

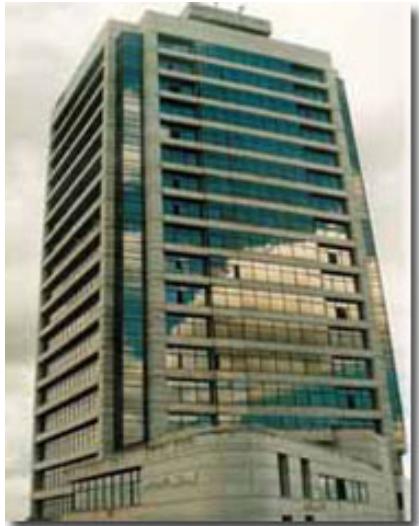
BRAC Recovery Work: Taking it to the Farmer



Lincoln Wells
Storm Lake, IA
2010 Borlaug-Ruan International Intern
BRAC Dhaka, Bangladesh
Supervisor: Dr. Muhabub Hossain

Introduction

Growing up on a farm in northwest Iowa has taught me many things. While I learned the basic principles and morals that make the people of the Midwest great, there are some things that I couldn't learn there. A person can read about the issues of the world from where they live, but they will never truly understand how the issues impact the world unless they see it firsthand. For example, poverty and hunger were issues that I would have never truly learned about staying in Storm Lake, Iowa. I would have also never comprehended the destruction that a storm could have on not just a person or a town, but an entire country. These are things that must be learned by viewing them, and I had the opportunity to view these issues first hand in the summer of 2010.



BRAC Center my home/office

The summer of 2010 was the summer of a lifetime. I was able to pursue many of my unique interests first hand. I was able to embrace a new culture, make new friends, work in an area of science that interested me and that would affect me, help a cause that was bigger than myself, and discover a new and interesting country, Bangladesh. When the opportunity arose in the fall of 2009 to partake in an international agricultural internship, I was extremely interested. I was interested because I wanted to see how farms operated in other parts of the world because I come from a farm in northwest Iowa myself. After going through the application process, the interview, and the months of waiting to hear whether or not I would be accepted, I finally learned that I would be

able to be a part of the opportunity that I had dreamed of. I never imagined that this opportunity would turn into the experience of a lifetime.

Research

My first weeks in Bangladesh were devoted to studying Bangladesh's agricultural situation, how climate change and natural disasters affect this situation, and how I would be conducting my interviews to collect my own findings. After doing this I found that Bangladesh itself is a very unique country. With a population of 162 million and total land area of 144 thousand km², it is the most densely populated country in the world at about 1,125 people per sq. km. Nearly 55% of the country's GDP comes from farming or from rural non-farming products, but 85% of the country's impoverished people live in the rural regions. Another unique attribute of this country is that it is able to produce most of the grains that the country uses. Due to new farming methods and the use of hybrid seeds the rice yields have been much higher than before and Bangladesh is now able to feed itself without having to import food from other nations. With the use of hybrid seeds

the production of rice has gone from only being able to produce 1,200 kg of rice per acre by using the local varieties to 2,800 kg of rice using hybrid seeds. About 28.8 million metric tons of rice is produced each year in Bangladesh. It is remarkable that a country this small with this large of a population is able to feed itself, but with these improvements it has become possible.

Yet another unique situation that Bangladesh is in is that it will be the country that is most impacted by climate change. It is estimated that if the world's temperature rises by 3.3°C, which by the year 2100 is the predicted rise in temperature, then sea levels will rise by one meter. A one meter rise in sea levels would put 17.5% of Bangladesh's total land mass under water. If Bangladesh loses 17.5% of its land mass it will lose its agricultural stability that it has worked so hard to gain. Losing that area takes away land that could be used for farming and it causes people to be relocated to the higher elevated parts of the country, and with over 1,000 people per sp. km, relocating them will take away even more area to farm. Not only will the sea rise affect Bangladesh, but another attribute that comes with climate change is the increased frequency of natural disasters. Since 1980, there have been 219 serious natural disasters that have killed 191,344 people in Bangladesh alone. These disasters include storms, floods, epidemics, extreme temperatures, earthquakes, and droughts. Most of these disasters can be associated to climate change, so natural disasters are just another way that climate change has and will impact Bangladesh. For example, the occurrence of major cyclones has risen in recent years. Before 2007 the last major cyclone to hit Bangladesh was in 1991. Since 2007, Bangladesh has been hit by two major cyclones, Cyclone Sidr and Cyclone Aila.

These are just some brief facts from my extensive research, but these facts did bring up a few questions that I thought needed to be answered.

1. What work did BRAC do after these two cyclones for recovery work in the rural areas?
2. Because there is such a delicate balance with Bangladesh's agriculture, what specific changes were being made to improve the farmer's way of life?
3. How do the individual people recover? Do they receive aid from the government? Other NGOs? BRAC? Or are they forced to recover on their own?
4. Are the people's lives better or worse now than they were before the cyclone?
5. How much more successful are the people who received help from BRAC than the people who didn't receive any help?
6. Is the work BRAC doing sustainable, or will the people resort back to the older, less practical forms of farming?
7. According to the people, are the cyclones worse now than before, or have the cyclones always been this powerful?
8. Was there any room for improvement on BRAC's part?

These are all questions that I felt needed to be answered to see if BRAC's recovery work after the cyclones was successful. To do this I created a list of questions that would be asked during my interviews. From these results I created these case studies.

Case Study

In the following case studies, people living in the rural areas of Bangladesh were interviewed to better understand their livelihood situation before and after cyclones that have devastated the southern regions of this country. Nearly half of the interviewees were beneficiaries of BRAC's programs, while the others did not receive any assistance from BRAC. These interviews were supervised by Dr. Mahabub Hossain, who is the Executive Director of BRAC, Dr. Babar Kabir, who is the Director of the Disaster, Environment, and Climate Change program (DECC), and Dr. Mondal who is a program head of the agricultural program.

The village that was studied was Patuakhali, which is in the Barisal region. This region was chosen for several reasons. One reason it was chosen was because it was devastated by Cyclone Sidr in 2007, which completely stopped agricultural development and productivity in the region. Patuakhali is 60 km from the coast of the sea and is located near a river that drains into the Bay of Bengal. During the cyclone, salt water was pushed up this river by tidal surges from the storm. This salt water then flooded the farmlands near the river causing many agricultural issues that stopped farming cycles for up to 6 months in some regions. Another reason why it was chosen was because BRAC supported many different programs in this region such as programs to improve the livelihoods of rice farmers, maize farmers, landless livestock farmers, fishermen, van drivers, and shopkeepers. Yet another reason why this area was chosen was because it has a very large farming population. There are nearly 50,000 farming families in this area who were affected in some way by Cyclone Sidr. The last reason why is that BRAC supported 5,111 farmers in this region. This study is broken up into 2 main parts between the rural people who received aid from BRAC and those who did not receive aid. At the end of the case study I provide my own findings on BRAC's programs, highlight the areas where BRAC's work has been very successful, and give my own insight to where BRAC could improve.

There are some similarities that need to be noted about each interview. The first similarity is that BRAC's rice and maize programs are essentially the same program. Farmers were given the option to buy either rice or maize seeds and in these programs, the farmers were given a total of 5,000 Tk. from BRAC, 1,200 Tk. for either hybrid rice or maize seeds, 1,500 Tk. was used for land preparation after the cyclone which included plowing and cultivating the land, 1,300 Tk. was used for fertilizer, and 1,000 Tk. was used for irrigation. BRAC also provided these farmer's with a one day training session on how to properly prepare their land and how to plant hybrid seeds. BRAC staff also would check up on their farms to see if they had any questions on farming practices and BRAC would give them advice on how to get a higher yield. Another similarity is that unless noted in the case study, none of the rural people received aid from the government or NGOs, besides BRAC. The last common similarity between the interviewees is that they all stated that this was the worst storm that they had ever seen.

BRAC's Rice Program

Mr. Sekender

Mr. Sekender supports his 23 year old son who is studying to get his BA degree, his 20 year old son who works as a mechanic, and his 12 year old son who is in grade 7. His wife is a housewife. Before the cyclone he was a rice farmer who farmed 2 acres of land and grew the local variety of rice. He also had a pond for a fishery and with these two forms of income he was able to make 3,000 Tk. a month. He believes that this amount was deficient for him and his family, but he was able to provide 3 meals a day for his family.



Typical Hybrid Rice Field

When the cyclone hit, it impacted his life greatly. He lost all of his rice crops that he had planted, his pond was filled with salt water so all of his fish died, and his kitchen room was destroyed. During the cyclone his land was covered with salt water and this salt water prevented him from planting any type of seed for 2 months. He was chosen to be part of BRAC's rice program where he received the Tk. from BRAC and he also was part of the training sessions.

Now that the salinity has gone down in his soil and pond, he grows hybrid rice seeds and he has his fishery business. He is able to make 10,000 Tk. a month now which is more than enough for him and his family. He believes that he is making more now than before the cyclone because he is now able to grow hybrid seeds that are more productive than the other local variety of seed. He has become so successful that he can now lease 3 more acres of land, which has given him more area to farm so he can make an even higher profit. Mr. Sekender has also started to train other farmers who did not receive any help from BRAC so that they too can start to grow hybrid rice.

Mr. Shahjahan

Mr. Shahjahan supports his 16 year old son who is in grade 9, his 12 year old daughter who is in grade 3, his 10 year old son who is in grade 2, and his 9 year old daughter who is in grade 1. His wife is a housewife and she helps him on the farm. Before the cyclone he was a rice farmer who farmed 2 acres of land and grew the local variety of rice, but he also grew wheat and beans. He was able to make 8-9,000 Tk. a



[Mr. Shahjahan and me](#)

was covered by salt water and this salt water prevented him from planting any type of seeds for 6 months. He was forced to work as a day laborer for 8 months before he received help from BRAC through the rice program. He said that during those 8 months it was very hard for him to provide for his family because he was unable to raise enough money to restart his farming business on his own. He received the Tk. from BRAC and he also was part of the training sessions.

Now that the salinity has gone down in his soil, he grows hybrid rice seeds as well as the local varieties of wheat and beans. He is able to make 12-13,000 Tk. a month now which is sufficient for him and his family. He believes that he is making more now than before the cyclone because he is now able to grow hybrid seeds that are more productive than the other local variety of seed. He said that the training was more helpful than the money because the money only lasted him one planting season, but he is still using the techniques that he learned during the training.

BRAC's Maize Program

Mr. Morioum

Mr. Morioum supports his 22 year old son who is a day laborer and his 20 year old son who is studying to get his BA degree. His wife is a housewife. Before the cyclone he was a maize farmer who farmed 1 acre of land and grew the local variety of maize but he also grew rice, vegetables, and watermelon. He had 2 cows, 20 ducks, and 12 chickens. With these forms of income he was able to make 3,000 Tk. a month. He believes that this amount was deficient for him and his family, but he was able to provide 3 meals a day for his family.

month farming these different types of crops. He believes that this amount was deficient for him and his family, but he was able to provide 3 meals a day for his family.

When the cyclone hit, it affected many different aspects of his life. He lost all of his rice crops that he had planted, his trees that he would collect fruit from, and tin from his roof blew away. During the cyclone his land

During the cyclone Mr. Morioum lost everything. He lost all of his crops that he had planted, all of his livestock died, and his house was destroyed. Because of this, he was forced to stay with relatives for 10 days after the storm so he could build a temporary house and then a permanent one. During the cyclone his land was covered by salt water and this salt water prevented him from planting any type of seed for 3 months. He was chosen to be part of BRAC's maize program, where he received the Tk. from BRAC and he also was part of the training sessions.



Typical Hybrid Maize Field

Now that the salinity has gone down in his soil, he grows hybrid rice seeds. With the earnings that he generated from his crops he was able to buy a cow, 10 ducks, and 5 chickens. He is able to make 5,000 Tk. a month now which is sufficient for him and his family. He believes that he is making more now than before the cyclone because he is now able to grow hybrid seeds that are more product productive than the other local variety of seed. He believes that the training he received from BRAC was the most helpful because he is able to use the training to this day and he was only able to use the money he received from BRAC for one planting season.

Mr. Zamal



Myself Interviewing Mr. Zamal with my translator Ruhul

able to provide 3 meals a day for his family.

Mr. Zamal supports his 3 year old daughter and his 2 year old son. His wife is a housewife who spends most of her day taking care of the children. Before the cyclone he was a maize farmer who farmed 5 acres of land and grew the local variety of maize, but he also grew rice and watermelon. Before the cyclone he had 9 cows as well as 75 ducks and chickens. With these forms of income he was able to make 5,000 Tk. a month. He believes

that this amount was deficient for him and his family, but he was

During the cyclone Mr. Zamal faced serious damage. He lost all of his crops that he had planted, all of his livestock died, he lost his crop storage room, and he lost his kitchen room. During the cyclone his land was covered by salt water and this salt water prevented him from planting any type of seeds for 3 months. He was chosen to be part of BRAC's maize program, where he received the Tk. from BRAC and he also was part of the training sessions.

Now that the salinity has gone down in his soil, he grows hybrid rice seeds. With the earning that he generated from his crops he was able to buy 6 cows, 40 ducks and chickens, a goat, and a pond to start his own fishery. He is able to make 8,000 Tk. a month now which is sufficient for him and his family. He believes that he is making more now than before the cyclone because he is now able to grow hybrid seeds that are more productive than the other local variety of seed. He believes that the training he received from BRAC was very helpful, but he would not have decided to be in the program if he wasn't getting the money so he believes that the money was more helpful.

BRAC's Livestock Program

Mrs. Kulsum

Mrs. Kulsum supports her 17 year old daughter who is a maid, her 16 year old son who is a day laborer, her 14 year old daughter who is a maid, and her 12 year old daughter who is in grade 7. She is a housewife and she takes care of the livestock, but she does not own any land. Her husband died 12 years ago, so she was the sole supporter of her family before the cyclone. She had a cow and 2 goats before the cyclone. With these forms of income she was able to make 2,000 Tk. a month. She believes that this amount was deficient for her and her family, and she was only able to provide 2 very unbalanced meals a day for her family.



Typical Bangladeshi Cow

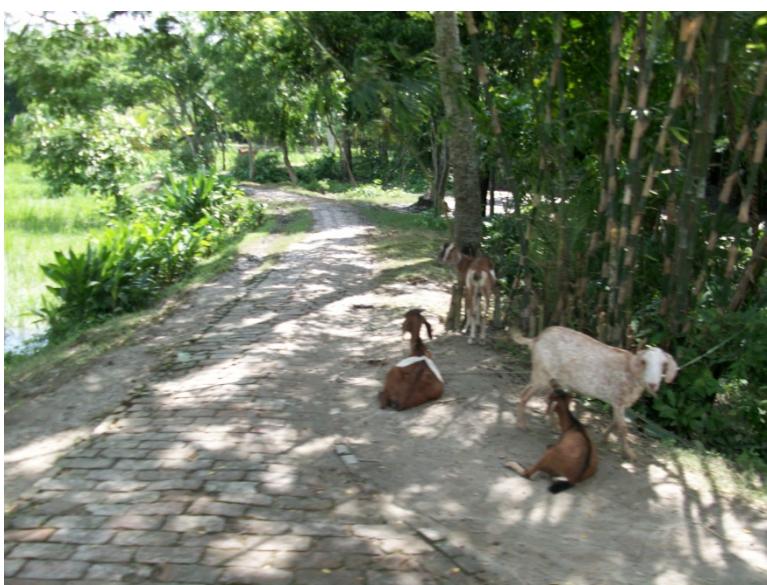
During the cyclone Mrs. Kulsum lost everything. She lost all of her livestock, her trees were blown over, and her house was destroyed, so she was forced to stay with relatives for 20 days after the storm so she could build a temporary house, and then a permanent one. She was chosen to be part of BRAC's livestock program, where she received a total of 10,000 Tk. from BRAC, 8,000 Tk. went towards buying a new cow and 2,000 of the money was spent on a new tin roof for her house. BRAC also provided a

one day training on how to properly take care of the animal so that she could get the highest possible amount of milk from it and about market prices so she would be able to get a fair price for her milk. BRAC staff also went with her to help her choose her new cow so that she would buy a healthy one.

After receiving her new cow and training her life has been much better. From the profits of selling her milk she was able to buy another cow and 6 chickens, which have improved her lifestyle. She is now able to sell twice as much milk and she collects the eggs from her chickens, so she is able to make 6-7,000 Tk. a month, which is sufficient for her and her family. She said that she believes that the training she received from BRAC was helpful, but because she already knew how to take care of the animals the money was more helpful.

Mrs. Sokina

Mrs. Sokina supports her 18 year old son who is a rickshaw puller and her 8 year old son who is in grade 2. She is a housewife and she takes care of the livestock, but she does not own any land. Her husband is a rickshaw puller as well. She had 5 goats, 7 ducks, and 9 chickens. With the income she received from her livestock and the money her husband was able to earn as a rickshaw puller they were able to make 5,000 Tk. a month. She believes that this amount was deficient for her and her family, but she was able to provide 3 meals a day for her family.



Mrs. Sokina's goats and the path that leads to her house

her house. BRAC also provided a one day training on how to properly take care of the animal and about market prices so she would be able to get a fair price. BRAC staff also went with her to help her choose her new goats so that she would buy healthy ones.

During the cyclone Mrs. Sokina's life was significantly changed. She lost all of her livestock and her house was damaged so she was forced to stay in a cyclone shelter for 3 days after the storm so she could repair her house. She was chosen to be part of BRAC's livestock program, where she received a total of 10,000 Tk. from BRAC, 8,000 Tk. went towards buying 4 new goats and 2,000 of the money was spent on 4 new pieces of tin for the roof of

After receiving her new goats and training her life greatly improved. From the profits of raising and selling her goats, she was able to buy more livestock so at the moment she has 5 goats and a cow. From the profits of these livestock and from her son's and husband's professions she is able to make 8,000 Tk. a month, which is sufficient for her and her family. She believes that the training she received from BRAC was helpful, but because she already knew how to take care of the animals the money was more helpful. She said that the money BRAC gave her has significantly improved her lifestyle from before the cyclone and she said that without BRAC she knows that her life would be much worse.

BRAC's Fishermen Program

Mr. Hossain

Mr. Hossain supports his 14 year old son who is a day laborer, his 6 year old son who is in grade 1, and his 10 year old daughter who is in grade 3. His wife is a housewife who spends most of her day taking care of the children. Before the cyclone he was a fisherman who fished on the Lohaliya River. He owned his own boat and nets but they were relatively small. With this form of income he was able to make 4-5,000 Tk. a month. He believes that this amount was deficient for him and his family, but he was able to provide 3 meals a day for his family.

During the cyclone Mr. Hossain's business was completely destroyed. He lost all of the trees that he owned, his boat and nets were destroyed, and his house was damaged so he was forced to stay with relatives for 20 days while he repaired his house. He stated that after the cyclone the river he fishes in was filled with salt water, but he was unable to fish during this time because his boat was destroyed. He was chosen to be part of BRAC's fishermen program, where he received a total of 20,000 Tk. from BRAC to buy new boats and bigger nets. He received more help from BRAC than any other person in the region. BRAC also provided one day's training on how to properly take care of his new equipment and how to use his new, bigger nets. BRAC staff also would check up on his business to see if he had any questions for them. Mr. Hossain was also lucky enough to receive 40 kg of rice from the government as part of their aid toward the fishing community.



Local fishermen fishing off a river's shore

Now that the salinity has gone down in the river, he has started to fish again. With his new boat and bigger nets he is able to make 7-8,000 Tk. a month now which is sufficient for him and his family. He believes that he is making more now than before the cyclone because he is now able to fish a wider area at one time because he has the bigger nets which he did not have before. He believes that the training he received from BRAC was very helpful, but because he was already a fisherman before the cyclone he thought that the money was more important and that he would not have decided to be in the program if he wasn't getting the money.

BRAC's Shopkeeper Program

Mrs. Kolpona

Mrs. Kolpona only has one daughter, but she is married, so her husband supports her. She is a shopkeeper who lives by herself. Her husband died years before the cyclone hit her shop. She owns her own shop and she also lives there. With this form of income she was able to make 5,000 Tk. a month before the cyclone, and she believes that this amount was sufficient for her because she didn't have to support anyone else, and she was able to eat three meals a day.



Mrs. Kolpona and myself in front of her shop

During the cyclone, Mrs. Kolpona's business was destroyed. Her shop/house was situated on top of a steep hill, and when the cyclone hit it fell down that hill so she was forced to stay in a local school for 3 weeks before she was able to rebuild her house. She was chosen to be part of BRAC's shopkeeper program, where she received a total of 4,000 Tk. from BRAC, which went towards repairing her shop, buying items

to replace the products that were destroyed, and buying new items that she did not carry in her store before the cyclone. BRAC also provided a one day training on what new items she should sell in her store and how these products should be stored to keep them as fresh as possible. BRAC staff also would stop by to see how successful her store was now that she carried new items.

After receiving the aid from BRAC, she has been able to make a higher income. She is able to make 7,000 Tk. a month, which is more than enough for her. She believes that she is making more money now because she is able to sell a wider variety of products that she couldn't sell before. She said that she believes that the training she received from BRAC was helpful, but because she already knew how to run her store, she believed that the money was more helpful.

BRAC's Van Program

Mrs. Rashida Begum

Mrs. Rashida Begum supports her 13 year old daughter who is in grade 6, her 10 year old son who is in grade 4, and her 2 year old daughter. She is a housewife who spends most of the day taking care of her children. She also took care of the small amount of livestock that they owned of just 8 chickens and 5 ducks. Before the cyclone her husband was a van driver. He did not own a van so he was forced to rent one every day. With this form of income her husband was able to make 4,000 Tk. a month before the cyclone, and she believes that this amount was deficient for her because she wasn't able to feed her family three meals a day. Most days her children had to make do with just two.

During the cyclone Mrs. Begum lost a lot of her possessions. The cyclone destroyed her kitchen room, it blew over a tree that they owned, and it killed all of her livestock. She was chosen to be part of BRAC's van program, where she received a total of 8,000 Tk. from BRAC, which went towards buying a new van that could be their own. BRAC also provided a one day training on how to upkeep their van and keep it running properly. BRAC staff also would stop by to make sure the condition of the van was still in good working order.

After receiving the aid from BRAC, she has been able to make a higher income. She is able to make 8,000 Tk. a month, which is sufficient for her and her family. She believes that she is making more money now because they own the van now and they do not have to pay someone to rent a van out. She believes that the training she received from BRAC was helpful, but because her husband already knew how to operate the van, the money was more helpful.



Mrs. Rashida Begum's Van

Farmers who did not receive aid

Mr. Harun

Mr. Harun supports his 8 and 7 year old sons who work with him on his farm and his 12 and 10 year old daughters who stay at home and work with their mother. His wife is a housewife. Before the cyclone he was a farmer who grew local varieties of rice and watermelon on his 3 acres of land. Before the cyclone he also had a pond for a fishery, 3 cows and 13 ducks/chickens. With these forms of income he was able to make 4,000 Tk. a month. He believes that this amount was deficient for him and his family, and he was only able to provide 2 meals a day for his family.

During the cyclone Mr. Harun's troubles became even more severe. He lost all of his crops that he had planted before the storm, all of his livestock died, and his house was destroyed so he was forced to live with a friend for 1 month before he was able to return to his land to repair his home. He stated that during the cyclone his land was covered by salt water and because of the salinity in the soil, he was unable to grow any crops for three months. He did not receive aid from any NGOs, the government, or BRAC. To restart his farming business he was forced to take out a 10,000 Tk. loan from a money lender so he could afford the seeds that he needed to start farming again.

Since he took out this loan he has been farming to make an income for his family. With the profits he has made from farming he has been able to buy 3 cows and 10 ducks/chickens, but he is only able to make 3,000 Tk. a month now which is deficient for him and his family. He believes that he is making less now than before the cyclone because he is still paying back the loan that he took out from the money lender. He is only able to provide his family with two very unhealthy meals a day. If he could have received help from BRAC, he would have wanted the money that BRAC gave out through the rice program so that he wouldn't have had to take the loan from the money lender because he is still paying back the loan.

Mr. Joynal

Mr. Joynal supports his 13 year old son who is in grade 8, his 7 year old son who is in grade 2, his 17 year old daughter who is in grade 9, and his 13 year old daughter who is in grade 5. His wife is a housewife. Before the cyclone he was a farmer who grew rice, wheat, and potatoes on his 1.5 acres of land. He also worked a second job as a carpenter. With these forms of income, he was able to make 7,000 Tk. a month. He believes that this amount was sufficient for him and his family, and he was able to provide 3 meals a day for his family.

During the cyclone Mr. Joynal's life turned for the worse. He lost all of his crops that he had planted before the storm and his house was destroyed, so he was forced to live with relatives for 1 month before he was able to return to his land to build a temporary

home, though it took him over a year to build up the funds that he needed to build a permanent house. He stated that during the cyclone his land did not get covered by salt water from the tidal surge, but that it did flood from all the rain water which killed his crops. He did not receive aid from any NGOs, the government, or BRAC. To restart his farming business he was forced to work for a few months as a carpenter, but he soon realized this



Mr. Joynal and myself

income would not be enough. He took a loan out from a money lender that had an interest rate 120%. He used this money to repair his home and restart his farming operation.

Since he took out this loan, he has been farming and working as a carpenter to make an income for his family, but he is still able to provide his family with three meals a day. He is only able to make 5,000 Tk. a month now which is deficient for him and his family. He believes that he is making less now than before the cyclone because he is still paying back the loan that he took out from the money lender. If he could have received help from BRAC, he would have wanted the training on how to grow hybrid seeds because he feels he could make more money growing those than his local variety.

Mr. Abu Zafar

Mr. Abu Zafar supports his 6 year old son who is in grade 1 and his 1 year old daughter. His wife is a housewife and she helps him on the farm as well. Before the cyclone he was a farmer who grew local varieties of rice and vegetables on his 1 acre of land. Before the cyclone he also had a pond for a fishery, a cow, 2 goats and 14 ducks. With these forms of income, he was able to make 6,000 Tk. a month. He believes that this amount was sufficient for him and his family, and he was able to provide 3 meals a day for his family.

During the cyclone Mr. Zafar's land was devastated. He lost all of his crops that he had planted before the storm and all of his livestock died. He stated that during the cyclone his land and pond were covered by salt water and because of the salinity in the

soil, he was unable to grow any crops for a month and he was unable to run his fishery for 2 months. He did not receive aid from any NGOs, the government, or BRAC. To restart his farming business he was forced to take out a 12,000 Tk. loan from a neighbor so he could afford the seeds that he needed to start farming again. He said that he feels very lucky he was able to borrow the money from a neighbor instead of from a money lender with ridiculous interest rates.

Since he took out this loan, he has been farming to make an income for his family. With the profits he has made from farming he has been able to buy a goat, 4 chickens, and 6 ducks, but he is only able to make 5,000 Tk. a month now which is deficient for him and his family. He believes that he is making less now than before the cyclone because he is still paying back the loan that he took out from his neighbor and because he has a new baby girl to take care of. He is able, however, to provide his family with three fairly healthy meals a day. If he could have received help from BRAC, he would have wanted the training on how to grow hybrid seeds because he feels he could make more money growing those than his local variety.

Mr. Ibrahim

Mr. Ibrahim supports his 14 year old sister who is in grade 4. His mother is a housewife. Before the cyclone he and his father were farmers who grew local varieties of maize, rice, and local vegetables on their 1.5 acres of land. Before the cyclone he also had 3 cows and 3 goats. With these forms of income he was able to make 5,000 Tk. a month. He believes that this amount was deficient for him and his family, and he was able to provide 3 meals a day for his family.

During the cyclone Mr. Ibrahim's young farming life turned for the worst. He lost all of his crops that he had planted before the storm, all of his livestock died except for one of his cows, and his house was damaged so he was forced to live with a neighbor for 10 days before he was able to return to his land to repair his home. He stated that during the cyclone his land was covered by salt water and because of the salinity in the soil, he was unable to grow any crops for three months. He did not receive aid from any NGOs, the government, or BRAC. To restart his farming business, he was forced to sell his only remaining cow so that he would have enough money to buy the seeds that he needed to start farming again.

Since selling his cow, he has been farming to make an income for his family. With the profits he has made from farming he has been able to buy a cow and 3 goats, but he is only able to make 5,000 Tk. a month now which is deficient for him and his family. He believes that he is making less now than before the cyclone because he cannot collect as much milk as he used to before the storm when he had three cows. He is able to provide his family with three meals a day. He wishes that he was able to grow hybrid crops, but he doesn't know how to because he never received training, so if he could receive one thing from BRAC it would be training on how to grow hybrid seeds.

Findings

These interviews were able to answer many of the questions that I formed before my research. I would now like to answer a few of these questions so I can highlight BRAC's success, while giving points for improvement.

Successes of BRAC's Programs:

I would like to give credit to BRAC now for not only helping the farmers, but for helping the whole rural region of Patuakhali. The success of the agricultural regions would not be possible without the vans for transportation or without the shops that give the people a place to sell their products. While the work they are doing for the farmers is fantastic, it would all be for nothing if BRAC hadn't helped the entire rural area. For this reason, I would say that BRAC's programs are working to improve the livelihoods of the rural people.

BRAC has done a wonderful job to improve the livelihoods of the farmers in their programs. The money that they give to the farmers has been extremely beneficial to them because it has allowed them to start their farming operations again without having to become desperate and take a loan from a money lender. The training, however, is what I believe to be the most important to the rice and maize farmers. The farmers that are in the rice and maize programs are more successful because they are able to grow the hybrid seeds. The farmers told me that they needed the training from BRAC to be able to grow these seeds, so the training is the key to the rice and maize programs. I would like to give BRAC credit for seeing that these farmers needed not only money to be successful, but that they also needed the training to improve their methods of farming practice.

It is clear to see the difference in lifestyle between the people who received help from BRAC and the people who were forced to recover on their own. Out of all the people I interviewed who did not receive help from BRAC, only one said that he was making a higher income now than before the cyclone. This man also was making 25,000 Tk. a month before the cyclone and owned a two-story house that was able to withstand the cyclone. Also, there was only one farmer who had received aid from BRAC but who said that she was making less of an income now than before the cyclone. This was because she received 4 goats from BRAC, but three of them died of disease before she was able to sell them. It is clear to see that besides these two people, the people who did receive help from BRAC have a much better lifestyle and a higher income than the people who did not receive help from BRAC, so this shows that BRAC's programs are working.

Lastly, I would like to say that I am very surprised by the amount of work that BRAC has done to help these people compared to the government and the other NGOs in the country. I interviewed almost 70 different people who lived in this region. Only 4 said that they received help from anyone besides BRAC, and they only received a few days

worth of rice from the government. To me it shows that BRAC's work is even more important because they are the only organization that is helping these people.

Improvements that could be made:

One place where I see room for improvement is the amount of people BRAC helped. The 45,000 farm families in the area who did not receive help from BRAC faced a much more difficult lifestyle, mainly because they were unable to grow these hybrid seeds. My recommendation would be to have open training sessions for the farmers who did not receive aid from BRAC so that those farmers too would be able to grow the hybrid seeds and improve their lifestyle.

Another place where I see room for improvement is with sustainability. On the one hand, BRAC's programs are very sustainable because through their training they have taught the people practices that they can use over and over again, but on the other hand, all of BRAC's work could be destroyed in this region if another cyclone were to hit in the future. I see two possible options here. One is that BRAC could try to improve the infrastructure along the coast so that levies and higher road ways may stop tidal surges and salt water intrusion from destroying so much of the area's agriculture. This, however, is a very costly system to try to improve, and I understand that BRAC does not have the financial capabilities to do this. The second solution would be to urge government officials to make this a top priority. BRAC, being the largest NGO in Bangladesh, could try to influence policy makers to improve Bangladesh's coastal infrastructure so that natural disasters wouldn't have such a serious impact on the region. This also has its downsides because BRAC wants to try to stay out of government politics as much as possible, which is understandable for any NGO. Maybe BRAC could find a combination between these two solutions. BRAC could lead through example by starting smaller infrastructural improvements, and hoping that the government will follow with bigger improvements later.

My findings will be considered by BRAC and may be used in their Disaster Management Plan that will affect their relief efforts for future disasters.

Conclusion

Overall I see BRAC's programs being very successful. This is obvious from the findings because a person just needs to compare the lifestyle and income between the people who received help and the ones who didn't. BRAC truly is an amazing organization. They have worked to improve the livelihood of not only the farmers and the rural people, but all of the Bangladeshi people. I worked with a combination of two (the



DECC and agriculture programs) of BRAC's 28 total projects that impact every citizen in some way. The programs vary from solar panels to microcredit loans. BRAC has done so much for this country, and I believe that there is no other organization that cares about a country or its people as much as BRAC cares about Bangladesh.

I have really enjoyed the experience of learning about all of BRAC's programs, seeing how they have been implemented, meeting with the farmers and hearing their success stories, working in Dhaka, and meeting the directors that really make BRAC's programs run smoothly. However, I think that the most important experience that I had



The city of Dhaka

was embracing this new culture and this country that I called home for 2 months. The experience that I had while on my internship will be one that will stay with me forever. Living in a big city for the first time, riding on rickshaws and CNGs through the streets, dealing with the issue of poverty while viewing the slums and beggars, seeing the typical 2 acre farm of Bangladesh, and meeting

new, important, and powerful people, these are all experiences that I will take with me forever. While I feel like my work was important and I surely learned a lot about disaster management, in twenty years I feel like I will remember and cherish the other experiences more because they showed me what Bangladesh is all about and they have taught me a few things about myself.

In my introduction I said that this was the experience of a lifetime and I meant it. I am grateful to have had the opportunity to travel to the other side of the world, study a subject that impacts so many people and work at an organization that is as large and well-known as BRAC. This was a rare opportunity for which I am most thankful.

Acknowledgements

I would first like to thank the World Food Prize Foundation for giving me the chance to be part of this extraordinary experience. I would especially like to thank the late Norman Borlaug for setting up this program which has given this opportunity to so many students and will give to countless more in the future. I would like to thank Mr. John Ruan and Ambassador Kenneth Quinn for all of the work that they have done for the World Food Prize. Lastly, I would like to thank Ms. Lisa Fleming for directing all of the youth programs and for being there to guide and assist all of us interns.

I would like to thank BRAC for hosting me this summer. I would especially like to thank Dr. Mahabub Hossain, Executive Director of BRAC, Babar Kabir, Director of the Disaster, Environment, and Climate Change program, and Dr. Manoranjan Mondal, the head of the agricultural program, who all helped me with the specific research side of my internship. Thank you to my translator Ruhul for not only translating for me but for keeping me entertained while out in the field. I would also like to thank Tanha Habib who helped with all of the logistics of my trip. She has been the Lisa Fleming of Bangladesh to me so I thank her for that.

I would like to thank all 70 some of the farmers and rural people that took part in my interviews. I'm sorry that not all of you made it into my paper, but you all gave me insight into what the rural regions of Bangladesh are really like.

I would like to thank Mr. Berg, who helped me with my original paper for the youth institute. I would also like to thank Mrs. Frank and Mrs. Rice-Larson for writing letters of recommendation for me, which I am sure, is why I was able to have this experience.

Lastly I would like to thank my parents and family. Thank you for supporting and allowing me to be a part of this experience.