REPORT ON TRIP TO THE BRAC SULLA PROJECT - Dec 7

DAVID KEMPF
MCC COMILLA

Introduction

The following report is of my trip to BRAC's Sulla Project in Sylhet. I arrived on 1 December and left the morning of 15 December. I visited a total of eight camps and talked with many of the staff. During the last few days of my visit, a rice training course conducted by Luftfur Rahman and myself was held for some of the staff. BRAC is working at an integrated rural development program, which includes agriculture, function education, health, family planning, as well as other aspects. A main purpose of the program is to raise the consciousness of the people so that the program and development come from the people. I concerned myself mainly with the agriculture program, and specifically rice. The purpose of this report is to record information in an orderly manner for myself, and to report findings and suggestions to BRAC personnel. Therefore not all of the information will apply to everyone.

Land and Cropping Pattern

BRAC's Sulla Project is set in the middle of the haor area. In the rainy season, almost all of the land is covered by water, at depths of up to twenty feet. In many areas, the only portion remaining above water is the land on which the villages are built. The terrain, however, is not completely flat and water depth varies. Most of the area is the bil or haor land, some of which is flooded the whole year. In most places, the rest of the land would be called lowland, but in the bil areas, it is called upland. In the rainy season, this land is shallowly flooded with 3 - 4 feet of water. It is the first land to dry out in the fall and the last to flood in the spring. On some of this land, a late Aman is transplanted as the water recedes. In other areas, IRRI rice is grown as a boro crop. IR8 and IR9 are the main varieties grown. This is possible because it can be transplanted earlier than the bil areas, and floods up to one month later. A lot of the upland, however, is government land which supports no grain crop. It would need levelling to grow rice and is used for grazing cattle, growing thatch for roofs, and threshing rice.

As the water recedes, gardens are planted all around the villages. These are cultivated by the women. Small amounts of mustard, potatoes, and sweet potatoes are also grown. However, the largest amount of land is the bils where local boro is the only crop grown. The rice is transplanted towards the center as the water recedes. Because it is the lowest part, the land which is transplanted last floods first, so the growing season is the shortest. Since some of this has standing water year round, the rice needs to be carried some distance to be

Agriculture Program

Vegetables

Each of the ten camps sold some vegetable seeds, some more than others. The greatest demand was for tomato and cabbage seed. At some camps, the seed was sold in the villages, while at others, the villagers came to the camp for seeds. Many of the camps also planted a vegetable garden at the camp, for demonstration and their own use. One of the staff has attended a one month vegetable training at Tangail, and this year he gave a three day training to six of the staff.

Cooperatives

This constitutes the major part of the agriculture program. Most of the cooperatives will cultivate rice, with a few cultivating mustard or sweet potatoes. There are also fishermen cooperatives. This year BRAC will be working with 20 - 30 cooperatives and will give loans totalling about Taka 400,000. The following refers to those cultivating rice.

The cooperatives are made up of a homogeneous group of people. This reduces the amount of friction within the co-operative. BRAC is trying to work with the most destitute, which includes the landless farmers. Most cooperatives range in size from 20 to 60 acres, and the land is cultivated collectively with production divided equally among the farmers. A few of the cooperatives are renting land from larger landowners, but many have now received government land. The government has a policy of leasing or selling land to landless farmers. However, before cultivation the land requires levelling. Also the cost of all the inputs must be supplied before a crop is received. Without help some of the land would slowly have to be sold to the rich topay off debts. Therefore BRAC provides grants for levelling the land, and is providing loans at 12% interest for production. One good aspect of the loans is that they cover the total need, both production and living, so that dependence on the moneylender is reduced. The loans are dispersed as needs for inputs (about monthly,) and repayment is in May and June. BRAC also recommends keeping one-fourth of the total production as savings so that the loan can be decreased next year.

Rice Seed Multiplication

BRAC felt that one of the major constraints to increased production was the use of poor quality seed. Rice used for seed is the same quality as that used for food. For this reason, a seed multiplication project is being started, using the cooperatives they are working with. Five manual

of BR-3 and one maund of BR-7 were purchased from the BRRI substation at Habigonj. All the details of the project have not been worked out, but one plan is to distribute seed to the cooperatives who will grow it and then sell it back to BRAC, who will then store it in some intermediate size grain storage bins which will be built.

Recommendations

While I did not look extensively at the vegetable program, I did notce that most of the gardens seemed to be planted late. When I returned to Comilla, most winter vegetables were already available on the market, while at Sulla, most of the gardens had just recently been transplanted, and very few vegetables were available. While late rains may delay planting some, testing should be done to see if vegetables can be planted earlier. This may require land preparation at different times, with the upper portion of the garden closest to the bari being cultivated first, and the rest cultivated as it dries.

The cooperatives are an excellent opportunity for doing large size demonstration of new varieties. Since they are farmed collectively, the risk to any one farmer is minimal. The same can be done with cultural practices. By taking a large size field and making sure that things are done correctly (proper fertilizer rate and time of application, proper weeding, etc.), the farmers can see the advantages for themselves, and the total expense is not placed on one farmer.

At present, the BRAC fields at Atgaon and other camps are used only for demonstration and seed multiplication. I recommend thatthey also be used for testing. Variety testing, as well as fertilizer trials, could be carried out. Since the BRAC fields are upland, the soil would be similar to the soil in most of the cooperatives. Also wheat should be tested more extensively. Wheat should be able to grow well, especially where no T Aman is grown and it can be planted at the proper planting date. The production cost for wheat is less than for rice and therefore the initial outlay, before receiving a crop, would be less. Also levelling is not as critical since the field is not flooded.

A significant contribution could also be made by doing tests in farmers fields on the haor land. To my knowledge, little testing has been done on this soil. A number of trials could be done. One important group would be fertilizer trials to find the most economical dose. Variety trials with the best local vatieties in an area and local improved vatieties could be carried out. Also trials to see what rates of nitrogen different varieties respond to would be of value.

Many of the details of the rice seed multiplication project need to be completed. I do not agree completely with the assumption that poor quality seed is a major constraint to increased production. The quality of the seed is not as important with transplanted rice as it is for direct

seeded rice where good germination is required for a good uniform stand. With transplanted rice, poorer quality seed can be compensated for by increasing the size of the seedbed and selecting healthy seedlings. More important for production is the variety used and the cultural practices followed. Although I disagree with the importance of seed quality, a seed multiplication project can be useful to increase the availability of newly introduced varieties. However, for this to be successful, the varieties extended must be accepted by the farmers. BR-3 has been accepted as an Aus variety and is being accepted for Boro in some areas. BR-7 with a lower yield, but better eating quality, may also have a role. The real test of a variety, though, is not how it performs on an experimental station, but whether the farmers will accept it. One example of this is the variety Pajam. Although it is not a recommended variety, it now covers about 33% of the rice acreage in Comilla District, more than all the HYVs combined because it has qualities the farmers like. The only way to test farmer acceptance is to get the variety in the field. Thus a seed multiplicatio n project can be started, but a strong extension effort will be required with it.

There are different ways a seed multiplication could be run. One is a centralized system where the seed is collected and stored at one or several storage sites. Another is a decentralized system where the seed remains in the control of the individual farmers. Both these systems have advantages and disadvantages.

In a centralized system, seed would be distributed to selected farmers or groups of farmers, possibly on contract, who would multiply the seed. It would then be bought back either at a predetermined price or a price somewhat over the market price. One advantage of this system is that it provides better quality control. Although mixing could occur during harvesting and threshing, there is less chance for mixing in storage. A second advantage is that a closer watch can be kept on quality. With the grain in a few centralized storage structures, problems can be detected earlier and more readily. A disadvantage is that medium size storage structures are required. Also, if damage does occur, a larger percentage of the seed will be ruined than if the seed is stored in smaller structures. Another disadvantage is that some system will be required for extending the seed. Once the farmers sell the seed, they will not be responsible for its distribution.

In a decentralized system, the seed would always remain under the direct control of the farmers who grow it. Large scale storage would not necessarily be required. Seed could be kept by farmers in their baris. If each person in a cooperative stored only two maunds, a considerable quantity of seed could be stored. I'm sure that some farmers always produce good quality seed and a survey of storage methods and structures would show which ones are best. Another advantage of

this system is that it uses a system that the farmers are familiar with. At present, almost all farmers either store their own seed or else buy seed from the hari of a farmers who produced good seed. Very little seed is sold in the market. By using a familiar system,the problems of seed sale and extension would be lessened. Still another advantage is that it leaves direct control with the farmer. This is in keeping with BRACs ah objective to increase the consciousness of the people. By leaving it in the farmer's control, they are responsible for the success of the project. The benefits also go directly to the producer. A disadvantage of this sy system is that there is less variety and quality control. Farmers would have to be convinced of the importance of maintaining varietal purity and selling only quality seed to build up a reputation as producers of good seed.

I recommend using the decentralized system. I did not look at present storage facilities, but even if it is felt that larger centralized storage structures are required, it would still be best to leave control of the seed with the farmers. One problem with large storage structures is what happens to them when BRAC leaves (scheduled project completion date is December, 1980). It remains to be seen whether a thana level cooperative association would be strong enough at that time to maintain control of them. I believe the advantages of a decentralized system outweigh the disadvantages of quality control. Farmer to farmer seed distribution can be a very a effective extension system. Agni Bajan is a good example. Little seed was ever distributed formally, yet it now covers large acreages. If a few mounds of good quality seed are purchased each year and that and second year generation seed are multiplied, purity can be maintained. It requires that the farmers are informed of the necessity for it. The project will be successful xfx after BRAC leaves only if the farmers are convinced that it is necessary and receive some direct economic benefit from it.

One other recommendation concerning the seed multiplication is that the BR-7 seed should be grown in farmers fields this year and not just a on BRAC fields. With collective farming, the risk will be small , and it will get much wider exposure. The only way to determine farmer acceptability is to let them grow it. If the seed has already been sown in seedbeds, seedlings should be sold to different cooperatives, so that they become familiar with it.

Conclusion

The trip to Sylhet was a very good experience for me and I enjoyed working with the BRAC personnel. I was impressed with the goals of the project of trying to benefit the poorest. The enthusiasm and abilities of the personnel were good and everyone helped make my stay a pleasant one.