The article exploits an unfortunate paradox of post-war El Salvador: as peace is strived for in the aftermath of war, violence seems to only become more prevalent. This article highlights life histories of men and women in El Salvador who have witnessed violence from an extremely early age and have therefore subconsciously accepted it as a cultural norm. The article explains how the post-war society in El Salvador promotes masculine power and has consequently created a society in which women are the victims of terrible violence.

- The Peace and Conflict Monitor published “Violence and Poverty Entangled in El Salvador” by Paula LeRoy (2012). The article is based off of the author’s extensive research into the post-war economy of El Salvador. LeRoy discusses how the 1992 Peace Accords were meant to fix the damage done by the civil war, but failed to do so for on several levels. Poverty alleviation programs were implemented to shrink the large gap between the country’s social classes, but they could not be properly carried out with the presence of corrupt government officials and violent gangs following the war. In the article, LeRoy addresses the relationship between violence and poverty in modern-day El Salvador using powerful statistics of those suffering from the effects of a life in poverty. Access to clean water, lack of trust in government, and high unemployment are a few of the statistics used to paint a picture of the poverty-stricken society that the vicious cycle of violence and corruption has given El Salvador.

- Kathy Bougher (2003) writes about the misleading educational reforms for the young women of El Salvador. Bougher, a teacher and activist, writes from experience, as she has worked with the Salvadoran feminist group Las Dignas since 1992. The point of her article is to expose the country’s historic concentration of wealth as the underlying cause of poverty. Bougher explains that the Salvadoran Foundation for Business Development (FUSADES) only allot their funds to systems of very high or very low levels of education. This traps many of the young population into only receiving a fourth grade education. Consequently, young girls with this little education are forced to work at foreign-owned export assembly factories, because the lack of funding for secondary education prevents them from continuing their education. The owners of the factories hire young girls and women because they are considered easier to control and less likely to demand a salary that is more than the thirty-three cents an hour that their work is being sold for. Bougher claims these young girls and women often work 50-80 hour weeks, are exposed to toxic substances, and subjected to sexual assaults in the workplace. Bougher argues that gender equality and humanistic education specifically in the isolated rural communities of El Salvador if the country ever hopes to leave poverty behind.
José Silvério Marques (2004) compiled a summary of poverty in El Salvador for the World Bank. Aside from giving an extremely helpful analysis of the standards of living for people in El Salvador, the paper expresses four main points that could potentially lead to an escape from poverty: First, the structural and peace reforms that were put into place in the early 1990s following the civil war did in fact help to reduce the country’s poverty levels. Second, it is highly important to continue these structural reforms, as the levels of poverty and inequality remain high. He says that investments in both education and better economic/political infrastructures are necessary for the eradication of poverty. Third, if these two areas are invested in, income levels for the poor with consequently grow. This is proved by intense analysis of poverty and rural household income growth in El Salvador. Finally, the poorest of the poor must be studied with precise examination, because analysis of income growth in the extremely impoverished shows that these households often face conditions quite different from others.

III. Empirical Background

III.1. Brief Background on the Salvadoran Civil War

Remembered as one of the most bloody and violent wars in history, the Salvadoran Civil War took 75,000 lives between 1980-1992 (Kane, 2002). Many of these casualties were innocent civilians caught up in the conflict between rebel groups and the corrupt government. The corrupt distribution of the country’s wealth by the government did not bid well for a growing population in a country that was already quite poor. However, the unjustness that brought on the war can be traced as far back as the late 1800s, when El Salvador began to make a name for itself as a leader in trade with its coffee production (Kane, 2002).

Coffee was responsible for an enormous portion of El Salvador’s economy, providing for 95 percent of the country’s income. But because this income was only distributed within the wealthiest people of the country, strains between the social classes grew and finally amounted to citizen uprisings against the government in 1932. Government-funded military “death squads” were formed and anyone who seemed to be a part of the uprising was killed. This rebellion marks the beginning of the extreme violence still prevalent in El Salvador today (Kane, 2002).

The struggle between the rich and the poor of El Salvador continued to escalate throughout the 1970s. In 1981, guerilla groups and leftist party members banded together to form the Farabundo Marti National Liberation Front (FMLM) in order to try to fight back against the violence and oppression of the government.1 The war had officially begun.

Throughout the next twelve years there would be constant conflict and uprising. Murder and combat were common on the streets of El Salvador. The military squads instantly killed anyone suspected of participation in dissent to the government and in some cases wiped out entire villages believed to be assisting the guerilla effort (Kane, 2002). The FMLN continued in their quest for justice, refusing to take part in any political election for fear of further corruption and ruining anything that would enhance the economy and therefore reward the government with monetary support. Bridges were blown up, power lines cut, and entire coffee plantations destroyed (Kane, 2002). The government ignored peace talks initiated by the FMLN and their

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1 See Public Broadcasting Service (PBS) (n.d.).
supporters, and the war raged on until 1991 when the United Nations finally intervened with confirmation of extensive human rights violations.²

The Salvadoran Civil War ruined the country’s resource supply and economy. A culture of violence that was nurtured and tolerated during the war still remained in the everyday lives of the people of El Salvador and left a significant and damaging legacy on the country and its people. The following discussion and concurrent graphs focus mainly on the years after the civil war, simply because the lingering effects of the Salvadoran Civil War can be seen through more than just violence and murder.

III.2. Socio-economic Background

This section includes an overview of the level of Gross Domestic Product (GDP) per capita and the growth rate of GDP per capita, various measures of the portion of citizens living in poverty, and a comparison of employment between women and men. In this section, El Salvador is also compared to the average of all developing countries in Latin America and the Caribbean (LAC) as it is important to see how El Salvador compares to its surrounding countries.

Figure 1 shows that El Salvador is considerably poorer (in terms of GDP per capita, adjusted by purchasing power parity (PPP)) than the average developing country in LAC. While the income gap was more or less stable during the 1980s, El Salvador’s GDP per capita got a bit closer to that of LAC’s during the 1990s, i.e., in the first decade after the post-war era. However, in the last few years, the gap between El Salvador and LAC has become slightly larger. While El Salvador’s GDP per capita was 68 percent that of LAC’s GDP per capita, it declined in relative terms to slightly less than 60 percent of LAC’s GDP per capita in 2010. As of 2010, PPP-adjusted GDP per capita (in constant 2005 international $) stood at $5,981, while it was $9,972 for the average developing country in LAC.

Figure 1: GDP per capita, PPP (constant 2005 international $) in El Salvador and LAC, 1980-2010

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

² See United States Institute of Peace (n.d.).
Figure 2 shows that there was a significant period of negative economic growth in El Salvador in the late 1970s-early 1980s. Excluding the year of 1983 (in which the GDP per capita grew by .1 percent), El Salvador’s GDP per capita was in a constant state of decline from 1979-1986. This economic decline brought the approximate GDP per capita measured in Purchasing Power Parity (PPP) from a value of $2,087 (current international dollars) in 1980 down to approximately $2,204 by 1986, a 40.4 percent overall reduction. The country’s economy kept a slow but steady incline until the World Economic Crises of 2008/2009, which reduced GDP per capita by 3.6 percent.

Comparing El Salvador’s growth experience with that of the average country of Latin America and the Caribbean (LAC), the data shows similar negative growth for the early 1980s and 2009, but with much more growth discrepancies in the years between due to various economic declines of the multiple other countries taken into account.

Figure 2: GDP per capita Growth in El Salvador and LAC, 1975-2010

![Graph showing GDP per capita growth in El Salvador and LAC, 1975-2010](image)

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

Figures 3 and 4 show the percentages of the population living in poverty in El Salvador and Latin America respectively. In Figure 3, the data is provided for three indicators: the headcount ratio living below $1.25 a day, headcount ratio living below $2 a day, and headcount ratio living below the national poverty line. The proportions of the population living at both one and two dollars a day have remained significantly lower than those at the national poverty line over the past 20 years. However, the national poverty line headcount in El Salvador has been somewhat steadily decreasing since 1991 and now is only roughly 20 percent greater than the proportion of El Salvadorans living on $2 a day. All three types of proportions decreased in the early 2000s and faced only small increases in 2006 and 2009. Figure 4 features the same data for Latin America, except for the national poverty line measurement (as there obviously is no national...
poverty line for a group of countries). Similar to El Salvador, LAC’s overall poverty proportions noticeably decreased in the early 2000s.

**Figure 3: Percentage of Population Living in Poverty in El Salvador, 1991-2009**

![Graph showing percentage of population living in poverty in El Salvador, 1991-2009](image)

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

**Figure 4: Percentage of Population Living in Poverty in LAC, 1991-2009**

![Graph showing percentage of population living in poverty in LAC, 1991-2009](image)

Source: Created by author based on World Bank (2012).
In figure 5, employment percentages between men and women in El Salvador are compared in five-year increments from 1991-2010. Although the gap has been slowly decreasing since 1991, males aged 15 and older have consistently held higher employment percentages than women of the same age in El Salvador. In 1991, male employment was 37 percent higher than female. By 2010, the gap reduced to 27 percent. Despite showing that gender inequality is still very present in El Salvador, the chart also shows improvement in the past 20 years.

**Figure 5: Employment to Population Ratios in El Salvador, 1991-2010**

![Graph showing employment to population ratios in El Salvador from 1991 to 2010. The x-axis represents the years 1991, 1995, 2000, 2005, and 2010, while the y-axis represents the employment to population ratio percentage. The bars are color-coded, with blue for females and red for males. The gap is shown to decrease over time.]  

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

Figure 6 features the same data for LAC as a whole. The data proves to be very similar to that of El Salvador’s. In 1991, the men of LAC had an employment rate 40 percent higher than LAC’s women. The LAC countries have lessened the gap between male and female employment rates just as El Salvador has to 27 percent as of 2010.

**Figure 6: Employment to Population Ratios in Latin America, 1991-2010**

![Graph showing employment to population ratios in Latin America from 1991 to 2010. The x-axis represents the years 1991, 1995, 2000, 2005, and 2010, while the y-axis represents the employment to population ratio percentage. The bars are color-coded, with blue for females and red for males. The gap is shown to decrease over time.]  

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

IV.1. El Salvador’s Stagnating Income Gap

There are other indicators of poverty than the average daily income of an individual or family. Wealth distribution can be considered in analyzing the gaps between a nation’s social classes to gauge just how impoverished the nation is. This is especially helpful in El Salvador’s case, as the vast space between the government and the rich of the society and the poor was a main cause of the civil war.

In Figure 7, this income gap can be clearly seen. Those in El Salvador who are included in the highest-earning 20 percent of the population have consistently held approximately 50 percent of the country’s income, while the lowest-earning 20 percent had consistently less than 10 percent of El Salvador’s income. Although the relevant data was not available from before 1991 through the World Bank, we know from history that wealth distribution has been an ongoing issue, sparring conflict for 100 years (Kane, 2002).

![Figure 7: Income Shares in El Salvador, 1991-2009](image)

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

Furthermore, in contrast to Figure 3 above, which showed considerable progress in reducing El Salvador’s poverty rates since the early 1990s, Figure 7 shows that basically no progress has been made in narrowing the income distribution gap over the last two decades. Marques (2004, p. 23) states that “the impact of growth on poverty depends on what happens to the distribution of income. Greater inequality generally means a diminished capacity to reduce poverty, for any given level of growth. Moreover, high inequality may also reduce the rate of growth because it may lead to political instability, violence or underinvestment in human capital.”
In conclusion, El Salvador has managed to show varying levels of poverty improvement in the past 20 years, as their national headcount has gone down considerably since the war’s end, but the income (and wealth) distribution gap has only decreased by a small percent.

IV.2. Population Growth and Poverty Dynamics

Figure 8 shows an interesting population growth pattern, with sharply falling population growth during from 2.3 percent 1975 to about 1.4 percent in the mid-1980s. During the late-1980s, population growth stabilized at around 1.3 percent. It then accelerated to above 1.5 percent during the end of the civil war, until it started to decline once again in 1993. In consulting Figure 3 above, it can be determined that at the end of the civil war in El Salvador, poverty rates were extremely high, with 60 percent of the population living at the national poverty line. Aside from a slight jump in 1996, this proportion steadily decreased in the decade following the civil war. This data supports the notion that increasing population growth is correlated to increasing poverty.

![Figure 8: Population Growth in El Salvador, 1975-2010](source: Created by author based on World Bank (2012)).

IV.3. Efforts to Reduce and End Poverty in El Salvador

One effect of the civil war was inevitable, and ended up helping to alleviate the poverty levels in post-war El Salvador. Many citizens fled the country during the civil war, and in the years since the war’s end they have come to be the country’s most important export (Gammage, 2007). This migration of Salvadorians returning to their home country has helped to reduce poverty rates in the nineties and new millennium by contributing to raising incomes and bringing wealth back into the poor and rural communities (Gammage, 2007).

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Throughout the past 20 years, government reforms have been made to attempt to reduce and eventually end poverty in El Salvador. Monitored by the United Nations and Roman Catholic Church, the Chapultepec Peace Accords (or 1992 Peace Accords) were signed between the Salvadoran government and the FMLN to bring the civil war to an end. The Peace Accords were created to negotiate relations between the government and people, while aiming to reform poverty and reinstate a proper justice system. LeRoy (2012) sums up the goals of the Peace Accords in seven points:

1. Dismissal of the military and treasury police. These forces were to be replaced with an integrated, newly trained National Police force comprised of 20% former police, 20% former opposition combatants, and 60% new recruits. The Police were officially separated from the Military and given different functions. Forced recruitment became illegal.

2. A new independent Judiciary was created to insure justice. An ombudsman and a Truth Commission offered citizens a chance to report human rights abuses and address grievances.

3. Disarmament, Demobilization and Reintegration Programs were initiated by UN forces and funded with international resources.

4. New elections allowed participation of opposition candidates. Candidates were allowed to have access to the media and the right to protection during campaigns.

5. The United Nations oversaw the elections, transitions and implementation of programs.

6. Political prisoners and exiles were granted ‘right of return’.

7. Poverty alleviation programs included land distribution to rural poor.

El Salvador has had successes and failures in achieving the goals set forth by The Peace Accords. While alleviation programs were put into effect following the war and poverty levels did slightly relent, close to 40 percent of the population remains beneath the poverty line (Figure 3). The FMLN was disarmed, but violence prevailed because the arms that were given up were often the broken or weaker ones. In most cases, soldiers were not tried for the war crimes they committed. The biggest flaw of the Peace Accords was its failure to comprehend the difficulty in removing corruption from the government. The war may have ended, but the instating of proper justice systems, dismissal of military/treasury police, and installation of reintegration programs were all never fully completed due to the remaining corruption in the Salvadorian government.

IV.4. A Different Option to Look at Gender Inequality in El Salvador

One way that gender inequality is most prevalent in a society is the proportion of girls or women that receive an education. In El Salvador, this proportion has increased considerably in the last few decades. Tertiary education is most commonly the highest form of education, following secondary school. Tertiary education students receive an undergraduate degree at a university, college, or polytechnic. As shown in Figure 9, throughout the 1980s, only 14-19 percent of men went on to enroll in tertiary schools. Female enrollment was even lower, at 8-13 percent (Figure 9). However, by the late nineties and the early years of this millennium, women’s enrollment in colleges has surpassed that of men and stayed consistently ahead. In 2010, 25 percent of women and 21 percent of men were receiving a tertiary education in El Salvador. This improvement
correlates with the improvement seen in Figures 3 and 5: as the population’s poverty rates slowly decrease, women’s presence in the workplace and academic environments slowly increase.

**Figure 9: Enrollment in Tertiary Education in El Salvador, 1975-2010**

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

**IV.5. Efforts to Reduce and End Gender Inequalities in El Salvador**

Despite living in a time with enforced “gender hierarchies” and being subjected to many types of violence, including domestic, throughout the civil war, Salvadoran women have managed to reduce the gender gap in the past 20 years. This improvement can be directly attributed to their involvement in the civil war. During the war, women were employed in highly active roles such as armed combatants and domestic aides to soldiers. After the war, women expected to be able to continue their careers outside of the typical family life of a woman. However, re-integration was difficult; they were criticized in their efforts to leave traditional domestic life behind. Programs like *Instituto de Investigación, Capacitación y Desarrollo de la Mujer* (IMU) were established to help foster women’s rights and address the need to end gender discrimination in the workplace.

IMU focuses its efforts on three main areas: research on gender discrimination and women’s poverty; training women human rights leaders; and supporting grassroots women’s initiatives in the areas of economic development, community organizing, health, violence prevention and the promotion of responsive local government. Movements and programs like IMU helped to give

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3 American Jewish World Service (2007).
4 American Jewish World Service (2007).
5 American Jewish World Service (2007).
confidence to the women who had participated in and endured the Salvadoran Civil War, allowing them to demand the equality in the workplace that they deserve. Although there is still a long way to go to achieve perfect equality, post-war Salvadoran women have begun to make progress in closing the gender gap in employment (as was shown in Figure 5 above) and have more than closed it in terms of tertiary education (as was shown in Figure 9 above).

Another step that should be taken to improve gender equality in El Salvador is that the proper amount of money is allotted to guarantee that young girls receive a proper education and are not left to work in a factory. Bougher (2003) claims that many young women in El Salvador are trapped into only receiving a fourth-grade education because of the government’s self-serving distribution of the country’s wealth. These girls have no choice but to work in a maquila, a foreign-owned factory in the rural areas of El Salvador that are serve to produce goods at a cheap rate (meaning low wages for workers and essentially no labor restrictions) and sell them overseas at an excessive price. Feminist groups like “Las Digas” work to ensure that the public is aware of the unjust spending practices of the Salvadoran government and hope to incite changes in the employment practices of maquilas. Gender equality can only be eradicated when the government fully supports the education of girls and young women. 6

V. Conclusion

From the extensive evidence featured in this discussion, it is quite clear how great of an effect the Salvadoran Civil War had on its country. Repercussions like corruption, unjust wealth distribution, and violence are still dominant forces in many Salvadoran lives even today. El Salvador is on a slow but steady path to reconstruction after their extremely bloody, twelve-year civil war. Poverty rates and discriminations against women in schools and the workplace are on the decline, offering hope to the country’s people.

Many Salvadorans who have lived through the civil war have encountered violence from the day they were born. It has become a cultural norm for them; they are surrounded by crime day in and day out. This, as much as poverty, education, wealth distribution and gender issues, is what needs to be permanently eliminated from Salvadoran society. A culture of violence fosters and produces government corruption, which in turn provides for more poverty and discrimination. If steps can be taken to end the violence that is so prominent in El Salvador, they should be carried out at any cost.

References


6 Bougher (2003).


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

Bailey Edelstein

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.

¹ United States Department of Agriculture (2003).
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 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

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5 Calculations by the 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.
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.

\(^7\) 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 morality 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.


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.
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. 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.” 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>
<thead>
<tr>
<th>Service level description</th>
<th>Distance/time measure</th>
<th>Likely quantities collected</th>
<th>Level of health concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>No access</td>
<td>More than 1000m or 30 minutes total collection time.</td>
<td>Very low (often less than 5 l/c/d).</td>
<td>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.</td>
</tr>
<tr>
<td>Basic access</td>
<td>Between 100 and 1000m (5 to 30 minutes total collection time).</td>
<td>Low. Average is unlikely to exceed 20 l/c/d; laundry and/or bathing may occur at water source with additional volumes of water.</td>
<td>Medium. Not all requirements may be met. Quality difficult to assure.</td>
</tr>
<tr>
<td>Intermediate access</td>
<td>On-plot, (e.g. single tap in house or yard).</td>
<td>Medium, likely to be around 50 l/c/d, higher volumes unlikely as energy/time requirements still significant.</td>
<td>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.</td>
</tr>
<tr>
<td>Optimal access</td>
<td>Water is piped into the home through multiple taps.</td>
<td>Varies significantly but likely above 100 l/c/d and may be up to 300 l/c/d.</td>
<td>Very low. All uses can be met, quality readily assured.</td>
</tr>
</tbody>
</table>

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 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.”

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. 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))


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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.

*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.”

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. 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.

There is an unexpected gratification that Ethiopian women gain from the dependence others have on them for water. Encouraging projects that establish more accessible water sources help develop a Westernized view within the communities. These women have so much potential in

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14 Stevenson (2012), pp. 3-4.
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.

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. 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. Illnesses contracted from drinking impure water include diarrhea, malaria, schistosomiasis, arsenic poisoning, trachoma, and hepatitis. 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. 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.

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. 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

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French workforce. 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 the “care economy” of their household, e.g., they are engaged in the preparation of food and other products for local markets. 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.” 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. 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.

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

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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