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Cover Design
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ISSN 2157-1252

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Global Majority E-Journal

Volume 6, Number 1 (June 2015)

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Breaking the Cycle: The Causes and Effects of Uneducated Girls in Rwanda and Pakistan

AnLi Kelly-Durham

Abstract
This article explores girls’ education in Rwanda and Pakistan. It examines the causes of a lack of girls’ education, the impacts, and how breaking the cycle of uneducated girls can cause positive change in Rwanda and Pakistan. This article also reviews the reasoning for putting the education of boys ahead of the education of girls in the two countries. As shown in the so-called Girl Effect, educating girls will prevent them from getting pregnant at a young age, living a life of poverty, having to sell their bodies, and potentially contracting communicable diseases such as HIV/AIDS. This article aims to understand why breaking the cycle of uneducated girls is more difficult for certain countries than for others, and what steps must be taken to break this cycle.

I. Introduction
One of the most pressing problems facing developing countries today is the cycle of uneducated girls. Many children and teenagers living in industrialized countries take their government-funded free primary education for granted. In many developing countries, this is a privilege girls can only dream of as their families are forced to pay for their education. The cost poses a great challenge for the majority of families in the developing world, due to their low income and large number of children.

Historically, low-income families favor educating their boys over educating their girls, leading these girls down a long road of poverty that spreads across generations. Fortunately, there are ways to break the cycle and create positive change, even in developing nations. These countries must realize the worthwhile benefits that come from girls’ education, many of which will in turn better the country as a whole.

This article focuses on girls’ education in Rwanda and Pakistan. Rwanda is classified as a least developed country (LDC), while Pakistan is considered a lower middle income developing country. Data on the percentage of girls versus boys enrolled in school and the subsequent retention rate will be examined to draw conclusions and make inferences related to the cycle of uneducated girls. The article will then explore the reasons for why breaking the cycle of
uneducated girls is more difficult for certain countries than for others and discuss the steps that must be taken in order to break the cycle of uneducated girls. Providing girls with an education could solve many of the problems that the developing world faces, such as teenage pregnancy, girls selling their bodies, and contracting communicable diseases. Despite all the potential change, it remains difficult for certain countries to take steps towards breaking the cycle.

II. Literature Review

There are numerous sources from academics and organizations that focus on the effects of gender inequality in education, including in the countries of Rwanda and Pakistan. These articles primarily focus on the reason why, despite having certain resources available to them, the cycle of uneducated girls continues to be a major problem. They also explore the economic aspect of uneducated girls as a whole, household schooling decisions, and what steps must be taken to meet the Millennium Development Goals (MDGs).

Klasen (2002) looks at whether low schooling for girls causes slower growth for all. He backs up his argument with cross-country evidence on the effect of gender inequality in education on economic development. The author uses cross-country and panel regressions to discuss the effect of gender inequality in education on long-term economic growth. He argues that gender inequality in education has a direct effect on economic growth because it lowers the average level of human capital. The article specifically focuses on East Asia, Sub-Saharan Africa, South Asia, and the Middle East. The gender gap in education between these regions is explored in hopes of further understanding the disparity in education between girls and boys in developing or least developed countries. Hence, this article provides a useful overview at the regions containing Rwanda (Sub-Saharan Africa) and Pakistan (South Asia).

Sawada and Lokshin (2001) examine household schooling decisions in rural Pakistan. They discuss how school enrollment is low and school dropout rates are high in Pakistan, with a specific focus on the gender gap in education. The authors performed a field survey in 25 Pakistani villages to investigate the sequential nature of how education decisions are made, looking at both current outcomes and how they connect with past decisions. They used their field observations, economic theory, and econometric analysis for their investigations. They also examine a) the retention rate conditional on school entry, b) income changes and birth order, and c) supply side constraints on village girls’ primary education.

Building on their extensive experience in examining gender, human rights, and education, Huggins and Randell (2007) discuss gender inequality in education in Rwanda. They argue that Rwanda has made a huge effort to improve access to education for both girls and boys, yet girl students still continue to lag behind the boy students in terms of academic achievement and success. The authors address the importance of gender equality in education, which is necessary if Rwanda wants to meet its development goals and protect women’s human rights within the country. While many improvements have been made towards equality, there is still work that must be done to close the gender gap. The article closes with suggestions for subsequent steps that should be taken in Rwanda.

Khalid and Mujahid-Mukhtar (2002) focus on the future of girls’ education in Pakistan. They conducted research on policy measures and other factors that determine girls’ education. The study develops a profile of female education in Pakistan and emphasizes current gender disparities in primary education and adult literacy. It also reviews past and current policies that
have been implemented to promote gender equality in education, and recommend future policies to meet gender equality in Pakistan.

Gabrielson (2010) writes about the so-called “Girl Effect” and how this movement can end the vicious cycle and have numerous positive consequences on uneducated girls as well as positive economic impacts that result from providing education to girls. Gabrielson notes the importance of the Girl Effect in countries like Pakistan, where education for girls is a relatively new concept. On a larger scale, her paper focuses on the benefits of educated girls in terms of power and influence in their communities, in society, and the resulting ability of girls to take control of their future and their body.

III. Empirical Background

When studying the effects of a lack of girls’ education in Pakistan and Rwanda, it is useful to take into the account the evolution as well as the differences in gross domestic product (GDP) per capita, total life expectancy, and literacy rates in both countries. In both countries, GDP per capita has overall been rising along with total life expectancy, which suggests some progress in both countries. However, as the discussion section will show in more details, gender inequality in education remains to be a problem, as is evident in lower school enrollment rates and lower literacy rates for girls versus boys.

As Figure 1 shows, GDP per capita in constant 2011 international dollars (i.e., adjusted for Purchasing Power Parity (PPP)) has slowly but steadily increased in both countries between 1990 and 2012, except that Rwanda saw a temporary decline around the time of the Rwandan genocide. In Pakistan, GDP per capita increased from $2,961 in 1990 to $4,360 in 2012, which is a cumulative increase of 47 percent over a period of 22 years. In Rwanda, GDP per capita in 1990 was a mere $835, less than a third of Pakistan’s GDP per capita in 1990. Rwanda’s GDP per capita then increased to $942 in 1993, then dropped in 1994 to $496, after which it increased to $1,379 in 2012. This implies a cumulative increase of 65 percent from 1990 to 2012.

Figure 1: GDP per capita in PPP from 1990-2010

![Figure 1: GDP per capita in PPP from 1990-2010](image)

Source: Created by author based on World Bank (2014).
As Figure 2 shows, Rwanda saw a moderate increase in total life expectancy at birth between the years of 1970 to 1985 (when it increased from 44.3 years to 49.9 years), followed by a sharp drop until 1994, when it reached a low of 26.8 years. This sharp drop is initially due to the HIV/AIDS epidemic and then to the Rwandan Genocide. Fortunately, another steady increase followed that drastic drop, leaving Rwanda with a life expectancy at birth of 63.5 years in 2012. Unlike Rwanda, Pakistan experienced a steady rise in total life expectancy at birth between the years of 1970 to 2012. In 1970, the life expectancy was 53.5 years, which steadily increased to 66.4 years over the course of about four decades, in 2012. Like was partly the case with GPD per capita, despite the temporary decline in the early 1990s, Rwanda has narrowed the gap it had to Pakistan.

Figure 2: Life Expectancy at Birth from 1970-2012

![Graph showing life expectancy at birth for Pakistan and Rwanda from 1970 to 2012.]

Source: Created by author based on World Bank (2014).

Compared to GDP per capita and life expectancy, there is little data available on youth literacy rates in Pakistan and Rwanda. Still, using the available data, Figure 3 shows that only 35 percent of all youths (people ages 15-24) in Pakistan were considered literate in 1981. Almost twenty years later, in 1998, that figure had increased to 55 percent, while it rose to 71 percent by 2009, which is more than twice the rate in 1981. Rwanda started off with a considerably higher literacy rate (of 52 percent in 1978) than Pakistan, followed by an increase to 75 percent in 1991, and most recently (2010) reaching 77.3 percent. Hence, though the growth rates of youth literacy were higher in Pakistan than in Rwanda over the whole observation period, Rwanda’s youth literacy rates were always higher than those of Pakistan, despite Rwanda having a lower GDP per capita and lower life expectancy. Nevertheless, the progress in both countries provide a source of hope for the improvement of education in these two developing countries. However, when separating literacy rates by gender, females consistently lag behind males by approximately 10 percent in both countries (World Bank, 2014).
IV. Discussion

Breaking the cycle of uneducated girls in Rwanda and Pakistan will have numerous positive effects, some could even move a country towards crucial improvements across all sectors. While breaking the cycle does not come without difficulties, there are certain steps that can be taken that will result in improvements for a country as a whole, in addition to improving the quality of life for the girls living in the developing world. This discussion section will first review the longer term trends in the gender gap of education in Rwanda and Pakistan. It will then examine the causes as well as some steps that can be taken to break the cycle of uneducated girls and poverty.

IV.1. Gender Gaps in Education in Pakistan and Rwanda

When looking at the trends of school enrollment for females versus males at the primary, secondary, and tertiary levels (see Figures 4 to 6 below), there is clear divide visible for both countries, though Rwanda has eliminated the gap more recently in the primary and secondary level. Additionally, in both countries, less than half of the children of both genders receive a secondary education and less than 10 percent are enrolled at the tertiary level.

- Pakistan: In 2012, the gross primary school enrollment for females was 86 percent, compared to 99 percent for males, which implies a gender gap of 13 percentage points. With regards to secondary school enrollment, the gender gap is with 11 percentage points slightly lower, however, given that secondary school enrollment ratios were 31 percent for girls and 42 percent for boys, the gender gap is much higher in relative terms. The gender gap is however relatively small for tertiary school enrollment, though a mere 9.3 percent of girls and a marginally higher 9.7 percent of boys are enrolled at the tertiary level. All of these figures
were an improvement from the statistics taken in 1971, especially for girls. Hence, despite currently still large gender gaps at all levels of education, the gender gaps were even larger in the past.

- Rwanda: In 2012, the gross primary school enrollment for females was with 135 percent slightly higher than the 132 percent for males. However, for most of the previous years, the numbers for females were lower. With regards to secondary school enrollment, the 2012 data also show a catching up of girls, though once again, female enrollment ratios have traditionally been lower than male enrollment ratios. Like was the case in Pakistan, gross tertiary school enrollment ratios are far lower than secondary school enrollment ratios, but unlike in Pakistan, there is a considerable gender gap at the tertiary level in Rwanda: 6.0 percent for females versus 7.8 percent for males.

**Figure 4: Primary School Enrollment**

![Primary School Enrollment](source)

Source: Created by author based on World Bank (2014).

**Figure 5: Secondary School Enrollment (%)**

![Secondary School Enrollment](source)

Source: Created by author based on World Bank (2014).
Both Pakistan and Rwanda are facing major issues when it comes to the cycle of uneducated girls. In Pakistan, the human capital investments are performing poorly with low school enrollments and high dropout rates in high school. Research finds that there is a large and defined gender gap in education in Pakistan (Sawada and Lokshin, 2001). In Rwanda, they have made great improvements in promoting gender equality in education, but female students continue to lag behind the male students in terms of educational achievement and access. Girls are also more likely to attend non-government regulated private schools of lower educational quality (Huggins and Randell, 2007).

Sawada and Lokshin (2001) aim to explicitly examine the dynamic and sequential aspects of schooling decision in Pakistan by conducting field surveys in rural Pakistan. They find that the high school retention rate is conditional on school entry, and students’ progression rates in school become more comparable between male and females at higher levels of education. Although there are less girl students enrolled in the higher levels of school, these girls perform just as well as the male students do (Sawada and Lokshin, 2001, p. 2). The decision to send a child to school is heavily dependent on the parents’ physical and human asset ownership, income, and health shocks. Finally, there are clear gender-specific birth-order effects, which create a competition for resources among siblings. In low-income families, when parents have a higher number of children, they typically have to invest less in each child (Sawada and Lokshin, 2001, p. 3). This creates a competition among the siblings for the resources to escape the poverty they were born into.

Sawada and Lokshin derive an econometric model that can be used to estimate the conditional schooling probabilities in Pakistan. Through field research, they identify key features of human capital investments in rural Pakistan. They then apply the standard theory of dynamic schooling investment decisions to derive their model. Sawada and Lokshin’s research begins by examining the key features of household behaviors. They conducted two rounds of interviews – the first round in 14 villages of the Punjab Province and the second round in eleven villages of the North-West Frontier Province. A total of 367 households were interviewed and information on a total of 2,365 children was collected (Sawada and Lokshin, 2001, p. 3).
The researchers were shocked by the high educational retention rate conditional on school entry. Their study shows that females averaged 1.6 years of schooling while males averaged 6.6 years, a significant difference between genders. However, if a child had entered primary school, the average amount of schooling rose to 6.0 years for girls and 8.8 years for boys. This research reaffirms the importance of allowing access to primary education, because it will pay off in the long run. Once a child enters school, the retention rate dramatically increases (Sawada and Lokshin, 2001, p. 4). Sawada and Lokshin (2001, p. 5) suggest that the gender gap in education will eventually disappear as children move into the higher stages of education.

On the other hand, Rwanda has already made great strides towards promoting gender equality in education. Yet Rwandan girls continue to lag behind boys in many aspects of the academic world. Huggins and Randell (2007) discuss this disparity and how it relates to the Millennium Development Goals (MDGs) in Rwanda, in addition to Sub-Saharan Africa and the world as a whole. Educating women is crucial for economic development, poverty reduction, and the promotion of human rights. However, despite of all the benefits, young girls in Rwanda continue to fall behind boys in terms of enrollment rates, completion rates, and performance in school (Huggins and Randell, 2007, p. 1).

Rwanda has made great efforts to move towards educational equality for boys and girls. Huggins and Randell (2007, p. 2) explain how Rwanda’s 2003 Constitution lays out a plan to achieve the MDGs of universal primary education, gender equality, and women’s empowerment by promoting gender equality at all levels of education. The 2003 Constitution mandates free primary education for school children and policies in the Organic Education Law were put into place to accomplish these goals. Additionally, gender equality in education is included in the Higher Education Law (Huggins and Randell, 2007, p. 2).

Rwanda has a vision to correct the historical marginalization of girls by improving the educational system, in addition to the political and economic spheres. This vision provided a foundation for Rwanda’s two Poverty Reduction Strategy Papers, which elaborate on these policy goals to meet the objectives set out in the Millennium Development Goals (Huggins and Randell, 2007, p. 3). Rwanda’s first Poverty Reduction Strategy Paper proposed steps to take to increase the rate of completion for girls and promote gender equality within the education system. Some suggested changes include increasing the number of female teachers in schools to serve as role models for female students, educating the communities on the importance of educating girls, providing scholarships for girls who could otherwise not afford to attend school, and making the physical learning environment more accommodating to female students (Huggins and Randell, 2007, p. 3).

IV.2. Difficulties of Breaking the Cycle

There are many factors that cause an inequality in education between boys and girls. However, the root of the issue is that many developing countries do not even recognize men and women as equals. Often times, there is a gender myopia, which is a blindness to inequities between men and women. As pointed out by Nierenberg (2002), this myopia still distorts economic and health policies in all countries. In many developing countries, women lack the right (i) to decide when to have sex and whether to have children or not (and how many), (ii) to have an education equal to that of boys, (iii) to have a fair representation in the government, and (iv) to have equal pay for equal work. Unfortunately, some of the world’s most developed countries, such as the United States, have yet to abolish all of those inequalities. In the United States, women still receive a
lower pay than their male counterpart for the same work. If countries like the United States cannot eliminate these disparities completely, it is even more obvious why developing countries cannot.

Khalid and Mujahid-Mukhtar (2002) discuss the multiple barriers to girls’ education in Pakistan, including family and community factors on the demand side and school and education system factors on the supply side. Family and community factors include poverty, the education of the parents, the status of women and girls in society, the preference for the sons’ education, considerations for personal security of girls and the distance to a school, socialization of girls, girls’ domestic work, and community participation in school. On the school and education systems side, factors include the shortage of girls’ schools and women teachers, the poor condition of physical facilities (including bathrooms for girls), and a lack of quality reading materials (Khalid and Mujahid-Mukhtar, 2002, pp. 30-33).

A lack of girls’ education comes with many negative impacts on developing countries. There is evidence to suggest that gender inequality in education is detrimental to a country’s long-term economic development and growth. Klasen (2002, p. 347) explains that when girls are not given the same access to education as their male counterparts, it can result in high fertility, high child mortality, low economic growth, and continued gender inequality in education for generations to come. These four issues create a poverty trap that is nearly impossible for uneducated girls to escape.

Higher fertility rates lead to unsupported population growth, which can stunt any hope of per capita economic growth for developing countries. If the gender inequality gap in education is lowered, developing countries would see a reduction in fertility rates. Lower fertility rates can affect economic growth in at least four different ways.

- First, lower fertility rates naturally reduce population growth, which is a major issue facing low-income countries that already do not have the resources to support their existing population. If population growth is slowed, it would allow countries to use investments for capital deepening rather than capital widening, which will in turn stimulate economic growth. It is better to invest more money in a smaller group of people than to invest a smaller amount of money across a larger group of people.

- Second, lower fertility will lower the dependency burden. A slower growing population equates to less spending when looking at the developing world. By spending less to support these dependent individuals, the country can instead increase saving rates, in turn causing an increase in economic growth (Klasen, 2002, p. 353).

- Third, lower fertility rates will temporarily increase the share of workers in the population. As a result of previously high population growth, countries will see an increased demand for investment in capital equipment and social overhang (like housing). Ideally, this higher demand will be met with an increase in domestic savings and capital inflows, which allows for investment and growth.

- Fourth, lower fertility will result in increased labor participation rates. This will result in a rise in per capita economic growth, regardless of if wages and productivity remain the same. Essentially, more workers will be spending their wages on less dependents, which will allow for a boost in the average per capita income (Klasen, 2002, p. 353).
These effects may actually suggest an indirect link between girls’ education and economic growth in countries where there is a gender bias in education (Klasen, 2002, p. 347). Klasen (2002, p. 347) argues that a more balanced distribution of education among girls and boys would lead to higher steady-state per capita income. He backs up his claims with research performed by others that found an association between a low male-female enrollment ratio and lower GDP per capita (Klasen, 2002, p. 349). The problem is the fact that many studies and growth models neglect to account for the impact of gender inequality in education (Klasen, 2002, p. 347).

A major issue related to education in developing countries is the high cost of sending a child to school. Many families do not have the resources or funds to pay tuition for multiple children to attend school. When a family is forced to choose which child to send to school, they often choose the boy over the girl. This gender bias towards boys is in part a historic tradition for many countries. While the boys are at school and the men are working, the women and girls are expected to stay home and perform domestic tasks, which do not include getting an education. Unfortunately, many parents value an educated son over an educated daughter, which continues the vicious cycle of gender inequality in education and stunted economic growth as a result.

IV.3. Steps to Take to Break the Cycle

Breaking the cycle of uneducated girls in both Pakistan and Rwanda will be nothing short of a challenge, but it is a challenge that these countries must take on. By moving towards a culture where educating girls is more accepted, these countries will see tremendous positive changes in terms of social, economic, governmental, and medical growth. As seen through the research and studies conducted, the barrier between a girl and her education is not only financially driven but also culturally driven. Shifting the culture of educated girls in Rwanda and Pakistan from a negative to a positive will encourage greater financial backing from these countries’ governments, in turn breaking the vicious cycle of uneducated girls.

The “Girl Effect” is a movement created to show the opportunity for significant positive change through the education of girls. As explained in a video (see Girleffect.org, 2010) and described by Gabrielson (2010), girls in the developing world do not have control of their futures. These girls are often considered adults at the age of twelve, and run the risk of being married and becoming pregnant before the age of 16. With no resources, girls will often turn to selling their bodies to support their family, which drastically increases their risk of contracting and spreading HIV/AIDS.

However, there is a solution. If a girl is given the opportunity to go to school and stay in school until the age of eighteen, it will reduce the risk of teenage pregnancy, teenage marriage, and sex-slavery. She can then use her education to earn a living and to take control over her body and her life. Educated girls will be more likely to avoid HIV/AIDS, and they can get married and have children when they are ready, thus ending the vicious cycle that has been ongoing for generations. Not only will this have a positive effect for the girls in developing countries, but the world as a whole (Girleffect.org, 2010). These girls will have the opportunity to gain the respect of the men and fight back against the gender disparity that much of the developing world faces (Gabrielson, 2010, pp. 71-72).

Though insufficient, government policies influencing girls’ education have been implemented in Pakistan since the 1990s. Many common provisions for girls’ and women’s education have been endorsed by all policy initiatives in Pakistan. The provisions include universal primary education
for girls, more facilities for girls’ education to provide equal access to education, more opportunities for girls secondary education, qualified female teachers for young children, additional funding for women’s literacy programs, and non-formal basic education programs for out-of-school and drop-out children (Khalid and Mujahid-Mukhtar, 2002, p. 17-18).

V. Conclusion

Although steps have been taken, the cycle of uneducated girls continues today. The countries of Rwanda and Pakistan are just two examples of how the developing world needs to continue the fight against gender inequality in education. Education opens doors to numerous opportunities, most of which are not even an option for women and girls, because they are not treated as equal to their male counterparts. In many developing countries, parents are forced to decide which of their children will attend school, and which will stay home to perform work at home. Due to economic, cultural, and societal factors, educating boys appears to be a better investment than educating girls. However, this mindset allows the cycle to continue, leading girls and women further down the road of generational poverty. Once Pakistan and Rwanda not only recognize but take action to significantly increase the percentage of girls who make it past the primary and secondary school level, they will see how educated girls can better a country as a whole.

However, this article has recognized that breaking the cycle will not be easy. The countries of Pakistan and Rwanda are facing many major internal issues, and girls’ education is not the only challenge they must overcome. Pakistan and Rwanda are both countries very rooted in tradition, which can have an effect on the way decisions are made, especially concerning girls. By recognizing the difficulties and roadblocks that may appear in the quest to break the cycle of uneducated girls, it will help researchers formulate the most effective steps to take. Education equality will not happen overnight, but if both Pakistan and Rwanda recognize the positive benefits of educated girls and set forth a plan to end the cycle, these countries will be moving in the right direction.

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Moving Day:
Urbanization in India and China

Zachary Porter

Abstract
This article analyzes the differences and similarities in urbanization between the two nations that hold the largest number of people in the world. As of 2012, India and China combined have a population of 2.6 billion people, which is equivalent to about 37 percent of the world’s population. Both countries are in the midst of moving massive amounts of people from the rural areas to urban areas. Some say that the rate at which China’s cities are growing has never been seen in the history of mankind. India on the other hand has not spent nearly the amount of money investing in their cities. This article compares the two Asian countries in terms of their move to a more urban environment.

I. Introduction
This article contrasts the urbanization in what are considered two of the fastest growing nations today. China and India, along with being the two most populous countries, also are geographically close to each other. Both countries have been involved in a mass migration of people into urban areas. Following a brief literature review and some empirical background, the discussion section focuses on three parts. The first part provides some historical trends and the current state of urbanization in both countries. The second part focuses on two problems related to urbanization, which are the emergence of slums and environmental consequences. In the third part of the discussion, the article will lay out a couple of policy reforms that could improve the urbanization process in China and India.

II. Brief Literature Review
There are plenty of publications that delve into the topic of urbanization within each of the two countries. However, there is not a lot of literature that compares urbanization between China and India. The following brief literature review examines two recent publications contrasting the two countries and then two journals that discuss urbanization in each country individually.
The Asia Pacific Housing Journal published an article entitled “Comparing China and India’s urbanization”. The article looked at the recent McKinsey Quarterly reports on China and India’s urbanization and expanded on the ideas that were presented. The author states that China has started to embrace urbanization and is more efficient at doing so compared to India who, on the other hand, is just realizing the grand opportunity that awaits. A core idea they tried to illustrate though is that even though the previous fact might be true, India has the ability to gain a lot more in terms of their urban demographic due to the fact that China is aging at a fast rate. The article stresses that two major countries have never urbanized at the same time as much as they are now. The implication of that will change not only the individual countries’ economies but also shift the world economy.

A discussion paper by McGranahan and Martine (2012) examines urbanization in the BRICS. The BRICS, referring to Brazil, Russia, India, China, and South Africa, are considered the world’s emerging economies. McGranahan and Martine explain how China’s urbanization is the most explosive among the five BRICS. They talk about how China’s household registration system, called hukou, restricts mobility by not giving proper registration rights to migrants. Also, the increases in housing prices make it hard for migrants to find places to live in the city. According to McGranahan and Martine, the main three issues for China are economic inequalities, environmental problems, and economic instability. With regards to India, McGranahan and Martine examine certain stages of urbanization related to the affordability of amenities, which increase the inequality among migrants.

Henderson (2007) is one of the many publications that focus on China’s urbanization. Henderson’s report is written based on a variety of background papers covering China’s urbanization, especially the hukou system and the massive gap in rural-urban income that is considered to be worse in China than in other Asian countries. The report also talks about the fact that many cities were half their efficient size, leading to the issue that “China has too many cities with too few people.”¹ The author advises China to decentralize from larger cites to medium or small cites. The report also discusses the living conditions of migrants in China and the two big issues that worsen the discrimination and social discontent: first, a lack of opportunity given to educate the migrants’ children, and second, a policy that is based on a belief that migration is not a permanent situation. Some options to help urbanization include harmonious rural and urban development under rapid urbanization and the promotion of efficient use of natural resources.

Mohan and Dasgupta (2004) authored a working paper for the Stanford Center for International Development, entitled “Urban Development in India in the 21st Century: Policies for Accelerating Urban Growth.” They analyze the past urbanization of India as well as future projections of urban growth. They also explain that in India, urbanization is seen as a negative aspect of development. Mohan and Dasgupta provide policy suggestions that would make India’s urbanization a lot better.

III. Empirical Background

China is an upper-middle income country located in the East Asia and Pacific region. In 2012, the country had a population of 1.35 billion people inhabiting the 9.3 million square kilometers of land. With that amount of people it is the most populous country in the world. As of 2011, over 50 percent of people lived in the urban parts of China. The Communist Party of China governs the country. India, a lower middle income country, is a part of the South Asia region. With a population of 1.24 billion people in 2012, India is the second most populous country in the world. The country has 2.97 million square kilometers of land, of which around 60 percent is agricultural. India’s government system is a parliamentary republic.

Figure 1 displays PPP adjusted GDP per capita for both China and India in constant 2011 international $ from 1990 to 2012. Though China had a lower GDP per capita than India in 1990, the far higher growth rates in China than in India implied that China’s GDP per capita is now more than twice that of India. From the years 1990 until 1995, China’s GDP per capita increased from $1,490 to $2,503. After 1995, the GDP per capita soared to $10,771 in 2012. India on the other hand, which had a GDP per capita of $1,812 in 1990 increased it to $5,050 in 2012, which is still a significant increase.

Figure 2 shows the life expectancy in both countries from 1970-2012. The graph shows that both countries have seen a steady increase. In the 1970s, India’s life expectancy for a newborn baby was at a staggering 48.8 years, while it was about 63 years in China. With the development of medicines and new technology the life expectancy of both countries increased. Overall, India’s life expectancy is growing at a little bit faster rate and they are closing the gap that they had with China in the 1970s. Currently the life expectancies for China and India are about 75 and 66.
years, respectively. What is interesting is that China’s GDP per capita was around the same as India’s for the first part of the 1990s but China’s life expectancy has always well surpassed that of India’s. Similarly, as Figure 3 shows, China always had far higher adult literacy rates than India. These differences in social development indicators may partly explain China’s higher GDP growth rates.

**Figure 2: Life Expectancy at Birth, Total (years) 1970-2012**

![Life Expectancy Chart](source)

Source: Created by author based on World Bank (2014).

**Figure 3: Adult Literacy Rates in China and India, all available years**

![Adult Literacy Rates Chart](source)

Source: Created by author based on World Bank (2014).
IV. Discussion

This discussion section is divided into three sub-sections: (1) past trends and current situation, (2) problems with the current situation with a focus on urban slums and the environment, and (3) possible future policies to improve the current situation.

IV.1. Past Trends and Current Situation

In the article “Comparing China and India’s Urbanization” the Asia Pacific Housing Journal (2013, p. 30) states: “Never before in history have two of the largest nations (in terms of population) urbanized at the same time, and at such a pace.” China is known to be seeing the fastest and most explosive move from the rural to the urban areas. The explosion in the urbanization started around the 1978 economic changes. In the 1980s there seemed to be more of a rural focus of development as opposed to urban centric. They wanted to “raise the volume of agricultural production and increase food security.” However, with increases in population density, the huge rural and farming emphasis caused rural areas to become more like cities.

Furthermore, coastal cites start to show up as the main urban centers, which have been resulting mostly due to migration. The rate at which the cities grew is phenomenal. The number of cities with over one million people rose from 13 in 1982 to 58 in 2007. Figure 4 shows the growth in the urban population in China and India from 1970 to 2012. In 1970, China’s share of urban population stood at 17.4 percent, which increased to 51.8 percent in 2012. Though India’s share of urban population was with 19.8 percent in 1970 slightly higher than that of China, India’s share of urban population increased to a far lower 31.7 percent by 2012. Given India’s large population, India is not really a “late bloomer” so to say, but its urbanization has been “slow and steady.”

Figure 4: Urban Population (percent of total) in China and India, 1970-2012

Source: Created by author based on World Bank (2014).

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4 McGranahan and Martine (2012), p. 10
The projections of what India’s urbanization would entail did not come to fruition like people hoped they would. Mohan and Dasgupta (2004) lay out possible reasons behind why there was a decline in urban growth in India. They state that one reason could be because of labor legislation and small industries’ reservations. In the second part of the 1970s, there were restrictions on labor legislation. Along with that, reservations by smaller industries grew. Another reason for the underwhelming amount of urbanization could be due to location restrictions. The original idea behind restricting where entities can go was to help encourage more scattering of industrial activity.

These restrictions backfired when it became harder for companies to prosper outside of where they wanted to settle down. They lacked infrastructure and skilled labor. When they needed to move in order to grow, location policies caused them to spend a lot of money. The existing laws did not help. Mohan and Dasgupta (2004) also stated that the investments into water and sanitation facilities as well as into urban transportation were a lot lower than expected. This could have contributed to a lack of urbanization due to the fact that cost of locating a city might be perceived as more expensive than it actually is. This deters possible migrants.

Lastly, a possible reason for the lower rate of urbanization is India’s land policy. In India, there exist rent control laws, which tighten up the amount of city housing. Overall, China has seen what most call the biggest migration in the history, while India, who is slowly behind, is expected to experience a huge influx of people to the urban centers in the next few decades.

IV.2. Issues with Current Situation: Slums and the Environment

Two key problems that are the results of urbanization in India and China are the emergence of urban slums/poor areas and rapid environmental problems. Both issues have negatively impacted both China and India.

IV.2.a. Slums / Poor Areas

The creation of urban slums is one key outcome of urbanization. With the growing number of people moving from the rural areas to the urban parts of the country, more affordable housing is needed. When the infrastructure is not necessarily all there, urban slums start to develop. Slums in China are different from the slums in India, but nonetheless they are existing and have important implications.

As for India, the presence of slums is a big issue in regards to urbanization. According to the Indian government, a slum is “housing that is unfit for human habitation or detrimental to safety, health and morals of the inhabitants.”\(^5\) One of the most astonishing facts about the slums is the fact that they grew 25 percent from 2001 to 2011 when the entire urban population grew 31 percent in that same decade.\(^6\) Nijman (2015) presents a couple of reasons for these slums. One possible reason for the abundance of slums is because the slums are a result of the lack of job opportunity due to a large amount of people already in the cities. This reason focuses more on the slum as a bi-product of urbanization. However, the second reason focuses on government failure. The reasons for the slums could be because the government or other institutions did not provide certain infrastructure. Infrastructure is key in order to help improve living conditions and

help others get out of the urban slums. The living conditions in these slums are close to unlivable.

Figure 5: Map of the Slums of Mumbai, India

The government knows that there are places unfit for human habitation, but they still grow despite the knowledge. Chandrasekhar (2005) describes the situation in the slums pretty well. There are differences between notified slums (ones that are “notified as slums by the respective municipalities, corporations, local bodies or development authorities”)7 and non-notified slums. Overall both types of slums fail to have the adequate amount of anything in order for it to be a place fit for living, but when comparing the two, non-notified slums do have it significantly worse. A lack of water supply and sanitation is a key issue in slums. Some 44 percent of non-notified slums do not have a drainage system and about 50 percent of non-notified slums have latrines.8 Those numbers for notified slums are 15 percent and 17 percent, respectively.9 Diseases such as diarrhea and other water borne diseases are common due to these lacks in water supply and sanitation. As can be seen from the map above, the slums of Indian cities are all over the city. The biggest slum in India is in the city of Mumbai and is called Dharavi. The dark and colored-in sections of the map shown in Figure 5 are the urban slums in Mumbai, while the pocket that is encircled is specifically Dharavi.

The slum situation in China operates a little bit differently than in India. China does not have a lot of slums due to the Hukou system. The Hukou is a household registration system in which citizens have to register to a certain area in which they live. China has this system in place to prevent mass migration and to limit the population growth in the urban areas. The system tries to guard industrial development by forming a wall. China also does want others to know that they have slums. A lot of slums are even knocked down by bulldozers. Instead of slums, China has so-called urban villages. The villages are slum-like areas that are usually on the borders of the urban areas. A lot of these areas are mostly inhabited by the poor and tend to cultivate drugs, crime and prostitution. The "城中村" or “villages in the city” are usually not regulated and lack key infrastructure. For all intents and purposes, these areas are similar to what the slums are in India.

Overall, the governments of China and India have tried to reduce the population of people living in the slums but due the rapid increase in people moving to the city, the governments’ effects have not been successful. The slums/urban villages in both countries still exist.

IV.2.b. Environmental Issues

The cities in both China and India are feeling the drastic effect urbanization has on the environment. Air pollution, water shortages, horrible sanitation, and large amount of solid waste are key issue when it comes down to environmental impacts urbanization has.

Both countries suffer from air pollution. One cause of this is the rapid use of cars as a mode for transportation. As Table 1 shows, the number of motor vehicles in India increased from 19.2 million in 1990 to 53.1 million in 2000, which is an average growth rate of about 10 percent. Maiti (2005, p. 285) states that carbon monoxide from the vehicles contribute to around 65 percent of the air pollution. Khan (2013, p. 10) states that it was estimated that about 70 percent of India’s pollution is due to the transportation surge. The mass amounts of people heading to cities to go to work and movements of people living in the city cause huge amounts of pollutants to be released into the air. Factories and other work places also contribute to pollution.

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7 Chandrasekhar (2005), p. 3.
In Beijing, China, there has always been a concern with the heavy smog that engulfs the city. In 2012, the number of vehicles in Beijing was counted as slightly more than 5 million.\(^\text{10}\) According to Tuo, Li and Wang (2013, p. 733), “some experts' statistics show that at the beginning of twenty-first century, automobile exhaust emissions accounted for 30 ~ 60 percent of atmospheric pollution.”

Beijing is estimated to be growing at an enormous rate. The increase in population will also contribute to an increase in energy consumption. When you burn coal, which China burns a lot, the main pollutants of carbon dioxide and sulfur dioxide are put into the air. In 2006, China burned 2.4 billion tons of coal, more than the United States, Japan, and the United Kingdom combined.\(^\text{11}\) Many Chinese cities rank in the top 20 most polluted areas in the world. The fog and pollution has gotten so bad that it threatens the lives of the people living in the cities. China’s Environmental Protection Department has tested the air quality of China’s cities and determined that constant breathing in of the air can weaken the lungs of the citizen and could lead to diseases and other health risks.

Another environmental problem concerning China and India is the lack of access to clean water. Not only is the rapid increase in demand for water a factor, but also that a lot of the water is wasted. The Chinese businesses are very wasteful when it comes to water. About 20 percent of the water lost is due to leaky pipes.\(^\text{12}\) In India, the same act of wasteful water goes on. While higher water prices could easily solve the waste of water, the constraint is that water prices are a sensitive political issue as many poor people cannot afford higher water prices.

\(^\text{10}\) Tuo, Li and Wang (2013) p. 733.
There are plenty of other environmental issues that urbanization is contributing to, especially municipal solid waste and water sanitation. These issues impact the citizens that live in the city as well as the economics of the entire country. If these issues are solved, or at least lessened, the countries will be able to run more efficiently and the citizens would live healthier.

**IV.3. Possible Policies**

When it comes to solving or at least lessening the urbanization issues in both countries, there are suggestions. First of all, there needs to be more done in the area of combating the slums. China has to increase its infrastructure. India has had a history of trying to improve the slums. India has tried to fix the problem of slums since the 1950s. In the 1970s, it had undertaken a variety of environmental improvements of urban slums, including sanitation, other urban services, and the provision of infrastructure. A concern is that India develops these “Master Plans” that try to curb overall urban growth.\(^{13}\)

According to Economy (2007), these plans’ expenses are usually never calculated correctly and almost always left at a standstill because they planned for something that could not be accomplished. One way to combat this is to split up the infrastructure responsibilities. This idea of making smaller agencies to the work instead of one large entity can help make sure that the services can adapt to the changes in demand and because they are smaller, they can manage the funding better. Mohan and Dasgupta (2004) also dislike that there seems to be a monopoly of the actual development of the urban land. They state that private companies should take over and get rid of the terrible managerial aspects of the people who have been doing it since the 1960s.

China does not want to fall into a trap of slums as they exist in Latin America and other regions. They could implement a policy to reform the existing Hukou system in order to lessen the severity of the urban-rural income that they have been experiencing. Some reforms options to the Hukou System include getting rid of the obstacles that make it hard for some people to access certain public services or allow free and migration throughout all province.\(^{14}\) All of these options would help combine the rural and urban segments of the country and possibly help people get out of the poorer urban villages.

To help the environmental issues, India has started to provide public transportation that runs on cleaner fuel. Subsidized public transportation also causes less people to use cars. That, in turn releases less pollution into the air. In the mid-1990s, India added to the list in their constitution that describes the tasks of Urban Local Bodies (ULB) with the most prominent tasks calling them to help with solid waste management. China also has to deal with the environmental factors. China could to raise the prices of gas. These policies would incentivize taking public transportation and as a result, help lessen the pollution of the air and free up the traffic in the city centers.

**V. Conclusion**

In conclusion, China and India have urbanized at different rates but still developed similar problems as well as similar ways to combat the issues at hand. For the last three decades, China is going through a mass relocation of people form the rural to the urban areas. India’s

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\(^{13}\) Mohan and Dasgupta (2004) pg.15

\(^{14}\) Henderson (2007) pg. 9
urbanization has not been as fast as people thought it would be but India’s great surge of people moving to the cities is expected to come in the next few years.

Both countries are dealing with major negative impacts of urbanization. China and India are trying to deal with poor areas and slums. These areas lack sufficient services and infrastructure. It is typically the poorest people who inhabit them. In China, the urban villages are slum-like and also lack services. Another major challenge is to deal with the environmental impact of urbanization. Air pollution, a lack of access to clean water, insufficient sanitation, and huge amounts of solid waste are major issues that plague the urban centers of both countries.

The two countries need new policies in order to fix or lessen the negative effects of urbanization. Policies that deal with slums include an increase in infrastructure or at least for China, reform the dated Hukou System. Raising the prices of gas and/or creating better public transit could help reduce the carbon footprint of the two countries. Now is time to invest in infrastructure in order to make the lives of all of the people moving into the cities better.

References


Examining Poverty at the Border of West Africa: Guinea and Sierra Leone

Olivia So

Abstract

This article will examine the essence of poverty in neighboring West African countries, Guinea and Sierra Leone. The primary focus of the article is given to the ill-being of the citizens in both realms. It will first review both countries’ income per capita and the incidence of poverty. It will then discuss some driving elements behind the nature of poverty in both nations, focusing on agriculture, education, and health. Though by no means complete, this article also analyzes some of the measures Guinea and Sierra Leone have taken and could take to eradicate poverty.

I. Introduction

West Africa is a place where diversity, natural landmarks and intricate art are all intertwined in a melting pot of rich culture. Though central to a sundry of cultural backgrounds molded from previous sufferings of slavery, the region remains fragile from amplitude of internal disarray – ranging from deadly diseases to the lack of stable infrastructure. Sierra Leone and Guinea are neighboring countries that sit on the border of West Africa. Although both countries are wealthy in a cultural aspect, today these two realms are among the world’s poorest nations.

The United Nations Development Program (UNDP)’s Human Development Index (HDI) for 2009 showed that 22 of 24 nations in West Africa were identified as having ‘Low Human Development’. Despite advances in technology, medicine, agriculture and other fields in today’s day and age, poverty remains a relevant issue.

This article will examine several factors that have been said to affect economic growth in both Sierra Leone and Guinea. Following this introduction, this article provides first a brief review of literature and then some empirical background. The subsequent discussion section will then focus on three aspects that have been argued to be influential for the reduction of poverty and the promotion of growth: agriculture, education, and health. Each sub-section covering these three aspects will capture some similarities as well as key differences between both countries and shed
some light upon the current and past situation. Finally, the last section of the article will provide some conclusions.

II. Brief Literature Review

Given the severe poverty in Guinea and Sierra Leone, there are many publications on poverty in these two countries. In addition to academic publications, there also are a variety of reports by the either the governments of these two countries or international organizations active in these two countries.

- The most extensive information on poverty in Guinea and Sierra Leone is available from the government of these countries’ Poverty Reduction Strategy Papers (PRSPs). Though officially written by the government of a country, they are usually also published by the International Monetary Fund (IMF) and the World Bank. Guinea’s first PRPS of 2002 has been published by the Republic of Guinea (2002), while Guinea’s second PRSP and Sierra Leone’s first PRSP are published by the IMF, see IMF (2008) and IMF (2005), respectively. In some cases, there also are PRSP Progress Reports, as is the case for Sierra Leone, see IMF (2011). The World Bank (2013) has also published a detailed poverty profile for Sierra Leone.

- Victor A. B. Davies (2002) wrote the paper entitled “War, Poverty and Growth in Africa: Lessons from Sierra Leone” for the Centre for the Study of African Economies’ 5th Annual Conference. The paper examines current economic evidence for Sierra Leone on the causes of civil war, poverty and poor growth that threaten the African country. The paper by Davies specifically examines the political economy influences of the three phenomena in Sierra Leone, which include, a diamond curse, political repression (1958-1992), ethno-regional divisions, and an urban bias in government policy. The paper further assesses the consequence of the civil war in relation to the four influences and the conditions that emphasizes post-conflict challenges.

- The International Fund for Agricultural Development (IFAD) publishes on the internet a rural poverty profile for most developing countries, including for Guinea and Sierra Leone. The rural poverty profiles, which typically are 500-700 words-long summaries for each country’s main issues related to rural poverty, are part of IFAD’s Rural Poverty Portal.

- Clive Harber (2010) focuses on the political relationship between education (a factor of poverty) and poverty reduction in Africa as a whole. The article discusses the authoritarian rule in Africa and the dire levels of poverty. It will also examine several examples from Africa where education has no substantial role in furthering democracy and provide other examples of African countries where the education system is being altered to follow a democratic direction. All in all, the article is trying review a factor of poverty and how it plays a role in the well-being of the people in Africa such as Sierra Leone.

- Paul Shaffer (1998) points out the general concept between gender, consumption poverty and deprivation in the Republic of Guinea. The article aims to explain that women are not

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1 The rural poverty profile for Guinea is posted at: [http://www.ruralpovertyportal.org/country/home/tags/guinea](http://www.ruralpovertyportal.org/country/home/tags/guinea); for Sierra Leone, see: [http://www.ruralpovertyportal.org/country/home/tags/sierra_leone](http://www.ruralpovertyportal.org/country/home/tags/sierra_leone).
more prone to be consumption poor or to suffer greater poverty. The article also continues to provide evidence from the Kamatiguia village to show that women suffer more than men when deprivation such as excessive workload and reduced decision-making authority is present. Shaffer believes that when consumption poverty poorly correlates with other dimensions of deprivation, it should not be the sole guide for equity-based policy intervention.

III. Empirical Background

Following Guinea’s independence in 1958 from France and Sierra Leone’s independence in 1961 from the British, both countries have been plagued by political instability, military coups and in the case of Sierra Leone, even civil war (1991-2002), which resulted in the destruction of Sierra Leone’s economic and physical infrastructure. Both countries have some natural resources (bauxite in the case of Guinea, and diamonds in the case of Sierra Leone), but like in most African countries, the availability of these natural resources have been more a curse than a blessing.

- According to the IFAD’s rural poverty profile for Guinea, Guinea was relatively stable and had decent economic growth during the 1990s, which was driven mainly by mining and agriculture. However in 2000, Guinea began experiencing political, social and governance instability, which led to the deterioration of the socio-economic situation.

- According to Sierra Leone’s Poverty Reduction Strategy Paper (see International Monetary Fund, 2005, pp. 52-55) Sierra Leone’s economic prospects were “sound and promising” during independence in 1961, due to the mining of diamonds, iron ore and bauxite. It was apparent that the economy grew considerably in the 1960s by “about 4.5 percent on average per annum”. However, during the 1970s and 1980s, the economy started to decline and reached near collapse during the civil war that raged in Sierra Leone.

Like in all nations, the economic wellbeing of Guinea’ and Sierra Leone’s people is influenced by economic production, typically measured by gross domestic product (GDP), divided by population size. Though GDP per capita is distorted due to inequality, it remains an important indicator that illustrates the average income received by a person. Therefore, GDP per capita is a useful tool to show the general economic situation of the average person living in a country. Figure 1 illustrates the evolution of the two countries’ GDP per capita for all available years.

- With regards to Guinea, for which such data is available since 1986, Figure 1 shows that there has been a gradual decline from an already low GDP per capita of $277 in 1986 to $265 in 1994, followed by a modest increase until 2002 (when GDP per capita reached $304), and after which GDP per capita stagnated until 2012.

- With regards to Sierra Leone, Figure 1 shows an economic stagnation during the 1970s, followed by an economic decline until 2001, when GDP per capita reached an all-time low of $247. Even though Sierra Leone’s GDP per capita rose sharply since 2001, it was at about the same level in 2012 ($435) as it was in 1970 ($426).
By no means is a low GDP per capita the only aspect of income poverty. For example, poor living standards can be measured by the percent of citizens living below a particular income threshold. Guinea’s first Poverty Reduction Strategy Paper (Republic of Guinea, 2002, p. 12) states: “In income terms, in 1994/95, 40.3 percent of the population had a consumption level below the national poverty threshold, estimated at about US$300 per person per year.” In addition, data from Sierra Leone’s Poverty Reduction Strategy Paper (International Monetary Fund, 2005, p. 33) states that “the incidence of poverty among unpaid family workers is about 77 percent, and the intensity [is] about 31.6 percent.”

The data for the poverty incidence in both countries is shown more clearly in Figure 2. The graph indicates the percentage of civilians who live under $1.25-a-day and $2-a-day; which are the international poverty lines and are direct indications of widespread poverty in both countries. Even though Guinea’s poverty incidence was significantly higher than that of Sierra Leone in 1990/1991, based on the latest data available for 2007 and 2011, it now seems like that poverty in Sierra Leone is slightly higher than in Guinea. In any case, it is clear that not much progress has been made over the last few decades and that both countries continue to have incidence of poverty with some 70 to 80 percent of the population living below $2-a-day. Furthermore, as Figure 3 shows, in both Guinea and Sierra Leone, poverty is far higher in rural areas than in urban areas.
It is crucial to understand that the high poverty headcount ratios are not due to low labor participation rates. Figure 4 shows that both countries had a relatively high percentage in labor force participation for males and females above the age 15. The data suggests that the percentage of labor force participation is well above 60 percent and it also shows a gradual increase since 2004. However, Figure 4 also shows that the labor force participation rate is estimated to be considerably higher in Guinea than in Sierra Leone.
Clearly, poverty is almost impossible to be measured precisely. To grasp the nature of poverty, we must look beyond income poverty data and focus on determinants related to living conditions. Life expectancy is one of measurements indicating the level of public health in both countries. Despite what we know about poverty in Sierra Leone and Guinea, the data in Figure 5 is somewhat positive and encouraging. In Figure 5, the life expectancy in years is shown for both countries and both trend lines are upward sloping, therefore indicating that people are starting to live longer. However, the statistic also suggests that life expectancy in Guinea is about 10 years higher than the life expectancy in Sierra Leone. In 2012, the life expectancy at birth for Guinea was about 56 years, whereas it was 45 years for Sierra Leone.
IV. Discussion: Agriculture, Education and Health

There have been many different claims and explanations for factors that affect poverty. In this discussion section, we focus on the contributions of three areas for which there is some empirical data: (1) agriculture, (2) education, and (3) health.

IV.1. Agriculture

Given that most of the poor people live in rural areas in Guinea and Sierra Leone (see Figure 3 above), agriculture is considered important for economic growth. Guinea’s second PRSP (see IMF, 2008, p. 31) states “agriculture is the main activity of poor households and the largest sources of income for rural households.” Similarly, Sierra Leone’s PRSP Progress Report (see IMF, 2011, p. 35) says: “Agriculture remains the backbone of the economy” as about two-thirds of its population depend on agriculture for their livelihood and agriculture makes up 45 percent of the country’s GDP.

As the left hand panel of Figure 6 shows, the value added by agriculture as percent of GDP is far higher in Sierra Leone than in Guinea. This is largely due to far higher mineral rents in Guinea than in Sierra Leone (shown in the right hand panel of Figure 6). However, even though there is no time series data available for the share of agricultural employment, the available data clearly indicates that agriculture is the main source of employment in both countries.\(^2\) Combining the high level of employment in agriculture with the fact that poverty is far higher in rural areas than in urban areas (see Figure 3 above), both countries can be considered to be agriculture-based countries. It is therefore critical for both countries to invest in agriculture, though policies towards a longer-term structural transformation will need to be kept in mind.

Figure 6: Contributions of Agriculture and Minerals to GDP, all available years

\[\text{Source: Created by author based on World Bank (2014).}\]

\(^2\) Based on the only data available in World Bank (2014), the percentage of employment in agriculture in total employment was 76 percent (in 1994) in Guinea, while it was 68 percent (in 2004) in Sierra Leone.
The climates of both countries are generally suitable for food production. Both countries have high levels of precipitation. Guinea’s precipitation has been around 1,700 millimeter (mm) per year for the last 4 decades, while that of Sierra Leone has been around 2,500 mm per year. The sometimes excessive precipitation in West Africa leads to regular flooding, thus reducing the possibility of growing crops. One of the worst surface flooding occurred in 2009, when exceptionally heavy seasonal rainfall in large areas of West Africa lead to several rivers braking their banks, causing destruction of houses, bridges, roads and crops. The floods are reported to have affected 940,000 people across 12 countries, including Guinea and Sierra Leone, and caused the deaths of at least 193 people. Anyway, as Figure 7 shows, food production has grown moderately but steadily in Guinea, while it stagnated in Sierra Leone from 1970 to 1997, after which is even declined in the last few years of the civil war. Only since 2000 has food production increased in Sierra Leone, at a very high rate, which implies that Sierra Leone’s food production index has surpassed that of Guinea since 2008.

Figure 7: Food Production Index (2004-2006 = 100), 1970-2012

Source: Created by author based on World Bank (2014).

IV.2. Education

Guinea’s second PRSP and Sierra Leone’s PRSP Progress Report (see, respectively, IMF (2008) and IMF (2011)) recognize the value of education in helping both countries to promote growth and reduce poverty. According to Guinea’s second PRSP, Guinea’s gross enrollment rate at the primary school level rose “16 points during 2001-2006, from 62 percent to 78 percent” and the net enrollment rate also rose from “57 percent in 2001/2002 to 63 percent in 2005/2006” (IMF, 2008, p. 18). Similarly, according to Sierra Leone’s PRSP Progress Report, Sierra Leone’s net primary school enrollment rate increased from “57 percent in 2002 to 62 percent in 2008” and the percentage for female students rose 5 percent (IMF, 2011, p. 33). Based on Figure 8, it is apparent that primary school enrollment in both countries has overall been increasing. However,

as there is no data available for various years in the case of Sierra Leone, there could have been a significant decline during those years, especially during the years of Sierra Leone’s civil war (1991-2002).

Figure 8: Primary School Enrollment in Guinea and Sierra Leone, all available years

![Graph showing primary school enrollment in Guinea and Sierra Leone from 1971 to 2011.](image)

Source: Created by author based on World Bank (2014).

It is important to note that primary education itself does not hold a significant effect on growth, but it does create a foundation for knowledge and future education. Therefore, completing primary school (shown in Figure 9) could be an indicator of secondary school enrollment and so forth. Once again, there was more data available for Guinea than data for Sierra Leone. However, looking at Figure 9, it is possible to infer that Sierra Leone has a higher percentage of primary school completion rates and in recent years, the completion rates surpassed 70 percent. Although, the school completion rates in Guinea is seemingly increasing, in recent years, the completion rate was around 60 percent or below.

Figure 9: Primary School Completion Rate, all available years

![Graph showing primary school completion rate from 1977 to 2012.](image)

Source: Created by author based on World Bank (2014).
Furthermore, it is important to realize that the quality of education also depends on the government for it has the ability to influence its nation’s education. Figure 10 shows the data for public education spending for all available years; the left hand panel shows public education spending in percent of government expenditure, the right hand panel shows public education spending as percent of GDP. Though the data is limited, it still highlights the trends of public spending on education in each country. Based on Figure 10, it is apparent that public spending on education has typically been higher in Sierra Leone than Guinea, except for 2009-2011. Despite some volatility, the trend of public spending in Guinea stays relatively the same, which is typically below 16 percent of total government expenditure, while the trend in Sierra Leone has actually been decreasing. Overall, it can be seen that the governments of both West African countries spend currently very little on education, which is likely one of the reasons for both countries’ low growth and high poverty, as well as both countries’ political instability.

Figure 10: Public Spending on Education, all available years

Source: Created by author based on World Bank (2014).

IV.3. Health

Both countries’ PRSPs mention health as an important factor for the promotion of growth and reduction of poverty. Guinea’s second PRSP states that “the health of the population is also one of the determinants of poverty, due to its impact on the ability of the population to work with vigor” (IMF, 2008, p. 21). This basically implies that healthy clearly has an effect on economic growth and a crucial part of a country’s health is the spending on health. Based on Figure 11, it is evident that the government of Sierra Leone has invested more in health than the government of Guinea, though the gaps have narrowed more recently. In any case, as was the case with public expenditures on education, both countries’ public health expenditures are too low to promote more growth and poverty reduction. Low public expenditures on education and health also explain why both countries have not made much progress in reducing the mortality rate, see Figure 12.
Figure 11: Public Health Expenditure, 1995-2012

![Graph showing public health expenditure as a percentage of government expenditure and GDP for Guinea and Sierra Leone from 1995 to 2011.](image)

Source: Created by author based on World Bank (2014).

Figure 12: Adult Mortality Rates (per 1,000 adults), 1970-2012

![Graph showing total adult mortality rate per 1,000 adults for Guinea and Sierra Leone from 1970 to 2012.](image)

Source: Created by author based on World Bank (2014).

V. Conclusion

During the last decade, Guinea’s GDP per capita has stagnated and poverty has not been reduced, mostly due to its political instability. In Sierra Leone, despite some economic growth and increasing GDP per capita during the last decade, poverty has remained persistently high. The amplitude of data shown above illustrates that many aspects influence growth and poverty. From what is discussed, it is clear that history and environment holds less of significance to growth compared to government policy. Hence, this indicates that the government has the ability...
to help eradicate poverty through its policies. This could be done through revamped policies in agriculture, education, and health. There are of course, other factors that affect growth and poverty in Guinea and Sierra Leone, however these issues have been shown to be significant.

Both Sierra Leone and Guinea can learn from one another by adopting different policies that can help eliminate poverty once and for all. Though it will take years and effort, the idea of improved living conditions should be encouraging to the government and civilians. If the government invests more time and money in the agriculture, education and health sectors, it is possible for both Sierra Leone and Guinea to be “reborn” into countries with limited hardship. Despite having limited resources at the time being, investing more into the right resources may ultimately help the livelihood of many and encourage economic growth. The government must attack poverty one way or another, if they hope to see their country progress in modern times. With the right mind and focus on important investments, both West African countries have the potential to overcome poverty and prevail economically.

References


Children in Egypt and Colombia: Lack of Education, Child Labor and Malnutrition

Gregory Tenor

Abstract

This article focuses on three challenges children face in Colombia and Egypt: a lack of quality education, child labor, and malnutrition. Before discussing these challenges, the article provides first a brief literature review and some empirical background for Colombia and Egypt, reviewing the levels and evolution of GDP per capita, poverty rates and life expectancy. With regards to education, it reviews the educational opportunities and the pressures children face while attempting to complete school. It then analyzes the degree of child labor in both countries, which is mostly due to poverty of a child’s family. Malnutrition typically translates into a lifetime of health problems. Finally, the article offers some solutions that have been suggested to be beneficial for going forward.

I. Introduction

Each year, millions of Egyptian children are born into poverty, suffering from malnutrition at a young age. The poor economic situation and low minimum wage in Egypt requires children to work in positions that may endanger their health even further. Many adolescent girls are forced to drop out of school, inevitably causing a lifetime of illiteracy. Others who do graduate from school find that they do not have necessary skills for a job. Most woman marry young and many are victims of domestic abuse.

In Colombia, primary school is free and mandatory, but costs related to uniforms and transportation are often prohibitive for poor families. While basic healthcare is also free, medication is prohibitively expensive and results in people acquiring a multitude of illnesses. Many children are also malnourished. Poverty, an unemployment rate of about 10 percent, and decades of armed conflict take a toll on families with children.

This article examines the key factors that have been argued to influence the economic pressures and challenges that put children in situations in which they suffer from hunger, abuse and early labor. Following this introduction, the next two section will provide a brief review of the
literature and some relevant empirical background. The fourth section will focus on the various challenges children experience, including inadequate education, forced labor, and malnutrition. It will compare and contrast these factors in Egypt and Colombia. The last section will provide some conclusions and solutions.

II. Brief Literature Review

There is a relatively large literature examining the situation of children in Colombia and Egypt. Some of this literature goes back decades. The following paragraphs are illustrations for the variety of issues covered in mostly academic publications.

- Heller and Drake (1978) explain that child malnourishment and morbidity are two of the most serious issues with underdevelopment for a Country, and health programs have been evaluated to have a limited impact. This article discusses a study of 200 children over a seven year period in Candelaria, Colombia, focusing on how a children’s medical status is influenced by a family’s economic status. The study also examined how maternal-child health education and food supplementation can influence a child’s nutritional status.

- Cochrane, Khan and Oseba (1990) suggest that Egypt’s demographic and population changes have had a significant influence on the economic, political and social structure of the country. Egypt’s population in 1976 was twice the amount it was in 1947. The article also explains that illiteracy has decreased from 76 percent to 42 percent for males and 94 percent to 71 percent for females. The article proposes that a wife’s age at marriage influences family size, and a smaller family can be more conducive for more resources to the children. Cochrane, Khan and Oseba (1990) also find that contraception has a substantial effect on family size and the economic and physical well-being of children.

- Galal (2002) explains that the education system in Egypt is not aligning with the demands of the market. The report suggests that motivations should be made equal among students, teachers, parents, private education provider and bureaucrats. The report points out that idea that many graduating students cannot find jobs in the workforce and proposes that the demand for labor must expand through market reform.

- Perez and Dabis (2003) examine the impact of sex education programs, especially HIV/AIDS in urban areas of Colombia. Such education has been provided via peers as well as trained teachers in school classrooms. The study suggests that adolescents from the ages of 10-19 directly benefit from such sex education programs and that they are an essential approach to prevent HIV transmission among young people.

- Isanaka, Mora-Plazas, Lopez-Aran, Baylin and Villamor (2007) utilize statistics to conclude that children who suffer from food insecurity (i.e., a limited availability of adequate food) are three times more likely to be underweight than children who consume a nutritious diet. The study determines that food insecurity concerning children positively correlates to maternal age, family income, and single parent status. The article explains that food insecurity (which typically is connected to poverty) is very prevalent in Bogota, the capital of Colombia.

- Raouf, Aziz, Hassan and Samir (2011) report that the main factors of child labor in Egypt include the child’s gender, age, place of residence and school attendance. Children living in rural areas are more likely to work than those living in urban areas. The report also
explained that older children are more likely to engage in labor, but the authors proposed that these results could be inaccurate as a result of young children being fearful to admit that they work, as they realize that child labor is illegal.

III. Empirical Background

Figure 1 illustrates the evolution of gross domestic product (GDP) per capita, adjusted by purchasing power parity (PPP) in Colombia and Egypt. It shows that Egypt’s GDP per capita was about $2,000 below that of Colombia in 1990, but has then grown at a more rapid pace than Colombia’s GDP per capita, nearly catching up with Colombia in 2010. However, Egypt’s GDP per capita has then stagnated during 2010-2012, while Colombia’s shows solid growth. Anyway, for most of the years, especially since 1999, Egypt’s GDP per capita has been only slightly below that of Colombia.

Figure 1: GDP per capita, PPP (constant 2011 international $)

![GDP per capita, PPP (constant 2011 international $)](image)

Source: Created by author based on World Bank (2014).

However, even though Colombia’s GDP per capita was slightly above that of Egypt, according to the data provided by the World Bank (2014), the poverty incidence is considerably higher in Colombia than in Egypt. Figures 2 and 3 show the poverty headcount ratios at $1.25-a-day and $2-a-day, respectively, for all the years such data is available for both countries. Using the headcount ratio at $1.25-a-day, Colombia’s headcount ratio (which fluctuated between 8 and 18 percent) has always been considerably higher than that of Egypt (which decreased from 4.5 percent in 1991 to 1.7 percent in 2008). Using the poverty headcount ratio at $2-a-day, Egypt had a slightly higher percentage of poor people than Colombia in 1991 and 1996, but a lower poverty incidence at least since 2000.
Figure 2: Poverty Headcount Ratio at $1.25-a-day (PPP), 1991-2008

Poverty headcount ratio at $1.25 a day (PPP) (% of population)

Source: Created by author based on World Bank (2014).

Figure 3: Poverty Headcount Ratio at $2-a-day (PPP), 1991-2008

Poverty headcount ratio at $2 a day (PPP) (% of population)

Source: Created by author based on World Bank (2014).
Comparing the two countries’ life expectancies, Figure 4 shows that both countries have made similar progress. Colombia’s life expectancy increased gradually from 68 years in 1990 to nearly 74 years in 2012, while Egypt’s life expectancy increased from 64.5 years in 1990 to nearly 71 years in 2012. Egypt’s lower life expectancy is consistent with Egypt’s lower GDP per capita, but inconsistent with Egypt’s lower poverty incidence.

Figure 4: Life Expectancy at Birth (in years), 1990-2012

Source: Created by author based on World Bank (2014).

IV. Discussion

There are several factors that contribute to a child’s poor welfare situation in Egypt and Colombia. One of the most serious causes is connected to a poor education system or in many cases, a child’s inability to attend school as a result of monetary prohibitions and/or forced child labor. Many children also suffer from malnutrition. The subsequent discussion reviews first some key indicators related to education, then some issues related to child labor, and finally the levels of malnutrition in both countries.

IV.1. Education

Education in Colombia is free and compulsory for children, but costs for school supplies, transportation and uniforms are often too expensive for poor families. As a result, many Colombian children cannot attend school. Additionally, internal armed conflict and impassable rural routes hinder Colombian children’s access to education.¹

In Egypt, there is a tendency of students, especially female students, to drop out of school at a young age, which then contributes to low literacy rates and low life expectancy since illiterate people may potentially be unable to afford quality healthcare. The percentage of dropouts in

¹ United States Department of Labor (2014).
primary and secondary schools in Egypt exceeded 13 percent in the early 1990s.\footnote{Galal (2002).}

Figure 5 shows that Colombia’s net school enrollment ratio at the primary level was with 69 percent in 1990 far below that of Egypt (84 percent). However, both countries increased their primary net enrollment ratios to about 94 percent in 1998. For the subsequent two years, Colombia’s net enrollment ratio slightly surpassed that of Egypt’s enrollment ratio, but then decreased gradually to about 90 percent in 2011, while Egypt’s net enrollment ratio at the primary level stabilized at a considerable higher 97.5 percent during 2001-2011.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure5}
\caption{Adjusted Net Primary School Enrollment Rate, 1990-2012}
\end{figure}

Source: Created by author based on World Bank (2014).

However, looking at either adult or youth literacy rates (Figures 6 and 7, respectively), literacy rates in Egypt are considerably below those of Colombia. This may be due to inaccurate net enrollment data and/or differences in the quality of primary education. Figure 6 shows that adult literacy has increased marginally in Colombia from 91 percent in 1996 to 93 percent in 2010, while Egypt’s far lower rates have increased from 56 percent in 1996 to 72 percent in 2010. The same applies to youth literacy, which has (partly due to the already high initial level) increased marginally in Colombia (from 97.0 percent in 1996 to 98.1 percent in 2010), while Egypt’s youth literacy rates have increased from 73.2 percent in 1996 to 87.5 percent in 2010.

Despite Egypt’s progress in rising literacy rates, one important issue right now is that the demands in the labor market are not matching the education children are receiving in school. Currently in Egypt, there is a persistent increase in the number of graduates who simply enter the unemployment pool. According to surveys concerning the constraints the private sector faces while conducting their business in Egypt, a lack of skilled labor is prevalent in several businesses.\footnote{Galal (2002).}
Although Egypt has invested in expanding higher education and this has resulted in greater enrollment across both genders, specific curricula have failed to provide graduates with the requisite skills to obtain a job. This demonstrates that education, beginning in the elementary years, must be reformed. A fundamental explanation concerning this discrepancy between relatively high school enrollment ratios and a lack of skilled labor is that the current approach to education focuses extensively on quantity but only minimally on quality. This is also evident from the fact that a decade of nearly universal primary education in Egypt has not eliminated youth illiteracy.

According to the Egyptian Center for Economic Studies, education can no longer be viewed as an engineering process, but instead it must be viewed as an economic phenomenon. Economic growth correlates positively with a quality education system. Without educational reforms, the mismatch between the skills of recent graduates and the expectations of businesses will persist in Egypt.4

Although Egypt is being forced to reform their education system in order to meet the standards of their businesses, Colombia’s unemployment has (despite higher literacy rates) been higher than Egypt’s unemployment rates. As Figure 8 shows a significant part of Colombia’s unemployment seems to be cyclical, that is, related to economic recession, though Colombia’s unemployment remains high even in periods of economic booms. Hence, there are some structural issues, which are likely also related to a mismatch between what children and youth learn in school and what skills businesses are looking for in Colombia.

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4 Galal (2002).
Based on the aforementioned data and discussion, we can conclude that there is room for education reform in both Egypt and Colombia. Colombia, for instance, should perhaps provide more funding for poor families in order for students to acquire the basic necessities to attend school, such as supplies and transportation. Meanwhile, Egypt should reform their curricula in order to align with the necessities of the business sector. Only through this reform is there any hope of higher employment upon graduation. Egypt must also equalize the enrollment among male and female students, because today’s society is generally going away from gender roles in which an education is requisite for men but not women. Furthermore, women receiving an education will mean that they will be more likely to receive a job, signaling a lower risk of early pregnancy. An education for women will also indicate empowerment, a key element to reduce the rate of domestic violence. For both male and female students, early dropout rates indicate they are being forced into early labor.

IV.2. Child Labor

According to the United Nations International Children’s Emergency Fund (UNICEF), child labor is defined as “work that exceeds a minimum number of hours, depending on the age of a child and on the type of work.”5 Globally, documented child labor is increasing at a rapid pace. United Nations Children’s Fund (UNICEF) estimates based on Demographic Health Surveys (DHSs) and Multiple Indicator Cluster Surveys (MICSs) from 98 countries indicate that 158 million children from five to fourteen years of age participated in child labor across the world in 2006.6

Figure 9 shows the degree of child labor in Colombia and Egypt based on official numbers. However, most experts agree that the official numbers are incorrect as child labor is an extremely prevalent phenomenon in both Colombia and Egypt. It is so prevalent that it has a substantial effect on the country’s economy.

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5 Raouf et al. (2011).
A 1996 child labor law in Egypt prohibits children to work if they are under the age of 14. However, the law allows Egypt’s Minister of Education to permit children to be employed from the ages of 12 to 14 in seasonal work, conditional that the work is not harmful to their health or is not deemed to impact school attendance. In any case, it is important to note the weak enforcement of such child labor laws. Additionally, the 1996 law does not protect children against domestic service, particularly family undertakings and labor in the agricultural fields.\textsuperscript{7} Hence, Egypt’s rural children are more likely to work than those living in urban areas, since agricultural activities are undertaken mostly in rural areas and agriculture is the business that primarily demands child labor. Older children are more likely to be engaged in other labor, and this aligns with the logic that older children are more capable of accomplishing greater levels of work. As Figure 10 shows, in 2009, 53 percent of Egypt’s economically active children were in agriculture.

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\textsuperscript{7} Raouf et al. (2011).
In a survey done at Cairo University, evidence was found that many children are in fear of their parents, indicating the extent of coercion that goes into child labor. For example, the majority of children interviewed in the presence of an adult respond that they do not engage in labor, while children interviewed without the presence of an adult indicated that they work in order to supplement the family’s low income. This aforementioned secrecy is an example of the way in which Egypt is in denial of childhood labor’s dangerous ramifications. Not only does child labor diminish the amount of education he or she receives, but it also leads to various health problems. Among the most prevalent health issues include superficial injuries and extreme fatigue. The low, albeit rising GDP indicates that healthcare is difficult for many families to afford. Thus, child labor has the potential to lower life expectancy. Figure 11 shows the distribution of illnesses that were attributed to child labor for sampled working children in the primary and secondary school aged range, ages five to seventeen.

**Figure 11: Illnesses Resulting from Child Labor**

![Pie chart showing distribution of illnesses resulting from child labor.](chart)

Source: Raouf et al. (2011).

While Egypt has yet to undertake reforms with respect to child labor, Colombia has made significant advancements in 2013 in its efforts to curb child labor. According to the United States Department of Labor (2014), the Colombian Government investigated 1,543 inspections to verify labor conditions for adolescents who actually have permits to work. Additionally, the Government enacted an inspection unit within the Ministry of Labor to combat child labor and enacted a nine million dollar project to improve workplace health and safety conditions, particularly concerning the business of mining.8

The context in which child labor takes place in Colombia differs from that of Egypt. In Colombia, some children are forcibly recruited by non-state armed groups. However, as Figure 12 shows, similar to Egypt, most of Colombia’s child labor is agricultural, followed by the service sector which has nearly the same amount of child labor in Colombia. Despite the aforementioned improvements, Colombia currently lacks resources necessary in order to curb child labor and child trafficking.

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8 United States Department of Labor (2014).
Figure 12: Sectoral Distribution of Child Labor in Colombia, 2009

Source: Created by author based on World Bank (2014).

IV.3. Malnourishment

Children in Egypt and Colombia face malnourishment, and as an effect, morbidity, too often as a result of a poor economy stemming from the aforementioned issue of high unemployment, poor education and a detrimental economy. While many countries, including Egypt and Colombia, have implemented health programs, its impact is minimal at most. As Figure 13 shows, Colombia has made steady progress in reducing malnutrition in children under 5 from 27 percent in 1979 to 13 percent in 2010, while Egypt’s progress has been mixed, still leaving slightly more than 30 percent of its children in 2008 in malnutrition.

Figure 13: Prevalence of Malnutrition, all available years

Source: Created by author based on World Bank (2014).

9 Heller and Drake (1978).
10 The Egyptian Demographic Health Survey 2008 (see El-Zanaty and Way, 2009, p. xxvii) discovered that 29 percent of Egyptian children age 0-4 years showed evidence of chronic malnutrition or stunting, and 7 percent are acutely malnourished. Furthermore, the survey found that despite economic growth, chronic malnutrition of toddlers increased by 26 percent during 2000 and 2008.
One factor in Egypt and Colombia that contributes to malnourishment in children is nutrient intake, beginning from their birth. For example, inadequate breastfeeding in the first year can destructive to a child’s overall health. Furthermore, studies have proven a positive correlation between poor nutritional status and poor health. Malnourishment can cause lasting effects, ranging from diarrhea to other illnesses. In a study of 200 children over a seven year period in Candelaria, Colombia, it was concluded that a child’s medical status is influenced by a family’s economic status. The study also examined how maternal-child health education and food supplementation can influence a child’s nutritional status.

In Colombia, food insecurity (which refers to limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways) has impacted 15 percent of children or 500,000 children under six years of age. Child food insecurity consists of shortages of the least expensive, energy-dense foods. Children who face food insecurity have a tremendously low energy intake, resulting in underweight individuals. Specifically in Colombia, food insecurity among low and middle income families is associated with poor living conditions. This high prevalence for food insecurity provides the necessity for improving food security and implementing programs aimed at developing nutrition standards in schools.

V. Conclusion and Suggestions

This article examined three major constraints children face in Egypt and Colombia: a marginal education, childhood labor, and malnourishment. While primary school enrollment ratios are relatively high, the quality of education children get is low and even secondary and tertiary education does many times not provide the needed skills business are looking for, especially in Egypt. Despite officially low numbers, child labor also continues to be widespread in Colombia and Egypt, with most of the children economically active in agriculture. While Colombia has made some progress in reducing malnutrition, Egypt’s malnutrition rates of above 30 percent are alarming.

Concerning ways to reform education for children in Egypt and Colombia, reforming education must be seen as a national project in both countries. Specifically looking at Egypt, resistance to education reform partly originates from beliefs that the Government is more committed to free education than they are in reality. Furthermore, a quality education is crucial to sustain economic development and to ultimately lower unemployment. Furthermore, better education, especially for girls, will provide knowledge about contraceptive methods, which will help reducing population growth, and it will also empower girls in Egypt and Colombia to find employment. In Colombia specifically, the U.S. Department of Labor suggests that the Government ensures that children are protected from the internal armed conflict while in school.

Suggestions to eradicate child labor include the proposition to provide updated information about child labor laws to the general public and specific groups such as civil society organizations and enforcement officials. Other propositions include incentives to combat child labor and to increase the number of labor inspectors to allow for productive investigations of child labor.

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12 Isanaka et al. (2007).
13 Isanaka et al. (2007).
14 Galal (2002).
violations. An additional suggestion includes the public availability of information on each complaint concerning children exploited in child labor. In Egypt, there is a Child Help Hotline in which one can express complaints and violations.\footnote{IRIN (2009).}

Regarding malnourishment, studies conclude that the utilization and funding of health services can potentially reduce the risk of illness and undernourishment. In Egypt, government-run food programs are being implemented, and the government is subsidizing flour and cooking oil, important ingredients in Egyptian foods such as baladi bread (an Egyptian pita).\footnote{IRIN (2009).}

Finally, increased transparency and higher accountability can work to expand the quality of education, eradicate child labor, and significantly reduce health problems and undernourishment. The data and facts above should be utilized to implement reforms in order to provide a better quality of life among children in Colombia and Egypt.

References


