Global Majority E-Journal

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(June 2011)
About the Global Majority E-Journal
The Global Majority E-Journal is published twice a year and freely available online at: http://www.american.edu/cas/economics/ejournal/. The journal publishes articles that discuss critical issues for the lives of the global majority. The global majority is defined as the more than 80 percent of the world’s population living in developing countries. The topics discussed reflect issues that characterize, determine, or influence the lives of the global majority: poverty, population growth, youth bulge, urbanization, lack of access to safe water, climate change, agricultural development, etc. The articles are based on research papers written by American University (AU) undergraduate students (mostly freshmen) as one of the course requirements for AU’s General Education Course: Econ-110—The Global Majority.

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The Children of Northern Uganda: 
The Effects of Civil War

Madeline Beard

Abstract
The primary focus of this article is on the exploitation of child soldiers in the northern Ugandan civil war, and the effects this exploitation will have on future generations. It discusses the conditions of child soldiers living in Northern Uganda and utilizes the work done by Invisible Children and other non-profit groups to expose their suffering. The article summarizes the key issues involving the conscription of child soldiers in the Lord’s Resistance Army and links them to the lack of health care and education of child soldiers, as well as the vicious cycle of poverty these children continue to face.

I. Introduction
Uganda’s history has been ravaged by civil war and ethnic tensions. Beginning in 1985, the northern region of Uganda felt the effects of these tensions when war broke out between the Ugandan government and the Lord’s Resistance Army (LRA). Led by Joseph Kony, the LRA has gained power through horrific massacres and killings. The tension lies in Kony’s radical beliefs of Acholi military extremism, and his rejection of trust in the Ugandan government. Kony’s main objective is to cleanse Northern Uganda of the older generation of the Acholi people, and rebuild the culture according to his own ideologies. In order to accomplish this objective, Kony chose to enlist an army of children who, through violent force, help him to exterminate the Acholi population.

Starting in 1986, both the Ugandan government and the Lord’s Resistance Army (LRA) began kidnapping and training children to fight their war. In the first few years of this millennium, the number of child soldiers used in combat has drastically increased, catching the attention of a variety of humanitarian organizations such as Human Rights Watch, United Nations Children’s Fund (UNICEF), Invisible Children, and World

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1 See Cheney (2005), p. 32.
2 See Becker and Tate (2003), p. 2.
Vision. Although the LRA began pulling its troops out of Uganda in 2007, the aftereffects of the war still remain within the children of Northern Uganda.

While Uganda has now achieved a state of peace, and the LRA has moved away from the northern Ugandan region, the effects of these volatile times still remain evident in the war’s most vulnerable victims: the children. Lack of education and proper health care for Northern Uganda’s children are rooted in the war and conflict that has raged between the government and rebel armies for decades.

This article presents the situation of children in Northern Uganda, the treatment and conditions in which child soldiers are trained, the effect this problem has on other aspects of progress in Uganda (i.e., health and education for children), and the preventative measures taken by some non-profit organizations to protect the Northern Ugandan children. The next section (Section II) provides a brief literature review. Section III provides some empirical background, while sections IV-VI summarize, respectively, the situation of children during the civil war in Northern Uganda, the after-effects of the civil war on former child soldiers, and the contribution of some non-profit organizations. Section VII closes with some forward-looking conclusions.

II. Brief Literature Review

The Human Rights Watch report by Becker and Tate (2003), entitled “Stolen Children: Abduction and Recruitment in Northern Uganda”, laid the foundation for further, more in-depth research on the subject of child soldiers in Uganda. The report provides a brief history of the civil war, followed with first-person accounts from children and families who have been affected by the conflict. The report gives a balanced perspective of the conflict, not only reporting on the LRA’s use of child soldiers, but also the Ugandan government’s own corrupt methods of obtaining children to fight.

The Humanitarian Action Update Report of the United Nations Children’s Fund (UNICEF) (2008) provides an in-depth look at UNICEF’s work in the regions affected by attacks by the LRA, including the progress made in the areas of education, health and protection against HIV/AIDS. The report focuses on the steps taken by UNICEF to protect the children in Northern Uganda from these violent attacks.

As the civil war in Northern Uganda gained momentum in 2001, many media organizations fervently pursued stories related to the war and the plight of the Northern Ugandan children. These stories came in the form of news reports, documentaries, undercover exposés, and first-person interviews. Through this heightened exposure, awareness of the issue increased worldwide, contributing to increased support for non-profit organizations like ‘Invisible Children’ and ‘Children of Uganda’. The following are three influential examples of how media sources promoted a greater understanding of the civil war and the effects of this war on the children of Northern Uganda.

- In August 2005, Dateline NBC exposed the “night commuter” phenomenon of children in Northern Uganda. The children commute on a daily basis to safer areas in the hope to escape abduction.\(^3\) Through shocking images, first-person interviews with night commuters, and a brief history of the LRA, the news
program was able to provide a condensed, yet complete look at the issue. Further details on night commuters are provided in Section IV below).

- Boustany (2008) wrote an article, published in *The Washington Post*, confirming the rise in child abductions by the LRA. This article confirmed that these abductions had spread from Northern Uganda to other areas of Sub-Saharan Africa (SSA), including southern Sudan, Congo and the Central African Republic. The article draws attention to the fact that while the LRA began to pull out of Uganda in 2007, the group’s terrorist tactics continue to control the lives of children and families (please see further details below).

- The *Invisible Children* documentary (released in 2005) drastically increased awareness on the issue of night commuters and child soldiers in Northern Uganda. Following its release, the non-profit group Invisible Children, Inc. was created to further increase awareness and advocacy on the issue. The documentary is broken up into segments, following the lives of children who are night commuters, escaped child soldiers, and casualties. The documentary gives a more extensive view into the lives of these children than that of a news article or TV segment, providing an informative and emotionally-moving piece of film.

### III. Empirical Background

Given the lack of data specifically on children in Northern Uganda, this section provides some empirical background on the situation of children in Uganda and—for comparison purposes—also for Sub-Saharan Africa (SSA). Obviously, the situation of the Northern Ugandan children is typically much worse than for the national average. To some degree, the missing data for Northern Uganda implies biased information.

#### III.1. Education in Uganda and SSA

Although the children of Northern Uganda were hindered by civil war and violence to obtain an education until 2007, the overall state of education for Ugandan children has overall been improving. These improvements provide the illusion of stability and safety for children in all parts of Uganda. As displayed in Figure 1, public spending on education (as a percent of Gross Domestic Product (GDP)) increased drastically in 2004, surpassing even the SSA average. Yet, during this same year, abductions of children by the LRA continued to rise.\(^4\) By 2008, the percentage of public spending on education had fallen back in Uganda, though it remained above the percentages of the 1990s.

As shown in Figure 2, the percentage of children enrolled in primary school nearly doubled from 1995 to 2000, though it fell back a bit in the years after 2000. Secondary school enrollment (as percent) increased steadily between 1991 and 2007 (see Figure 3). Despite this progress, the instability of the civil war hindered the secondary school enrollment and retention for the children of Northern Uganda. Because schools were a main target for LRA abductions, children had to live in a state of constant fear, creating an unsettling learning environment that even discouraged some children from attending school. Once abducted, children were obviously unable to continue with their education,

\(^4\) See Moorhead, Rone and Stover (2005), p. 22.
which may be reflected by the fact that Uganda’s secondary school enrollment ratios are far below the average SSA, even though Uganda had caught up with SSA in terms of primary school enrollment ratios by 2000.

Figure 1: Public Spending on Education (percent of GDP), 1990-2008

Source: World Bank (2010) World Development Indicators (as posted on the World Bank website; downloaded on May 5, 2010; the 2008 data for SSA is an estimate based on other years’ data).

Figures 2 and 3: Primary and Secondary School Enrollment (percent), 1991-2007

III.2. Immunizations of Children in Uganda and SSA

Figures 4 and 5 indicate an overall improvement in immunization rates in Uganda and SSA. Figure 4 shows the immunization rates against diphtheria, pertussis (whooping cough) and tetanus (jointly referred to as DPT) in Uganda and SSA from 1990-2008. Similarly, Figure 5 shows the same for immunization ratios against measles. Excluding the first few years of the 1990s, the overall trends in Uganda are similar to those of SSA. The data seem to indicate that the Ugandan immunization rates were higher than the SSA average during most of the 1990s, which may however be due to missing data for Northern Uganda. The figures show clearly that progress with increasing immunization rates have come to a halt in Uganda since 2005, which is partly due to including data for Northern Uganda. In any case, the immunization rates for SSA have started to surpass those of Uganda since 2004 (for DPT) and 2006 (for measles).

Figures 4 and 5: Immunizations against DPT and Measles (percent), 1990-2008

(as posted on the World Bank website; downloaded on May 5, 2010).

Figures 6 and 7: Infant and Under-Five Mortality Rates (percent), 1990-2008

(as posted on the World Bank website; downloaded on May 5, 2010).

III.3. Infant Mortality and Under-Five Mortality in Uganda and SSA

Figures 6 and 7 above show the mortality rates of infants and under-five year old children in Uganda and SSA for most of the available years from 1990 to 2008. While both
mortality rates have decreased in Uganda and SSA, the data seems to indicate that by 2008, Uganda has made slightly more progress in reducing these mortality rates than SSA. Still, these numbers are still far too high and the progress made is far below what the international community wanted to achieve.

III.4. Misconception of Progress

The overall improvements in education, immunizations and mortality over the past two decades reinforce the misconception that all of Ugandan children were reaping the benefits of these changes. The truth remains that up until 2007, the children abducted by the LRA in Northern Uganda as well as the child soldiers of the Ugandan government had to face severe physical and psychological health issues, which continue to have negative implications on their lives.5

IV. Situation of Ugandan Children during the Civil War

IV.1. Night Commuters

The emergence of “night commuters” in Uganda was a growing phenomenon among the children living in unprotected Internally Displaced Person (IDP) camps and villages. Every night, tens of thousands of children would flee their homes and walk miles to city centers and protected areas in order to avoid abduction by the LRA.6 Sleeping in hospital verandas, bus parks, church grounds and in local factories, the children travelled wherever they could in order to feel a sense of safety and comfort.7 This aspect of life exposes the effect the civil war had on Ugandan children on a nightly basis. Although many of these children had yet to suffer the fate of becoming child soldiers, the night commuters are living in a horrible reality, in constant fear of abduction or death, with no one to protect them but themselves. As shown in the Invisible Children documentary, not only does this commute threaten Ugandan children’s stability, but it also a) deters the advancement of education and b) increases the likelihood of children engaging in unprotected sex at early ages (as many lack the knowledge of safe sex methods).8

IV.2. Abductions

Since 1987, it is estimated that 20,000 children have been abducted by the LRA and subsequently been forced to become child soldiers under Joseph Kony’s leadership.9 These abductions usually occur in heavily populated IDP camps, small villages or even schools in the Gulu, Amuru, Kitgum, and Pader regions of Uganda (also referred to as Acholi-land), indicated in Figure 8.

Schools in particular are a common location in which abductions occurred, as they were one of the few symbols of state presence in the north outside of military bases.10 Through mass violence and intimidation the LRA soldiers were then able to conscript new

5 For further details, see Angucia (2009) and Corbin (2008).
6 See Morrison and Sandler (2005).
7 See Becker and Tate (2003), p. 6.
9 See Boustany (2008).
10 See Cheney (2005), p. 34.
members into their ranks. Janet M., a twelve year old abducted by the LRA in November 2002, reflects on her abduction experience: “Thirty-two were abducted from the village, both children and adults. I was the youngest, at age twelve. The next day they divided up the captives, and told the old people, including my father, to lie down on the ground. They started beating them with a machete. They cut him badly and left him there.”

**Figure 8: Mapping of Abduction**

![Mapping of Abduction](image)

Source: Pham, Vinck and Stover (2008), Figure 3 (based on the data provided by the Database Project of the Berkeley-Tulane Initiative on Vulnerable Populations).

The LRA targets children because they are easier to control and indoctrinate. By taking advantage of the authoritarian structure in which most children are brought up (both in schools and families) the LRA soldiers were able to instantly influence and mold the identities of the abducted children. The LRA’s version of this authoritarian structure is one in which punishment is taken to the extreme, and the children learn obedience and discipline quickly. In this environment, the children were then trained to kill other civilians without hesitation.

**IV.3. Conditions in the Bush**

Following abduction, the LRA immediately began to desensitize the children by exposing them to brutal acts of violence. During initiation, the LRA soldiers regularly beat the newly abducted children with sticks, the butt of their weapons and other instruments. Children must also bare witness to the killings of other abducted children. Sometimes they were even forced to watch the murder of their own siblings: “Early on when my brothers and I were captured, the LRA explained to us that all five brothers could not serve in the LRA because we would not perform well. So they tied up my two youngest brothers and invited us to watch. Then they beat them with sticks until the two of them died. They told us it would give us strength to fight. My youngest brother was nine years old.”

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11 See Becker and Tate (2003), p. 7.
13 See Becker and Tate (2003), p. 5.
Derluyn, Broekaert, Schuyten and de Temmerman (2004) provide the type and frequencies of traumatic experiences during abduction among a sample of 301 children who were abducted and conscripted into the LRA. The statistics taken from the study (shown in Table 1) provide a gruesome look into the treatment of child soldiers through an extreme authoritarian structure.

### Table 1: Type & Reported Frequencies of Traumatic Experiences during Abduction

<table>
<thead>
<tr>
<th>Experience</th>
<th>Number (%) of respondents (n=301)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had to carry heavy loads</td>
<td>166 (55%)</td>
</tr>
<tr>
<td>Was seriously beaten</td>
<td>156 (52%)</td>
</tr>
<tr>
<td>Got injured</td>
<td>143 (48%)</td>
</tr>
<tr>
<td>Witnessed somebody being killed</td>
<td>233 (77%)</td>
</tr>
<tr>
<td>Personally killed another person</td>
<td>118 (39%)</td>
</tr>
<tr>
<td>Had to stay in difficult circumstances in Sudan</td>
<td>184 (61%)</td>
</tr>
<tr>
<td>Had to drink urine</td>
<td>49 (27%)*</td>
</tr>
<tr>
<td>Had to loot properties and burn houses of civilians</td>
<td>189 (63%)</td>
</tr>
<tr>
<td>Had to abduct other children</td>
<td>116 (39%)</td>
</tr>
<tr>
<td>Was forced into military training</td>
<td>195 (65%)</td>
</tr>
<tr>
<td>Had to fight</td>
<td>193 (64%)</td>
</tr>
<tr>
<td>Was sexually abused (“given as wife”)</td>
<td>21 (35%)†</td>
</tr>
<tr>
<td>Gave birth to one or more children in captivity</td>
<td>11 (18%)†</td>
</tr>
</tbody>
</table>

*Percentage of those who stayed in Sudan; none of the children who did not spend time in Sudan reported this experience. †Percentage of girls; boys did not respond to this question.

Source: Derluyn, Broekaert, Schuyten and de Temmerman (2004), Table 2, p. 862.

### IV.4. Treatment of Girls

While boys are trained to become fighters, the majority of girls abducted by the LRA serve as slaves for the LRA commanders. The LRA utilizes a hierarchical, family-like structure in the bush, in which the commanders’ wives act as the heads of family in which all abductees are placed as “siblings”.14 Younger girls assume the position of servants to the commanders of whom they are assigned.15 Their role ultimately consists of cooking, cleaning, carrying large loads, fetching firewood, and attending to the whims of their commanders. According to Abigail Leibig (2005), girls comprise 20 to 30 percent of the child soldiers recruited and abducted in Northern Uganda.

Once a girl has reached puberty, they typically assume the role of “wife” to the commander. These girls act as sex slaves, and are repeatedly raped, often bearing the

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14 See Cheney (2005), p. 34.
15 See Becker and Tate (2003), p. 13.
children of the men who have taken advantage of them. Of the estimated 7,500 girls abducted by the LRA, some 1,000 have conceived children while captive in the bush. In the scholarly article “Our Children Have Only Known War”, Kristin E. Cheney (2005) gathers two first-hand accounts of life in the LRA. One is given by a girl named Chancy, who escaped captivity after experiencing horrific atrocities: “I was so scared [to go to the commander], but I could not refuse. I had seen a girl refuse to go to a man. She was beaten so bad and she was tied on a tree to be shot... When she was about to be killed, she went to him.”

Not only do “wives” of LRA commanders fall victim to rape and sexual assault, they also become more vulnerable to HIV/AIDS and other sexually transmitted diseases (STDs) during their time in captivity. Although the rate of HIV infection among the abducted children is unknown, various non-profit groups based in Northern Uganda have recognized a need for HIV/AIDS testing in former abductees. World Vision’s rehabilitation center recorded eighty-three children in 2002 being tested for HIV/AIDS; of those eighty-three, thirteen (seven boys and six girls) were found to be HIV-positive.

V. After-effects of War on Former Child Soldiers

While many of the children abducted by the LRA die in the bush, some find ways to escape from the army and return to civilization. However, the effects of their time in captivity are evident in their poor health and lack of education, creating significant obstacles for reintegration into their communities.

V.1. After-effects on Health

Following their return from the bush, former abductees suffer from both physical and psychological health issues. As captured in the Invisible Children documentary, physical casualties can include knife and bullet wounds, blindness, amputation of limbs, and starvation. While these physical casualties can be easily recognized among former child soldiers, the psychological issues that plague these children are more common and less easily identified. Often these psychological issues are not addressed due to the limited resources of the child’s environment. Of 71 children who agreed to be tested for post-traumatic stress disorder, 69 had clinically significant symptoms. Twenty-three of these children had lost their mother, a critical factor in the severity of their personal disorders.

Without addressing the psychological issues which plague these children, they will forever retain the memory of the horrors they experienced in captivity, hindering their mental growth and societal reintegration. A study done by Annan, Brier and Aryemo (2009) found a correlation between age, length of abduction and the problems faced in the community and family, following their reintegration into society. Table 2 on the next page provides further details.

Table 2: Age, Abduction Status and Return Experiences of Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Length of Abduction</th>
<th>Age at Abduction</th>
<th>Reported Family Problems on Survey</th>
<th>Reported Community Problems on Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matthew</td>
<td>18</td>
<td>3 years</td>
<td>13</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Samuel</td>
<td>25</td>
<td>6 months</td>
<td>18</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Michael</td>
<td>20</td>
<td>1 day</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Okello</td>
<td>23</td>
<td>1 week</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geoffrey</td>
<td>25</td>
<td>2 years</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bongomin</td>
<td>25</td>
<td>10 years</td>
<td>12</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>Simon</td>
<td>25</td>
<td>2 days</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christopher</td>
<td>17</td>
<td>4 days</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olweny</td>
<td>26</td>
<td>4 months</td>
<td>24</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Mark</td>
<td>20</td>
<td>3.5 years</td>
<td>13</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>David</td>
<td>15</td>
<td>1 year</td>
<td>13</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Adam</td>
<td>15</td>
<td>1 year</td>
<td>13</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Ojok</td>
<td>28</td>
<td>3 weeks</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timothy</td>
<td>18</td>
<td>8 years</td>
<td>9</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Komakech</td>
<td>17</td>
<td>6 months</td>
<td>15</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>James</td>
<td>28</td>
<td>4 years</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richard</td>
<td>30</td>
<td>2 months</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>28</td>
<td>3.5 years</td>
<td>13</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Paul</td>
<td>15</td>
<td>2.5 years</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Otim</td>
<td>15</td>
<td>3 years</td>
<td>11</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Peter</td>
<td>22</td>
<td>5.5 years</td>
<td>15</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Ojok</td>
<td>20</td>
<td>1 year</td>
<td>13</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Ayella</td>
<td>20</td>
<td>2 years</td>
<td>13</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

a. All names are pseudonyms to protect the participants’ identity.

Source: Annan, Brier and Aryemo (2009), Table 2, p. 646.

V.2. After-effects on Education

Former abductees are not only faced with the obstacles of health issues when released from captivity, but are also found to be less educated in comparison to those their age who had not been abducted. The LRA mainly targets children between the ages of 8 and 16, a period in which most children are receiving their primary and secondary education in Uganda. A study by Bayer, Klasen and Adam (2007) exposed this lack of education in child soldiers. As the fifth column of Table 3 shows, of the 58 former Ugandan child soldiers selected for the study, 55 had attended primary school, but none had the opportunity to pursue a secondary school education.
Table 3: Demographic and Social Variables of Former Ugandan Child Soldiers

<table>
<thead>
<tr>
<th></th>
<th>Total (n = 104)</th>
<th>Boys (n = 114)</th>
<th>Girls (n = 28)</th>
<th>Uganda (n = 58)</th>
<th>Congo (n = 111)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex, No. (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>141 (83.9)</td>
<td></td>
<td>35 (60.3)</td>
<td>106 (95.5)</td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>26 (16.1)</td>
<td></td>
<td>11 (29.7)</td>
<td>10 (14.5)</td>
<td></td>
</tr>
<tr>
<td>Age, mean (SD) [range], y</td>
<td>15.3 (1.6) [11-18]</td>
<td>15.3 (1.6) [11-18]</td>
<td>15.5 (1.7) [13-18]</td>
<td>14.5 (1.6) [11-18]</td>
<td>15.8 (1.3) [12-16]</td>
</tr>
<tr>
<td>Age at becoming child soldier, mean (SD) [range], y</td>
<td>12.1 (2.0) [9-18]</td>
<td>11.3 (1.9) [9-17]</td>
<td>12.7 (2.1) [9-18]</td>
<td>11.7 (2.3) [9-18]</td>
<td>12.2 (1.8) [9-17]</td>
</tr>
<tr>
<td>Duration being a child soldier, mean (SD) [range], mo</td>
<td>36.3 (21.1) [9-96]</td>
<td>30.3 (23.5) [9-96]</td>
<td>33.2 (28.4) [9-96]</td>
<td>32.5 (27.6) [9-96]</td>
<td>41.3 (21.6) [2-96]</td>
</tr>
<tr>
<td>Period since demobilization, mean (SD) [range], mo</td>
<td>2.3 (2.4) [0-18]</td>
<td>2.4 (2.6) [0-18]</td>
<td>1.9 (1.7) [0-7]</td>
<td>1.9 (1.9) [0-18]</td>
<td>2.5 (2.6) [0-19]</td>
</tr>
<tr>
<td>Education, No. (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No school</td>
<td>40 (37.7)</td>
<td>36 (32.4)</td>
<td>4 (21.1)</td>
<td>37 (63.8)</td>
<td>2 (18.2)</td>
</tr>
<tr>
<td>Primary school</td>
<td>125 (74.3)</td>
<td>100 (87.9)</td>
<td>25 (89.3)</td>
<td>55 (94.8)</td>
<td>70 (63.1)</td>
</tr>
<tr>
<td>Secondary school</td>
<td>4 (2.4)</td>
<td>3 (2.1)</td>
<td>1 (3.6)</td>
<td>0</td>
<td>3 (2.7)</td>
</tr>
<tr>
<td>Ethnicity, No. (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acholi</td>
<td>54 (22.1)</td>
<td>34 (29.5)</td>
<td>10 (35.7)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Hunde</td>
<td>21 (12.2)</td>
<td>19 (16.4)</td>
<td>2 (7.1)</td>
<td>0</td>
<td>21 (18.9)</td>
</tr>
<tr>
<td>Muhu</td>
<td>49 (29.0)</td>
<td>47 (40.7)</td>
<td>2 (7.1)</td>
<td>0</td>
<td>49 (44.1)</td>
</tr>
<tr>
<td>Mshik-Congo</td>
<td>18 (10.7)</td>
<td>18 (15.8)</td>
<td>0</td>
<td>18 (16.2)</td>
<td></td>
</tr>
<tr>
<td>Nande</td>
<td>10 (6.9)</td>
<td>9 (6.4)</td>
<td>1 (3.6)</td>
<td>0</td>
<td>10 (9.0)</td>
</tr>
<tr>
<td>Other</td>
<td>17 (10.1)</td>
<td>16 (13.8)</td>
<td>1 (3.6)</td>
<td>4 (6.9)</td>
<td>13 (11.7)</td>
</tr>
</tbody>
</table>

Source: Bayer, Klasen and Adam (2007), Table 1, p. 557.

This lack of education during such a critical time of learning significantly hinders former abductedees economically after their return. A study by Annan, Brier and Aryemo (2009), published in the Journal of Adolescent Research, found that former child soldiers were less motivated to return to school or begin work in order to earn an income and support themselves. Of the 741 males studied, 45 percent did not return to school, and only 54 percent of this group has worked at least a day in the last week earning less than 75 cents per day.21

VI. Contributions of Some Non-Profit Groups


UNICEF has been one of the leaders in the battle for children’s civil rights in Northern Uganda. After a surge of brutal LRA attacks in 2002, UNICEF worked with the news media to expose the issue of child soldiers. However, UNICEF discovered an obstacle in that they wanted to minimize the risk to the child soldiers they found in the LRA, and treat these “children as children.”22 According to Ugandan army spokesperson Shaban Bantariza, this idea hindered UNICEF’s work during the civil war: “UNICEF has a problem. They don’t know what children they are talking about... Our situation is such that we cannot talk about children. Children need not simply be referred to as children.”23

According to Cheney (2005), the LRA takes advantage of UNICEF’s ideologies on childhood, and works these beliefs to their advantage. The army will refer to the soldiers as “children” whenever the Ugandan government army “rescues” or shows any progress in doing so. However, when an LRA soldier successfully executes an attack or are killed

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21 See Annan, Brier and Aryemo (2009), p. 647.
22 See Cheney (2005), p. 36.
by the Ugandan government army are referred to as “rebels” so they can disregard the fact that these rebels were also abducted children.

VI.2. Invisible Children

In 2003, filmmakers Jason Russell, Bobby Bailey and Laren Poole traveled to Africa to document the lives of night commuters, former child soldiers and casualties affected directly by the violence in order to expose an issue of which many in the world were not aware. The release of their documentary, *Invisible Children*, spawned the creation of Invisible Children, Inc., a non-profit committed to spreading awareness on the atrocities they witnessed in Northern Uganda. Since the non-profit’s emergence, the group has worked to raise over $6 million towards aiding the effected children. This fundraising has been done primarily through the organizations website, which offers a variety of ways donors can help make a difference for very little money. Invisible Children is one of the most successful organizations at increasing the awareness of young people in the western world on the fate of invisible children in Uganda and elsewhere.

VI.3. World Vision

World Vision, a Christian organization that runs the Gulu Children of War Rehabilitation Center, works to address not only the immediate needs but also the long-term needs of all children affected by the war which includes prevention, demobilization, and reintegration of child soldiers. This work includes education, health care and shelter for former abductees, regardless of age. In the Rehabilitation Center, the LRA escapees are referred to as “students” who engage in “classes” including individual and group counseling, health education, children’s rights, drawing, singing, dancing, debate and storytelling. All of these activities serve as a psychosocial form of therapy which helps to better reintegrate the “students” into society and achieve a sense of normalcy post-abduction.

VII. Conclusion: A More Promising Future

Starting in 2007, the LRA began to dissipate in Northern Uganda and spread to the Democratic Republic of Congo, the Central African Republic, and southern Sudan. The Ugandan government has already made progress in achieving protection for the Northern Ugandan region, including pursuing peace talks with Joseph Kony.

In a landmark bill passed by the United States Congress in May 2010, the United States committed itself to developing a comprehensive strategy in addressing the violence of the LRA. The *Lord’s Resistance Army and Northern Ugandan Recovery Act* will “help strengthen state presence and capacity in these regions to the benefit of vulnerable civilian populations who have long suffered in the hands of the LRA”.

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26 See World Vision (2010).
27 See Prendergast (2010).
28 See Prendergast (2010).
Non-profit groups, including Invisible Children, UNICEF, World Vision and others, are still working actively in the region to restore quality of life for the Northern Ugandan children. Their efforts have contributed to the implementation of the following programs in and surrounding the region:

- Invisible Children’s Schools for Schools Program is a competition among schools across the United States to help fund raiser for the rebuilding of the eleven best secondary schools in Northern Uganda. This program not only promotes the pursuit of education by Northern Ugandan children affected by the war, but also encourages awareness on the issue in American school children across the country.

- The HIV and AIDS, Tuberculosis and Malaria Prevention Program sponsored by World Vision (2009) helps to treat the Northern Ugandan affected by disease and psychological disorders due to the war. The goals of the program include providing nutritional, clean-water and sanitation, and income-generating initiatives, as well as the training of 900 health workers.

With action taken by the Ugandan government, support from the United States government and other bilateral as well as multilateral donors, and new program initiatives introduced by non-profit groups, the children of Northern Uganda can finally get closer to secure the protection and representation they need and begin their journey on the long road to recovery and peace.

References


Poverty in Central Asia: Kazakhstan versus Tajikistan

Gregory Chapman

Abstract
This article reviews the existence and nature of poverty in the two very different Central Asian nations of Kazakhstan and Tajikistan. Kazakhstan is oil-rich and agriculturally productive. Tajikistan is poor, rural, isolated and mountainous. Summarizing the nature of poverty in these two countries, this article seeks to understand some of the driving factors behind it. Though by no means comprehensive or complete, this article illustrates the vast differences between these two countries of the same ‘neighborhood’ and, sadly, one has great hope of outgrowing poverty and the other has not.

I. Introduction
Central Asia has long been a so-called ‘crossroads of the world’, a place where ‘east meets west’ in the narrow valleys and of the Tian Shan and on the vast plains of the Steppe.\(^1\) Although central to both the 19th century geopolitical struggle known as the ‘Great Game’ as well as to modern energy-driven geopolitics, the region remains little understood - perhaps sheltered by its high mountains and long wind-swept winters, perhaps by its long Soviet past or even by its intricate, ostensibly foreign culture. Though this region is, due to its fragile post-Soviet independence and relative richness in energy reserves, more vital to our own national interests than ever, it is safe to say that most Americans know very little of this ‘land of the Stans’.

Despite the seemed wealth of some of the Central Asian nations, particularly Kazakhstan,\(^2\) in oil, natural gas and other mineral resources, as well as a relative

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\(^1\) One of the world’s highest mountainous plateaus, stretching from western China in the east to central Kazakhstan and eastern Uzbekistan in the west.

\(^2\) Energy Information Administration (2009).
abundance of arable land, the region has nonetheless been dogged by persistent poverty, both in the more developed, urbanized, oil-rich west (near the Aral and Caspian Seas) and in the isolated, mountainous east.

As we are all quite well aware, despite the amazing advances in science, technology, industry, agriculture, medicine and innumerable other fields since the beginning of the industrial revolution in the mid 18th century, human poverty remains a major issue throughout much of the world. In our own nation, despite more than four decades of the national “war on poverty”, it seems that the effects of economic divergence and the recent economic crisis have led to greatly increased levels of poverty and suffering, particularly in disadvantaged regions.

The *World Development Report 2000/2001* explained the reality of poverty as such:

> Poor people live without fundamental freedoms of action and choice that the better-off take for granted. They often lack adequate food and shelter, education and health, deprivations that keep them from leading the kind of life that everyone values. They also face extreme vulnerability to ill health, economic dislocation, and natural disasters. And they are often exposed to ill treatment by institutions of the state and society and are powerless to influence key decisions affecting their lives. These are all dimensions of poverty.  

This article seeks to identify, quantify and at least begin to understand the reasons for the existence and persistence of such poverty in Central Asia. It illustrates the differences in the nature of poverty across two Central Asian nations (Kazakhstan, the wealthiest of the Central Asian republics, and Tajikistan, the poorest) which exemplify their region. The article also seeks to understand why such poverty has proven so difficult to address despite recent positive growth in these countries’ Gross Domestic Product (GDP).

## II. Literature Review

The academic resources related to the topic and geographical interest are somewhat sparse, and certainly of varied and eclectic focus. Most academic, non-institutional literature seems to focus on poverty only in the broader socio-economic context of the transition from Soviet socialism to varying forms of Western liberal capitalism. While such literature does certainly provide valuable information and insights into the causes and nature of poverty in the region, its focus is elsewhere. As opposed to other regions (such as the Indian sub-continent and Sub-Saharan Africa), there is little scholarship which focuses directly on the lives of poor people in Central Asia, and almost nothing which presents them in terms of agency, or in any non-numerical terms. There are some decent institutional sources, but it seems that, for some reason, these sources are sparse. Governmental literature is also somewhat valuable but even sparser and politically suspect, especially broaching regional issues.

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3. Kazakhstan’s arable land amounts to 2.04 hectares (ha) per person - higher than any nation save Australia. In some regions of Kazakhstan, that figure is almost 10 ha per person; see Fergus (2003), pp. 109-111.
Though there are several valuable sources (especially since the breakup of the Soviet Union), the following three are likely the most important.

- In “A Strategy for Reducing Poverty in Kazakhstan”, Michael Fergus (2003), a Norwegian demographer, gives a fabulous outline of the nature and recent history of poverty in post-Soviet Kazakhstan. He explains the extraordinary but caveated economic turn-around that happened in Kazakhstan between 1998 and 2000. He also outlines official strategies for further poverty reduction going forward. Fergus clearly and concisely links the rise of post-Soviet poverty to (a) the economic calamity, (b) the near halt in trade with other former Soviet republics, and (c) the emigration en masse of non-Kazakhs (mostly Russians and East Germans) who had come to Central Asia after World War II. The article also evokes the so-called “Dutch disease” to explain the persistence of poverty relative to Kazakhstan’s GDP explosion.

- Swarup (2009) authored an Oxfam report, entitled “Reaching Tipping Point?: Climate Change and Poverty in Tajikistan”. Though somewhat more centered on the effects of global warming on Tajikistan’s sensitive climate and ecosystem, Swarup provides a fascinating and distressing glimpse into the intimate relationship between Tajikistan’s rural poor and the condition of the land which they farm, the recent degradation of that condition, and the bleak future faced by the farming poor should such environmental degradation persist. The report features interviews with rural farmers, whose saddening accounts offer a glimpse into their stark existence. Though not a mine of empirical data, this Oxfam report offers great insight into the fragility of the livelihood of Tajikistan’s rural poor.

- Jane Falkingham (2005) provides a consistent, level-headed approach to the causes and recent developments in Central Asian poverty. An expert in the region, Falkingham is the author of a series of articles. Focusing on basic principles of GDP per capita, public sector spending, income inequality, as well as human concerns (such as public health and education), she calmly dissects the problem of persistent poverty, while emphasizing that despite recent economic gains (at the time of the article), the majority of the work in alleviating poverty remained to be done, and that governments were not making the politics easy.

These three articles are, of course, only a segment of the literature on this topic. Yet, they are the ‘stand-out’ sources, the exemplary best, and representative of the background and spirit of this article.

III. Empirical Background: Poverty and Living Conditions

Across the world, the size of an economy is measured in GDP terms. In post-Soviet Central Asia, such terms are particularly important, given the economic collapse experienced by all the former Republics after independence. Resource-rich nations such as Kazakhstan and Uzbekistan have largely rebounded, whereas resource-poor nations like Tajikistan are in as bad a shape as ever.

As can be seen, both nations experienced severe economic shocks following the 1990-91 dissolution of the Soviet Union (Figures 1 and 2). Between 1990 and 1995, Kazakhstan’s
GDP fell by one-third, bottoming out at around 60 percent of its 1990 GDP level. Since then, Kazakhstan’s GDP has rebounded enormously, rising from $16.1 billion in 1995 to almost $38 billion today (Figure 1). Though concentrated, as usual, largely at the top, Kazakhstan’s extraordinary economic expansion has surely meant great improvements for the living standard of its people.

Tajikistan, on the other hand, has not well recovered from its post-Communist calamity, which was considerably worse than Kazakhstan’s. From 1990 to 1995, Tajikistan’s GDP dropped by 64 percent, from $2.25 billion in 1990 to $850 million in 1995. While Kazakhstan’s economy has rebounded, Tajikistan’s GDP today is only $1.73 billion - only 77 percent of its 1990 level (Figure 2).

Figure 1: GDP of Kazakhstan, 1990-2008

![GDP of Kazakhstan, 1990-2008](image1)

Figure 2: GDP of Tajikistan, 1990-2008

![GDP of Tajikistan, 1990-2008](image2)


Poverty itself has always been impossible to exactly quantify. The problem comes in determining who is poor, and how to find and count them, and then how to present the data in a way that does justice to these peoples’ lives. Even in a stable, western country these are great challenges, let alone in autocratic, often politically unstable former Soviet Republics. Quite simply, the data available is sparse, and national surveys (such as those taken yearly in the United States) are few and limited. In Kazakhstan, data seems to only be available for the year 1996 and 2001-2002. In 1996, one of Kazakhstan’s worst years in terms of GDP, a national survey of 1996 households (a survey size intended to be ironic, perhaps) determined a national poverty line (a “subsistence minimum”) of $40/month, and determined a poverty rate of 34.5 percent. By 2001, that number had decreased to 17.6 percent, and further to 15.4 percent by 2002. Unfortunately, apart from these three figures there seems to be no direct data available on poverty rates in Kazakhstan.

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1 Fergus (2003), pp. 110-112.
2 World Bank (2010).
As for Tajikistan, the data are equally sparse, and far more shocking. Headcount surveys put poverty at staggering 74.9 percent in 1999, then at 72.4 percent in 2003, and at a far lower 53.5 percent by 2007.\(^3\) Despite some apparent improvement, poverty in Tajikistan remains shockingly high - nearly as high as in its neighbor, Afghanistan, and overall one of the highest rates of persistent poverty in the world. As of 2003, 69 percent of the Tajik population lived on less than 2 U.S. dollar per day, compared to only 17 percent of the Kazakh population. Furthermore, in 2003 more than one-third of the Tajik population lived on less than $1.25 per day - a number comparable not with Central Asia but with Central Africa.\(^4\)

To understand the nature of poverty, we must look beyond income poverty data and instead examine key statistics related to living conditions. Such a key statistic is life expectancy, reflecting a measure of public health. Interestingly, given what we know about poverty in these countries, this statistic is surprising and somewhat encouraging. Despite the clearly much higher poverty in Tajikistan, public health measures appear to have been effective in raising the overall health, and thus the overall life-expectancy of the population. This is as opposed to Kazakhstan, where life expectancy has risen slightly but is still well below its 1990 level of 68 years (Figure 3).

![Figure 3: Life Expectancy at Birth (years) in Kazakhstan and Tajikistan](image)


Of course, these data on life expectancy may be somewhat misleading: Tajikistan’s improvement is probably attributable to some degree to a young, growing population following its post communist civil war, and Kazakhstan’s figure is probably weighed down by large-scale emigration, which will be examined further later.

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\(^3\) World Bank (2010).

\(^4\) World Bank (2010).
Infant mortality figures (considered another principle measurement of public health) are also telling of the situation today in Central Asia: while the numbers are on a slow and steady decrease, they remain very high, and are considerably higher (almost double) across the board in much-poorer Tajikistan (Figure 4).

**Figure 4: Infant Mortality (per 1,000 live births), 1990-2008**

![Mortality rate, infant (per 1,000 live births)]


The last indicator we would like to examine is unemployment. This proves difficult as the World Bank’s *World Development Indicators database* does not contain any information on the percentage of unemployed of Tajikistan’s labor force. Based on official estimates for 2003-2005 (provided by the CIA Factbook), unemployment was 40 percent, though it is well known that actual unemployment has been much higher than officially estimated. Based on a study by Mark Kramer (2008) at Harvard University, unemployment has reached as high as 60 percent in some of Tajikistan’s regions, with youth unemployment reaching 80-90 percent. In Kazakhstan, for which data is available from 1994-2004, the recent figures are encouraging. They show a rapid drop in unemployment, corresponding with Kazakhstan’s oil boom which began in the late 1990s (Figure 5). Moving towards universal employment is the best way to reduce persistent poverty.

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IV. Discussion

IV.1. Migration

When discussing issues of poverty anywhere in the world, there are umpteen issues which must come into consideration. In any single thesis, let alone in any articles as short as this one, it is nearly impossible to adequately portray such issues holistically. Instead, it proves necessary to focus on one or several of the most crucial issues, and to highlight the effect they have on the greater issue of poverty in a particular region.

In the case of Kazakhstan, and to a lesser extent, Tajikistan, migration is one of the biggest socio-economic issues. As shown in Figure 6, from the time of the collapse of the Soviet Union all the way until the end of the 1990s, Kazakhstan’s population fell sharply, from 16.4 million in 1990 to 14.9 million in 2000. This implies a net loss (to migration, as there was no major violence or catastrophe associated with the secession of Kazakhstan) of approximately 1.5 million people. Tajikistan’s population increased from 5.3 million in 1990 to 6.8 million in 2008, which is due largely to population growth and until very recently, low levels of migration.

Figure 7 shows the migration of population (as percent of the total population) for the available years from 1990 to 2005. In the late 1990s, Kazakhstan lost nearly 10 percent of its population on a yearly basis due to migration. Though some of this was made up for with relatively high birth rates, Kazakhstan nonetheless lost a considerable portion of its population. In the case of Tajikistan, the migration was (as a percent of the total population) until the beginning of this millennium far lower than in Kazakhstan, and given relatively high birth rates, Tajikistan’s population continues to grow.
So why does such a loss matter in terms of poverty? It would seem, ostensibly, that having fewer mouths to feed is a good thing. Yet, one must understand, in the case of Kazakhstan, this emigration was very much a brain-drain. During communist times, much of Kazakhstan’s educated middle class were not Kazakh but Russian and East German (some had been there since long before the Soviet Union was formed). Though Kazakhstan still has a significant minority of Russians (in the north) and Germans (in the cities), many left to return to their homeland, taking advantage of liberal citizenship laws.
that allowed the return of post-communist ethnic nationals.\textsuperscript{6} As one can easily imagine, the effects of a shrinking middle class on the stability of the Kazakh economy were not positive. This emigration has left Kazakhstan a nation of mostly ethnic Kazakhs, who are, of course, the poorest and most rural of Kazakhstan’s three main ethnic groups. Unfortunately, little data is available on the ethnic makeup of Kazakhstan and related data such as educational and economic-participation information.

**IV.2. Dutch Disease and Inequality**

As mentioned above, the recent “explosion” in Kazakhstan’s economy has largely been due to the increasing exploitation of its enormous oil reserves. Though the oil-boom has certainly been beneficial for the Kazakh nation as a whole, it does present some basic issues, especially when discussing poverty.

The first is the issue of so-called “Dutch disease.” As coined in the 1970s and catalogued in the New Palgrave Dictionary of Economics, “Dutch disease” refers to the problems, particularly de-industrialization, caused by over-reliance on exploitation of fossil fuel resources.\textsuperscript{7} This has been a major fear in Kazakhstan, given its 21st century explosion in oil production, as shown in Figure 8.

**Figure 8: Kazakhstan’s Total Energy Production, 1990-2007**

(in 1000s of tons of oil equivalent)

\begin{center}
\includegraphics[width=0.7\textwidth]{figure8.png}
\end{center}


\textsuperscript{6} Pomfret (2005), p. 861.

As shown in Figure 9, the energy sector (mostly oil and more recently some natural gas) now accounts for nearly one third of Kazakhstan’s economy. This can cause enormous problems for a nation - not only in terms of over-reliance, but also in terms of de-incentivizing other forms of economic production. Also, it is important to understand, oil is not a wholly productive industry, in societal terms - that is, it produces relatively few jobs, and does not generally share its income on a national basis. This is reflected in Kazakhstan’s relatively uneven distribution of income across its people (which is reflected in a Gini index above 30, which is high for a former socialist state).\(^8\) While uneven income distribution is not uncommon in the developing (and increasingly, in the developed) world, it is very harmful when it comes to issues of poverty. If most of the income is going to the wealthiest (i.e., the oil-industrial class), the poor do not benefit from Kazakhstan’s energy boom.

### IV.3. Agriculture and Climate Change

In Tajikistan, as opposed to Kazakhstan, an industrial base was never really built, and poverty remains very rural. This, in certain cases, makes poverty issues harder to quantify and to understand, largely because Tajikistan is very mountainous, with many regions hard to access even in good weather. In many ways, the life of the average Tajik, outside Dushanbe, has not changed, in character or difficulty, in the past hundred or so years.

Yet, the world is making life harder for the average rural Tajik. The massive increase in greenhouse gas emissions over the past 70 or so years has meant increasing problems for Tajikistan’s highly fragile ecosystem. Glaciers are shrinking, water levels are dropping.

\(^8\) World Bank (2010).
and severe weather and droughts are increasing in frequency. In fact, Tajikistan is ranked as the most vulnerable to climate change in all of Eurasia.\(^9\)

Though the 2009 season was, thankfully, quite productive, the three previous years saw Tajikistan in painful drought conditions. Many farmers were forced to leave their land, to seek work in Dushanbe, and, increasingly, abroad in Kazakhstan, Russia and China. The climate change-caused drought problems are so bad that, according to one Tajik government official, “[W]e are seeing more extreme weather conditions and more extreme cold and more extreme heat, particularly in the valley. [...] If nothing is done, all the glaciers will melt and I don’t know if we will have water in 20 years.”\(^{10}\) Indeed, as all over the world, glaciers (which are Tajikistan’s only reliable source of water), are in extreme danger. Of the glaciers that feed the irrigation of Tajikistan, some are already nearly half-way melted, and the expectation is that by 2050, the vast majority of Tajikistan’s permanent glaciers will have melted.\(^{11}\)

Of course, all nations, in some way or another, must adapt to climate change. Yet, the previously mentioned ranking also rated Tajikistan as a nation with the lowest ability to adapt to climate change. As Tajikistan is one of the world’s smallest producers of greenhouse gases, it would seem that, sadly, Tajikistan has little control over its own fate, and short of a new agricultural revolution, has a bleak future.

V. Conclusions

Though very different across nations, poverty in Central Asia does seem to be doggedly persistent. Both in oil-rich Kazakhstan and all-around-poor Tajikistan, poverty seems to hold on, most particularly in rural areas. Though progress has been and continues to be made, these issues should consistently remain on the forefront of our thoughts, as should any discussion of human poverty and suffering. It is, however, always important to understand the differences in these issues across nations, and the different strategies necessary to resolve them.

Going forward, the main issue in Kazakhstan is how to shape growth so that the ever-expanding fossil fuel industry can better help the welfare of the nation as a whole, and not just the wealthy upper-crust. Though not discussed above, corruption and government graft is also a major issue, as in any oil-rich autocracy. The point is, a country with such wealth no longer has any excuse to ignore or spurn the needs of the neediest of its population. It is telling, then, that the Kazakh government, and indeed most of the scholarship available on Kazakh issues, does not consider poverty to be one of the nation’s major issues. In a sense, we can see Kazakhstan’s poverty as a similar, though exacerbated form of poverty we see in our own nation, and, pointedly, which we continue to ignore in our own nation. It is a solvable issue, requiring more human effort than hard cash, but is, for now, in both nations, on the back-burner.

The issue of poverty in Tajikistan, however, is much bleaker. In this case, whether or not Tajikistan puts in due effort, the nation and its government do not seem to have the power

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9 Swarup (2009), p. 11.
10 Swarup (2009), p. 6.
to overcome poverty. As a nation where poverty is largely rural, Tajiks are at the mercy and whim of mother nature, and it would seem that on this earth, mother nature is herself in the hands of the rich. That is to say, those nations which are most vulnerable to the disastrous effects of climate change, Tajikistan among them, are the least potent in terms of stopping it. The solution, then, lies in the hands of everyone else, of the whole world. On this issue, there has until now been little international agreement, and national self-interest has prevailed overall. Let us hope, however, that for the sake of the Tajik people and so many others, common sense and decency will prevail.

References


The Water Crisis in Kenya:
Causes, Effects and Solutions

Samantha Marshall

Abstract
Located on the eastern coast of Africa, Kenya, a generally dry country with a humid climate, is enduring a severe water crisis. Several issues such as global warming (causing recurrent and increasingly severe droughts as well as floods), the contamination of drinking water, and a lack of investment in water resources have enhanced the crisis. This article provides an overview of Kenya’s water crisis, along with a brief review of the literature and some empirical background. It reviews the main causes of the water crisis and how it affects the health of millions of Kenyans. Furthermore, the article summarizes some of the main solutions proposed to overcome the crisis.

I. Introduction
There are about 40 million people living in Kenya, of which about 17 million (43 percent) do not have access to clean water.¹ For decades, water scarcity has been a major issue in Kenya, caused mainly by years of recurrent droughts, poor management of water supply, contamination of the available water, and a sharp increase in water demand resulting from relatively high population growth. The lack of rainfall affects also the ability to acquire food and has led to eruptions of violence in Kenya. In many areas, the shortage of water in Kenya has been amplified by the government’s lack of investment in water, especially in rural areas.

Most of the urban poor Kenyans only have access to polluted water, which has caused cholera epidemics and multiple other diseases that affect health and livelihoods. Despite the critical shortage of clean water in Kenya’s urban slums, there also is a large rural to urban discrepancy in access to clean water in Kenya. According to the World Bank (2010), slightly less than half of the rural population has access to water, as opposed to

¹ See World Bank (2010).
the urban population where 85 percent have access to safe water. Due to continued population growth, it has been estimated that by the year 2025, Kenya’s per capita water availability will be 235 cubic meters per year, about two-thirds less than the current 650 cubic meters.\(^2\)

This article is about the causes, effects and solutions to the water crisis in Kenya. The next section provides a brief review of the literature on the Kenyan water crisis. The subsequent section provides some empirical background on Kenya. The fourth and fifth sections discuss, respectively, how the water crisis developed and what effects it has on the country. Section six summarizes some recent suggestions for solutions before the last section provides some conclusions.

II. Brief Literature Review

There is a large and growing literature addressing a variety of issues related to Kenya’s decade old water crisis. One of the first systematic analyses of Kenya’s water resources had been undertaken by the British Crown in 1934 (when Kenya was a colony of the British empire).\(^3\) The literature experienced some growth after Kenya gained independence in 1963, with various seminal contributions in the early 1970s.\(^4\) By the 1980s, much of the literature addressed specific issues, like for example the report by the Kenya Water for Health Organization (1985), focusing on the implications of the Kenyan water crisis on women. By 1990, the first annotated bibliography on soil and water conservation in Kenya had been provided by Karanja and Tefera (1990).

In the more recent years, the focus of Kenya’s water crisis has shifted to the impact of climate change and climate variability; see for example the detailed study by Mogaka, Gichere, Davis and Hirji (2006). Furthermore, after decades of policy neglect, the Government of Kenya’s (2008) Poverty Reduction Strategy Paper (PRSP) has finally recognized the importance of safe water for its goal to reduce poverty. The PRSP discusses the water situation, challenges to overcome the water crisis, and multiple approaches to tackle the problem.

Among the most recent contributions are various informative news articles which illustrate the severity as well as the complexity of Kenya’s water crisis. Several articles focus on how water contamination leads to illnesses and death. Other articles touch upon different factors of the crisis and some stick to one specific factor, such as recurrent droughts, which have affected millions of Kenyans.

One very interesting article, devised by the Women News Network’s Kenya correspondent Gitonga Njeru (2010), focuses on how the water crisis in Kenya has had a tremendous impact on maternal care. The Kakamega Provincial District General Hospital in Kenya lacks the sufficient supply of clean water. Njeru says that the patients’ health conditions are made worse by severe water shortages. Due to the water shortage, hospitals like Kakamega Provincial District General Hospital have to collect buckets of water, which is then provided to its patients. The water is polluted with bacteria, viruses and parasites and many patients develop different diseases such as typhoid and cholera. Not being able to

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\(^2\) See Wafula (2010).
\(^3\) See Kenya Colony and Protectorate (1934).
\(^4\) See for example Padfield (1971) and Carruthers (1973).
provide safe water results in a serious threat to the health of expectant mothers. “The facts are clear,” Njeru states, “climate change, water supply and sanitation play a responsible role in many of these deaths.”

Similar to Njeru’s article, there is a blog posted in 2008 that is entitled “Cholera Outbreaks in W. Kenya Blamed on Contaminated Water”. According to the blog, health officials said the main reason for cholera outbreaks was because of seepage from the latrines. Senior Deputy Director of Medical Services in Kenya’s health ministry, Shahnaaz Sharif, said: “In Kisumu, many wells are built near the latrine; eventually the sewage seeps into the wells.” One of the leading causes of diseases among Kenyans, such as cholera, is due to a lack of access to safe water.

An appealing article posted by Global Voices author, John Liebhardt (2010), reflects on the harsh conditions Kenyans now face due to the long-lasting drought. The drought, Liebhardt says, has forced people to move from their home, caused violence, posed educational issues and has burdened people with rebuilding their communities. The drought has forced people living in rural areas to move in order to find water because there is an insufficient amount for them and their animals. Migration has forced children out of school, which has negative implications on their education. Moreover, the severe drought in Kenya affects the total living quality of many families, as many can no longer support their daily needs.

III. Empirical Background

Kenya is a generally dry country, as about 80 percent of the country is arid and semi-arid. The high potential agricultural land amounts to only 17 percent, which sustains 75 percent of the population. The average annual rainfall in Kenya is 630 millimeters (mm) with a variation from less than 200 mm in Northern Kenya to over 1,800 mm on the slopes of Mt. Kenya.5

Kenya’s economy is based around an agricultural hub, with agriculture providing about one third of the country’s income (see Figure 1, showing the share of agriculture in Kenya’s gross domestic product (GDP) from 1960-2008). When a drought occurs, this has severe implications on the entire economy and the people’s livelihood. The high volatility of the agricultural share of GDP (clearly visible in Figure 1) is mostly reflecting weather-related impacts on Kenya’s agricultural productivity.

As shown in Figure 2, Kenya has made no progress in raising its GDP per capita during the last 20 years. GDP per capita was slightly below US$1,500 (expressed in purchasing power parity and in constant 2005 dollars) in 1990 and still was below US$1,500 in 2008. Figure 2 also shows that Kenya is poorer and did worse than the average of Sub-Saharan Africa (SSA), which—as is well-known—stands out among the world regions as having made the least progress during the last 20 years.

Figure 3 shows the access to clean water by Kenya’s total, urban, and rural populations (in percent). First of all, we can see the huge difference in access rates to clean water between the rural and urban population. In 1990, only 30 percent of the Kenya’s rural population had access to clean water, while the access rate for the urban population stood at 90 percent. During the last two decades, the gap between rural and urban access rates
has decreased. Still, Kenya’s rural population remains to have a much lower access rate than the urban population in 2006, respectively 49 percent and 85 percent. Much of the progress in rural access rates and the decreasing urban access rates can be attributed to rural to urban migration and rapid urbanization. A second important observation is that Kenya has overall made some progress in the percentage of people having access to clean water. Access rates have increased from 41 percent of the total population in 1990 to 57 percent of the total population in 2006.

Figure 3: Access to Clean Water in Kenya
(for available years during 1990-2006)

![Access to Clean Water in Kenya](image)


Figure 4: Access to Clean Water in Kenya and SSA
(for available years during 1990-2006)

![Access to Clean Water in Kenya and SSA](image)

While these numbers remain far too low, Figure 4 shows that Kenya has made more progress in improving access rates to clean water than the average SSA-country. During the last two decades, Kenya has increased its access rate for the total population by 16 percentage points, while SSA has increased its access rate by only 10 percentage points (from 48 percent to 58 percent). Furthermore, comparing Figure 4 with Figure 2, we can see that Kenya has made more progress in increasing access rates to clean water than SSA, despite of Kenya having made far less progress in terms of raising income per capita than SSA.

IV. Causes of the Water Crisis

Despite the progress made, it is important to review the causes of Kenya’s water crisis in order to improve the situation further and to prevent future disasters. In this section, six essential causes of Kenya’s water crisis will be discussed: droughts, forest degradation, floods, poor management of water supply, water contamination (especially in slums), and population growth.

IV.1. Droughts

Over the past decade Kenya has experienced a severe drought. Global warming is one critical factor that has prolonged the drought and as a result, millions of Kenyans are unable to grow their crops and keep their livestock alive. Because most Kenyans rely directly or indirectly on agriculture, when severe droughts occur, many Kenyans are left to starve unless food aid prevents a famine. Box 1 shows that in the last decade alone, there have been four major food crises, all due to drought. A map of Africa, which portrays the impact global warming has had on different countries, is shown in Figure 5.

Box 1: Food Crises (1997-2005)

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1997</td>
<td>the Kenyan Government declared a state of national disaster after a severe drought threatened the livelihoods of 2 million people.</td>
</tr>
<tr>
<td>December 2000</td>
<td>4 million people were in need of food aid after Kenya was hit by its worst drought in 37 years.</td>
</tr>
<tr>
<td>2004</td>
<td>the long rains (March-June) failed and the subsequent crop failure left more than 2.3 million people in need of assistance.</td>
</tr>
<tr>
<td>December 2005</td>
<td>President Kibaki declared yet another “national catastrophe” in reference to the famine that affected 2.5 million in northern Kenya.</td>
</tr>
</tbody>
</table>


Figure 5: Impact of Global Warming in Africa

Each number on the map represents a specific effect global warming has had on a certain country. The red icons symbolize the types of impacts likely to become more frequent and widespread if global warming continues. The icon labeled number 151 represents the drought that occurred in Kenya in 2001. This drought was labeled the worst drought in 60 years, which affected over four million people because of a severely reduced harvest, damaged livestock and weak sanitary conditions.\footnote{See Union of Concerned Scientists (1999).}

### IV.2. Forest Degradation

Another main reason for why droughts have prolonged is due to deforestation. The largest forest in Kenya, Mau, distributes water to six lakes plus eight wildlife reserves, and some 10 million people depend on its rivers for a living. However, loggers and farmers have destroyed a quarter of Mau’s 400,000 hectares.\footnote{See Morgan (2009).} The problem with deforestation is that it almost always leads to increased runoff, which has negative implications in both the rainy as well as the subsequent dry season.

Figure 6 compares two satellite images of Mau forest. The image to the left is from 1986 and the image to the right is from 2003. Both images portray the loss of forest cover (which is shown in red) and the infringement (arrows) into the Mau forest reserve. As shown in Figure 6, the extent of deforestation has increased from 1986 to 2003 because the arrows symbolize the increase of settlers and clearers into the Mau forest, which has had a huge impact on the loss of forest cover.

![Figure 6: Massai Mau Forest Degradation](image)

Source: Morgan (2009).

According to Morgan (2009), since 2001, when 60,000 hectares of Mau forests were given to settlers, it has been hard to control the amount of forest degradation. Figure 7 provides a layout of the Mau complex and information about which areas have been consumed. The Mau area covered in red stripes represents the excised forest, which...
belongs to farmers, local officials and settlers. Almost 20,000 hectares were handed out to farmers by the government for political reasons and about 2,000 hectares were illegally purchased with the help of local officials. The dark green-striped areas represent a part of Mau that was adjudicated to local people who have traditional rights to the forest. The remaining encroached areas, represented by blue stripes, were taken over by settlers. Figure 7 helps to explain why such a large amount of Mau forest has suffered degradation and how difficult it will be for Kenya to rebuild the forest to overcome the water shortage in the rivers around it.

Figure 7: Mau Forest Complex

Source: Morgan (2009).

IV.3. Floods

Somehow contradictory is the fact that Kenya also suffers from floods, though either at different periods or in different regions (especially in the narrow tropical belt along the Indian Ocean). Most parts of Kenya have two rainy seasons, March to May (long rains) and October to November (short rains), with the intensity of these rains having increased recently due to an increased climate variability. According to a report of the Government of Kenya (2001), in addition to annual local floods, the country experienced major floods in 1961 and in 1997/1998.

IV.4. Poor Management of Water Supply

For many years there has been an increased need for (i) funding, (ii) management and (iii) development of water resources in Kenya because of the increasing population as well as the country’s increasing use of water for agriculture. However, the actions taken

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8 See Mogaka, Gichere, Davis and Hirji (2006).
have not been effective because organizations in charge of managing water resources have failed in multiple ways:

- According to the Government of Kenya’s National Water Development Report of 2006, Kenya’s water resources have been mismanaged through unsustainable water and land use policies, laws and institutions, weak water allocation practices, growing pollution, and increasing degradation of rivers, lakes, wetlands, aquifers and their catchments.

- According to Ngigi and Macharia (2006), Kenya’s government devised a plan in 1974 to ensure safe water to all households by the year 2000. The government established many different plans along the way to manage water effectively, such as the National Water Conservation and Pipeline Corporation (NWCPC). By the year 2000 the NWCPC was managing piped water systems in urban and rural areas, which served about 3.8 million people. Other people benefited from the NWCPC, but it was not enough, as less than half the rural population had access to clean water and in urban areas only two thirds of the population had access to clean water. This can be explained through a process called “handing over.” The government experienced budget problems in the 1980s and knew it would not be able to meet its goals by the year 2000. The government “handed over” rural water systems to people of communities and urban water systems to departments within local authorities, where they would take responsibility for controlling and preserving the water systems.

Related to the government’s mismanagement is a problem of private investors not willing to provide water services in Kenya. Paul Wafula (2010), a journalist for Business Daily (a newspaper published out of Nairobi, Kenya), discusses the lack of investment in water in Kenya. He writes that according to Mr. Julius Seloke of Westwood Management Ltd. (a brokerage firm in East Africa) “the view that water is a human right has contributed largely to investors shying away” as investors fear that the government may interfere in business decisions, like dictating the price investors can charge. He also quotes Professor Mumma Albert (a senior lecturer of the University of Nairobi), stating that “[t]he Water Act 2002 depends on State-based legal frameworks, its effectiveness in meeting the needs of the rural poor are limited, particularly given the limitations of technical and financial resources facing Kenya.”

IV.5. Contamination of Water

The disability to maintain clean water in Kenya is another main reason for the worsening of the water crisis in Kenya. Many Kenyans use wells to obtain domestic water and also use pit latrines that are often close in distance to the wells. This causes contamination of the wells because the microorganisms travel from the pit latrines to the wells. The wells should be placed in elevated areas (at least 2 meters above the water table) and at least 15 meters from pit latrines, which however is not the case in most overcrowded urban slums.

An excellent case study undertaken by Elizabeth Wambui Kimani-Murage and Augustine M. Ngindu (2007) provides an explanation for the severe contamination of drinking water in Kenya. The study argues that the severe contamination is largely due to the close distance between pit latrines and wells. This study focuses on residents of a Kenyan slum...
because the majority of urban residents in sub-Saharan Africa live due to rapid urbanization in slums. The following quote summarizes what was collected from the study:

This cross-sectional study involved 192 respondents from Langas slum, Kenya. Forty water samples were collected from the water sources used by the respondents for laboratory analysis of coliforms. Of these 40 samples, 31 were from shallow wells, four from deep wells, and five from taps. Multiple-tube fermentation technique was used to enumerate coliform bacteria in water.⁹

The results from the study show that most people in urban slums (91 percent) used wells as their main source of water and the rest used tap water. The majority of people in urban slums said they used pit latrines for disposal while 30 percent of children said that they emit in open fields. As Table 1 shows, the problem is that many wells are very close to the pit latrines. Out of 175 wells, about 39 percent of the wells were less than 15 meters from the latrines, about 59 percent were located within 15 and 30 meters and only about 3 percent were located 30 meters or more to pit latrines. All the samples taken from shallow wells were positive for total coliforms, which is fecal contamination. Three out of four samples taken from the deep wells were contaminated and none of the tap water samples were contaminated.

<table>
<thead>
<tr>
<th>Distance</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–15 m</td>
<td>67</td>
<td>38.3</td>
</tr>
<tr>
<td>15–30 m</td>
<td>103</td>
<td>58.9</td>
</tr>
<tr>
<td>30 m and above</td>
<td>5</td>
<td>2.9</td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Kimani-Murage and Ngindu (2007), Table 1 (p. 833).

Other possible sources of water contamination in the area were also examined by the study. People of the area said that contamination can be a result of children dipping dirty objects into water sources (34 percent), drawing water from the source with dirty containers (27 percent), domestic animals excreting around water sources (19 percent) and people washing their clothes at the water source (5 percent). In any case, this study shows that the drinking water in Langas urban slum is contaminated and unsafe to drink, yet, the slum dwellers continue to drink it as they have no other alternatives.

IV.6. Population Growth

Kenya’s relatively high population growth has had another negative impact on having access to safe water. According to the World Bank (2010), the population in Kenya in 1990 was about 23 million and in 2008 the population increased to about 40 million people. With an increase in population, water is less accessible. In Kenya there are more

people that live in rural areas than urban, however, the percent of total population that live in rural areas went down from about 82 percent (in 1990) to about 78 percent (in 2008). Due to this migration from rural to urban areas, there has been increased pressure on the rural water supply.

V. Effects of the Water Crisis

While at the global level about 1 billion people are locked out of having access to safe water due to poverty, inequality and government failure, it is also clear that not having access to clean water is a main driver of poverty and inequality. In Kenya, largely due to recurrent droughts, millions of families that rely on crops and livestock are threatened and thousands of people die each year as a result of thirst and hunger. According to the World Bank (2010), the mortality rates of adult males, adult females, children under five, and infants has increased from 1990 to 2008.

In Kenya, the water crisis has severely affected millions of lives in many ways as contaminated water resources are extremely unhealthy and typically result in multiple illnesses. According to a report by the Government of Kenya (2006), there are three main categories that include different types of diseases related to unsafe water:

- **Water-based**: this category includes diseases such as malaria and intestinal worm diseases (schistosomiasis).
- **Water-borne**: this category includes diseases such as typhoid fever, cholera, diarrhea and dysentery.
- **Water-washed**: this category includes diseases such as eye infections and skin diseases.

Malaria (a water-based disease) is currently one of the most serious health problems in Kenya. An estimated 26,000 children under five die every year from malaria and an estimated 3.5 million children under the age of five are at risk for developing malaria. Malaria is contracted through areas of Kenya’s western highlands and around the coastal and lake regions, where the malaria-carrying mosquito settles. As shown in Figure 8, malaria is the most common disease among the different provinces of Kenya. However, it is most common in the Coastal, Eastern, Western and Nyanza provinces, which are all near large bodies of water: the Western and Nyanza provinces are located by Lake Victoria, and the Coastal and Eastern provinces are located near the Indian Ocean.

Schistosomiasis (also known as Bilharziosis or snail fever) is another water-based infection, caused by two parasitic snails/worms called Bulinus and Biomphalaria. This disease, which is transmitted through all major water bodies in Kenya, affects especially people between the ages of 10 to 20 due to increased contact with infected water bodies and also through defecation. The Bulinus worm is usually found in streams, small pools, water holes and dams. The second snail genus, Biomphalaria, can be found in faster moving water and also in irrigation channels and dams, where it buries itself in the

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Cholera, a water-borne disease resulting from being in contact with contaminated water, is also very common in Kenya. Cholera is mostly contracted by the use of water drawn from wells that has been contaminated. As was illustrated above, the water contamination is largely due to close distances between wells and pit latrines.

![Figure 8: Top Five Causes of Outpatient Morbidity by Province in 1999](image)


**VI. Some Recently Proposed Solutions**

The *Poverty Reduction Strategy Paper (PRSP)* of the Government of Kenya (2008) provides a short-term recovery strategy that includes rehabilitation of Kenya’s water infrastructure and the provision of water to Kenya’s people. The PRSP devised a variety of flagship projects to be completed over the long-term period, which include almost 20 different projects that range from securing wildlife to protecting forests in the five water towers. The following four are some of the most promising plans and projects which Kenya’s PRSP aims to implement until 2012:

- Rehabilitation and protection of indigenous forests in the five Water Towers (Mau Escarpment, Mt. Kenya, Aberdare Ranges, Cherangany Hills and Mt.

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Elgon): This plan aims to promote sustainable management of the forests and preserve cultural and religious sites, medicine sources, water catchments and habitats for widespread and threatened flora and fauna. The main goal of this project is to establish a forest cover of 4 percent by the year 2012. This project will involve joint management with stakeholders, such as local communities, civil societies, and development partners, through forest preservation committees around each tower.

- **Water resources information management:** This plan aims to restore and attain a new hydro-metric, which will be installed in surface water and groundwater resources. Also, 600 hydrometological stations will be rehabilitated and systems will be built in order to collect records and monitor the data of the instrument.

- **Water storage and harvesting:** This plan aims to develop two multi-purpose dams with a storage capacity of 2.4 billion cubic meters along the Nzoia and Nyando rivers. Another 24 medium-sized multi-purpose dams, with a total capacity of 2 billion cubic meters, will be established to supply water for domestic, livestock and irrigation use in the arid and semi arid lands (ASAL) areas of Kenya.

- **National water and supply sanitation:** This project aims to expand the Mzima pipeline to meet the demands of the coastal towns and also cover urban water supply and sanitation in the satellite towns around Nairobi, Mombasa, Kisumu, Nakuru and Kisii along 26 medium-size towns that have the capability to support manufacturing and tourism activities.

In addition to specific projects, it will be important to adopt a variety of institutional reforms, which according to Mogaka, Gichere, Davis and Hirji (2006) should be based on the principles of decentralization, participation, and sustainability.

**VII. Conclusion**

Kenya suffers from a severe water crisis due to multiple causes, including droughts, forest degradation, floods, a lack of water supply management, the contamination of water, and population growth. While problems like forest degradation, poor water management and the contamination of water are potentially solvable, the number and severity of droughts and floods is due to the ongoing climate change likely to increase in the foreseeable future.

Similarly, Kenya's population is projected to grow for the next few decades. Given these realities, Kenya will also need to tackle some of the effects of the water crisis. For example, it has been shown that the consistent use of bed nets can significantly reduce the malaria infection rates.

Finally, in addition to specific projects and the tackling of some effects, it will be important to raise awareness among the Kenyan population about the dangers of contaminated water. Water filtration at the household level is a relatively simple and cheap option to reduce the illnesses resulting from the consumption of unsafe water.
References


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Poverty in Bolivia: Dimensions, Political Conflict and Strategies

Eliza Morgan

Abstract

Bolivia is one of the poorest and most unequal countries in Latin America. This article discusses several dimensions of Bolivia’s poverty, including income poverty and inequality, lack of access to safe water and sanitation, high infant mortality, malnutrition, and a lack of basic infrastructure. The country suffers from both urban and rural poverty, though rural poverty is prominent. After summarizing some of the relevant literature and giving some empirical background about the country, this article discusses various dimensions of poverty in Bolivia, focusing on the struggles that face the 10 million people living there today. There have been major political conflicts in the last few decades that have lasting effects on the nation. Despite the conflicts, Bolivia is showing its dedication to reduce poverty, but this is a process that will need to continue for many years in the future.

I. Introduction

Bolivia is not only one of the poorest countries in Latin America, but it is also one of the countries with the highest income inequality in the Western hemisphere. Of the 9.8 million people living in Bolivia, almost 40 percent live in extreme poverty. Bolivia’s ratio of the richest 10 percent to the poorest 10 percent is the second highest in the world (surpassed only by Namibia), with the richest 10 percent of the population obtaining 44 percent of total income, while the poorest 10 percent receive 0.5 percent. The distribution of poverty throughout Bolivia is also uneven as there are more poor people in rural than urban areas. Overall, 82 percent of the rural people are below the poverty line, compared to 54 percent in urban areas.1

These numbers create an image of the income poverty prevailing in Bolivia, but there are other equally important dimensions of poverty in Bolivia. Though there is currently

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1 See World Bank (2009).
somewhat of a division between the Bolivian people and Bolivia’s national government, Bolivia’s people are dedicated to trying to reduce poverty in the country and there are multiple strategies being taken to do this.

This article discusses the many dimensions of poverty in Bolivia including income poverty, high infant mortality rates, chronic malnutrition in children, and a lack of access to clean water and sanitation. It also discusses the strategies set in place to help Bolivia eliminate extreme poverty. The article is structured as follows. The next section provides a brief review of the literature. Section III provides some empirical background, while the fourth section discusses the dimensions of Bolivia’s poverty. This is followed by a look into Bolivia’s ongoing political conflict (Section V) and a discussion about the current strategies put in place to reduce poverty in Bolivia (Section VI). The last section, Section VII, provides some conclusions.

II. Brief Literature Review

Though poverty in Bolivia is a critical issue, there is not a large array of literature discussing the situation. More information is available about Bolivia’s plans for reducing poverty than there is about the sources of poverty. Below are summaries of the four most important contributions to understand poverty in Bolivia. Some other literature on poverty-related issues, including recent news reports, will be introduced in subsequent sections.

Even though a little bit outdated by now, the likely most comprehensive analysis of Bolivia’s poverty is Bolivia’s Poverty Reduction Strategy Paper (PRSP). This is a document that was prepared by the Bolivian government as a precondition to receive debt relief under the Enhanced Heavily Indebted Poor Country (HIPC) initiative. It was published less than a year before the major political crisis began between the Bolivian government and Bolivian people in 2002. The report starts by addressing some facts about poverty in Bolivia. It states (p. 32), “in 1992, 70 percent of the population had unsatisfied basic needs (UBNs) and 37 percent were in a situation of extreme poverty.” This is one of the starting points the Government used for its proposed strategies. The report then outlines some causes of poverty including unemployment, low productivity in rural areas, and poor road infrastructure.

A large part of the document talks about the participation in the National Dialogue 2000. Based on this dialogue, agreements were reached on things to improve, including financial development, increased health, sanitation, and education. These are just some of the countless agreements made. Within the PRSP, a strategy known as the Bolivian Poverty Reduction Strategy (BPRS) is discussed and outlined. The BPRS has four elements for poverty reduction: (a) expansion of employment and income opportunities (particularly in rural areas), (b) building of capabilities, (c) increasing security and protection for the poor, and (d) promotion of integration and social participation. The BPRS includes also policies to fight against corruption in Bolivia.

There is another particularly important study done by the World Bank (2002), titled Poverty and Nutrition in Bolivia. The study discusses the “crippling” effect malnutrition

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has in Bolivia. Though the government has put a focus on this critical program, it has not been improving much. If malnutrition can be reduced, economic growth in Bolivia could rise, in effect reducing poverty. This malnutrition issue, though, is not caused mainly from income poverty or a lack of food, but instead stems from a combination of poor diet, persistent bouts of disease, and inappropriate nutrition behaviors such as insufficient breastfeeding and a lack of food during an infant’s illness. Malnutrition is a poverty dimension that also relates to the lack of access to safe water. In many rural places in Bolivia, people are not able to get safe water, leading to further malnutrition issues. According to the World Bank (2002), it is possible to improve nutrition in Bolivia by implementing cost-effective nutrition programs that help families improve infant feeding and that also bring important pharmaceutical supplements and fortified foods to places where they are most needed. In Bolivia, such places are the rural areas that have extremely high levels of malnutrition.

Grootaert and Narayan (2004) combine quantitative and qualitative data to estimate the impact of social capital on household welfare in Bolivia. They measure social capital by memberships in agrarian syndicates and other associations and find that such memberships increase household welfare and reduce poverty. They also come to the conclusion that social capital matters more for the poor than the non-poor.

Oxfam International (2009) has published a detailed report entitled “Bolivia: Climate Change, Poverty and Adaptation”, which even though is primarily about climate change issues in Bolivia, it also discusses poverty issues and the involvement of the country’s government in this. The poverty section of this report illustrates the fact that women and the indigenous population are both more susceptible to poverty because of Bolivia’s economic and cultural situation. It also discusses income poverty and shows that much of Bolivia’s income poverty stems from extreme poverty in the rural areas as well as the country having a lack of secure and well-paid jobs. Finally, the Oxfam report recognizes the efforts of Bolivia’s first indigenous President, Evo Morales, in reducing poverty, though (as will be shown below) the political conflict between Bolivian people and Bolivia’s national government has not come to an end.

### III. Empirical Background

Bolivia is a country in South America, which currently has a population of 9.8 million people. As mentioned above, Bolivia is one of the poorest, least developed, and most unequal countries in all of Latin America. In 1999, the Gini index was 58, rising to 60.1 in 2002, though according to the most recent available year (2007), it has fallen back to 57.2.

High income inequality is not the only factor affecting the country. Bolivia is also scarred by economic instability. Figure 1 shows the overall increase in Gross Domestic Product (GDP) per capita in Bolivia and Latin America since 1980, but it also shows a major dip

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3 See CIA Factbook (2010).
4 See Center for Economic and Social Rights (CESR) (2008) and World Bank (2010). For the Gini index, a value of zero represents absolute equality, while a value of 100 represents absolute inequality. For purposes of comparison, the United States recorded a 40.8 Gini index in 2008, a value significantly lower than in Bolivia.
in Bolivia’s GDP per capita throughout the 1980s. During this time, Bolivia suffered from a disastrous economic crisis caused primarily by fiscal deficits and an unsustainably high foreign debt of U.S. dollar ($) 3 billion. Bolivia, a country that had relied on tin mining, suffered even further when the tin market collapsed in 1985, causing the country’s inflation rates to soar. GDP per capita, measured in purchasing power parity (PPP) at constant 2005 prices, dropped from $3,604 in 1980 to $2,797 in 1986 because of the crisis. Despite political conflicts to be discussed further below, the economy has been on a somewhat steady increase since the late 1980s, though it took Bolivia 25 years (1980-2005) to recover in terms of GDP per capita. As of 2008, Bolivia’s GDP per capita (in PPP) had (with $3,950) only been marginally higher than it was in 1980.

**Figure 1: GDP per capita, PPP (constant 2005 international $), 1980-2008**

![GDP per capita, PPP (constant 2005 international $), 1980-2008](source)


Before going into further discussion of poverty in Bolivia, it is important to mention the changes in the distribution of both the population and poverty in the country. Urbanization is something that occurs all over the world as people move to cities looking for new opportunities. Figure 2 shows the urbanization that has occurred in Bolivia since 1960. The graph displays that the share of the urban population in increasing, while the share of the rural population is decreasing. What often results from this urbanization is a concentration of poverty in cities. In Bolivia, though, the most extreme poverty has consistently been in rural areas. This is primarily due to lack of access to safe water, sanitation, and nutrition, as well as due to lack of steady employment.

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5 See World Bank (2010).
6 See World Bank (2010).
Figure 2: Urban vs. Rural Population (percent of total population)


Figure 3 shows the poverty headcount ratio for both the urban and rural populations. The urban population has had major fluctuations in the last twenty years, while the rural population has had a consistently high headcount ratio. The rural population’s poverty headcount ratio has consistently been significantly higher than that of the urban population.

Figure 3: Poverty Headcount Ratios (for all available years)

IV. Dimensions of Poverty in Bolivia

IV.1. Human Development

Poverty has many aspects and consequences, but one of the most serious of those is the impact on health. With 37.7 percent of the population below the national poverty line, Bolivia as a whole suffers from a lack of human development in many areas.\(^7\) According to the 2007 United Nations Development Program (UNDP) rankings, Bolivia is ranked 113\(^{\text{th}}\) out of 177 countries in the world, with a Human Development Index of 0.729.\(^8\)

Bolivia has a relatively high under-five mortality rate, severe chronic malnutrition, low rates of education, and a lack of access to safe water (if any at all) and sanitation. Chronic malnutrition is a critical issue in Bolivia, especially in the rural areas. According to a Center for Economic and Social Rights (CESR) (2008) report, Bolivia has one of the highest rates of malnutrition in Latin America as 33 percent of the children under-five years old suffer from malnutrition in terms of stunted growth. Also, 6 percent of the same group suffers in terms of being severely underweight.\(^9\) According to CESR (2008, p. 5), poverty is a main factor leading to this malnutrition: “Poor children in Bolivia are eight times more likely to be malnourished than rich children”.

Besides having high malnutrition rates, Bolivia, has also one of the worst child mortality rates in Latin America, falling only behind Haiti. In Bolivia, “poor children are more than three times more likely to die before age five than rich children”: as of 2005, the under-five mortality rate (per 1,000 live births) was 105 for the poorest 20 percent of the country’s population, while it was 32 for the country’s richest 20 percent.\(^10\) For the same year, the national average of under-five mortality stood at 65.

Education is another aspect that is greatly affected by poverty and also feeds back into poverty. The quality of education in Bolivia, for the most part, is very poor. When primary students took a standardized language test in 1997, they were ranked against students from other Latin American countries. The Bolivian students had the worst scores of all of the countries tested. This is greatly due to the lack of quality of public education in Bolivia. Poor families are not able to afford private education, so they are forced to put their children in public schools where they end up learning very little. Together, this creates a continuing cycle of generations of families remaining in poverty because they are never able to get the education to escape it. It is very difficult for an individual to overcome poverty without having a solid education.

Not only is the quality of public education poor in Bolivia, but also the distribution of education is very unequal. The level of education is significantly lower in rural areas than in urban areas, which can partly be explained by the fact that “rural teachers are twice as likely as urban teachers to lack full training” (CESR, 2008, p. 7). Figure 4 shows the inequality between the rural and urban population, as well as between men and women, in Bolivia in terms of illiteracy rates. In the chart, Bolivia’s rates of illiteracy are also compared to those of four other countries: a) Bolivia’s rural women are more illiterate

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\(^7\) See World Bank (2010)
\(^8\) See World Bank (2009)
\(^9\) See World Bank (2010).
than the average person of Malawi, b) Bolivia’s rural men are nearly as illiterate as the average Namibian person; c) Bolivia’s urban women are slightly more illiterate than the average Ecuadorian person, and d) Bolivia’s urban men are nearly as illiterate as the average Argentine person. Reducing these numbers is a step that needs to be taken in order to lower the prevalence in poverty in the country.

**Figure 4: Illiteracy Rates in Bolivia, by Region and Gender (also compared internationally)**


**IV.2. Lack of Infrastructure and Productivity in Rural Areas**

As shown in Figure 2 above, about 30 percent of Bolivia’s overall population live in rural areas (which is one of the highest percentages of the mostly urbanized South American countries). Over 80 percent of the rural population live below the poverty line, with 64 percent living in extreme poverty. Income per capita in rural areas averages to $0.60 per day, which is 30 percent of the median urban income.\(^\text{11}\)

This high level of rural poverty is largely explained by the “low productivity in the farm sector and the low prices that the farm products fetch in the marketplace”.\(^\text{12}\) The rural areas have low productivity because much of the production is done on using solely small-scale techniques, which does not allow for mass production of any sort. Also, the rural areas suffer from many water shortages, which cause low quality produce and few products to be sold.

Furthermore, in Bolivia, there is a problem related to the lack of ownership rights of land and natural resources. Since there is no owner of the land, there is no one making sure to take care of it in all respects. If ownership rights were put in place, the level of farming productivity could increase because people would have more respect for the land.

Another factor in the low productivity in rural areas is the lack of infrastructure. Many rural areas lack the most basic infrastructure, including water management systems and

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\(^{11}\) See World Bank (2009).
road systems, not to mention the lack of already discussed education and health care services. In particular, not having necessary road infrastructure severely limits the rural areas and makes farming extremely expensive. The transportation costs are much higher than they would be if there were roads available for use. This issue lowers the amount of money that farmers are able to get by selling their products. This also limits the ability of small farmers to sell their goods in a larger area.\textsuperscript{13}

IV.3. Lack of Access to Water and Sanitation

Lack of access to both portable and clean water, as well as a lack of basic sanitation for many people in Bolivia adds to the health problems already discussed. In the rural areas of Bolivia in particular, many people are forced to drink contaminated water, as there are no other options available for them. Countless communities are forced to rely on contaminated rivers and lakes to drink water, and they have no technology to even make the water drinkable. This causes serious illnesses and adds to poverty. Of the many health outcomes that stem from drinking contaminated water, one of the worst is diarrhea. Diarrhea causes 36 percent of deaths in children under five in Bolivia.\textsuperscript{14}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5.png}
\caption{Rural vs. Urban Access to Improved Sanitation Facilities (all available years)}
\end{figure}


Since the 1990s, access to sanitation has been consistently increasing, but as with the other dimensions of Bolivia’s poverty, the increase has been seen much more in the urban population than the rural population. The increase in improved sanitation in the urban population does help and is a movement in the right direction, but as discussed before, a

\textsuperscript{13} Government of Bolivia (2001).
\textsuperscript{14} See Food For the Hungry International (FHI) (2006).
majority of Bolivia’s poor live in rural areas. Figure 5 shows the improvement in access to sanitation for both the urban and rural populations for the available years from 1990-2006. In the graph, the significant gap between the two can be seen. Until this gap begins to close, and sanitation is improved in rural areas, the relatively high access to sanitation of the urban population will not have a large impact on poverty reduction. But for now, the increasing levels for both the urban and rural populations are a step in the right direction with regards to this aspect of poverty reduction.

Figure 6 shows both the improved water access for urban and rural populations. Both have been constantly increasing since the 1990s, and the rural improvement has been increasing at a much higher rate. This is exactly the kind of improvement that is needed to reduce poverty rates and reduce health issues that stem from lack of access to safe water. Also, it should be noted that the two scales on Figures 5 and 6 are different, so the rates are even better for water improvement than they may appear at first glance. The increase for the urban population rate is much lower because it is already close to 100 percent. By 2006, the share of the rural population increased to 70 percent and continues to increase today.

Figure 6: Rural vs. Urban Access to Improved Water Source
(all available years)

(as posted on the World Bank website; accessed on October 28, 2010).

V. Political Conflicts

Bolivia is a country that has had political conflicts throughout its history. These conflicts impact everything else that goes on in the country because of the constant tension between the Bolivian people and the government. In the early 2000s, after severe economic crisis of the 1980s, political instability began to take over Bolivia. This time
has been referenced now as a crisis of governance, which started with the resignation of President Hugo Banzer due to terminal illness on August 7, 2001. Within the next five years, Bolivia had four presidents, some of whom created much controversy.

The main issue that instigated the political instability in the early 2000s was the export of natural gas, which had just been discovered in Bolivia. There were violent protests against the government’s plan to export these reserves to other markets, such as the United States. The relationship between the Bolivian people and the government has never recovered. Following various violent protests, a controversial hydrocarbons law was passed in 2005 that enforced higher royalties along with requiring all foreign firms to give up all production to the state energy company, receiving a pre-determined fee in return. In the midst of this political turmoil, Evo Morales was elected as Bolivia’s 80th president (on December 18, 2005), after (a) two former Presidents (Sánchez de Lozada and Carlos Mesa Gisbert) had resigned to suppress political revolts (partly led by Evo Morales), and (b) interim President, Eduardo Rodríguez, was constitutionally demanded to call for elections. Morales’ election was monumental because it represented Bolivia’s first president of Indian ethnicity, as well as the first majority president (receiving 53.7 percent) of the popular vote since the revolution.

Though the higher prices for mining and hydrocarbon exports seemed to raise economic growth in the following years, it has been determined that this growth is only concentrated to a small group of people, and no growth has existed for the general population. The GDP has been growing somewhat steadily since the 1990s, but that number leaves out the above important information about the internal struggles that have occurred in the country throughout all of it. Though the election of President Morales was widely seen as the end of the crisis of governance, it has not generated an end to the conflict between Bolivians and the national government.

One of the most current examples is the revolt against poverty that started in Potosi, Bolivia on July 30, 2010. Webber (2010), in a news article entitled “Revolt Against Poverty in Bolivia: Neoliberalism and Uneven Development, The Rebellion in Potosi”, shows the peoples’ discontent with Bolivia’s national government. The article discusses how the people of Potosi went on a complete lockdown to show their disapproval of the government’s lack of dedication to poverty reduction. Many feel as though the neoliberal mining policy created by President Morales has only added to the nation’s poverty, unemployment, and overall underdevelopment. The strike continued for much longer than intended because the government decided to give no response to it.

An important message from Webber (2010) is that though it may seem like the poverty situation is improving in Bolivia, in actuality, the income growth generated has been concentrated to a small group of people and the reconstituted neo-liberalism has done little to improve social inequality. Social inequity is still very present in Bolivia today. As the country continues to have political struggles, it makes it difficult for the people and the government to work together to reduce poverty.

15 See Nations Online Project (2010).
17 See Nations Online Project (undated).
VI. Strategies for Poverty Reduction

Though the nation has been dealing with much political conflict in the last few decades, there are strategies and programs in place that are needed in order to reduce poverty in Bolivia. These strategies range from dealing with malnutrition, water and sanitation access, and road infrastructure, to many more issues that are adding to Bolivia’s poverty level. Despite the revolts against poverty and the fact that Bolivians have not seen the national government’s dedication to poverty, the government has stated that it is “strongly committed to poverty reduction” and is implementing many plans to help with it.¹⁸

Figure 7 is a graph included in Bolivia’s (2001) PRSP, showing the scenario the government of Bolivia was hoping for by implementing their poverty reduction strategies. The decrease in poverty is determined by the headcount index of poverty. As of 2007, the poverty headcount ratio as a percent of the total population was 35.7 percent, down from 65.2 percent in 2002.¹⁹ This number shows the improvement Bolivia has made and it lies almost directly in the middle of what the Bolivian government predicted for levels of incidence poverty and extreme poverty.

Figure 7: Trends for Poverty and Extreme Poverty (Baseline scenario)

Source: Government of Bolivia (2001), Graph 9.1, p. 196.

¹⁸ See World Bank (2009).
¹⁹ See World Bank (2010).
Many of the current strategies to reduce poverty in Bolivia specifically target the rural areas, as that is where much of the nation’s poverty lies. One proposed program is described by a World Bank (2009) project known as the *Reduction of Extreme Poverty in Rural Areas*. The basis of this project is to improve the necessary infrastructure and services, as well as to provide food to particularly disadvantaged rural communities. This project would run based on a $20 million loan given over a five-year period in order to benefit over 1,000 rural communities. The targeted communities are in the 40 poorest cities in Bolivia. In order to implement the project in the various municipalities, each rural community would need to identify various subprojects to keep the implementation going. The three major components of the project, as stated by World Bank (2009, pp. 3-4), are capacity building and institutional support, community-driven development investments, and close monitoring and evaluation of the implementation. The creation of this program shows that poverty reduction is on the agenda of the Bolivian Government, but whether or not the project will go through and if it will reduce poverty as planned is yet to be determined.

Like the World Bank, the Inter-American Development Bank (IDB) has recently also initiated a multiphase program aiming at supporting the Bolivian government’s plan to eradicate extreme poverty. The program is expected to have a total cost of US$21 million, of which the IDB will finance US$20 million. The four main components of the program are (a) cash transfers for nutrition and mother-child healthcare (US$6.31 million), (b) strengthening the supply of comprehensive healthcare services (US$10.67 million), (c) development of social and community organizations (US$560,000), and (d) institutional strengthening and evaluation (US$1.97 million).

Food for the Hungry International (FHI) has a program in Bolivia to help reduce health issues stemming from malnutrition and lack of access to water and sanitation in the rural communities. It has been operating in Bolivia since 1978 and continues implementing new aspects of their program today. This program targets areas of extreme poverty. FHI’s goal is to transform these communities in the long term by supplying them with education and necessary resources. In order to improve nutrition in children, FHI is supplying many communities with food rations. This is only a short-term solution, until FHI gives these communities’ proper training and resources to practice their own nutritional practices and better agricultural practices.

From 2002 to 2004 alone, the FHI Health Program helped decrease child malnutrition in its targeted areas from 59 percent to 40 percent. Along with the nutrition component of the program, there is a water and sanitation component that aims to increase the quality and quantity of water access as well as improve basic sanitation conditions for those in areas of extreme poverty. FHI is implementing this by bringing water systems and running water, including showers and household bathrooms, to these poor communities. They are also setting up training on water maintenance and basic sanitation needs. Though the Bolivian government has not documented the efforts of FHI very well, their programs have had a great impact on the improvement of extreme poverty as it is related to health issues. More programs like this are needed to reduce poverty further.

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VII. Conclusion

Poverty is a multidimensional phenomenon and there are many dimensions in Bolivia that are making it one of the poorest countries in Latin America. Lack of human development is one of the main contributing factors to Bolivia’s poverty. This includes the high child mortality rate, high levels of chronic malnutrition, and a lack of equal and quality education. Lack of infrastructure and productivity, particularly in the rural communities, is another main dimension of poverty. Finally, lack of access to water and sanitation adds to Bolivia’s high level of poverty. As the nation has been dealing with poverty issues for a long time, situations have been improving in many aspects, though that improvement is seen much more in the urban areas than in the rural areas. The country still needs to bridge the gap between these two populations.

Throughout the last few decades in particular, Bolivia has suffered from major political conflicts that have only made it harder to work on poverty reduction. The relationship between Bolivians and the Bolivian Government has suffered majorly since the early 2000s, not long after the country suffered from a drastic economic crisis. Though the country seems to have ended its “crisis of governance” with the election of President Evo Morales, people still do not trust that the government is fully devoted to the people and to reducing poverty.

The government is trying to show its dedication to these issues by implementing various poverty reduction programs and projects, including the World Bank-supported *Reduction of Extreme Poverty in Rural Areas Project* and the IDB-supported *Multiphase Program in Support of the Plan to Eradicate Extreme Poverty*.

Food for the Hungry International has also implemented programs to improve nutrition and access to water and sanitation, which are also geared towards rural communities. These programs have had a positive impact on the communities and need to continue in order for Bolivia to have an impact in reducing poverty. As reflected in most of these programs and projects, the main focus needs to be on the rural communities in order to successfully reduce poverty in Bolivia. Though there still need to be improvements in the urban population as well, the first step for Bolivia should be bridging the large gap between the urban and rural populations.

References


