D R A F T

(INTERNAL CIRCULATION ONLY)

AN ECONOMIC ANALYSIS OF TWO "MORTGAGED LAND SCHEMES" UNDER RCTP GHEOR BRANCH.

Background

The RCTP for about a year has started disbursing loans to *Samitys* for gainful economic activities in some of its branches. The Research Evaluation Division in early 1981 decided to undertake an economic analysis of some of the schemes undertaken in different branches of RCTP. Mr. Zafar Ahmed as a pre-test for a more detailed study made some enquiry into eight schemes undertaken by four *Samitys* of Gheor Branch. Though there is little of statistical representativeness present, there was an honest intention of covering a diverse range of activities. A report on these schemes is now almost ready. But considering its important implications, the two schemes on land mortagage are presented here as the first in the series of instalments. The analyses may be of value to RCTP. However, as usual, these analyses are not free from many biases.

The Scheme

The RCTP in different branches has supported many *Samitys* to undertake a scheme on mortgaged land. The scheme envisages the release of the land owned by *Samity* members which are mortagaged to money lenders and other land lords. BRAC pays the entire amount of the mortgage and places the released land at the disposal of the concerned *Samity*. The principal of the loan is repaid to BRAC in three equal yearly instalments. The interest 18% is paid every six months (immediately after harvest). After the full realisation ofthe principal and interest, the title of the land which is initially hypothecated to BRAC goes to the *Samity*. On the other hand, the owner-members of the released land gets a payment rebate of Tk.100+- per *pakhi* (0.27 acre) every year untill the full amount of mortgage is paid back to the *Samity*. Even if he fails to repay the amount in cash, his liability because of rebate deduction will over a period be reduced to zero. The situation in the earlier mortgage (i.e. to the money lenders) was quite countrary. For he had no rebate facility and he was bound to repay the whole amount before he can claim the land back. During the period under Samity's disposal, the owner has an equal share as other members to the profit accured from his land. During the mortgage period, the whole produce is gulped by the mortgaged throughout the period of mortgage in case the land is mortgaged to a money-lender. It thus appears that the scheme is positively favourable to the members of the Samity whose land are released from mortgage. On the other side, the members including the owners get some land to till for frofit. The profitability of the scheme at least during the initial few seasons is very vital in view of large interests and annual rebate liabilities.

Some details about the two schemes

Name of Samity	Total amount released (acres)	No. of owner	Starting date	Duration in years	No. of Samity member	BRAC credit in Tk.	Samity Contribution in Tk.
Raghunatpur	2.23	4	Sep'80	3	42	10,440	940
Milagi	4.13	19	"	3	102	19,200	1,075

Cost-benefit of the two schemes

The Raghunatpur Scheme:

Since the release of the land, the Samity has embarked on cultivation only once - the last Rabi season. Some Rabi crops such as Wheat, gram, maskhali, oil seeds, kheshari and lentil were cultivated. Eight members were entrusted with the responsibility some of whom were accordingly trained on wheat cultivation at TARC, Savar. The Samity met all the non-labour cost of production expect the cost of ploughing. These costs were later realised from the participants after harvest. The sale proceds of the remaining harvest were equally divided between the Samity and eight participants.

Cost (Non-labour) : The non-labourcost of the scheme were the following:-

Table 1 : Non-labour cost in Raghnatpur Scheme

Input	Qty./No.	Rate in Taka (per maound)	Cost (in Taka)
Wheat Seed	48 seers	145.00	175.00
Gram	3 seers	200.00	15.00
Mashkalai	5½ seers	260.00	35.75
Oil Seed	1 seer	400.0	10.00
Kheshari	3 seers	213.00	16.00
Lentil	1 seer	240.00	6.00
Urea	35 seers	115.00	100.85
T.S.P.	5½ seers	105.00	14.37
Sub Total:-			372.97
Plough	6	15.00 (per plough)	90.00
Grand Total			462.97

Cost (labour): The eight members involved in this scheme supplied the needed labour but did not take any monetary wage. In the absence of actual wages, one can at best resort to calculating the opportunity cost. In Ghior, Kartik to Agrahayan is the peak employment period in the agricultural sector and they seldom remain unemployed during the season. But like any other area, hidden unemployment and underemployment may also be prevalent in this area. In the absence of any factual knowledge, we take the prevailing rate of wage as the opportunity cost of labour.

Table 2: Opportunity cost of labour in Raghunatpur scheme.

Phases	Mandays involved	Opportunity Cost (Tk.) (per day)	Total Cost (Tk.)
Ploughing	6	10	60.00

Phases	Mandays involved	Opportunity cost (Tk.) (per day)	Total Cost (Tk.)
Sowing	1	10	10.00
Weeding	12	10	120.00
Harvesting	12	10	120.00

Thus the labour and non-labour cost of the scheme comes to Tk.882.9

Interest & Principal: Though the scheme has been granted for three years and repayments will be made in three equal instalments at the end of each year, the Samity will have to start paying the interest from the sixth month. Thus the cost will also include the interest for six months and one sixth if the principal. The interest for th first six months of the programme 18% per annum is Tk.1,024.20 and a sixth of the principal comes out to be Tk.1,896.67. Thus the tot of interest and principal for the first six months is Tk.2,920.87.

Revenue: The revenue accured from the sell proceeds is as below:

Table 3: Revenue Accured from Raghunatpur Scheme

Product	Quantity	Rate per md. (in Tk.)	Revenue
Wheat	8 mds. 29 seers	106.00	924.85
Oilseeds	5 seers	424.00	53.00
Lentil	5 seers	96.00	12,00
Kheshari	1 md. 23 srs.	145.55	229.25
Maskhalai & Gram	1 md. 2 srs.	124.76	131.00
Total:-			1,350.10

Profitability : The following is a picture of input-output of the scheme.

Gross cost Tk.	Interest Tk.	Principal Tk.	Total input & liabilities Tk.	Revenue Tk.	Difference Tk.
882.97	1,024.20	1,740.00	3,647.17	1,350.10	2,297.07

Thus during the first six months, the scheme has incurred a loss of Tk.2,297.07.

Employment Generation: There were eight participants of the scheme who worked for 90 days. Thus the total man-days available were 720 out of which only 42 or 5.8% could be employed.

Benefits to Participants: Half of the sale proceeds of the harvest went to the participants. But from this, the non-labour costs of production were later realised by the Samity. Half of the total harvests were Tkk.675.05. After giving back the non-labour costs of Tk.462.97, the participants were left with Tk.212.08. The per capita share of labou per employed day was Tk.5.05. The actual wage rate during the period of the scheme as mentioned was Tk.10.00 per day.

The Milagi Scheme:

4.13 acres of land belonging to 19 Milagi Samity members were released with an investment of Tk.20.275. BRAC credit were to the tune of Tk.19,200, nearly 95% of total investments. During the first six months, Rabi crops were sown and harvested. As some of the released land were less fertile, these were given out on crop sharing basis to the original owners who are also Samity members. As against, some more fertile land suitable for profitable sugar-cane cultivation were taken on crop sharing basis. Out of the total of 4.13 acres, 2.33 acres were shared out. The remaining 1.88 acres were jointly cultivated by all 102 members of the Samity. The Samity shared in 0.17 acre for sugar-cane cultivation.

The input in the Samity cultivated land were managed by the Samity itself. While some hired labourers were employed in some phase, the Samity members provided most of the labour without taking any wage. The inputs for shared out land were provided by the share cropers.

Cost (Non-labour): The non-labour cost incurred by the Samity for the land cultivated by them (both share in and own cultivation) is as follows:-

Table 4: Non-l bour cost of Milagi Scjeme (own cultivated & shared in land).

Input	Qty./No.	Rate per md. (in Tk.)	Cost
Khesari seed	39 seers	210.00	205.00
Gram seed	3 seers	200.00	15.00
Oil seed	8 seers	442.50	88.00
Sugarcane seedling	1125	100.00 (per thousand)	112.50
Potato seeds	2 mds.	107.50	215.00
Urea	1 md. 25 srs.	115.00	186.87
TSP	1 md. 9 srs.	105.00	130.63
Plough	15	15.00	225.00
			1,178.50

Cost (Labour): Out of the total 34 man-days employed, 11 were from the hired labourers. The rest were given by the Samity members the selves without wage. The opportunity cost for the Samity members, as in Raghunatpur, is assumed to be equal to the actual wage rate prevailing at the time. Thus the labour cost is as follows:-

Table 5: Labour cost in Milagi Scheme

Phases	Mandays Employed	Cost/Opportunity cost per day	Cost
Ploghing	8	10.00	80.00
Sowing	5	10.00	50.00
Sowing	5	10.00	50.00
Weeding	5	10.00	100.00
Harvesting	10	10.00	100.00
Threshing	6	10.00	60.00
Total:-	34	10.00	340.00

Thus the total labour and non-labour costs stand out be Tk.1,518.50.

Interest & Principal: The interest for the first six months is Tk.1,824.75 while one-sixth of principal is Tk.3,200.00. Thus the total for the interest and principal payable for the first six months is Tk.5,024.75!

Revenue: The total revenue received from the scheme are as follows:-

Table 6: Revenue Accured form Milagi Scheme.

Product	Qty./No.	Rate per md. in Tk.	Revenue
Sugercane	-	-	300.00
Potato	8 mds. 25 srs.	95.00	820.00
Khesari	4 mds. 20 srs.	170.00	769.00
Oil seeds	38 seers	250.00	243.00
Gram	14 seers	80.00	230.00
Sub Total:-			2,212.00
Income from shared out land			
Khesari			320.00
Wheat			115.00
Oil seeds			257.00
Sub Total:-			692.00
Grand Total			2,904.00

Profitability

Gross Cost Tk.	Interest Tk.	Principal Tk.	Total input & liabilities Tk.	Revenue Tk.	Difference Tk.
1,518.50	1,824.75	3,200.00	6,534.25	2,904.00	3,639.25

The loss incurred by the scheme during the first six months is thus Tk. 3,639.25.

Dicussion

The monetary cost of and benefit from the two mortgaged land schemes undertake have been discusses in the foregoing pages. The mortgages land schemes supported by RCTP is the single highest investment constituting 40% of the total sanctioned credit. It has great importance in the light of RCTP's stated objectives of "col lective actions".

The experiences with the first six months of the schemes does not however reval anything of starting success. Insteed it gives a picture of failur and despair. The revenue received is far less than the cost and liablities. The revenue is only 37 and 44 percent of the total costs and liabilities of the Raghunatpur and Milagi schemes respectively. These are the calculation based on the first six months' performance of the schemes. Moreover, neither the schemes could generate enough employment nor could give the share of labour even at the existing rates for the mandays employed.

A closer look at the schemes' first six mojths operation provide some information about the cause of this poor performance.

(a) The "foreign elements" present on the cost side of the picture far outweigh the actual labour and non-labour costs. For example, the labour and non labour costs of the Raghunatpur scheme is Tk.882.97. But the costs to the scheme due to interest and part of principa due during this period amounts to Tk.3,177.16. It is worth recalling here that the total revenue received was only Tk.1,350.10. The picture is similar for the Milagi Scheme as well. These "foreign costs" are too heavy for the participants and will probably remain more or less the same during the remaining five seasons.

(b) The size of the plots of land released through the scheme reveals another side of the picture. It indicates that this aspects was considered with lesser importance during the planning of the schemes. The plots are very much fragmented and are scattered over a vast area. No two plots were neighbouring. This made the released land uneconomic to till. If the economic holding is set at one pakhi (27 decimals), then more than 60 per cent of the land for the Milagi scheme comes out to be uneconomic holdings. One of the olots had only three decimals. One can expect very little from such a plot (see appendix 1).

(c) A frank discussion with the participants revealed many other weaknesses with the schemes. The whole cultivation was planned in a haphazard manner. Use of fertilizer was inadequate and sometime disproportionate. No irragation was employed and the whole crops were left at nature's mercy. While they were found to be united in their fight against elites about wage determination, they showed a frustrating picture when the work was thrown upon them. Everybody's work came out to be nobody's work. Participants having some land of their own seemed to be more interested about their own. These indifferences contributed largely to the lower than average harvest. Type of supervision and the maturity of the group, seemed to have an edge over many others.

(d) One important reason for the lack of interest amongst participants is the non-payment of wage for the employed days. Daily consumption ne d is much more powerful than an average motivation.

(e) The land released by the Samity were of inferior quality than the average of Gheor. This also contributed to a lower yield.

(f) Some of the land were share cropped out. It is alleged that the share croppers deliberately under reported the actual harvest. The Samity was in this way deceived of its actual share.

The Future

The scheme is very good at the face. It is possibly one of the few ways through which the group spirit can be reinforced. But given the experiences of the first six months, it does not show up to be that attractive atleast in economic terms. If the experiences of the first six months can be extrapolated (and this can be justified given the "physical ability" of the land), one can foresee a frustrating and awful picture. The accumulated liability of the <u>Samity</u> will put its existence at stake. The biggest beneficiary will be the owners of the land. The RCTP should think thrice before supporting such schemes any more. Important criteria for consideration shouls be (i) size of plots (ii) type and quality of land (iii) maturity of the <u>Samity</u>. For the schemes already started, all out efforts should be made to increase productivity. <u>Samity</u> must be protected from becoming bankrupt in three year's time.

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Appendix: Owner, size and value of mortgaged land which were released by the Milagi Samity.

Sl. No.	Owner	Size in decimal	Value of mortgaged in Taka
1.		15	500
2. 2.		13	300
3.		22	700
4.		17	1,000
5.		36	1,600
6.		18	700
7.		6	125
8.		20.5	800
9.		30	950
10.		28	700
11.			700
12.		34	3,000
13.		3	200
14.		10	500
15.		16	1,000
16.		20	1,000
17.		59	3,000
18.		18	2,000
19.		33	1,500
	Total:-	4.13 acres	Tk.20275

ADDENDA

to the first draft of the two mortgaged land schemes analysis

When the first draft of the above analyses was available for circulation, three major comments were made on it. These were (a) that the analyses had assumed the Rabi crop harvest as half of the expected annual harvest when there would still be two more crops during the remaining six months, (b) that the principal calculation was not appropriate because of (a) and (c) the consideration of rebate could be a better idea in place of principal calculations. Let us considered these comments in the light of factual evidences.

The baseline survey of Ghior revells that only 25.9 percent of the total operated land is under Aus paddy which is amazingly low compared to 61.17 percent of neighbouring Manikganj. Apart from the low per acre yield in Aus, the most outstanding reason is perhaps the fact that most of the arable land of Ghior thana remains under water from July to October when Aus is harvested (ref: six monthly report of B.M.,Ghior branch). And land under Aus can seldom be used for b. Aman cultivation because ploughing and seeding becomes difficult under deep water. Consequent upon these, Aman is the principal single crop in Ghior covering 73.3 percent of operated land and in these lan ploughing and seeding are completed before harvesting Aus. This almost mutually exclusive nature of Aus and Aman is perhaps the reason for growing in the past either Aus or Aman is most plots under Raghunatpur and Milagi scheme.

Inspite of the above discussion, most optimistically, even if we assume that the two crops, both Aus & Aman, could somehow be produced in all the plots under two mortgaged land schemes during the remaining six months, the disquicting picture does not change at all. We now make a projection of harvests during the next six months with the following general assumptions:-

- (i) the average yield as revealed through Ghior Baseline Survey is applicable to all plots of land irrespective of the size of plot
- (ii) two crops are produces in all the plots
- (iii) natural calamity such as flood does not effect the harvest and
- (iv) share croppers does not under report the actual harvest.

Yield Per Acre: The baseline survey reveled that average per acre Yield of Aus and Aman were 6 and 9.36 maunds respectively. Thus considering the assumption (ii) the total expected harvest per acre during the remaining six months will be 15.36 maunds.

CALCULATION FOR REMAINING SIX MONTHS

The Raghunatpur Scheme

Costs: Since all the land are now share cropped out no input costs will be incurred by the Samity.

Revenue: Total harvest = 2.33 acre x 15.36 maunds = 35.79 maunds

Total revenue = 35.79 x 100 = Tk.3,579.00 (1md. = Tk.100)

Since the land is share cropped out, the total revenue received by the Samity will be half of the above i.e. Tk. 1,789.50.

The Milagi Scheme

Costs: The land is shared-out. Thus there will be no input costs.

Revenue: Total harvest = 4.13 x 15.36 = 63.44 maunds

Total revenue = 63.44 x 100 = Tk. 6,344.00

Share of Samity = Tk. 3,172.00

A. The Cost-Benefit (Considering the Outstanding Principal

Scheme	Period	Lab & Non-lab Costs(Tk.)	Interest (Tk.)	Principal due(Tk.)	Total inputs &-liability	Revenue (Tk.)	Differences (Tk.)
1	2	3	4	5	6	7	8
Raghunatpur	1st 6 months	882.97	1,024.20			1350.10	
	Next 6 monthd	Nill	1,024.20			1789.50	
	Total for one year	882.97	2,048.40	348.40	6411.37	3139.60	3271.77
Milagi	1st 6 months	1,518.50	1,824.75			2904.00	
	Next 6 months	Nill	1,824.75			3172.00	
	Total for one year	1,518.50	3,[illegible]49.50	6,400.00	11568.00	6076.00	5492.[illegible]

B. The Cost Benefit (Considering the Rebate)

1	2	3	4	5	6	7	8
Raghu-natpur	1st 6months	882.97	1,024.20	412.96		1350.10	
	Next 6 months	Nil	1,024.20	412.96		1789.50	
	Total	882.97	2,048.40	825.92	3,757.29	31,39.60	617.69
Hilagi	1st 6 months	1518.50	1,824.75	764.50		2904.00	
	Next 6 months	Nil	1,824.75	764,50		3172.00	
	Total	1518.50	3,649.50	1,529.00	6,697.00	6076.00	621.00

The above calculations does not contradict the findings/comments of the earlier analyses even with the most optimistic assumption. If we make the cost benefit analysis considering the rebate deductions alone, the amount of net loss comes to Tk.1,238.69. But does the rebate deductions give an exact picture? If only rebates are taken into account what will happen to the principal which the participants were supposed to recover the whole principal repayable within three years, is the cost of three years. So, the principal repayable within three years, is the cost of three years only, and the revenue of three years was planned to more than compensate the cost. The schemes was granted for three years under RCTP which itself is a five years project. So the spreading out of principal to the revenues of subsequent years transcending the limit of scheme priod, is certainly beyond the scope of the evaluations. So, the principal repayable in three equal yearly instalments, is an element of actual cost of the scheme and rebate calculation could not have served our purpose in the analysis of mortgaged land scheme.

The revenues of the subsequent period (after three years) were supposed to be the benefit of the participants which would accure to them unhampered after RCTP realises its money from three years harvest. If the cost of the scheme is spread out beyond three years it would mean the snatching away of participants share feed the wrong of the schemes.

Projectio of Twelve years

Inspite of that let us see what happens to the scheme after three years and then after twelve years. We take the period twelve years for if we assume all the plots under both the scheme as a single chunk of land which would be realeased through gradual yearly rebate deductions, the land will remain with the Samity for twelve years. So, we have made a twelve years projection in the following pages with some more assumptions:-

(i) All the plots under both the schemes form a single chunk of land and no portion of it is released by the owners on cash payments or other wise.
(ii) Increase in the prices of the harvest is counter balanced by corresponding increase in input prices.
(iii) Cost and benefits of successive years has simply been added up and none of them has been discounted to adjust with the present prices.
(iv) The tenancy system and the state of techonology as employed in the first year remain constant over the period.
(v) No fund external to the mortgaged land scheme is used to repay the loan and all the available cash of the scheme is used in servicing the debt.

Analysis

In table - 1(B) rebate has been calculated as an element of cost. But the yearly rebate is not actually paid to the owners and remains with the Samity as "cash in hand". As has been shown in Table1(B), after cov ering the cost of the first year, the remaining portion of rebate remains as cash in hand which can be used for repaying the debt. After deduction the net total loss of Tk.1,238.69, Tk.1,116.23 remains as cash in hand after the first year. If this amount of cash in hand is used to partially service the liability, the total liability comes down to Tk. 7647.54 and this is the actual outstanding liability by the end of the second year, the second instalment of the principal will be due which will swell up the total liability again. But because of the reduce liability after repayment, the amount of interest in the second year will go down. The reduced interest in the second year will affect the cost-benefit position of the year and the cost will go down by the equal amount of interest reduction. As a result of cash in hard will go up in the second year which will again ne used for servicing the debt.

Table - 2: Position of Cash in hand, Total liability and actual liability over 12 years.

Year	Cash in Hand (Tk.)	Total Liability (Tk.)	Actual Liability (Tk.)
1.	1,116.23	8,763.77	7,647.54
2.	1,317.16	17,527.54	16,210.38
3.	1,554.24	28,705.38	26,551.14
4.	1,833.99	26,551.14	24,717.15
5.	2,164.10	24,717.15	22,553.05
6.	2,553.62	22,553.05	19,999.43
7.	3,013.27	19,999.43	16,986.16
8.	3,555.64	16,986.16	13,430.52
9.	4,196.64	13,430.52	9,234.88
10.	4,950.85	9,234.88	4,284.03
11.	5,841.99	4,284.03	1,557.96
12.	6,733.13	1,557.96	8,291.09

C = Rebate - Difference

= Rebate - (Total input & liab. - Revenue)

= Rebate - (Lab & non-lab cost + Interest + Rebate - Rev)

= Revenue - (Lab & non-lab cost + Interest)

= R- (L+I)

AL = TL - C

C = Cash in hand

R = Revenue

L = Lab & non-lab cost

I = Interest

AL = Actual liablity

TL = Total Liability

But by the end of the 3rd year, the whole principal, including the contribution of the Samity to the scheme will be due. Inspite of partial repayment of the past two years, the total liability will be Tk. 28,105.38 in the 3rd year.

AFTER THREE YEARS

What will be the result of the mortgaged land scheme after the expiry of the scheme period? The picture is agonizing. After giving the last penny of their cash for the repayment of the loan, the Samity would still carry a total liability of Tk.26,551.14, and the participants trying their fortune for long three years with the scheme would get nothing. What would be the effect on employment? If the present pattern of share cropping out continues, the extent of exployment generation would be very insignificant. Of course, if the land is brought back for full cultivation by the Samity from the second year, which would be a wise decision perhaps, at least some employment of the nature of first year's Rabi season would be created. But the extent of employment would in no way be as much as to justify the alarming imbalance in the cost benefit conditions.

But where would the money for repayment come from it RCTP is adament on the same by the end of the scheme period? There is, probably, no way out rather than to defer payment and re-schedule the repayment. Otherwise, no amount of pressure or litigation can enable this subsistence people to repay. Bit for how long would the period be extended? The above projection of the scheme indicates that it may not be possible for RCTP to recover the loan before the 11th year.

The total amount of group contribution to both the schemes is Tk. 2,015.00. These are individual contributions which deserve an interest rate 20%. For simplicity, we calculated the interest at BRAC rate for this amount of group contribution (i.e. 18%).

AFTER TWELVE YEARS

Table - 2 shows a twelve years projection after which the morgaged land will get automatically released through gradual rebate deductions. By the end of the eleventh year only the humble participants of the *Samity* will have a sigh of relief by completely servicing the liability and having a margin of Tk.1,557.96 only for the first time in eleven years. Twelve year will be the only year when the Samity will reap the whole benefit of Tk. 6,733.13.

The Situation after 12 years

(i) The whole amount of liability has been paid.

(ii) Benefits to the participants is Tk. 8,291.09 in this period. Total benefit per head over 12 years = 8,291.09 ÷ 161 = 51.50. Benefit per head per year = 51.50 ÷ 12 = Tk. 4.29.

(iii) Fund generation to the Samity from the scheme is zero.

(iv) The owners get back their land.

Comments

It thus appears that the schemes would be profitable for the owners if RCTP is agreeable to extend the period of the scheme to 12 years. But would that happen? Apart from the limitation of RCTP in extending the period, the incentives of the participants to carry forth the task for twelve long years is definitely insignificant. Alternative attractive sources of income may however keep the participants involved in this venture. But for whose benefit? The beneficiaries are only the few owners. The overwhelming portion of participants and their *Samity* gets little of it.

Validity of the Assumptions

The above analysis would hold true if the assumption remain the same. But things seldom remain the same in the long run in such a long term projection. The production of two crops may perhaps be possible. Because, ever strining human ingenuity can counteract floods and remove the virginity of land. But the scope of cultivating HYV, is very restricted in the low arable land of Ghior because of the physical characteristics of the area. Inability to provide irrigation facilities to scattered plots will be the main impediment in introducing high yielding variety during the *Rabi* season, yet better techniques better production management can improve the situation by increasing per acre yield. Better supervision can complctly check the under reporting by the share croppers. If some plots are released before twelfth year, it will be on payment of unrebated amount. The effect of earlier release of some plots on rebate deduction will be neutraliacd by that of the later release of some other plots. So, the change in assumption (1) will not significantly affect our projection. But assumption no-3 may, toa large extent affect our analysis. Increase in prices may considerably reduce the real worth of our undiscounted benefits in the year to come. The remaining assumptions are supposed to remain the same through out the period. So, it is clear that increased production and better management alone can affect the result of our analysis significantly.

Where to Hit

(i) Realisation should come at all level that RCTP is really facing a challenging situation specially with the mortgaged land schemes. This realisation would perhaps be the first step in facing the challenge.

Mortgaged land schemes are slow yielding, long term and have long gestation period. Economic involvement in such schemes should be kept postponed till the economic viability of atleast some schemes is sufficiently proved. The plots of both mortgaged land scheme has been share cropped out to the original owners of the land. This is surely an untimely and unwise decision if undertaking of group economic activities had been the object of such schemes. Giving the land of the Samity to private hands can not be an answer to inefficient managment. The land should immediately be taken back from the share croppers. Capacity building, and income and employment henoration to the Samity should get topmost importance in selection prorities.

Training the farmers alone is not enough, keeping with the overall need of the agricultural scheme atleast some P.O.s use planning and cropping pattern. Continuous prodding to the farmers would be a very good step in increasing the output.

(v) Instead of growing low yielding pulses, the whole areas should be used for growing sugarcane, potato and wheat in both the mortgaged land schemes during the next Rabi seasons. High yielding winter vegetables can also be tried. The above crops need little water and much suited for Gheor. They are also high yielding and profitable. The farmers' misconception that the above crops can't be produced in some particular plots even if scientific manures are applied should be dispelled.

(vi) Some crop-wise schemes of seasonal nature, sufficient to cover the labour and non-labour costs, should be granted to concerned Samity only if there own fund is meagre for the purpose. Disbursement of such loans should unfailingly correspond to the need of providing judiciously decided quantity of input requirements. Application of right quantity at the right crop is an essential thing for increasing the yield. additional non-farm economic activities may also generate income to the participants.

These are only some of the suggestions. Stern realities of the field amy demand more or otherwise. Two and a half years are still ahead to try the best. The grim picture depicted so far may not be the actual experience given that we are serious in our effort. BRAC is a "learning organisation" and they have learned how to embrac error.

GHIOR SCHEMES ANALYSIS : Instalment 2
THE GOLAKBARIA [illegible] MAHILA SAMITY

Background

Golakbari is a Muslim village about three miles away from Ghior thana headquarter. Out of 115 households in the village, 40 belonging to the landless or near landless categories who earn their subsistence through manual labour in other's farms or business.

The female members to these house holds virtually remain unemployed throughout the year. They belong to a society where dependancy on their unemployed or under employed male counterparts not only creates social imbalance but also push them to a situation of virtual servitude. In such a setting, establishing contact with the women-folk is a not-too-easy job. However, with the active support of the village male samity, a female samity was formed in September, 1980. The BCTP however had sanctioned one loan of six thousand taka before the samity actually started functioning. Apparently the male samity played a significant role in getting this "putting the cart before the horse" done.

During the period untill July, the Mahila Samity has completed three economic schemes. In this second instalment of the serious on Ghior schemes assessment, these three schemes will be analysed. Some other aspects relevant to BCTP and samity will also be touched.

The Schemes

Three schemes were taken up by the Mahila Samity during the six months since its inception. The first scheme started about ten days before the formal formation. It was on paddy husking. The next two schemes were on cow rearing which were started at the same time. Because of the fact the latter two schemes were identical in nature, these are analysed together for ease. The following table gives a summary of the individual schemes.

Table 1 : Summary of the Schemes

Name of the Schemes	No. of Participants	Samity Contribution	BRAC Credit	Duration	Amount Actually disbursed
		Tk.	Tk.	Months	Tk.
Paddy Husking	15	Nill	6,000	5	6,000
Cow Rearing (1)	11	Nil	9,400	6	8,578
Cow Rearing (2)	12	Nil	9,800	6	9,647
Total :-			25,200		24,225

The Paddy Husking Scheme

15 women received the 6,000 taka loan for paddy husking. For better administration of the scheme, they were divided into five teams each headed by a team leader each of which received an equal amount of Tk. 1,200. Proximity to each other, kinship relationships, availability of dheki and relationship with team leader played important role in the formation of groups if participants. The output for team was about 7 maunds of rice per week, approximately half of the capacity output. Each week' output were soldon weekly market days. Every week formed a cycle and the money revolved in this way every week. Different kinds of paddy were used to be purchased from different areas of the thana and carried to the village by boat. No boiling cost was incurren as the corse husks were used as fuel. The smoth husk were however sold to add to the revenue of the scheme.

The Cost-Benefit of the Scheme

The different costs involved and revenue accured from the scheme are detailed in the following tables. The opportunity cost is, however, assumed to be nil in view of the employment opportunity available to women in the area and the nature of the scheme.

Table 2: Costs of Paddy Husking Scheme

MONTHS	Quantity of paddy	Rate of purchase per mds. (in Tk.)	Cost (in Tk.)	Boat Fare
September (From 17th)	55 mds.	116.30	6,396.50	57.00
October	125 "	112.00	14,000.00	126.00
November	128 "	119.89	15,345.92	128.00
December	126 "	117.35	14,786.10	125.00
January	125 "	115.10	14,387.50	125.00
February	119 "	115.00	13,570.00	120.00
March (Till 20th)	126 "	118.00	14,868.00	126.00

Gross Cost (in Tk.) = 93,354.02 + 807.00 = 94,161.02.

Table 3: Revenue from the Scheme

Months	Quantity of paddy purchases	Qty. of husked rice (in mds.)	Revenue (in Tk.)	Sale proceeds from smooth husk (in Tk.)	Total Revenue (in Tk.)
September	55 mds.	35.89	6,819.10 (190)	165.00	6,984.10
October	125 mds.	81.25	14,625.00 (180)	375.00	15,000.00
November	128 "	83.20	16,640.00 (200)	384.00	17,024.00
December	126 "	82.90	15,561.00 (190)	378.00	15,939.00
Jnauary	125 "	81.25	15,193.75 (187)	375.00	15,568.75
February	118 "	76.70	16,720.60 (218)	354.00	17,074.60
March	126 "	81.90	17,608.50 (215)	378.00	17,986.50
TOTAL :-	803 mds.	522.09	103,167.95 (19760)	2,409.00	105,576.95

Table 4: Share of Labour

Gross Cost	Amount contributed to Samity Fund (Tk.)	BRAC Interest (Tk.)	Total cost (Tk.) 1 + 2 + 3	Total Revenue (Tk.)	Share of Labour (Tk.)
1	2	3	4	5	6
94,161.02	576.00	382.40	95,119.42	1,05,576.95	10,45

The Share of Labour

The contribution to the Samity is a pre-condition for granting a scheme by the Samity and is normally pre-fixed. The gross cost includes only the non-labour cost. Thus the balance is entirely enjoyed by the participants.

Employment

The following talbe shoes that the participants women were employed for 47 per cent of person days available. Given the opportunity cost as zero, could the women work more?

Table 5 : Employment

Duration of Scheme	Person-days available	Person-days employed	No. of Participants	% Employed
180 days	2,700	1,260	15	47

Apart from the time that were given to the scheme, the women had other works to do. "Had we worked more, we would have failed to do many other daily works such as cooking, rearing children, washing, etc.",,opined Mayurjan, a 50-year old team leader. It is apparent that any more involvement eith the scheme would possibly cost them some opportunity cost atleast. It has also some psycho-social bearing for household work for women is valued much more in our society than any income generating activity. One can thus say that these women through the scheme have utilised a near maximum of their actual available time. The participants have gained with little or no cost. Some participants also managed to get involved in the cow rearing schemes. This will later be taken up.

Income Generation

Table 6 : Per Capita Share of Labour

Total Share of Labour (Tk.)	Person-days Employed	Total share per Capita (Tk.)	Per Capita share per day ('
10,457.53	1,260	697.17	8.30

The per capita share per day was Tk.8.30. Though this amount is less than the exiting male wage rate of Tk.10/-, the whole amount received by the women were in additional injection to the family incomes.

The Cow Rearing Schemes

This schemes involved 23 participants some of whom were also involved in the paddy husking scheme of the Samity. Tk. 19,200 were sanctioned by BRAC of which Tk. 18,225 were actually disbursed. The scheme in effect is a cattle fattening scheme. The participants buy cows during the dull period, nourish them and sell the same when the market is appropriate, The Samity was responsible to BRAC for the repayment of the loan with interest. The Samity have gave the loans of varying amount depending on the price of purchased coe to individual participants. The terms of of individual loan specified that the balance between the purchased and selling prices ("Profit") would be equally shared between the Samity and the concerned individual. But if the balance is negative i.e. if there is a loss, the Samity would have no liablity and the individual participants would have to bear the consequences of the loss. A six member executive committee of the Samity was entrusted to supervise the scheme.

The Cost-Benefit of the Scheme

The only cost incurred was the price of cows. No other costs were actually involved. As in the paddy husking scheme, the opportunity cost of this scheme is also assumed nil. There is no block of time of a day which the participants actually used to spend for this scheme. There involvement with the rearing were to collect straws/grass and influence their husband to bring the same while returing from daily work. Thus they had nothing to forego to do the rearing. Under the circumstances, the opportunity cost is assumed zero/However, one should be cautions about extrapolating this zero "other costs" because the costs of straws and grass and opportunity cost may not be zero for other areas and scheme.

The 23 participants each purchased a cow of varying prices. The total cost of purchasing all the cows were Tk. 18,225. Apart from the price of cows, there were other "normal costs" such as interest to BRAC and contribution to Samity. The interest was calculated to be Tk. 795.77 while the participants contributed Tk. 2,703.73 to the Samity. Thus the total cost involved in this scheme was 21,724.50.

Revenue: The sale proceeds of the cows constitute the total revenue of the scheme. This came out to be Tk. 25,224.

Share of Labour: The share of labour of the scheme was Tk. 3,499.50 as can be observed from tht following table.

Table 7: Share of Labour of the Cow Rearing Scheme.

Purchasing cost of cows Tk.	Contribution to Samity Tk.	Interest to BRAC Tk.	Total cost Tk.	Revenue Tk.	Share of Labour Tk.
18,225.00	-2,703.73	795.77	21,724.50	25224.00	3,499.00

Employment Generation

The very nature of the scheme does not entail a full time work for a women. This is a work which the women do while not disturbing their normal day's work. It is difficult to specify the actual hours employed for this scheme by the women. Though the actual hours employed is unquantitified, the net income through the scheme can be regarded as a proxy for the actual employment generated.

Income Generation: Each participants over the scheme period received an everage of Tk.152.15. In the absence of any estimate on the actual person-days employed, calculation pf per capita per day share is not attemped. The participants however regard this as a lump sum income and not in terms of per capita per day.

Table 8 : Per Capita Share of Labour

Total Share Tk.	No. of Participants	Av. Share per Capita Tk.
3,499.50	23	152.15.

Discussion

The schemes undertaken by the Solakaria Mahila Samity were analysed in the foregoing pages. Both the schemes turned out to be profitable and were sources of income for the poor members of the Samity. But what about the relicability of these schemes? The paddy husking scheme seems to be the most robust in terms of risks involved. However, availability of mechanised husking may yeppardize the prospect of such schemes. The cow rearing scheme was also successful in Solakaria. The scheme was granted to those women who were older and had some others at home to help them. This decision saved much of the active women-power which were possibly utilised in the other scheme (viz., Paddy husking). But the question is whatever such schemes are always profitable. What would have happend if one or more cows had died during the rearing period? The terms of the loan would have put the whole liability on the individual participants whose cow had died. This is a negation of the basic cooperstive spirit. If the responsibility was everyone's , there could be a dearth of interest amongst the participants. There is possibly no single all-proof system to meet such an untoward situation. RCTP and the Samity will have to decide the course of action - by deferring the payment or by writing off the interest/principal wholly or partially. However, a closer supervision can do a lot to avoid such a situation from arising.

There are some unique features with this Samity which need to be focussed.

Capacity Building

The RCTP proposal stressed the importance of participants involvement in any undertaking. Such involvement created personal stake and is a criterion for measuring group spirit. But in none of the above schemes, individual monetary contribution was ensured. This was in contrast to the 10 percent mark set by the Gheor Branch. The paddy husking scheme was granted even before the Samity was formed. Whatever might be the reason for this failure, the Solakaria Samity gravelly challenges the contention of the RCTP architects. Without any group contributions, the two schemes undertaken operated smoothly with alluring results. The absence of personal stake was felt nowwhere. The interests and principals were repaid in time. The absence of group contribution was possibly counter balanced by several factors. The male Samity of the village is one of the "good" Samitys under Gheor branch. Their behind the scene supervision and the supervision of the BRAC programme organisers were important. The participants themselves showed an unending enthusiasm and interest throughout the scheme period. Moreover, there were the fear amongst the participants of being litigated.

Group Fund: From the two schemes, the Samity has been able to raise Tk. 2,727.50 as group fund as can be seen from the following table:

Savings Account	General Fund	Reserved Fund	Emergency Fund	Total
Tk.	Tk.	Tk.	Tk.	Tk.
1,037.75	88.75	872.30	728.70	2,727.50

The RCTP promotes the idea of saving. These small savings are raised out of almost nothing and are channeled for productive investment. This built-in process of fund raising out of the consumption cuts of poor members is a mileston in BRAC's rural development strategy. A fund of Tk. 2,727.50 out of a year's savings is a positive indicator.

As the above table shows, the group fund is multi-dimensional. The weekly individual contributions form the savings account. The general fund is raised to cover the occasional expenses of the Samity. Though all members are entitled to both reserved and emergency funds equally, the reserved fund is meant only for future investments and is not withdrawable. The emergency fund is meant for helping the poorest of them to tide over exigencies like after death expenditures, marriage of poor girls and widows, etc. The meeting of the Samity decides on the recipients of the emergency fund.

But this deversification of accounts has a counter effect. These are too complex for the illiterate women. Separate account for each funds makes the whole thing more complex. This takes away a large portion of field time of the programme organisers. Can there be some alternative?

Leadership:

The Samity started its journey without a leader. Initially RCTP was deeply involved and allowed time to emerge the leadership from within. After the initial three months, six of them emerged as the potential leaders. They formed an executive committe for supervising the schemes. Mayurjan (50) is now the accepted leader of the Samity. Her husband is a member of the male Samity of the village. The six number executive committee is still active but no one seems to be dictaorial as the Samity affairs are decide in general meetings through democratic means. Of course, the RCTP P.O.s still play a vigilant role.

Changes:

Within a mere ten months since its inception, one can observe some noticeable changes in the behaviour of members and their husbands. They were self-centred poor women seldom breaking the age-old traditions and always struggling for subsistance by looking forwards to their husbands. Now they have unvelied their veil.

They meet each other once in aweek and talk freely about life. Their positions are now elevated to their husbands as they are contributor to the family income. "I was the most unhappy woman of the village. My husband used to torture me physically since I was married him five years ago. I was at once point sent to my father's house with the silent intention of divorce. Saheb, BRAC is my bap-maa. I now earn about thirty taka per week from paddy husking. My husband does not always get work. Now he realises my need to the family. He lóves me and never torture", said Ashiran, 38. Nabiran, Mayurjan and many others have similar stories to tell. These are definite changes in the perceived direction.

Lastly:

All these said, there still remains an suspicious word, "future". What is going to happen in future? How those women will behave? What will happen if a scheme suffers loss? How will the traditional leadership look at this and what will be the women's raction? What will be the future policies of BRAC and other institutions? and so forth. The future can only be precisely told by future itself.