Poverty Dynamics in Bangladesh: Drivers of Ascent and Descent



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The Meaning of "Jatra"

During my eight-week stay in Dhaka, I picked up a few Bangla vocabulary words from my coworkers and friends. One evening about halfway through the summer, some of us attended a movie screening at a local venue called "Jatra." I was just starting to get comfortable with the rhythm of Dhaka and my work at BRAC, and I remember feeling so content as we sat on the roof of Jatra after the movie, eating phuchkas (think "spicy taco bites"). The heat and humidity were oppressive that night, but the walls were beautifully painted and above us was a sort of teepee covered in colorful quilts that made the semi-outdoor space feel homey and comfortable. Our friend Juneyna explained that "jatra" translates to "journey" in English. As I was sitting there, I couldn't think of a more accurate word to single-handedly describe my experience as a Borlaug-Ruan intern in the summer of 2015.

Personal Introduction

As a 15-year-old growing up in the Midwest, I had a shockingly limited knowledge of agriculture and food security until I attended the 2011 Global Youth Institute at the World Food Prize in Des Moines, Iowa. During this week, my eyes were opened to the fascinating world of agriculture and technology: two things which have the ability to end poverty and hunger. Previously, I had had only a humanitarian interest in food security; now I was experiencing how I could someday make a tangible, sustainable difference in the world through science.

The year I attended my first World Food Prize Symposium, I was too young to apply for the Borlaug-Ruan international internship. However, I discovered Outreach, Inc., a non-profit organization based in Iowa that runs Children's Feeding Centers as a school attendance incentive program in Tanzania, Africa. I fundraised, and spent a few weeks during each of the next two summers in Singida, Tanzania. While I was there, I saw true, unfiltered poverty for the first time in my life and knew that I had to spend the rest of my life doing something about it. I was passionate, but I had no real skills to work with. I am so grateful for those two summers, which showed me just how much I needed to learn and indirectly led me to the Global Resource Systems program at Iowa State University.

During my freshman year at Iowa State, I faced the difficult decision of how to spend my summer. I decided to take the leap of faith and apply for the Borlaug-Ruan international internship, an experience I had dreamed of having since I was fifteen. Fortunately for me, Lisa Fleming and the rest of the World Food Prize staff saw potential in me and selected me, a decision I will forever be grateful for. Interning for BRAC this summer has been a life-changing experience; I've learned more about myself and the world than I ever imagined.

A Glimpse of Bangladesh

During my 8 weeks in Dhaka City, I was able to learn about the history of Bangladesh and its culture. Bangladesh is a very young country and one of the most densely-packed countries in the world, with 156 million people in a space comparable to the American state of Wisconsin. During the Bangladesh Liberation War that began on March 25, 1971, Bangladesh (known as East Pakistan at the time) fought for independence from West Pakistan in one of the largest genocides of the century. West Pakistan had imposed religious cleansings of Hindus, rape, and martial law, and banned all political activities. With India coming to its aid, Bangladesh finally claimed its independence on December 16, 1971. While Bangladesh is improving, it still struggles as a young country with the issues of poverty, health and sanitation, education, and food security.

BRAC: Innovation to Impact

BRAC, formerly known as the Bangladesh Rural Advancement Committee, was founded by Sir Fazle Hasan Abed in 1972, just after independence was won and the country lay in post-war turmoil. BRAC was originally created as a "rehabilitation" program, to be discontinued once the aftermath of the war was taken care of, but Sir Fazle Hasan Abed soon realized that BRAC could evolve and continue to increase the prosperity of the country.

BRAC has a unique approach to development which is centered around the fact that BRAC itself is a Bangladeshi organization, not a Western program. Its identity as a national organization has given BRAC more credibility in the eyes of the government and beneficiaries, along with allowing it to understand more fully the problems within the country. BRAC's focus on empowering and mobilizing the poor to lift themselves out of poverty, instead of perpetuating poverty through handouts, is another characteristic that separates them from other NGOs.

During its 43 years of existence, BRAC has expanded to cover almost every sector in every area of Bangladesh. They provide education, health care, agricultural extension and research, microfinance, sanitation, gender justice, and many other programs. BRAC is widely considered the largest and most successful NGO today.

RED: Research and Evaluation Department

Because I was not placed under a specific program or department at BRAC, my project fits in well under simply "research." BRAC's Research and Evaluation Department has been in existence since 1975, and functions independently of other BRAC programs. RED works to evaluate the efficacy of BRAC's projects by monitoring progress and performing impact assessments. The department's recommendations are used to improve current programs and plan for future ones.

Abstract

What causes people to fall into poverty? What keeps them there? What allows people to escape poverty? These questions were the driving force behind my research. While Bangladesh has achieved the Millennium Development Goal of halving poverty by 2015, 35% of Bangladeshis still live below the international poverty line of \$1.25 per day (United Nations). This research is mostly an explorative study on the causes of poverty, with a special emphasis on the effects of remittance and education. It was found that 87% of children were equally or better educated than their parents, and families where neither parent was educated suffered economically. The results show that in cases where parents assist a child with the costs of migration, the child typically sends remittance home to their own nuclear family rather than to the parent's household. Sixty-seven percent of families with migrated members received remittance, and 100% of families who received remittance responded that the remittance had improved their economic condition.

Research Introduction

My research at BRAC allowed me to examine poverty and food security through a wide lens, without the limitation of being tied down to a single BRAC program. In this way, I was able to know more about poverty as a whole and how it interacts with food security. I spent the first week and a half of my internship researching literature of poverty dynamics and economic mobility, reviewing past case studies done all over the world. While the causes of poverty may seem simple on the surface, the results are different everywhere. There is no "one-size-fits-all" approach to ending poverty, because there are too many factors to consider: culture, language, gender roles, geographic location, etc.

What is Economic Mobility?

Economic mobility is concerned with how and why a household can change its economic standing. While we certainly want to know what variables are needed for someone to escape poverty, it is just as important to discover the roadblocks to economic prosperity which force a household further into poverty so that we can assist households in avoiding them or lessen the impact.

For the purpose of my research, I examined both upward (escaping poverty) and downward (falling into poverty) mobility. I asked questions about both positive and negative shocks to the respondent's household in the recent past, as well as took some basic information about the size of the family, educational attainment of all family members, migration activities, and the occurrence of food deficits.

Methodology and Limitations

To collect data in the field, I created a questionnaire (see Appendix) with both closed and openresponse questions. This ensured a combination of qualitative and quantitative data that would allow me to get a better understanding of the households I was interviewing, and gave the respondents a chance to answer in as much detail as possible. I was also provided three sets of past questionnaire data from the same households, which allowed me to "double-check" the accuracy of my questionnaire results and also fill in the gaps with questions I didn't have the time to ask. This questionnaire cycle was started in 1988 and the last survey of this kind was taken in 2014, so I have a wide range of data that also shows how the families have divided (sons starting their own families) and perhaps learn about intergenerational poverty.

The first draft of my questionnaire asked the respondents to determine their own socioeconomic status: very poor, poor, average, solvent, or rich. The problem with this question was that it was difficult to convey in Bangla and misreporting could lead to confused results. Thus, I changed the question to reflect the occurrence of food deficits in the household; in this way, I could better link my research to food security in the area.

While I wish I could say the limitations of my project were few and far between, there were stumbling blocks at almost every step in the process. An obvious limitation is my lack of experience in the field, which I tried to compensate for with feedback from my mentor. The language barrier also played an enormous role in my field research; I had an interpreter, but I have no way of knowing how she asked the questions or whether they were asked the same way at every household visit. We tried to combat this problem by preparing a copy of my questionnaire in Bangla, but my interpreter refused to use it and chose to translate on the spot instead. The presence of BRAC employees could have also had an impact in the way questions were answered, although no respondent was a direct beneficiary of BRAC programs. Last but not least, I only had the opportunity to interview twelve households; a negligible number in the grand scheme of things, and certainly not enough to draw any big conclusions from.

Objectives

The primary objective of my research was to determine the most common reasons for upward and downward mobility in the village of Monohordi in Dhaka, Bangladesh. The following questions were formed in hopes of addressing the above issue:

- 1. How does the number of children, including the proportion of female children, affect levels of educational attainment and the incidence of poverty?
- 2. How does remittance affect the rise out of poverty?
- 3. What effect does education have on poverty?
- 4. How accessible are government and NGO programs in this village?

While I made every effort to go into the field without bias, it was important to develop hypotheses to address the above questions.

- 1. Families with a higher number of children experience more food deficits and report a lower economic condition.
- 2. Remittance from local and abroad migration improves the economic standing of a household.
- 3. Higher levels of education reduce the chances of continual intergenerational poverty.
- 4. NGO programs are more prominent than government programs in promoting social advancements.

Conceptual Background

Education's Impact on Poverty

While poverty is commonly measured in terms of income or consumption, human development is an important factor to consider as well. Human development is comprised of the personal and social development of a person, which may or may not affect economic growth but is important to humanity nonetheless. One major part of human development is education; in the recent past, many governments and organizations have begun to realize the important role that education plays in the development of a society and thus, have invested more heavily in education. The definition of educational investment is as follows:

"an investment that can help foster economic growth, contribute to personal and social development and reduce social inequality. Like any investment, it involves both costs and returns. Some of the returns are monetary and directly related to the labour market, while others are personal, social, cultural and more broadly economic. Some returns accrue to the individual while others benefit society in general, for example, in the form of a more literate and productive population" (OECD 1993).

Besides being generally beneficial in terms of human rights and national economic growth, educating the children of the poor plays a vital role in breaking the poverty cycle(Rose and Dyer 2008). In a 2012 World Bank report, Bangladesh was lauded on their investments in human development. The country has successfully met the MDG goal of eliminating gender disparity in education, encouraging girls' education and the entrance of women into the labor force. Keeping girls in school longer reduces the risk of child marriage and also delays the birth of a first child along with decreasing overall fertility (World Bank 2012).

Migration and Remittance

Bangladesh is characterized by a dense population and large labor surplus and thus, many Bangladeshis migrate to other countries or large cities within the country for work. Migration has come to be of huge economic importance for the country and for many families.

Migration remittances and their effects on poverty is not a widely studied topic; However, results from data sets in 71 developing countries have shown that for every 10% share of a country's

population that are international immigrants, the percentage of people living on less than \$1.00 per day will decrease by 2.1% (Adams and Page 2005).

Family Size and Economic Condition

Traditionally, a large family with many children is sought after in developing countries for the protection in old age which children can eventually afford parents, along with extra hands to work, especially among agriculture-dependent families. While family planning has been introduced in most places around the world, it's not commonly accepted or available yet; women in developing areas may continue having children until their bodies are no longer able to do so. This overabundance of children can lead to a poorer quality of life for everyone in the family, as there might be less food to go around and not enough money to invest in the health and education of the children.

In recent studies, it appears that men are more likely to prefer large numbers of children, while women prefer to heavily invest time and resources into fewer children to increase the chance of their survival and welfare (Banerjee and Duflo 2011). The relationship between economic condition and fertility rate is still up for discussion; it's widely acknowledged that an improvement in economic condition leads to a lower fertility rate, but not that a lower fertility rate leads to better economic prospects (Sinding 2009).

Data Analysis

Because of the small number of respondents, I cannot accurately draw many conclusions from my data on the main causes of upward and downward economic mobility in Bangladesh as a whole. What the data allows me to do is get a glimpse of rural Bangladesh and begin to understand poverty dynamics and economic mobility, along with how different factors interact to produce an outcome. This study could serve as a pilot project for future studies of economic mobility in Monohordi and the district of Narsingdi.

For the reasons above, the majority of my research is seen through case histories of the questionnaire respondents, along with a data analysis of each hypothesis. One of the most important parts of the project was putting together a long-term case history which spans from 1988 to 2015, found on the following page.

Long-term Case History: Musammat Lipi Begum; age 33, married to Alkas Mia



1988

In 1988, this household was headed by Md. Surat Ali. He and his wife, Dudh Mehes, had five children. The child we have questionnaire data from later in life is Alkas Mia. In 1988, he was approximately 10 years old and had passed Class 3. At this time, no member of the household had migrated for work or other purposes.

The household owned 35 decimals of land, and rented zero decimals of land. They received income from their crops (rice), milk production, cattle, and poultry. Md. Surat Ali took a loan for 3000 taka from Krishi Bank, along with a more informal loan of 9000 taka from a nearby large farmer. The family did not list the reasons for taking out the loans. They own bulls for plowing fields. This household does not know any of the agricultural extension workers, so Md. Surat Ali only consults himself for all issues related to agriculture.

2000

In 2000, Alkas Mia was approximately 20 years old and had passed Class 10. The household was still headed by his father, Md. Surat Ali. Four members of the household had experienced illness in the last 30 days, and all illnesses were treated allopathically.

The household still owned 35 decimals of land, but in this questionnaire it is found that 18 of these decimals make up the homestead area. In another arrangement, the family owns 100 decimals of land, 56 of which are mortgaged out. The family still does not rent any land from others.

The household's primary income is from agriculture: vegetables and fruits grown on the homestead area, along with cattle and poultry. Their physical assets include one bicycle and some small agricultural tools. At this time, Md. Surat Ali was familiar with five of the seven agricultural extension officers which changed his decision-making process. He now consults a veterinarian for animal treatment. His first choice for consultation is still "self" for other agriculture decisions, but the second most utilized resource is the local Ideal Farmer.

The home was constructed of a tin roof, earth floor, and wood/bamboo walls. The family did not use a radio, television, or newspaper at this time.

Md. Surat Ali said he relies "reasonably well" upon decisions made by female members of the family, and has the highest confidence in his wife because she is careful with family decisions and maintains the family well. There are some things that Dudh Mehes decides when Surat Ali is absent, including: which crop to cultivate, education of children, purchase/sale of cattle, preservation of ag products, buying ag commodities, buying/selling non-ag commodities, how to make use of money, encountering a disaster, and whom to give vote. Dudh does not make decisions about the following things when Surat is absent: agricultural work (at field level), purchase of ag equipment, selling ag commodities, and pleasure trips.

All family members receive 3 meals per day, and they ate fish every day in the last week and meat three days in the last week. In the past year, 2000 taka was spent on clothing, 2400tk on education, 3000tk on health services, 2000tk on construction and repairs, and 6000tk on social and religious ceremonies. In the 1998 flood, the family faced a huge loss of 2000 taka in property and 8000 taka in crops. To cope with this, the family took a loan from relatives. In the last ten years, they have also paid 4000 taka for litigation over property. They coped with this shock by using their own savings.

In the last ten years, (1990-2000) the household has reportedly improved and is now self-described as solvent. The reasons that Surat Ali listed for the improvement are: hard work, increased agricultural productivity, and God's blessing.

2004

In 2004, the household was still headed by Md. Surat Ali. Alkas Mia is approximately 28 years old and is no longer a student. He works in agriculture and as a day laborer. All the land in the family was acquired through hereditary means, something that was unclear before. The

household owns 148 decimals that are cultivated, and does not rent any land. They receive their income from vegetables, fruits, trees, livestock, poultry, and fisheries. Their physical assets now include cattle and an irrigation instrument. The house construction is unchanged.

No one has experienced major health issues in the last three years, and all members eat three meals per day. The week this questionnaire was administered was described as a "bad" week for food availability; no fish or meat was consumed in the last week.

2014

In 2014, the household head was Alkas Mia. He was approximately 41 years old and married at 25 years old. His first occupation is described as a "job" (he works as a field assistant for BRAC) and he also works in agriculture. The family is not a member of any NGO, and there are no migrant members.

Alkas Mia owns 24 decimals of cultivated land and sharecrops an additional 30 decimals. The household's agricultural income comes from crops, livestock, and poultry. The house is constructed of a tin roof, concrete floor, and concrete/tin walls. Their physical assets include a bicycle and a mobile phone. The family has a bank account with 600 tk of emergency funds. The family is self-described as lower middle class, but they have improved. The reasons for improvement are listed as: income from service job and an increase in agricultural productivity.

2015

Musammat Lipi Begum is a 33-year-old housewife married to Alkas Mia, a BRAC field assistant. Before working for BRAC, Alkas was engaged in agriculture as his primary source of income. The family has four young children; two sons and two daughters. Musammat is the most educated woman out of the twelve targeted households, having passed Class 11 before being married at age 20.

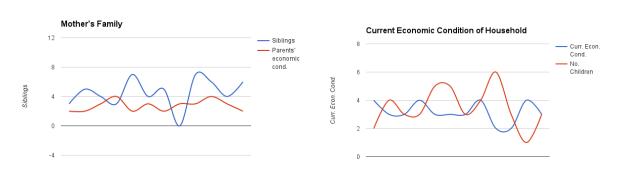
The household still engages in rice production on 35 decimals of land, and they are able to feed all members of the household as well as selling 120 kg of rice on the market. They've purchased a buffalo, which provides 9000 taka income per year. A very concerning fact is the family's lack of a sanitary latrine, but no one has been ill in the last 30 days.

Musammat states that the household's economic condition has slightly improved since her marriage to Alkas Mia, but there have been no drastic positive or negative changes. The family depends on agriculture and Alkas' job to generate enough income, as they do not have any family members who send migration remittance to them.

Conclusion

The long-term case history was very beneficial in terms of my research. It was difficult to piece together the story of this family, especially because of the discrepancy between different years of of the survey; for instance, sometimes names were spelled differently, questions were left unanswered, and most people did not have an accurate estimate of their age. However, I was able to see how over time, a family experiences economic mobility. Without the ability to pore over past questionnaires, I would have been unable to learn as much from only my questionnaire results. This allowed me to expand my knowledge of poverty dynamics.

Hypothesis 1: Families with a higher number of children experience more poverty.



Because of the small sample size, there is no conclusive result from this part of the questionnaire. In hindsight, there are too many factors that determine economic condition to determine the role of the number of children. There are a few places in the charts when, as the number of children goes down the economic condition increases, but it does not occur with enough certainty to prove my hypothesis. While having many children is generally considered an economic burden, more children could lead to more working members of the household, leading to a higher income and more food security. If the children are not heavily invested in by means of receiving education and proper nutrition, they may not appear to be as much of a burden. In developing countries such as Bangladesh, children are often used as an informal "insurance policy" to ensure the parents are cared for in old age and sickness.

Hypothesis 2: Remittance from local and overseas migration improves the economic standing of a household.

Table 1: Migrated family members

	Experienced migration	No migration
Frequency	9	3

Migration for work is a very common activity in Monohordi. Nine out of twelve households had a family member who had migrated either locally or abroad for a job, and three households had more than one family member who had migrated.

Table 2: Received remittance out of families with migrant members

	Did Receive Remittance	Did not receive remittance
Frequency	6	3

Out of 14 migrated family members, only six had sent remittance home in the last one year. There were various reasons for this: inability to find work, needing to send remittance to their own nuclear family(not their parents' household), and mismanagement of money. Two-thirds of respondent households with migrant members received remittance. The three families who did not receive remittance were parents of the migrant members.

Table 3: Use of Remittance

	Food	Education	Health care	Give to relatives	Invest in business
Frequency	4	2	1	2	2

The above table represents how remittance was spent if it was received. Three out of the six families who received remittance spent it on more than one area; when the male household made the decisions about spending remittance, it was more likely to be invested in business rather than the other categories.

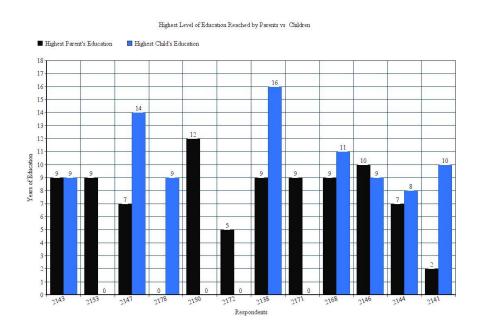
When asked if the migrated family member had received any migration assistance or training from BRAC, no families answered yes. BRAC's migration program began in 2006, and five migrated family members left the household after that date. However, BRAC Migration does not have a program set up in the village of Monohordi so the assistance is not available to families there.

In many cases, the respondent had at least partially paid for the migration cost of a close family member. Fewer families received remittance than those who paid for a family member's migration. This typically occurred when a parent helped pay for a son's migration, but the son was more obligated to send remittance home to his wife and children. In one household, remittance was sporadic and thus did not lead to economic improvement because it could not be depended on.

Conclusion

All six households who received remittance from a family member's migration responded that yes, remittance has improved their household's economic condition. One family's remittance was smaller in size and sometimes sporadic, so they used remittance as a consumption smoothing mechanism. The household with the largest yearly remittance (300,000 taka) spent it on four things: food, education, healthcare, and giving to relatives. The wife was able to purchase land and also improve her housing situation because of the remittance her husband sends to her. The other four households improved their lifestyles in various ways, but all families responded that they consumed better food because of their remittance.

Hypothesis 3: Higher levels of education reduce the chances of intergenerational poverty.



The above chart displays data for all twelve households to compare the highest level of education attained by one parent(mother or father) to the highest level of education attained by their child. Before this was created, it was hoped that the children's education levels would be higher than their parents' education. On first glance, 58% of households had at least one child who had met or exceeded both parents' education. However, four households skewed the data. After

¹ All values of zero which appear in the chart are a result of children being too young to attend school or because a son with the highest level of education is enrolled in Madrasa, an Islamic religious institution which does not follow the class system. These four households cannot be accurately used in data analysis.

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accounting for these households, 87.5% of households, or seven out of eight, had children who were educated equally or more than both of their parents. Following the data on education's effect on breaking the poverty cycle, these children are at a lower risk of being poor themselves. This hypothesis can also be examined by comparing data of households who have split since 1988, whose children have married and started their own households. This situation only occurs twice in my set of respondents.

Household of Rafiz Uddin

The household split in 2004, and the 2014 and 2015 data I have comes from the original household of Md. Rafiz Uddin and his oldest son's household, Md. Imam Hossain. Md. Rafiz Uddin and his first wife, Fatema Khatun, both had received some education. Rafiz had passed Class 6, while Fatema passed through Class 3.



The household of Rafiz's son consists of Imam Hossain and his wife, Lily Begum. Records show various accounts of Imam's education: by the time he was married, he had passed somewhere between Class 7 and Class 9. According to my recent interview with her, Lily Begum had passed Class 7 when she was married. Lily and Imam have three daughters, one of which is married and passed Class 9. The other two daughters are still in school, in Class 8 and Class 1. Lily came from a household where there was occasional food deficit. Today, in her current household, she reports no food deficits. This can be attributed mainly to Imam's migration to Malaysia to work as a garment worker. He is able to send 25,000 taka in remittance each month; this amounts to 300,000 taka yearly, or approximately \$3,838 USD.

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Household of Md. Jomes Ali (1988)

The household of Md. Jomes Ali split after 1988, and the questionnaire was administered to three sons and their households after 1988. In 2008, one household ceased responding to the questionnaire, but another of the son's households split into two households in 2008. None of the sons' households experienced migration or received remittance, which will allow us to look more closely at the effect of education on economic situation.

Md. Jomes Ali and his wife, Johora Begum (parents of the following households) were uneducated. Their sons' wives were our respondents: Fatima Begum, Peara Begum, and Shahnazparvin.



The first of three households is headed by Abdul Motaleb, who is married to Fatima Begum. Abdul has not received education, but the description of his education in 2004 said that he "can sign." Fatima did not receive any education either, but she came from a family that not only did not experience food deficits, but produced enough food to sell in the market. Fatima's father was a Madrasa teacher, and he did not believe in educating girls. This points to Fatima's lack of education not being caused by a lack of money.

Fatima and Abdul raised six children, all of whom attended school. Three of the children did drop out of school before the age of 15 because of a lack of money in the household. The highest level of education attained by two of the children was

Class 9. The eldest son and daughter dropped out after Class 6 and Class 5, respectively. All six of the children are literate, and the two eldest daughters married men with higher education (Class 10 and Class 12).

Today, Fatima says that the household experiences occasional food deficits, and that their economic condition has substantially deteriorated since their marriage. The deterioration of their household can be attributed to the loss of Abdul's job, along with Abdul's father using more of his resources to assist his other children.



The second son's household is headed by Abdul Latif Mollah, who is married to Peara Begum. Abdul, like his brother, received no education. Peara passed Class 9, and comes from a family with occasional food deficits. Abdul and Peara have one son who is still a toddler.

In the most recent survey, Peara claims that the family sells excess food and that the economic condition of the household has substantially improved since their marriage. She attributes the improvement to Abdul's job as an agricultural laborer, along with a loan they received from relatives in order to start raising chickens and ducks.



The third son's household is headed by Karam Ali, who is married to Shahnaz Parvin. Karam Ali is not educated, but Shahnaz passed Class 10 before they were married. Shahnaz's family sold excess food, even with a large family of nine. Shahnaz and Karam have three children, all of which are still in school. Their eldest son last passed Class 9 and is well on his way to surpassing his mother's education. As the only member of the household without the ability to read and write, Karam is strongly compelled to educate his children.

Shahnaz says that the household experiences no food deficits, and that their economic condition has substantially improved since marriage. She attributes the improvement to three things: the textile job her husband held at the beginning of

their marriage, the cattle they raise, and the money they received from mortgaging their land. They have also received loans in the past: 100,000 taka from a sister-in-law, and 30,000 taka from an NGO. While the family experienced a negative shock last year when seven of their cattle died within four months (a 300,000 taka loss), they were able to cope without making any significant sacrifices.

Conclusion

There were varying levels of education in the four cases above, which provide interesting results. In the cases where both the husband and wife were educated, the household's economic condition improved substantially. This trend continued when only the wife was educated and the husband had received no education. While the wives of non-educated husbands did not hold jobs,

they may have developed household skills during their education such as money management, basic health care, animal husbandry, etc., that allowed them to provide for their families. In the one case where neither the husband or wife had received education, the household had substantially deteriorated and this was the only case where the family experienced occasional food deficits. It's interesting to note that this family, where the parents had no education, chose to send all of their children to school.

While this cannot be seen as conclusive proof that education reduces poverty, it provides a framework for future study.

Hypothesis 4: NGO programs are more prominent than government programs in promoting social advancements.

My questionnaire revealed that three out of twelve households received assistance from the government, while only one household was involved with an NGO. This was a surprising result, as I had predicted that NGO programs would be much more prevalent in the area especially since I was conducting the interviews through BRAC. None of the households were involved in any BRAC programs; it appears after further investigation that this village is surveyed as more of a baseline group. There are few BRAC programs operating in the immediate area.

Research Conclusion

While conducting research in the field, poring over past questionnaire data, and attempting to piece together the results of my research, I was unable to come to a conclusion as to what causes people to escape or fall into poverty. This inability to form a concrete reasoning changed my perspective on food security and the causes of poverty.

I had expected to put together my data and create all these wonderful charts and tables which would in turn create visible results with clear answers. Unfortunately, this was not the case. I tried to link different variables together: parents' education and children's education, education and incidence of food deficits, migration and economic improvement; the list goes on and on. I continuously arrived at a dead end, without a clear picture of what really causes poverty and food insecurity, and what can make it disappear.

This leads to another realization: poverty and hunger are not the same everywhere. They have different causes and solutions that may morph and change over time. While this means we may constantly be struggling to alleviate poverty and hunger, it also sends a very clear message: We cannot be complacent. The day will never come when we can say, "A family is poor and hungry? This *one* program, or activity, or asset will solve their problems and lead them to great prosperity." We, as members of the development world searching for an end to poverty, will constantly be pushed to adapt and grow our programs and approaches so that they mold to how the world really, truly is. Because the world is constantly changing, so are the causes and solutions to poverty and hunger.

With large sample sizes, precise data collection, and specific geographic location, we can achieve more accurate results than what was found in this small study. We may be able to say what will be successful for poverty reduction in a region; but these specific results cannot be applied to the rest of the world, and possibly not even to the rest of that country.

Personal Reflection

When I landed in Dhaka, Bangladesh, I had no idea what would be in store for me this summer. I knew there would be culture shock, but over the course of the summer I was sometimes overwhelmed with the differences between my hometown and this new, giant city. The food was completely different than what I was used to, and I struggled for a few weeks to adjust to the new flavors and spices! I met people with different values than my own, and was immersed in a religion I had very little experience with.

I also had to cope with a loss of independence, as my inability to understand or speak Bangla rendered me close to helpless outside of the BRAC building for a while. The difficulties of getting anywhere as a foreigner in an overcrowded, poverty-ridden city had led me to value my freedom to move wherever and whenever I want in Ames, Iowa, much more highly than I did before.

While it was frustrating to be "stuck" in the BRAC building for the first few weeks, my time in the field and making friends with interns was liberating. I thoroughly began to enjoy Bangladesh's culture, food, and people; by the 5th week, I was finally feeling like I had adjusted. I dressed in shalwar kameez sets and attempted to drape my scarf correctly—while it was never quite right, I enjoyed feeling as though I were an honorary Bangladeshi for the summer. One of my favorite memories will still be sitting on the roof of Jatra and listening to folk music with two of my good friends and wondering how in the world I ever ended up in Dhaka, Bangladesh.

While I didn't expect nearly anything that happened this summer, I am more than grateful for the experiences I've had in Dhaka. I had the opportunity to feel uncomfortable and frustrated and challenged in my own beliefs, and that is something I will never take for granted. Those experiences will forever have changed and developed my character and my resolve to continue pursuing the goal of eliminating food insecurity.

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Appendix

Item 1.1 Questionnaire

Respondent: female head	l of household		
Name:		Age:	
Occupation:	Relationship with Household Head:		
Name of Household Hea	d:	Occupation:	
What was your age when	n you joined this family?	·	
How many years of scho	oling did you have at the	e time of marriage?	
How was the economic of	condition of your parents	s at the time of your marriage?	
□Always food defici	t 🗆 Occasional food de	eficit □ No food deficit □Sold exces	ss food
How many siblings did y	ou have?		
How much did your pare	ents have to pay in dowry	y for you to be married?t	aka
What was the main source	ce of income of your pare	rents?	
How many children do y	ou have?		
What is the level of educ	eation of your children?		
1st son	2nd son	3rd son	
1st daughter	2nd daughter	3rd daughter	
Have any of your childre	en dropped out of school	before age 15? Y N	
If yes, what was the reas	on for dropout?		
How many members of t	he household are literate	e?	
Are any of your daughte	rs married? Y N		
If yes, what was the age	of the daughter at time o	of marriage?	
What was her level of ed	lucation?		

How much did you have to pay in dowry to have her married?	_taka
What was the occupation of the son-in-law?	
What was his level of education at the time of marriage?	
What is his current occupation?	
What is the main source of income for the family?	
☐ Agriculture ☐ Non-agriculture	
Land Ownership? Y N If yes, area of land:	
How much of the land is in your name?maud	
How much of the land is leased or rented from others?	_maud
What are the conditions of the lease?	
□ 50/50 crop share □ per season rent □ other:	
How much of the land do you cultivate?	
Do you grow enough rice for the family on the land that you farm? Y N	
If yes, how much do you sell in the market? maud	
If no, how much do you buy from the market?maud	
What is the annual income from the production of other crops?	taka
Do you raise livestock? Y N If yes, what is the income from livestock?	taka
How would you describe your current economic condition?	
□ Always food deficit □ Occasional food deficit □ No food deficit □ Sold excess fo	od
Do you receive assistance from: ☐ Government ☐ NGO ☐ Relatives	
What kind of support do you receive from the government?	

What kind of support from NGOs?
Name of NGO:
What kind of support from relatives?
Since you came to this household, how has the economic condition changed?
□Substantially improved □Slightly improved □Remained the same
☐Slightly deteriorated ☐ Substantially deteriorated
Please state the most important factors for the improvement:
1)
3)
Please state the most important factors for deterioration:
1)
2)
Do you have a sanitary latrine in your house? Y N
Do you have access to a tubewell from your house? Y N
Do you have electricity connection? Y N
Do you have a television? Y N
How many cell phones do your family members own?

When you joined this family, what was your housing condition?
☐Thatched mud house ☐Mud walls and tin roof ☐Tin wall and tin roof
☐ Brick wall and tin roof ☐ Brick wall and cement roof
What is the status of the home now?
☐ Thatched mud house ☐ Mud walls and tin roof ☐ Tin wall and tin roof
☐ Brick wall and tin roof ☐ Brick wall and cement roof
Has there been any incidence of illness in the household in the last 30 days? Y
Has there been any incidence of death in the last one year? Y
Did any illness or death result in health care expenses or foregone income from labor? Y N
If yes, what was the impact of these expenses on your household?
Do you recall any other incidence that drastically changed the economic conditions of the household? Y N
If yes , □ Improved □ Deteriorated
What was the incident?
When did the incident occur?
If it deteriorated your conditions, how did you cope with it?

☐ Could not cope and became poor
If it improved your economic condition, what benefits did you get from it? ☐ Improved housing ☐ Improved consumption of food ☐ Better education of children
☐Increased investment in business ☐ Better marriage of daughters
Other:
Migration/Remittance
Has any member of the household migrated overseas for work? Y N
If yes:
Name:
Year when he/she left household: Destination:
Cost of migration: Nature of job:
Did you receive migration assistance from BRAC or another NGO? Y N
Did you receive migration assistance from family or friends? Y N
Money sent home during the last year:
Who in the household makes decisions about how the remittance will be spent or saved?
What did you do with the money you received in the last year?
☐ Food ☐ Education ☐ Health care ☐ Give to relatives ☐ Invest in business
T Others

If invested in business, what kind of business?
Has this remittance enabled you to purchase any physical capital? Land, livestock, other things
that can provide income. Y N
If yes, what have you purchased?
Has this remittance allowed you to improve your economic situation? Y N
If yes, in what way(s)?:
Do you have any political connections within the village or region? Y N
If yes:
How did you gain these connections?
How do these connections benefit your household? Economically, socially, etc.
Thank you so much for your time and for providing information about your family. May I take
some photos of your family and home?

2.2 Additional Case Histories



Meherjan

Meherjan, an 80-something-year-old widow who lives by herself, was the first woman I interviewed in the village of Monohordi. She was somewhere between 14 and 18 years old when she got married (without dowry), and had never been to school. Meherjan's family did not suffer from a food deficit, and their main source of income was from agriculture. While she was raised without siblings, she and her husband had four children(two sons and two daughters), only one of which attended school. Her oldest son attended school through Class 8, and her second son did not wish to attend school. Meherjan's husband did not like the idea of educating daughters, so they were kept home from school. For this reason, only one son, along with his wife, are literate in the family. Both of their daughters have been married, at the ages of 20 and 18, without a dowry. The eldest daughter married a man who was educated through Class 10 and works for the government railway, but the younger daughter's husband has no education and works as a local shopkeeper.

The respondent's income is not based in agriculture because the 17 decimals of land that Meherjan inherited when her husband died are in a wooded area and uncultivable. Meherjan receives 4,800 tk per year as a widow allowance from the government. Her other expenses are split between her oldest son and oldest daughter -- The son pays for food and household necessities, while the daughter pays for any medical treatment and helps around the house. The oldest son migrated to Dhaka City for work, while the second son migrated abroad but never sent any remittance and was prone to gambling. This was one of the main causes of the household's recent deterioration.



Rahima Begum

Rahima, like most other village women, is a housewife. She was married at the age of 14 or 15 and now is somewhere in her 50s with two grown children. She comes from a family that experienced occasional food deficits, and she was never educated. Her husband, Tara Mia, has worked as an agricultural laborer since at least 2000 and earns approximately 100 tk per day (1.29 USD). This income, along with a remittance from their son's job abroad, has allowed them to improve their housing, purchase livestock and land, and eat better food. Because of the land they cultivate, they do not experience shortages of food and are instead selling excess food on the market!

By analyzing past survey data, I can examine changes over time in the household. I can see that remittance has played an important part in the family's economic ascension, but that negative shocks (a robbery and a medical operation) in the recent past have slightly deteriorated their economic condition. By building up enough informal insurance such as land and livestock, the family was able to cope with the negative shocks without making any significant sacrifices in their lifestyle.