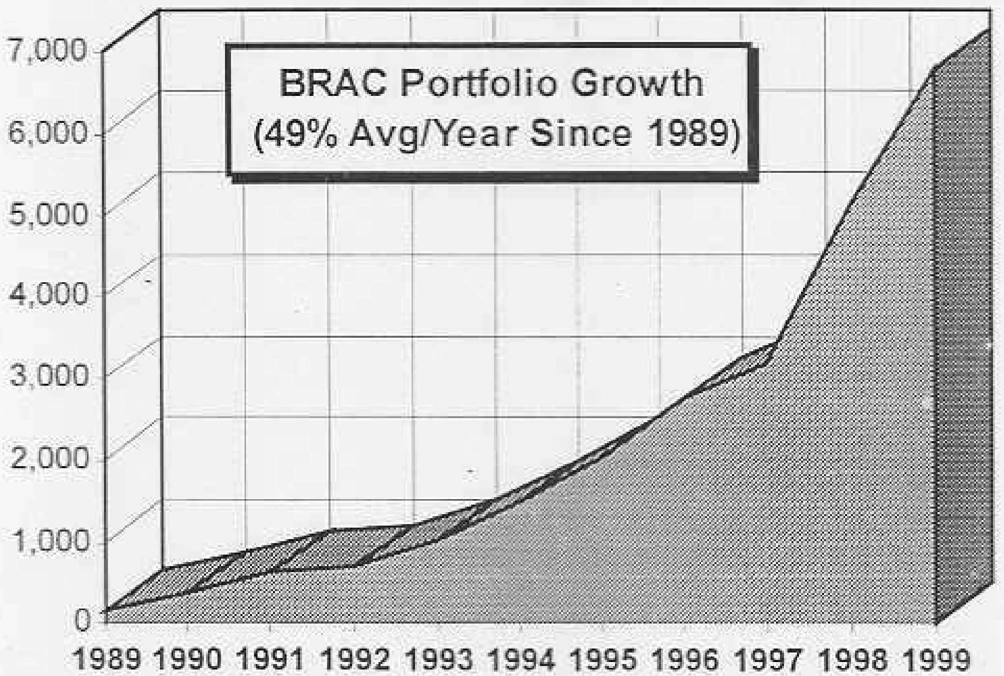
1999 Financial Review

BRAC RDP/RCP Program



Beyond RDP IV: The Challenge of Sustainability

Shorebank Advisory Services
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March 29, 2000

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Overall Comments	As BRAC enters the 21st century as well as the last year of the RDP IV program, the organization builds on a track record of substantial success as it works to face some very significant issues: maintaining overall loan portfolio quality, continued rapid growth, overall program sustainability, rapidly increasing asset/liability complexity, growing a much deeper and stronger management capacity, and managing a significant increase in the scope of its savings program. The first issue—maintaining portfolio quality—is the most pressing short-term issue. The last issue—growing the savings program—is probably the most significant and complex long-term financial challenge facing BRAC. In general, Shorebank staff believes that BRAC is well positioned to face these challenges. Having said that, it is also our judgment that BRAC can only successfully resolve these issues if it takes strong and direct action on at least two major fronts: (a) increasing its commitment to strengthen and broaden its management ranks and capacities; and (b) creating a risk-management framework that is considerably broader and more analytical than the one currently in place. **In the most straightforward terms, we believe that BRAC's success, which continues to be truly remarkable, is increasingly in danger of outgrowing its current operational and risk management structure and capacities.** As of the end of 1999, 23% of outstanding loans and 16% of the value of the portfolio had one or more payments overdue. This significant deterioration of portfolio quality between mid-1998 and year-end 1999 is an early-warning indicator of the serious nature of these organizational strains. We do not believe this is just a flood impact. BRAC must respond now, not later. As we stressed in the 1998 report, the challenges of growth are powerful, but are nonetheless very dangerous and must be resolved before they create serious problems.
Loan Portfolio Growth & Quality	The loan portfolio grew from 5.1 to 6.8 billion Taka in 1999, continuing a ten-year history of extraordinary growth. Unfortunately, this growth was also accompanied by a significant deterioration in portfolio quality, with 16% of the portfolio having one or more payments past due as of the end of 1999. Whatever the cause, having over Taka 1 billion and 630,000 loans past due is a cause for significant concern. While there are most likely multiple causes for the delinquency issue (continuing effects of the flood, hartals, the

	ill-fated move to bi-weekly meetings, and double-loans), the real cause in our view is that the current management and risk analysis capacity of BRAC is probably being outstripped by its rapid financial growth. This is not a "fire alarm" at this point, but it is a very serious early-warning signal that should not be ignored. The symptom is 16% portfolio past due; the fundamental cause, in our view, is that the "human capital" and management capacities at BRAC are being outstripped by the demands created by financial, program and portfolio growth. While BRAC's success in program and strategic innovation (MELA, BUP, PSE's, BRAC Bank, new savings products) are creating increased vitality for BRAC, this success is also placing very substantial demands on management attention, time and resources. Simply put, management and leadership system is being stretched too thin.
Loan Portfolio Management and Strategy	It is excellent news that BRAC is moving to computerize all of its branches (50 completed as of year end 1999), with a target completion of end of the year 2000. Over time, this will significantly upgrade the quality of available portfolio and savings data, reduce time lags between the field and head office, and give management at all levels significantly improved capacities for analysis. This program should be accelerated as much as possible. To take advantage of this capacity, however, this increased information flow must be accompanied by a parallel increase in BRAC's capacity to analyze and interpret this data, a capacity that is in very short supply at BRAC. The organization can generate impressive and overwhelming amounts of information, but like many NGOs it has been unable to date to develop significant analytical capacity. This gap must be remedied quickly, for the challenges facing BRAC over the coming several years are of increasing complexity that will demand deep analytical resources.

Membership Trends	Membership continues to grow steadily (23% growth in 1999) although at a slower growth rate than the financial growth of the portfolio. The creation of outposts as adjuncts to existing branches has enabled a higher density of thana coverage. It is our hope that in the long run, this denser "market coverage" will yield improved development impact and cost efficiencies.
Member Savings Activities	BRAC's net savings increased by 30% during 1999, a significant rate of growth although substantially slower than in 1998. It is clear that one impact of the flood was to increase withdrawals and reduce savings. The successful introduction of three new savings products at BRAC's Urban Program bodes well for expanded savings activity in BRAC's rural programs, but the issue of savings growth will still present some of the most complex and demanding issues that will face BRAC over the next several years. Clearly there is a need for BRAC to move more aggressively on its savings activities: not only is that good for low-income people all over Bangladesh, but it is an increasingly important source of capital to support BRAC's growth. The increasing importance of savings will create the need for BRAC to create a "savings mentality" in its staff and management systems, just as it has worked to grow a "lending mentality" over the past ten years. At times these two perspectives will be in tension, and these tensions must be managed carefully.
Branch Sustainability	The microfinance (RCP/RDP/PKSF/MELA/BUP) programs are sustainable as a whole with the total microfinance program generating roughly a 5% surplus each year. The issue now is not the operational sustainability of the microfinance programs, but rather the challenge of finding loan capital to support growth. Internally generated surpluses will not support capital growth: that will require growth of savings and increased borrowed funds from entities like PKSF. The sector programs face much greater sustainability challenges, for cost recovery for the sector programs is only about 20%, leaving an unfunded gap of 80% for these services. We suggest a combination of service fee increases, reduced operating expenses, new grant funding sources and very limited use of Program Support Enterprise income to support the sector program. In our view, the most effective use of the growing amount of PSE income is to reinvest it into capital investments and growing the capacity of the PSE programs, for these are high-yield and high impact activities that should be grown as rapidly as possible.

	The Subsidy Dependence Index for BRAC's microfinance program was determined to be 0.25 or 25%. This means that if BRAC increased its effective interest rate to about 31% (i.e. a 25% increase on its current effective rate), it would be self-sufficient on a market basis without access to lower cost funds or subsidies.
BRAC RLF Reporting	BRAC is essentially running a US $165 million bank within the larger structure of a non-profit NGO. Shorebank recommends that BRAC create an annual audited "bank report" for the BRAC microfinance program. In addition, we recommend the creation of an external Microfinance Advisory Board, and the creation of a Finance and Business Research Unit that will support a significantly increased capacity to do risk analysis and management for the BRAC microfinance activities.
Managing Risk and CAMEL	BRAC needs to institute a much more formalized system of understanding and managing a wide range of risks now facing the organization and the loan portfolio. A standard system called CAMEL (Capital Adequacy, Asset Quality, Management, Earnings and Liquidity Management) is used world-wide in financial institutions, and we recommend this analytical structure to BRAC. Several other microfinance institutions have used the CAMEL system to good benefit, ACCION perhaps most notable. Overall, Shorebank stresses that risk management is not an event, but a culture and a management system.
Special Donor Concerns	• The BRAC Bank application has been stalled in legal proceedings, but it still expected to be opened in 2000. • The BRAC financial model needs to be updated to the increasing asset/liability complexity of BRAC's funding structure. • BRAC payments on the loan for the head office building are on schedule. • BRAC needs to develop an internal finance and business research and analysis unit, to take advantage of the increasing flow of information and the increasing need for analysis of the portfolio, business sectoral concentrations and risks, and other related financial issues.
Recommendations	1. **Analyze and Reduce Delinquency**. 2. **Create Overall Risk Management System**. 3. **Focus on Savings Program Expansion**. 4. **Create Financial Industry Advisory Board**. 5. **Grow Organizational Analytical Capacity**. See Section 10 for a listing of Shorebank's thirty-six detailed recommendations.

Opening Reflections: The Challenges of Growth & Sustainability

As the twenty-eight year old BRAC organization enters the 21st century, it enters a very critical stage in its evolution. During the coming few years, BRAC must not only continue to wrestle with the challenges of growth that were discussed in the 1998 *Shorebank BRAC review, but now the organization must also contend with the emerging* issues of operational and financial sustainability.

The good news is that it is BRAC's impressive successes over the past decade that have created these challenges. From the RDP/RCP to the Urban to the MELA lending programs, BRAC has clearly demonstrated that Microfinance can have a significant, enduring and positive impact on millions of Bangladesh residents. The growth in BRAC's scope and scale has truly been impressive, and an inspiration to microfinance organizations around the world.

The bad news, however, is that these very successes creates a hunger for capital and operating funds that requires that BRAC dramatically increase its ability to access new capital sources. Over the coming several years, a minimum of Taka 3 billion will be needed merely to support the natural growth in loan demand from existing BRAC members, let alone demand created by any new BRAC members. At the same time, and perhaps more important, it is also these successes that place increasing strain on BRAC's general and risk management capacities and structures.

In the most straightforward terms, we believe that BRAC's success, which continues to be a truly remarkable achievement, is increasingly in danger of outgrowing its current operational and risk management structure and capacities.

In general, Shorebank staff believes that BRAC is well positioned to face these many challenges. Having said that, it is also our judgment that BRAC will only successfully resolve these issues if it takes strong and direct action on at least two major fronts: (a) increasing its commitment to strengthen and broaden its management ranks and capacities; and (b) creating a risk-management framework that is considerably broader and more analytical than the one currently in place.

As of the end of 1999, 23% of outstanding loans and 16% of the value of the portfolio now have one or more payments overdue. This significant deterioration of portfolio *quality between mid-1998 and year-end 1999 is an early-warning indicator of the serious* nature of these organizational strains. BRAC must respond now, not later. As we stressed in the 1998 report, the challenges of growth are powerful and seductive, but are nonetheless very dangerous and must be resolved before they create serious problems.

As always, we thoroughly enjoyed working with BRAC employees, the Donors and the DLO Office during the course of this Review. We hope that this review proves useful to both BRAC and the Donor community.

[i] Risky loans is defined as the principal outstanding of a loan where borrower has missed 13 or more installments. This explains the difference in the percentages between these charts, and the chart on the previous page with talks to the 1-12 payments missed principal outstanding.

[ii] BRAC did a write-off of Tk118 MM in November 1999 to compensate in part for flood related issues. This totaled around 3.5% of the principal outstanding at the time.

[iii] Banking Services for the Poor: Robert Christen

[iv] Banking Services for the Poor: Robert Christen

[v] This material is drawn from Private Sector Incentives for Senior Management, By Michael Chu, President and CEO, ACCION International, USA

[vi] Preliminary market study conducted by Ron Grzywinski , Mary Houghton and Lynn Pikholz in 1999.

[vii] Sensitivities refers to planning for the 'what if' scenarios. For example, what if the interest rate goes up by a percentage point? What happens to the interest rate, liquidity and credit risk etc? What happens to earnings?

[viii] This section is drawn from ACCION CAMEL Technical Note, published by Sonia Salzman and Darcy Salinger of ACCION International, September 1998.

[ix] For example, it does not deal with outreach, scale, who the program is reaching etc. Nor does it adjust for variances in regulations around interest rates, the macroeconomy, or phase in the life cycle of the MFI.

[x] For more detailed information on the ratios and adjustments to them, please consult above referenced source.

[xi] Banks typically target total capital of at least 10% of total risk based capital (i.e. securities, loans etc). Banks often target a leverage ratio (Tier 1 Capital / average total assets) of 5%.

[xii] An extremely useful set of indicators for trend reporting was developed by the MicroBanking Bulletin Team and CGAP and can be found as Attachment 3 at the end of our report.

[xiii] Banking Services for the Poor: Robert Christen

[xiv] Liquidity Management: A Toolkit for Microfinance Institutions, published by GTZ, January 2000

[xv] Liquidity Management: A Toolkit for Microfinance Institutions, published by GTZ, January 2000

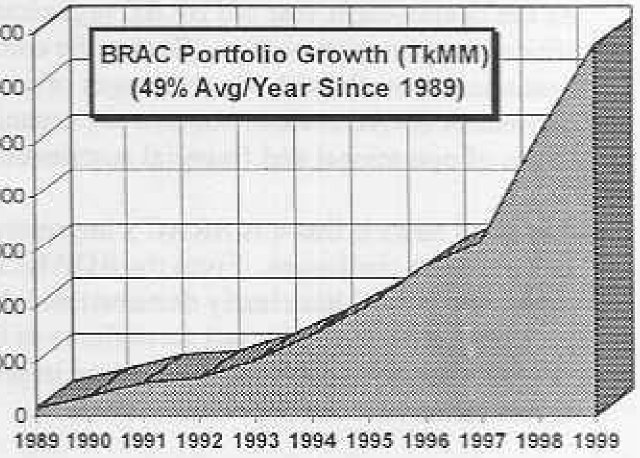
[xvi] Typically consists of cash, A/R, and inventory divided by accounts payable and other short-term debt. Shows coverage of short-term payment obligations over assets that will liquidate in the same period. Most organizations strive for a ratio higher than one, as it indicates a liquidity cushion.

[xvii] Important to exclude inter bank deposits or other short-term money market borrowings. Litmus test: if bank acquired the funds by bidding in an interest rate competitive market, the CD should be excluded.

[xviii] It is important for this ratio to break down deposits (stable or not) and loans (structure, terms, agreements) categories. Loans are more marketable and liquid when there is standardization of collateral arrangements and payment schedules and a short maturity (say a couple of months).

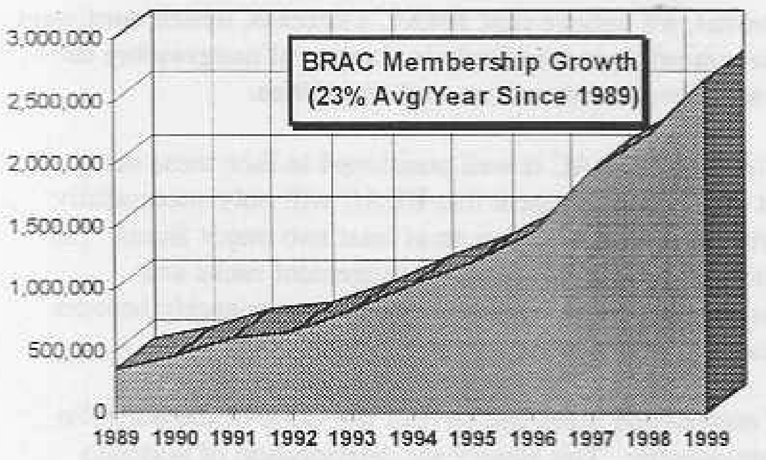
1. Portfolio Risk Management and Credit Related Activities

1.1 Portfolio Analysis Summary



Continuing the trend of portfolio growth that has been relentless for the past ten years, BRAC's loan portfolio continued to grow through 1999, from Taka 5.1 billion to Taka 6.8 billion. This increase represents a 32% growth in the portfolio. With only a 20% growth in membership, this indicates an overall increase in average loan outstanding per borrower.

There has been deterioration in credit quality from June of 1998 to December of 1999. At year-end, 16% of the TPO (vs. 10% in June 1998) and 630,000 (23%) of total loans outstanding had missed one or more loan payments. Having over Taka 1 billion in delinquent loans (i.e. US $20MM) is clearly a cause for concern, and should be a focus of significant management energies during 2000. Should this condition not improve or should this condition persist into 2001, this would be an extremely serious cause for concern.



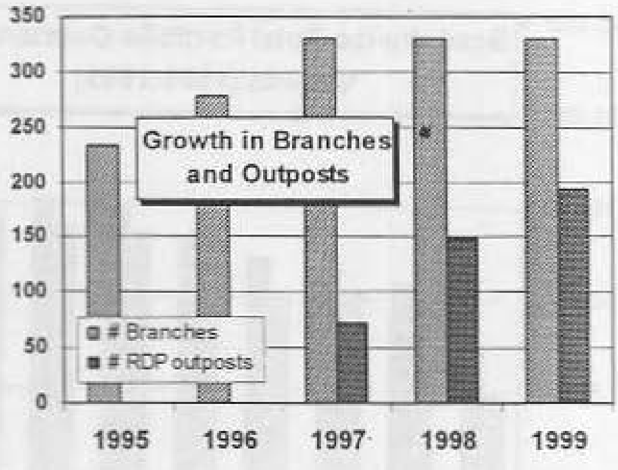
Unfortunately, apart with interviews with management and field staff, we did not have the time and were unable to access sufficient raw data to ascertain the root of the increase in past dues. At this time (and based primarily on interviews), we are hopeful that these delinquencies are an enduring effect from the 1998 flood, which created increased high risk refinancing, higher dropout rates, reduced member discipline, increased savings withdrawals, and other impacts that continue to linger and will take time to work their way through the system. Secondary sources of delinquency were the significant level of hartals in 1999 (45 days) and the ill fated experiment of moving from weekly to bi-weekly VO meetings. What is most disturbing is that the overall BRAC risk management system has allowed this condition to arise, and does not itself well understand the causal forces.

1.2 *Changes in Disbursements, Outstanding, and Loan Size*

Sectorwise Distribution of Principal Outstanding (RDP + RCP)

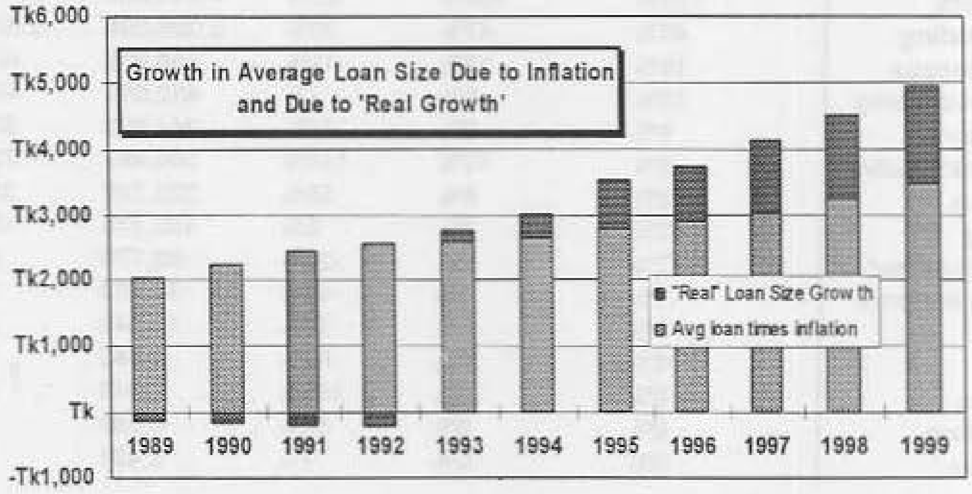
	Sector as % TPO (June 98)	Sector as % TPO (June 99)	Percent Change	June 1998 TPO	June 1999 TPO
All Sectors	100%	100%	28%	4,443,407	5,704,811
Rural Trading	46%	47%	30%	2,066,096	2,684,176
Miscellaneous	18%	12%	-14%	780,039	669,774
Food Processing	10%	9%	7%	462,699	494,512
Agriculture	8%	9%	45%	344,893	500,420
Livestock/Poultry	6%	12%	146%	286,487	705,219
Fisheries	5%	6%	55%	229,748	356,692
Housing	2%	2%	8%	100,775	109,085
Rural Transport	2%	1%	-20%	89,776	71,759
Cottage Industry	1%	1%	-12%	34,423	30,287
Baor	0%	0%	30%	19,045	24,704
Health	0%	0%	89%	9,240	17,496
Services	0%	0%	161%	9,046	23,595
Sericulture	0%	0%	68%	8,703	14,592
Irrigation	0%	0%	7%	2,431	2,595

Total principal outstanding (TPO) increased 32% from Taka 5.1 billion in December 1998 to Taka 6.8 billion in December 1999. BRAC devoted significant staff time over the past two years to opening new branches and outposts and increasing its membership reach. These outpost efforts are likely to translate into an increased rate of portfolio growth going forward.

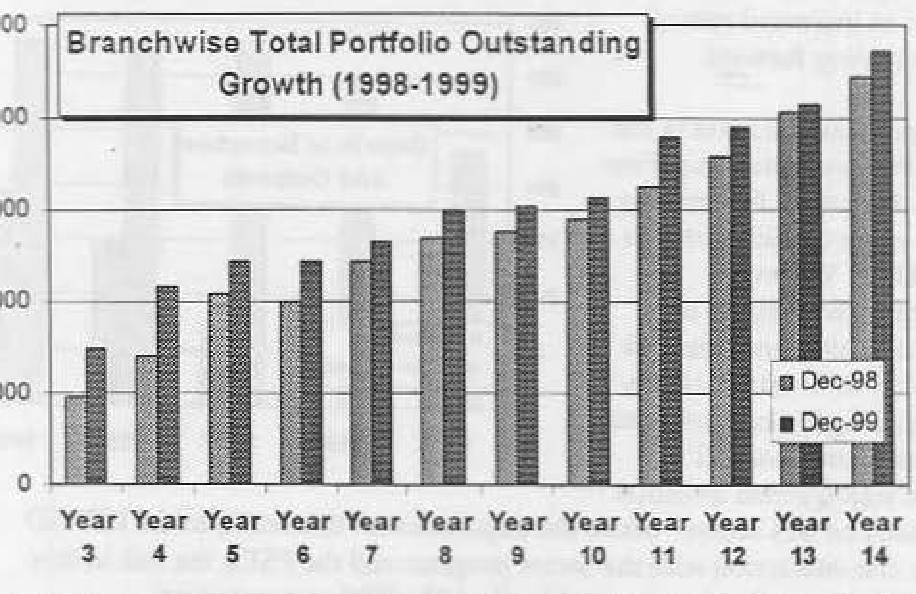


Except for a significant increase in the Livestock and Poultry sectors (up from 7.5% to 12%), there were few striking changes in the value of each sector as a proportion of TPO. We would recommend a targeted focus at the dynamics of the poultry and livestock sector, for poultry & livestock is now the largest single, highly-concentrated sector in the loan portfolio, and significant risk management attention should be focused on this sector. Given the importance of this sector to the IGVGD borrower base, the interaction with the sector program and the PSEs, the risk in this sector is actually greater than is suggested by the 12% TPO concentration.

As was discussed in the 1998 review, the concentration in the Rural Trading sector is still much too large, and defeats any meaningful analysis or management response. We again state that this sector must be broken down into more meaningful sub-sectors, for market and risk analysis. BRAC must begin the process of breaking this "catch all" category down into its significant constituent parts to support better understanding on the risks inherent in this aggregate sector. For the portfolio to rely on a market and risk categorization scheme that has nearly 50% of the TPO in a single category is to defeat the basic purpose of sectoral categorization at the outset.

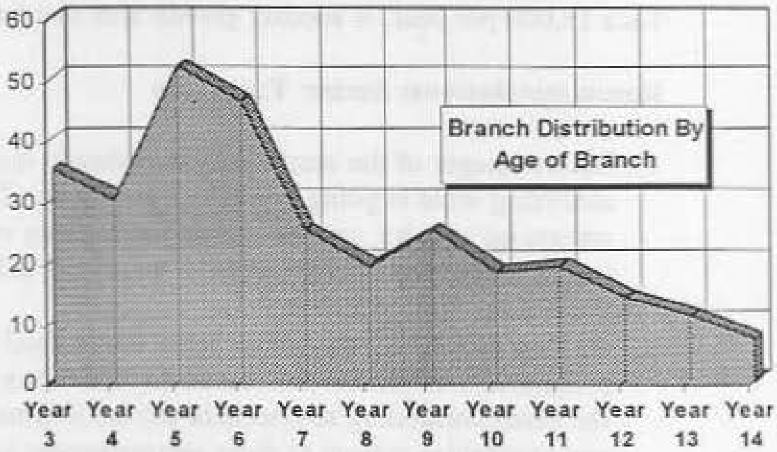


The increase in TPO is due both to a rise in the number of loans disbursed as well as an increase in the average loan size. The real value of the average loan size increased from Taka 4,500 in 1998 to Taka 4,900 in 1999. This represents a 9% increase vs. an inflation rate increase of between 7% and 10% over the past year. It is interesting to note that the "original" 1989 BRAC first loan amount of Taka 1,600 would in 1998 be inflation adjusted to be Taka 2,700. As illustrated by the previous graph, all of the



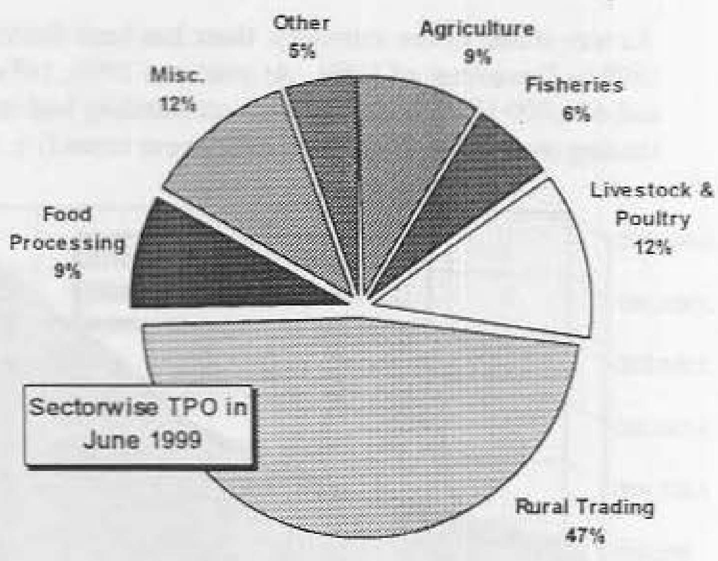
yearwise branches experienced a growth in TPO between 1998 and 1999. As would be expected, the most rapid growth was in the younger branches

The effect of TPO growth in the younger branches is especially important and powerful because there are so many more of them. As illustrated by the graph to the right, there are many more younger branches, so growth in that part of the BRAC system has an especially powerful impact on total program wide TPO and future capital requirements.



1.3 Changes in Sector Portfolio Outstanding

The total principal outstanding (TPO) in BRAC's four sector programs (agriculture, poultry and livestock, fisheries and sericulture) totaled 28% of the total loan portfolio in June 1999, up from 24% in June 1998. The increase is due to the rise in the poultry/livestock sector. The RDP IV Plan target is to have the sector programs occupy, at least, 25% of TPO by the year 2000.



BRAC intends to increase its portfolio in fisheries, livestock/poultry and agriculture in the years ahead. This is because the net-profit for members operating in these sectors is significantly higher than many alternative options. For example, the average annual income a poor rural household earns is Tk12,000. A vegetable grower or chick rearer can increase their household income by an additional 80% (Tk10,000) a year.

The largest long-term opportunities for growth are probably in the poultry and livestock program as agriculture and fisheries need land, which is not easily available, and sericulture to date has not proved economically viable for either members or BRAC. The recent development of the poultry broiler strategy, which can earn a borrower upwards of Taka 18,000 per year, is another growth area that has significant impact.

Recommendations: Sector Programs

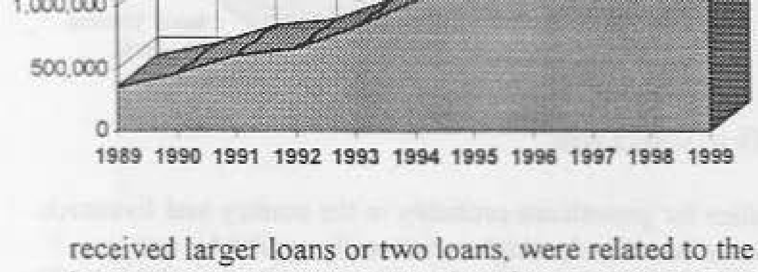
1. Each manager of the sector programs should receive basic analytical training in analyzing what is going on in their programs. They should produce regular analytical reports on activity, service charge realizations vs. due, cost recovery, risk issues etc instead of the list of raw numbers, which are currently being collected.

2. As long as BRAC can reduce better understand and reduce delinquency in its sector programs, we recommend (based on interviews with key staff at head-office and in the field) continuing to prioritize the development of poultry and agriculture (seed and vegetable) sectors as these sectors appear lucrative to members given the substantial market demand that exists.

3. BRAC should conduct an evaluation of the market demand, net profit to members, development impact potential, problems faced by VO members and the value added by each of the sector programs it is planning to help grow. This will help BRAC reduce the riskiness of its portfolio in these sectors (especially poultry, fisheries, and sericulture), and also help it price it services (e.g. technical assistance) appropriately.

1.4 Focus on Delinquency

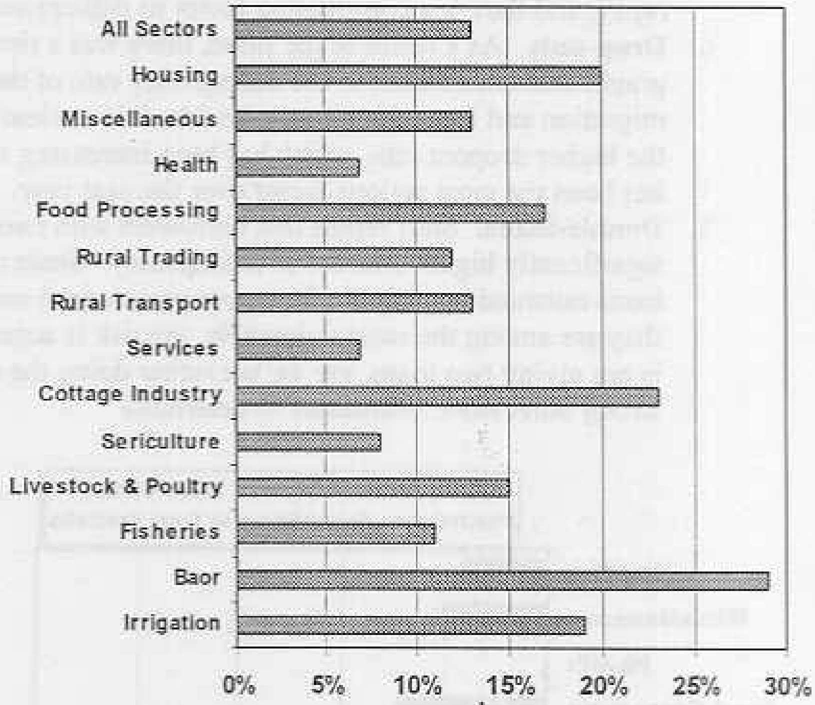
As was stated in the summary, there has been deterioration in credit quality from June of 1998 to December of 1999. At year-end 1999, 16% of the TPO (vs. 10% in June 1998) and 630,000 (23%) of total loans outstanding had missed one or more loan payments. Having over Taka 1 billion in delinquent loans (i.e. US $20MM) is clearly a cause for concern, and should be a focus of significant management energies during 2000. Should this condition not improve or should this condition persist into 2001, this would be an extremely serious cause for concern.



Further detailed research by BRAC staff necessary to determine in what ways these borrowers: have been affected by the flood, are connected with refinancing or increased hartals, received larger loans or two loans, were related to the move to bi-weekly payments, or have any other consistent explanation. Indeed, this type of research should be on-going, note just associated with Shorebank's Annual Donor Review. We would encourage a year-long laser-like focus on understanding the causes of and reducing delinquency.

As we did in 1998, we continue to see the need for BRAC to develop a much deeper market and business insight into higher risk loan sectors (fisheries, food processing, sericulture and housing), and sectors where the portfolio has become concentrated (e.g. in rural trading and food processing). As illustrated by the graph, there are significant differences between sectors in terms of portfolio quality.

Recent Delinquency: Percentage of Each Sector with 1-12 Payments Missed (Dec 1999)

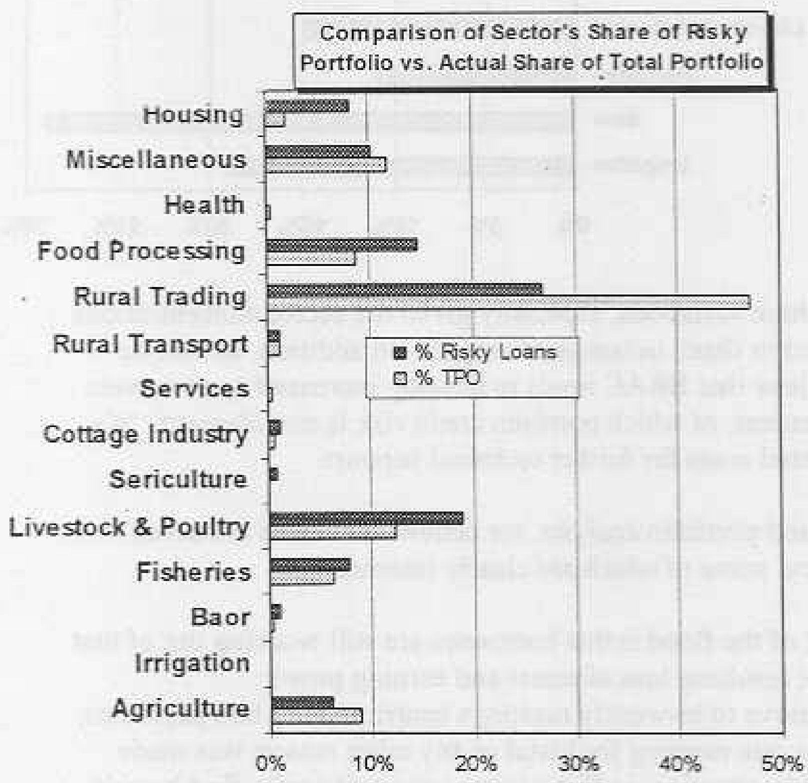


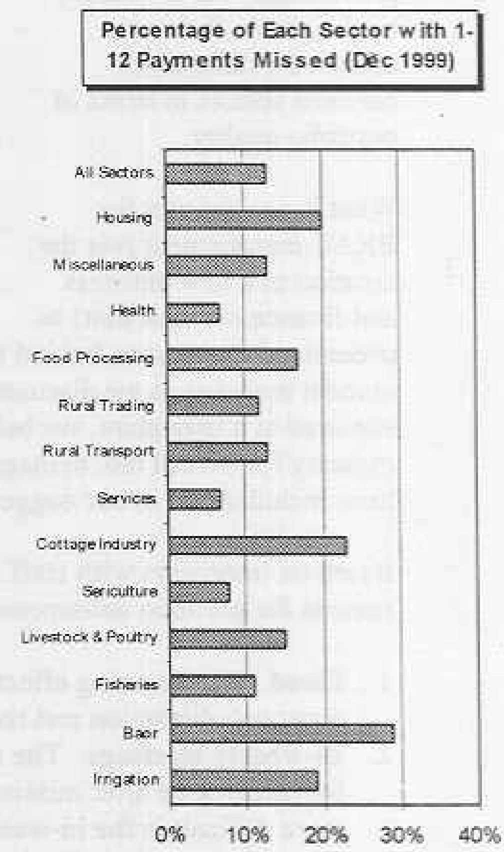
What is necessary is for BRAC management (via the creation of a new business and finance research unit) to understand the reasons behind these variations, especially given the sector concentrations in most branches as we discussed in detail in last year's report. In addition, as will be explored at a later point, we believe that BRAC needs to develop increased system-wide capacity for overall risk management, of which portfolio credit risk is one element. We have included this in our suggested areas for further technical support.

Based on interviews with staff and portfolio analysis, we believe that there are seven reasons for portfolio delinquency, some of which are clearly interrelated:

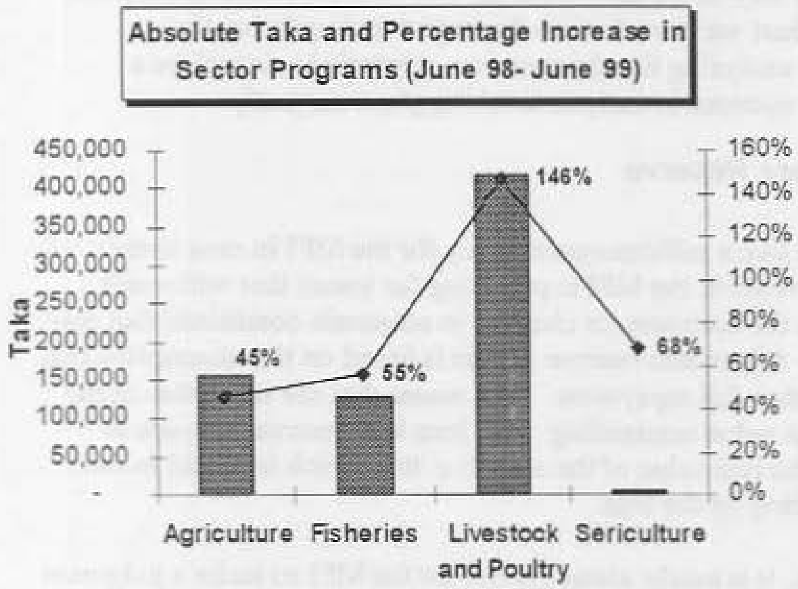
1. **Flood**. The lingering effect of the flood is that borrowers are still working out of that economic disruption and the resulting loss of assets and earning power.
2. **Bi-weekly meetings**. The move to bi-weekly meetings contributed to late payments, for catching up after missing one meeting for hartal or any other reason was made more difficult in the bi-weekly situation, in that a borrower could easily find herself two or four weeks behind. Bi-weekly VO meetings have been discontinued.
3. **Computerization**. The branch computerization process has been to remove some of the discretionary slack in the loan payment system (hartal and grace days, for example). The presence of these discretionary days were used to compensate for loan delinquencies, and their removal has been to increase delinquencies.

4. **Hartals**. There were a significant number of hartals in 1999 (some estimates run upwards of 45 days of hartal disruption), but hopefully recent conversations on the political front suggest that this will not be repeated in 2000.
5. **Refinancing**. The use of refinancing during 1998 floods and beyond has likely created a bubble of increased debt by borrowers who have a diminished capacity to repay, and thus is a contributing factor to delinquency rates.
6. **Drop-outs**. As a result of the flood, there was a rise in the number of dropouts (see graph) that contributed to the delinquency rate of the portfolio. Flood impacts (like migration and loss of businesses) aside, it is unclear what are the causal forces behind the higher dropout rate, which has been increasing since 1996. Certainly the flood has been the most serious factor over the past year.
7. **Double-loans.** Staff report that borrowers with two loans outstanding have a significantly higher amount of delinquency. Since many VGD members have two loans outstanding, this is often more pronounced among this group, and given that they are among the most vulnerable, the risk is accentuated. We believe that the risk is not giving two loans, per se, but rather doing the necessary assessment of very strong borrowers' businesses to determine whether or not they can handle larger repayments throughout the loan term.





The two previous graphs illustrate the relationship between risk and sectoral loans in the portfolio. In general, the riskiest[1] (and disproportionately delinquent) sectors are housing, food processing, and livestock & poultry.



Shorebank recommends, as it did in 1998, that BRAC make a special business study of these sectors to understand the specific factors that make these sectors much riskier than other sectors. Based on that understanding, BRAC can take measures to more effectively manage the risk.

Given the very significant (146%) 1998-1999 absolute growth in the Livestock and Poultry sectors' portfolios (see chart above), examination of the risk factors in this sector is especially important.

Recommendations: Portfolio Management

We strongly recommend that BRAC conduct a thorough analysis of the causes of increased delinquency (7%deterioration since June 1998). Such an analysis will help BRAC determine to what extent delinquency is a function of: borrowers receiving larger loan sizes; borrowers receiving double loans, borrowers who were refinanced as a result of the flood, concentrations in particular sectors; delinquency concentrations in branches that were not hit by the flood or hartals etc. Without this information, BRAC is ill prepared to be able to know either the real cause of delinquency, or how to address it. This is our number one recommendation regarding BRAC's loan portfolio quality for the year 2000.

BRAC needs to develop a much deeper market and business insight into higher risk loan sectors (poultry, fisheries, food processing, sericulture and housing), and sectors where the portfolio has become concentrated (e.g. in rural trading poultry). Breaking these "catch all" categories down into its significant constituent parts to support better understanding on the risks inherent in both these important sectors. We feel, that as it stands, the rural trading category is effectively useless for any analytical purposes and defeats the whole point of having sector differentiation in the first place.

BRAC needs to develop increased staff capacity and a formal process for overall portfolio risk analysis. It is impossible to manage what you do not know. We thus recommend that, to begin with, Senior Regional Managers be trained in basic analysis skills. They should be responsible for producing quarterly analyses of the regions they are responsible for. The Regional manages who report to them should be doing branch-wise analysis in much the same way as we have done for BRAC's entire credit program. Taking each portfolio related chart we have done in this report and updating the indicators for their regions and analyzing the changes on a quarterly basis will be a tremendous start, as no similar systematic analysis is taking place currently

1.5 Adequacy of Loan Loss Reserve

A Loan Loss Reserve (LLR) is like a self-insurance policy for the MFI in case some loans "go bad." By creating a reserve, the MFI is preparing for losses that will result from circumstances specific to the borrower, or changes in economic conditions that may affect the borrowers business. A loan loss reserve system is based on the assumption that all loans carry the risk of less than full repayment. This means that the real value of the loan may be less than the dollar value outstanding. The loan loss reserve is meant to cover the difference between the real value of the asset (i.e. that which is repaid in full) and the dollar amount outstanding on the loan.

While there is no one best way, it is nearly always better for the MFI to make a judgment based both on ***historical losses AND a risk rating system of loans and an analysis of its portfolio***. The rating of loans should be adjusted monthly or quarterly. A simple way is for the manager to split loans into two groups: (a) loans with no known risk and (b) loans with identified risks.

> ***(a) Loans with no known risk*** could be reserved by using a simple method such as reserving 3% of all loans outstanding. This means that even though the MFI is not expecting any of these loans to go bad, it still puts aside 3% of outstanding just in case something unexpected happens (e.g. if a business owner dies and no-one can manage the machines, or if there is a flood).
>
> ***(b) Loans with identified risks*** could be divided into a number of classes depending on how risky they are. For example, an MFI could:
>
> - Reserve 10% of TPO of loans that are slightly risky (e.g. where the borrower has missed more than one payments)
> - Reserve 50% of TPO where there is a larger chance that the borrower may default (e.g. when the borrower has missed more than 3 months of payments – this number will be different for different MFIs)
> - Reserve 100% of any loans where it is likely that the borrower will default.

BRAC's recent historical loan losses, with the exception of 1998 (due to the flood), have been less than 2% of the outstanding portfolio. Based on this historical knowledge and the risk in BRAC's total portfolio, we have prepared what we consider a conservative LLR amount. We base this off the December 1999 APO as follows:

100% reserve for all NIBL Loans =	Tk 143 MM
100% reserve for all loans more than 100 weeks past due =	Tk 2 MM
75% reserve for all loans between 50 & 100 weeks past due =	Tk 13 MM
50% reserve for all loans between 26 & 50 payments past due =	Tk 41 MM
2% reserve of the remaining outstanding portfolio =	Tk 116 MM
Total Shorebank recommended reserve	**Tk 315 MM**
Total BRAC current reserve amount (Dec 1999)	**Tk 471 MM**

Based on the above, a recommended reserve of Tk315 MM is considered adequate. BRAC's current reserve is 50% higher at Tk471 MM and is thus more than adequate.[ii]

Recommendations: Loan Loss Reserve

1. As a general rule, BRAC's system of reserving 2% of disbursements across all branches continues to be a good risk management system at a head-office level. We recommend that while BRAC keeps the same system at a head-office level, branches should do their own income statements with the branch's loan loss expense reflecting the risk in their portfolio, rather than a flat 2% of disbursements. Some variation of the system we used above is suggested.

   Each branch should be required to prepare a one page summary statement of the loan loss reserve on a quarterly basis that reconciles the balance sheet figure with the treatment of various loans. Branches will need a quarterly APO to do this –the new computer system (already in 60 branches) should facilitate this process. Regional managers should be doing the same for their region.

2. We also recommend that any loan that is over two years past due plus all NIBL should be formally written off the balance sheet. BRAC should continue efforts to collect these loans should this be possible and any income should be shown as a recovery, but these loans should not be carried on the balance sheet.

1.6 Future Loan Capital Funding Gap: One Scenario

Given the continued growth of the portfolio, future funding needs are an important question. The following scenario is one way to understand the issue, which is powerfully affected by the much greater number of "emerging" younger branches.

If, for instance, all of the branches were made instantly "mature", they would have around the same average loan size as an average Year 14 Branch. Under this scenario, the younger branches (given their much greater number) would generate a tremendous demand for capital. BRAC would need to raise an additional Taka 3 billion—a 75% increase in the total Microfinance loan portfolio. The table to the right illustrates this scenario. This analysis does not include the impact of outposts or MELA, which would increase capital requirements.

The primary point here is that while the RDP/RCP microfinance program is sustainable, as is discussed elsewhere, it clearly will need additional capital for growth, if it is going to be able to respond to growing borrower need.

	1999 Total Branch TPO (000s)	Projected Average Branch TPO	Suggested Future Funding Gap
Year 3	260,820	827,540	566,720
Year 4	324,870	709,320	384,450
Year 5	636,064	1,229,488	593,424
Year 6	560,418	1,087,624	527,206
Year 7	332,975	591,100	258,125
Year 8	285,209	449,236	164,027
Year 9	381,250	591,100	209,850
Year 10	280,764	425,592	144,828
Year 11	359,005	449,236	90,231
Year 12	272,258	331,016	58,758
Year 13	228,558	260,084	31,526
Year 14	165,508	165,508	0
Total	4,087,699	7,116,844	3,029,145

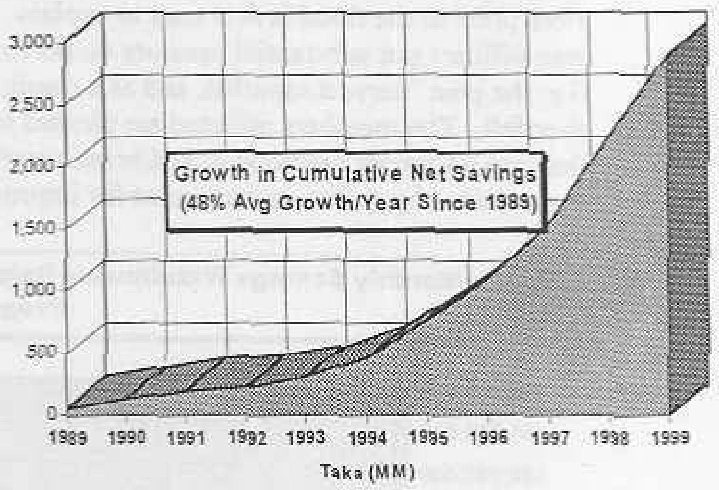
1.7 Current BRAC Portfolio Issues: An Initial Analysis

Given the limitations on the time available to Shorebank staff for this review, it was not possible to do a full-scale analysis of the 630,000 past due loans. However, within the available time, an initial analysis was performed, and the results are included in Appendix 5 (see tables & graphs). This question needs much more time than available to Shorebank. The MIS data is useful and can be "mined" for more insight, but surveys and focus groups of borrowers with delinquent loans will also be necessary to develop more qualitative and actionable insights. Here are some initial conclusions:

1. The IGVGD and housing loans are a concern. 16% of TPO loans are to IGVGDP members; 21% of delinquent loans are to IGVGDP members. 2% of the TPO loans are in housing; 6% of the delinquent portfolio are housing.
2. No strong differences in loan size between the TPO and delinquent portfolio, but there is a slightly larger concentration in the Taka 5000-10000 range.
3. 66% of delinquent loans were disbursed over a five-quarter period ranging from Jan 1998 through March 1999. This is a highly suggestive finding.
4. 10% of delinquent loans were disbursed in between 1993 and the end of 1997. Given their age, these loans should examined very closely, and perhaps be written off totally.
5. It was not possible to analyze delinquent loans vs. geography, branch, region or flood-affected areas; this should be done.

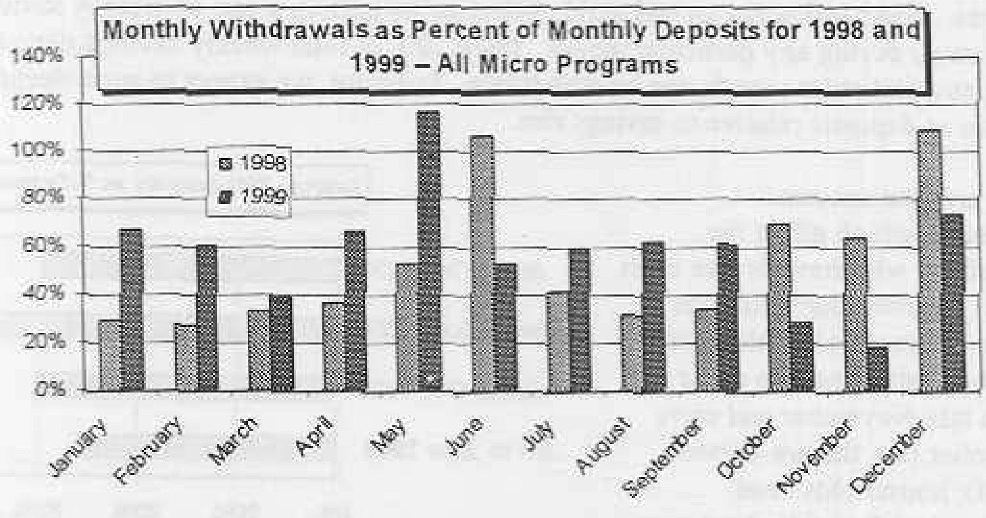
2. Management and Analysis of Savings Activities

2.1 Savings Program Summary



BRAC's cumulative net savings increased 30% over the past year. This increase, however, represents a decrease in the rate of savings growth when compared to the 45% increase in net cumulative savings growth over the previous year, so the rate of growth is slowing down. On average, there has been a 48% average increase in net savings per year since 1989. A large portion of this relative decrease in the net cumulative savings rate, can be explained by the severe flood at the end of 1998 and BRAC's decision to allow members to withdraw up to 50% of their accumulated savings to deal with the crisis. The high dropout rate and reduced member discipline after the flood also contributed to the decline.

The chart immediately below shows the impact of the flood on savings withdrawal in more detail. As can be expected, withdrawals were substantially higher than deposits during October, November and December of 1998, and January through June of 1999.

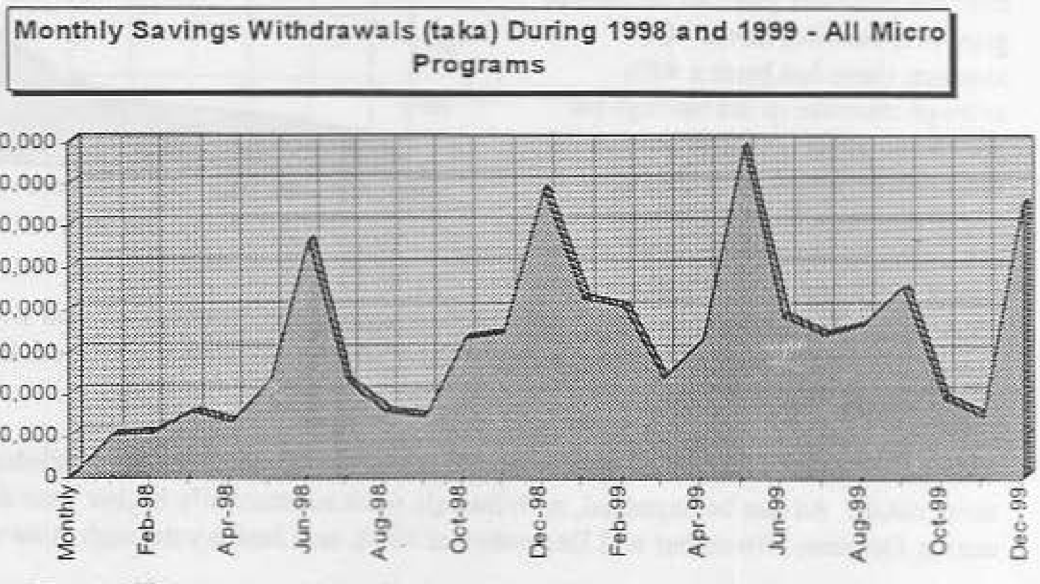


The flood and post flood negative impact on savings has multiple causes.

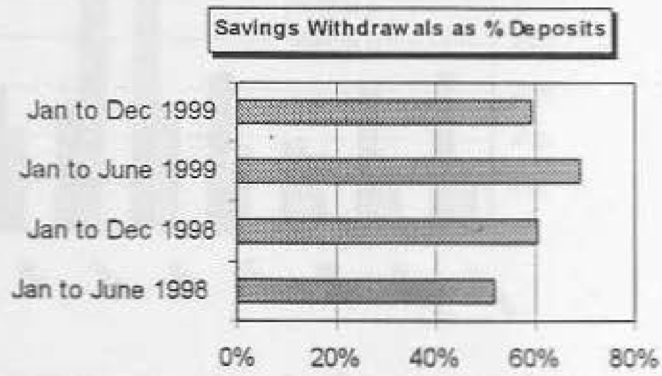
1) *Members do not attend meetings and hence weekly savings deposits are lost*
2) Members withdraw savings to cope with the disaster. There is substantial diversion of these savings into consumption spending as households struggle to cope.

3) In the post flood period, members' discipline is disrupted, and many do not have funds to continue making weekly savings deposits.
4) Others drop out using savings to cover the past due in their portfolio.

The proportionate increase in the withdrawal/deposit rate in the second half of 1999 over 1998 prior to the flood is *less* easy to explain. One reason given by management is that loan officers put substantial pressure on borrowers to repay past dues during this period (i.e. the post 'harvest months), and as a result, members withdraw savings to make up the shortfall. The members affected are pleased because they can then get another loan as they are no longer delinquent, and branch staff/POs are pleased because they are commended by senior management for improving the delinquency situation at the branches. Head-office put an end to this behavior by putting a cap on weekly savings withdrawals during any particular month. Only 20% of total weekly savings deposited during any particular month, can be withdrawn. In future, we expect to see a decline in the ratio as deposits relative to savings rise.

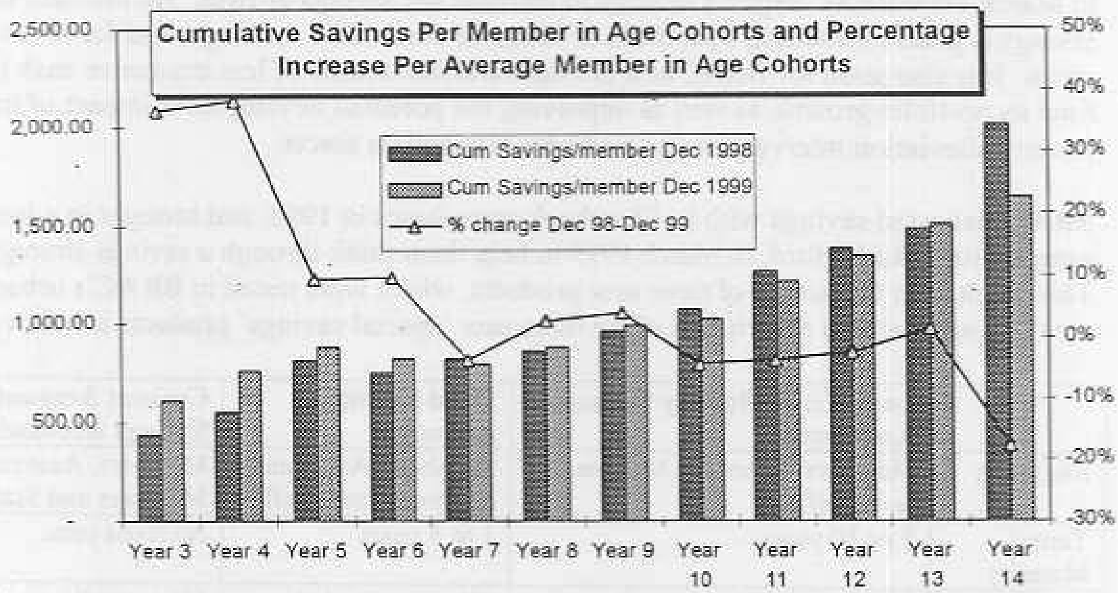


There are also seasonal influences, which affect the demand for withdrawals (see chart above). Around June-July the demand goes up when the first Monsoon rains begin to occur, and in late November and early December (i.e. the pre-harvest period), households need additional cash to tide them over. Overall, the increase in the withdrawals/deposits ratio is a cause for concern, especially given BRAC's reliance on savings to fund the growth in its loan portfolio (see chart above).



Many variables affect savings accumulation by members, not least of all the viability of their businesses, which is largely dependent on the underlying economics of the locality in which they are situated, and the entrepreneurs' management abilities. While we have had no data on this historically, BRAC's introduction of computers at the branch level, together with its introduction of three new special savings products (discussed later) should allow for sufficient data collection to better understand the savings behavior of its members. We recommend that this tracking should be accompanied by an analysis of the economic potential of each locality so that BRAC can be strategic about *all* the products and services it provides in the future.

The chart below illustrates changes in the net accumulated savings/member in each branch cohort to better understand 1) how the length of membership has allowed members to accumulate substantial savings, and 2) what the change of member savings accumulation in each branch age cohort has been from 1998 to 1999.



The picture above shows that net average savings per member increased over the past year as much as 38% in Year 3 and Year 4 branches. In all older branch years (except Year 13 branches which remained flat), there was a decline, with the most substantial decline in average per member savings in Year 14 branches. The average member in Year 14 branches withdrew 20% of their accumulated savings over the year. This is probably, in part, to do with the fact they these older members used the flood as an opportunity to withdraw from their relatively large 'savings stock'—something they were not allowed to do previously (at least in practice).

Overall, the biweekly deposits at VO meetings remained more or less unchanged with around Tk20/month/ member being deposited in most branches. With the introduction of the new savings products, we expect this level to be maintained, rather than to grow, given that members will choose to put their additional funds into one of the other savings products which have more flexible terms and higher interest rates (in the case of the longer term savings products). The overall collection rate may increase slightly with BRAC's return to weekly meetings instead of biweekly meetings, as Tk5 is easier for members to deposit weekly, than Tk10 biweekly.

Recommendation: 'Old' Savings Products

1. We recommend that BRAC retains its forced weekly savings but renames it as a mandatory pension contribution. We also are in favor of BRAC continuing to take 5% off the top of loans (i.e. compulsory savings), but rename this as loan deposit requirement. This will reduce confusion between the new savings products that are being introduced and which are voluntary, and the old mechanisms where BRAC forced members to make savings deposits.

2.2 Pilot Savings Program in the Urban Areas

In March 1999 BRAC began a strategy to increase net savings growth. An increase in savings is good for members for times of lifecycle needs, like marriage, and for times of crisis. It is also good for BRAC as it provides a stable source of less expensive cash to fund its portfolio growth, as well as improving the potential development impact of its poverty alleviation interventions as members accumulate assets.

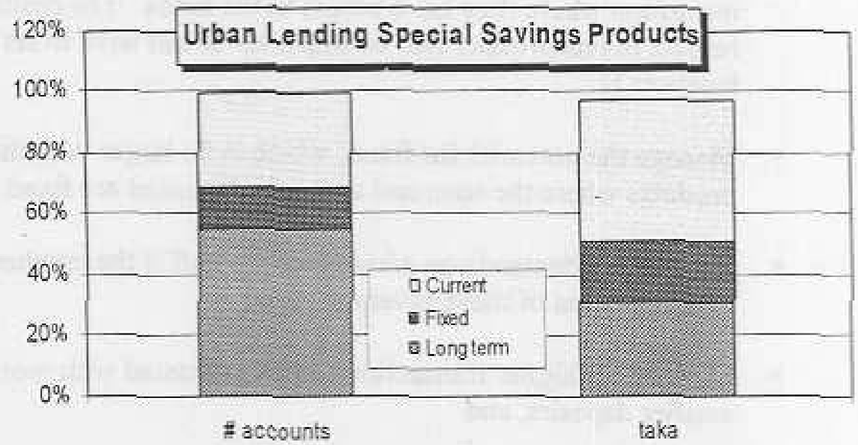
BRAC discussed savings with its Shorebank consultants in 1998, and brought in a local expert, Stuart Rutherford, in March 1999 to help them think through a savings strategy. This resulted in the design of three new products, which were tested in BRAC's urban areas. A summarized description of the three new 'special savings' products is below.

	Long Term Monthly Savings Accounts	Fixed Savings Accounts	Current Account Savings Accounts
Eligibility	Members, Associate Members and Staff	Members, Associate Members, and Staff	Members, Associate Members and Staff
Term / Maturity	5 or 10 years	1 to 5 years	No fixed term
Interest Rate	8% compounded annually	9% compounded annually	5% annually on average lowest monthly balance.
Minimum deposit	Tk 50. Must continue saving this amount monthly. Higher denomination in hundreds.	Tk 1000. Or any higher denomination in thousands.	No minimum
Withdrawal conditions	Only on maturity.	Only on maturity.	No restriction as long as Tk50 in account .
Penalty for breaking contract	No interest for year of early withdrawal. Fees for late deposits and for closing account before maturity	No interest for year of early withdrawal. Fee for early closing a/c	No penalties.
Place for transactions	Account opening at branch. Deposits in VO meeting or branch.	Account opening at branch. Deposits at branch	Account opening at branch. Deposits in VO meeting or branch.
Passbook	Issued for Taka 10	Issued for Taka 10	Issued for Taka 10

By all accounts, the pilot in the urban areas has been highly successful. By February 2000, after five months of the introduction of the products, over 12,000 members and associate members have opened special savings accounts. Seventy five percent of the new accounts have been opened by members, as lending officers have focused on reaching them first.

Over the same period, around Tk9 million in net savings has been raised from these three products. This is an average of around Tk717 of savings per member in just five months – a very encouraging result as both the Taka amount and the number of savings accounts opened is growing rapidly. Three thousand new accounts were opened between January and February 2000, which represents a 30% increase over the previous month.

As a point of comparison, the average member net cumulative savings in a Year 5 or Year 6 RDP branch is around this level, and members who have been in the RDP program for 14 years, have chosen to save only around 2.5 times this amount per member over the entire period through the weekly savings program.



Interviews with the management and field staff of the urban lending program reported no startup problems and noted general enthusiasm for the products. In general, non-UO members like shop-owners often needed more encouragement to open accounts with BRAC. Interviews reveal that this is time consuming for staff—often up to one hour per potential account -- a substantial cost, which needs to be taken into account.

The chart shows that 55% of account holders chose the long-term monthly option (see table above for product explanations), 14% chose the fixed account option, and the remainder preferred the current account option. It is unclear at this stage whether these choices are a function of staff preferences, and hence better marketing of specific products, or whether members are informed evenly on all products. Time will tell as customers become more sophisticated, and staff gain more knowledge on the benefits of each product.

Our interviews revealed that associate members (i.e. non UO members) like shop owners need flexibility and often prefer to open current accounts, followed by long-term monthly accounts. Forty six percent of all Taka invested in the new savings products is in current accounts vs. 31% in long term monthly accounts (see chart). At the moment, over 99% *of account holders have only one account. However, there is no reason why many should* be opposed to opening two accounts: one for current needs that has more flexibility, and one for longer term savings which has less flexibility, but pays a higher interest rate.

2.3 Roll-Out of New Savings Products to the Rural Areas

We feel that the overall concept behind each of the special savings products makes a lot of sense. In addition, the successful mobilization of savings among squatters and slum dwellers bodes well for a roll-out to the rural areas. We do have several recommendations concerning the overall design, pricing , logistic, cost and risk elements of the products.

Recommendations: Special Savings Products

1. **Current account product challenges.** This product allows both for very small *savings to incrementally build an asset base for the poor, as well as providing* flexibility of withdrawals for those who prefer to make larger deposits in a secure institution where they have access to the funds. The challenge for BRAC with respect to this product will be fourfold. It will have to set up systems and checks and balances to:

- Manage the potential for fraud, which is far larger with this product than with other products where the term and amounts deposited are fixed.

- Manage the demands on administrative staff if the number of transactions among even a portion of these savers is high.

- Manage the higher transactions costs associated with more frequent withdrawals and smaller deposits; and

- Manage the liquidity at the branch level as it is unclear when, how often, and how much current account savers will withdraw.

2. **Reducing the Interest Rate on Current Accounts:** Even though the interest rate on *this product at 5% is slightly below the inflation rate, something in principal which* should be avoided if possible, we still propose that the pricing of this particular product is too high, relative to the competitive market situation, as such should be reduced <u>before</u> the program is rolled out.

   Small depositors now *pay fees* to banks for current accounts. Research has also shown that even the poor pay others (like shop keepers) to keep their savings safe. Studies reiterate over and over again that the poor are less concerned with interest rate and more concerned with convenience, safety and liquidity of their deposits. We thus feel strongly that for low balances held in current accounts, this interest rate should be reduced until it can be shown that BRAC can cover all the administrative expenses and operating costs associated with the product, and still lend profitably. And since there is no market competition, any interest on a totally flexible account is an improvement over what members have at present. BRAC can, however choose to reward members that keep higher monthly balances in their current accounts, and that engage in less withdrawals.

3. **Cost Analysis**. We recommend that BRAC do a thorough cost analysis of its savings delivery system. Understanding the cost of savings products allows the microfinance institution to adjust both the product and the delivery system in order to enhance their contribution to overall financial performance. Such studies are particularly important in the early years on an institution's growth.[iii] Cost studies allow an institution to better fix the interest rate or conditions of a product or adjust the delivery technology. *A study of the full costs of administering a savings account service could be* structured by dividing the costs into five major groups:[iv]

   - financial costs (i.e. interest paid on deposits),
   - variable operational costs (transaction costs),
   - fixed operational costs (prorated branch office expenses)
   - indirect costs (general overhead of the bank's head office), and
   - organizational costs (one-time setup costs).

   If the program is doing the cost study in the early phases of its savings deposit mobilization among low-income clients, it should be very careful to project costs to *reflect a mature level of operations. Incorrectly assigning* too high a level of fixed costs to too small an operational base will unfairly bias the institution against a particular product before the product has a change to establish itself.

4. ***Training of Staff.*** *Successful savings program rely on informed staff who are able to* communicate the necessary information to clients, and who are trained in outstanding customer service. BRAC will face a challenge in reorienting its lending officers (currently BRAC's savings officers as well) who are used to chasing up services charges, loan delinquencies and forced weekly savings, to have a 'hands-off' approach towards their new savings customers, who may or may not have a delinquent loan outstanding.

   Savings and loan matters need to be handled separately, and as long as the same staff person is handling both, this separation will be a major challenge. It is a good thing, therefore, that all withdrawals will be taking place at the branch, outside the control of the loan officer. Accounting staff who handle withdrawals and branch management will also need to be retrained in terms of how to deal with savings customers in various situations. Example: how to handle a highly delinquent borrower who wishes to withdraw a large amount of voluntary savings for consumption and not *for paying off the loan?*

   We recommend that BRAC training for branch managers and Regional Savings POs, who are then asked to train branch staff. RDP's trainers should develop the course, and one of the main teaching methodologies should be role plays based on real situations that could occur. BRAC head-office should also write up a memorandum of the do's and don'ts to guide field staff.

5. **Marketing of Savings Products.** Marketing of savings products will be critical. VO members probably expect nothing less than for BRAC to take their savings and not return it for a long time (based on the weekly savings model). BRAC's clients in the urban areas did not have the same historical legacy to overcome. POs will have to believe in the products, be patient and convincing. They will also need to be trained in the alternatives offered by banks so that they can be convincing when associate members ask them the advantages of banking with BRAC vs. a bank (i.e. location, interest on current savings, monthly product etc.)

   Strategy for marketing should be a function of branch and regional management with head-office support. Head-office should also consider using the media and also inventing new ways to raise savings that draw-in targeted customers (like competitions or lotteries used in BRI and BANCISOL).

6. **Risk Management and MIS**: The old cliché that you can only manage what you measure is true. A set of indicators on individual savings should be tracked. Indicators, which measure branch and savings officer performance, should also be produced. More complex liquidity management will need to take place at all levels through the organization. At a head-office level, BRAC needs to learn: a) to what it extent it can rely on savings as a funding source; b) how stable is that source of funds; c) how to better manage liquidity and investment positions given the changes in deposit and withdrawal pattern. This can only be done with an the help of good communication and systematized MIS reporting and analysis. The MIS system will also help BRAC to understand the features of its products that customer's value, and how the product should be modified (or the range of products expanded) to attract other savers, and the financial impact of product modifications (like interest rate, term changes, or frequency of withdrawal policies) on the system.

7. **Incentives and Signals**. Management should be clear in their expectations of staff and should reward good performance accordingly. Staff should know the couple of indicators which management is using to track their performance. If staff are expected to increase branch profitability by raising savings, then indicators should reflect the productivity of staff in this regard, and the branch's cost of funds.

   Head office needs to give staff the right signals. We thus recommend that BRAC increases its transfer price to branches from 9% to 12%, otherwise there is no incentive for branches to raise fixed deposits at 9%, and very little incentive for them to raise long term savings at 8%. Branches should be rewarded for achieving higher profits, which will depend to a substantial extent on their cost of funds position (ie. are they raising savings at an average of 7-8% or are they borrowing from head-office at 12%). A note on incentives is included below.

Staff incentive plans are a risk management tool or control.[v]

"The fundamental principle behind incentive plans, whether it is for the staff at large or top management, is to align what is good for the individual with what is good for the institution and, by extension, the shareholders. The need for such incentive plans arises because in most organizational structures of the private sector ultimate ownership of the assets may reside in the shareholders, but day-to-day control of those assets rests in the hands of the employees that comprise management. Accordingly, absent specific and very deliberate mechanisms, there is no natural assurance that management's agenda will coincide with that of the institution or the shareholders". If there is no alignment, the MFI is at risk of not achieving its objectives.

Really hard management decisions are not difficult because large sums of money are involved, but because they deal with people. Good incentive plans recognize that managers are not driven by economic incentives alone, especially in mission-driven institutions like MFIs. However, experience has shown that monetary compensation is often synonymous with family responsibility, and that is a powerful addition pulling on the side of institutional aims, especially when management must make the difficult decisions that leave "dead and wounded" in its wake.

Basic Principles For Staff Incentive Schemes

In designing an incentive scheme for senior management (or any other staff member), it is important to consider the following principles:

- Key indicators in the incentive scheme must be limited to those few factors that really matter. In microfinance, portfolio size and quality are obvious choices, but for senior management institutional factors such as profitability, number of clients, and staff turnover may also be considered.
- Incentives should reward people for issues that are within their span of control and for a behavior that they can directly affect.
- Incentive systems should be simple. No more than five, and preferably fewer, variables should be selected.
- The rationale for the selected indicators should be clear for them to have legitimacy.
- The targets set must be achievable and measurable. It is no use to select a variable that everyone agrees is very important, like customer service, but no one knows how to reliably measure or for targets to be set so high that they cannot be reached.

Top management, however, is responsible for tactical and strategic issues. In deciding whether to open or close branches, to turn an NGO into a bank, to develop new financial products, the potential for conflict between individual and institutional goals is more prevalent and more difficult to detect, as the issues become more complex. Top management incentive plans must therefore combine both current compensation (to cover the tactical or short-term impact of the function) and ownership (to take into account the strategic or long term dimensions).

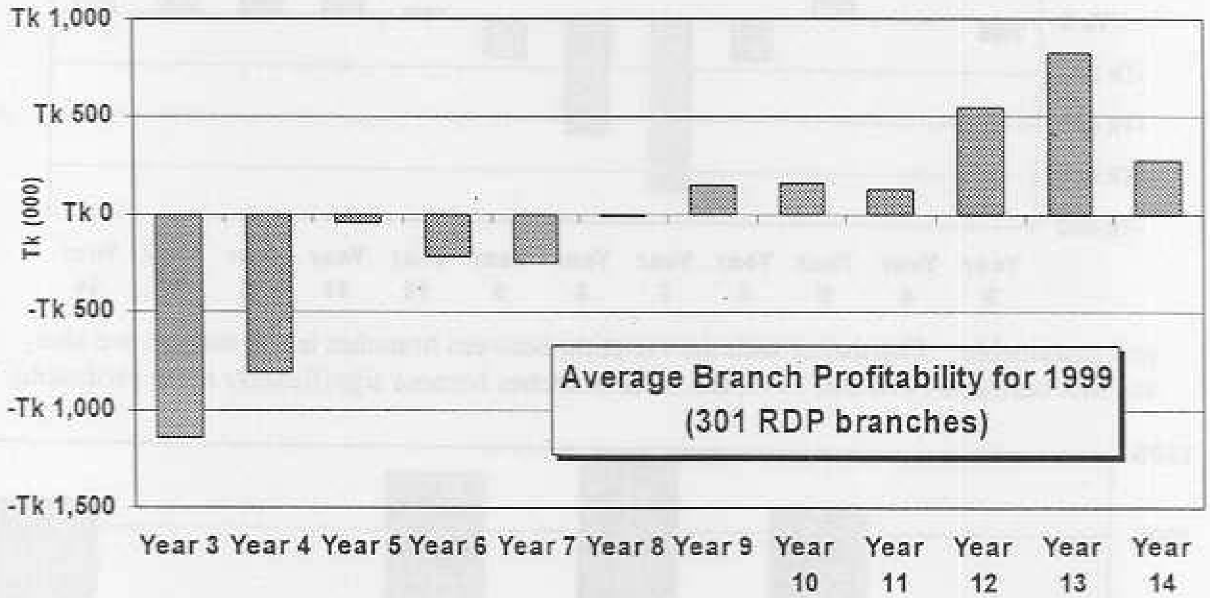
With compensation and ownership working in tandem to ensure that management's agenda and the shareholders' agenda are aligned, the full power of the staff can be channeled to fulfill the institution's mission.

3. Branch and BRAC Financial Sustainability

3.1 *Financial Sustainability Summary*

It must be stated at the outset that the question of "sustainability" is a very complex one, and one often used too easily and inaccurately. Sustainability for which program(s)? Which set of branches? Over what period? Including continued loan portfolio growth? This is not a straightforward question with a yes or no answer, but rather a continuum of questions and answers that apply differently to different programs and activities.

However complex this issue is, as BRAC graduates from the RDP IV program, the question of sustainability will be the central issue for the organization. Although the focus in this review relates to only two of BRAC's many programs: the Microfinance and

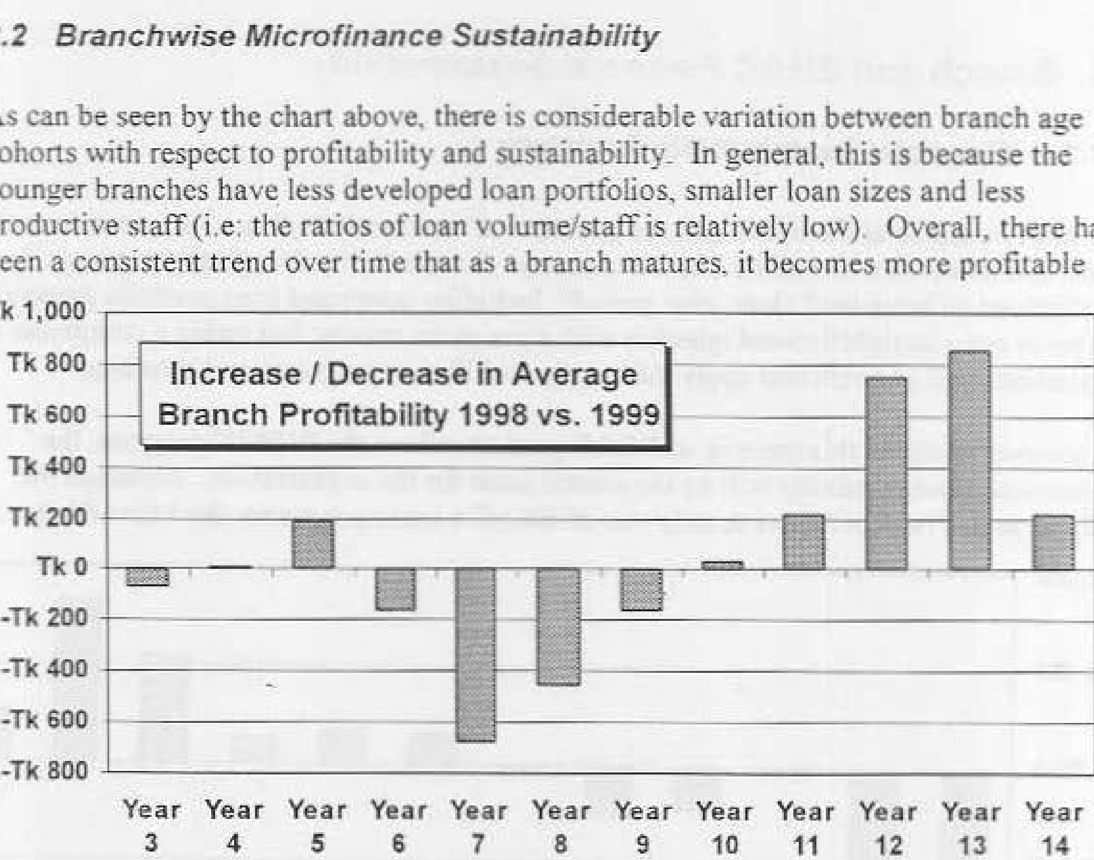


BRAC's sector program, it must be noted that each BRAC branch actually administers a variety of programs. As a result, the branch sustainability question is not easily divided off into a separate discussion, as if the branch were only dedicated to a single activity.

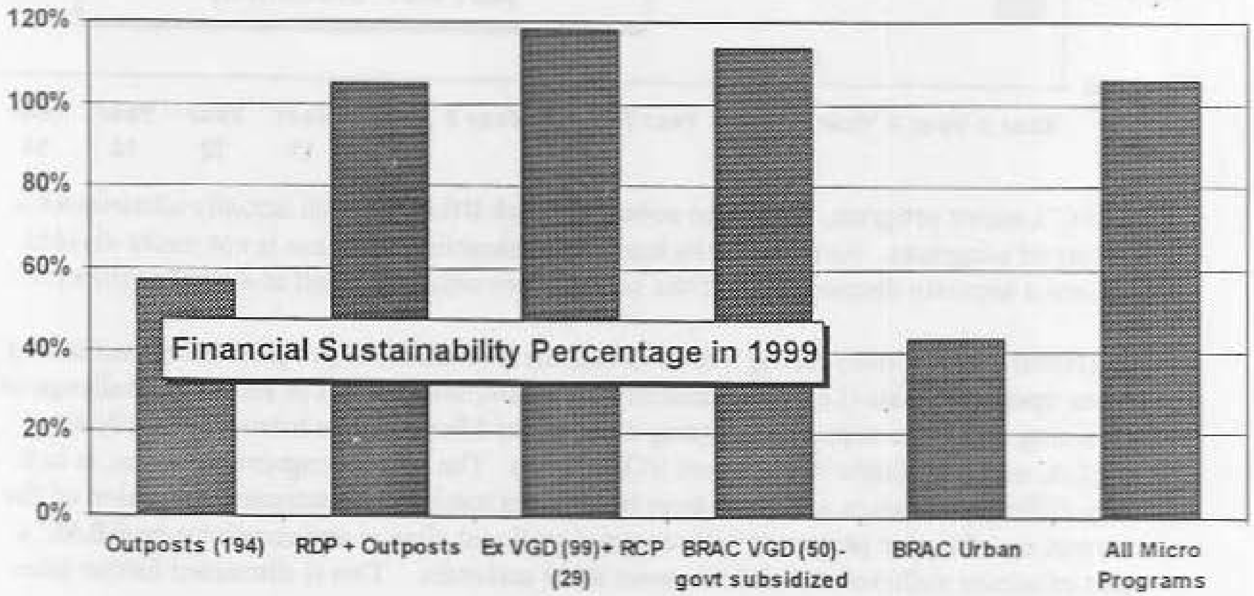
In general, the situation facing BRAC is that the Microfinance program is self-sustaining on an operating basis (i.e. it is financially self-sufficient) but has to solve the challenge of obtaining capital to support increasing demand for Microfinance loans (especially for MELA, as PKSF funds will support VO lending). The sector program, however, is in a very different situation and is far from being sustainable. To continue any version of the current set of sector programs will require significant change and creativity on BRAC's part of secure sufficient funds to support those activities. This is discussed further later in our report.

3.2 *Branchwise Microfinance Sustainability*

As can be seen by the chart above, there is considerable variation between branch age cohorts with respect to profitability and sustainability. In general, this is because the younger branches have less developed loan portfolios, smaller loan sizes and less productive staff (i.e: the ratios of loan volume/staff is relatively low). Overall, there has been a consistent trend over time that as a branch matures, it becomes more profitable



and sustainable. Consistent with the variation between branches based on age, we also see that between 1998 and 1999, the older branches became significantly more profitable,



but there was deterioration in the profitability of the "middle aged" branches. At this point, the reasons for this uneven performance are unclear, and will take a much more detailed analysis of how these branches were variously affected by the flood, hartals and other issues.

Another perspective on sustainability is to examine this question through the perspective of different programs, ranging from the "standard" RDP program to the more subsidized VGD programs to the newly emerging Urban lending program. The chart below shows that while there is substantial variation between programs. As would be expected, the overall result is the current "mix" of BRAC Microfinance programs generates about a 106% annual sustainability or profitability result on an operating basis. The major contributors to the overall profitability of the BRAC's Microfinance programs, are the highly profitable RCP branches which the donor consortium originally capitalized. As can be expected, the other younger programs and newer RDP branches and outposts are still generating losses.

3.3 Microfinance Program Sustainability: An Accounting Perspective

From a purely accounting perspective, this table shows the operational profit/(loss) for 1999 for each of the several Microfinance programs. Given that each of the different Microfinance programs has a different funding structure, a slightly different target borrower group, are expanding at different rates, and are of different ages, it is not surprising that there is substantial variation between sustainability or profitability performance. On balance, however, the consolidated Microfinance programs generated an operating surplus in 1999. This result does not incorporate any additional grant subsidy that might be available to the various programs such as the RDP program.

Program Name	1999 Income or Loss from Operations
RDP	(17,723,851)
RCP	120,792,535
IGVGDP	(5,597,569)
BUP	(25,040,827)
PLDP	2,912,951
PKSF Credit	45,492,710
Total	**119,420,471**

3.4 Subsidy Dependence Index for Microfinance Programs

There are three ways that are often used to calculate the sustainability of an MFI. The two more commonly used are described below:

Operational Self Sufficiency:
This ratio shows the extent to which an MFI covers all its operating costs including loan losses out of internally generated income. Based on the adjusted income statement that is attached as an appendix, BRAC's micro programs' operational self-sufficiency is 142% (vs. 182% for 1998).

Financial Self Sufficiency:
This ratio shows the extent to which an MFI covers all its operating costs (including LLP) plus financing costs plus cost of capital. The impact of inflation on equity and

fixed assets is also taken into account. BRAC's micro programs' financial self-sufficiency for 1999 was 116% (vs. 144% for 1998) based on the subsidy-adjusted income statement included as an attachment.

The reason for the decline in self-sufficiency between 1998 and 1999 is mainly due to the fast expansion of BRAC's portfolio, flood impacts, and a general increase in delinquency. Sustainability generally improves when there are improvements in two of its major drivers: (a) portfolio yield and (b) administrative costs. Both of these deteriorated over the past year due mainly to the severe flood, and the opening of many new branches.

<u>The Subsidy Dependence Index (SDI)</u>
This ratio is a third way to calculate the financial viability of an MFI. Essentially, this ratio measures the degree to which an MFI relies on subsidies for its continued operations. One of the main differences between this ratio and the financial self-sufficiency ratio is that the SDI uses a market proxy for the 'price of equity.' While certainly subjective, it is fair to assume that equity investors generally demand a rate of return above the inflation rate. The SDI uses the market costs of funds rate as 'the proxy.' Calculations for the subsidy dependence index are made off unadjusted financial statements.

The SDI ratio for BRAC's micro programs is 0.25 or 25%. The ratio is calculated as follows:

$$\frac{A^*(m-c)+[(E^*m)-p]+k}{LP^*i} \quad \text{where}$$

A*(m-c)= MFI concessional borrowed funds (A) outstanding multiplied by the difference between what BRAC paid on its subsidized funds (c), and what it would have had to pay if it got them at commercial rates (m). (BRAC is already accessing a portion of its funds at commercial rates. We used a 11.5% rate as a proxy for the market rate on the portion of its funds, which it is getting at subsidized rates).

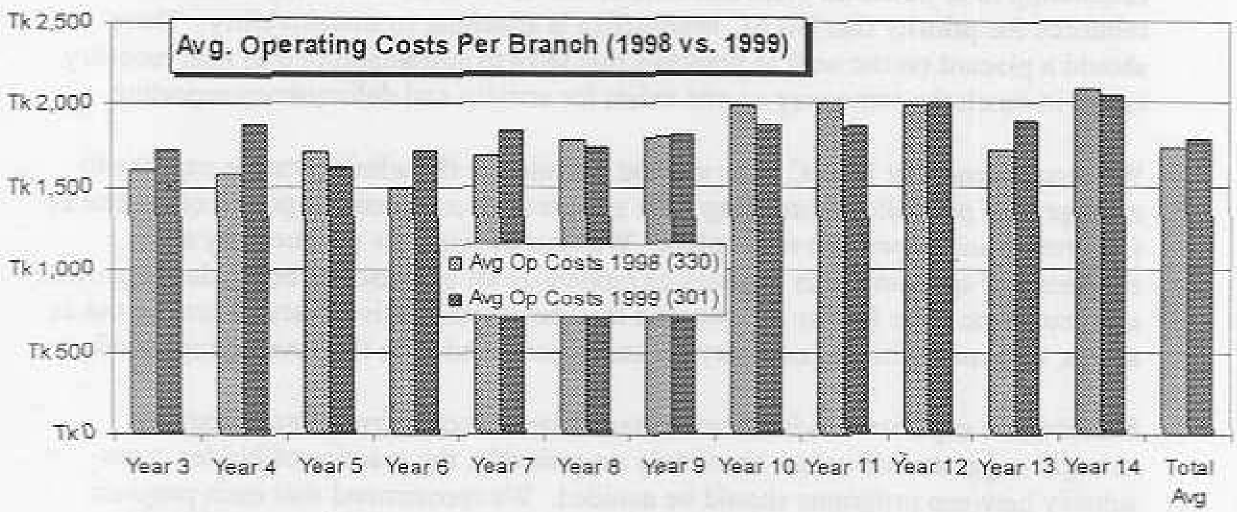
E = Average equity. We priced this at the same 11.5% market rate (m) and subtracted the reported unadjusted annual profit (p). We then added other subsidies (k).

The entire numerator is divided by the average outstanding loan portfolio (LP)/[average interest earned/average loan portfolio outstanding]. In other words, the loan portfolio is divided by the portfolio yield (i). In BRAC's case, i=25%

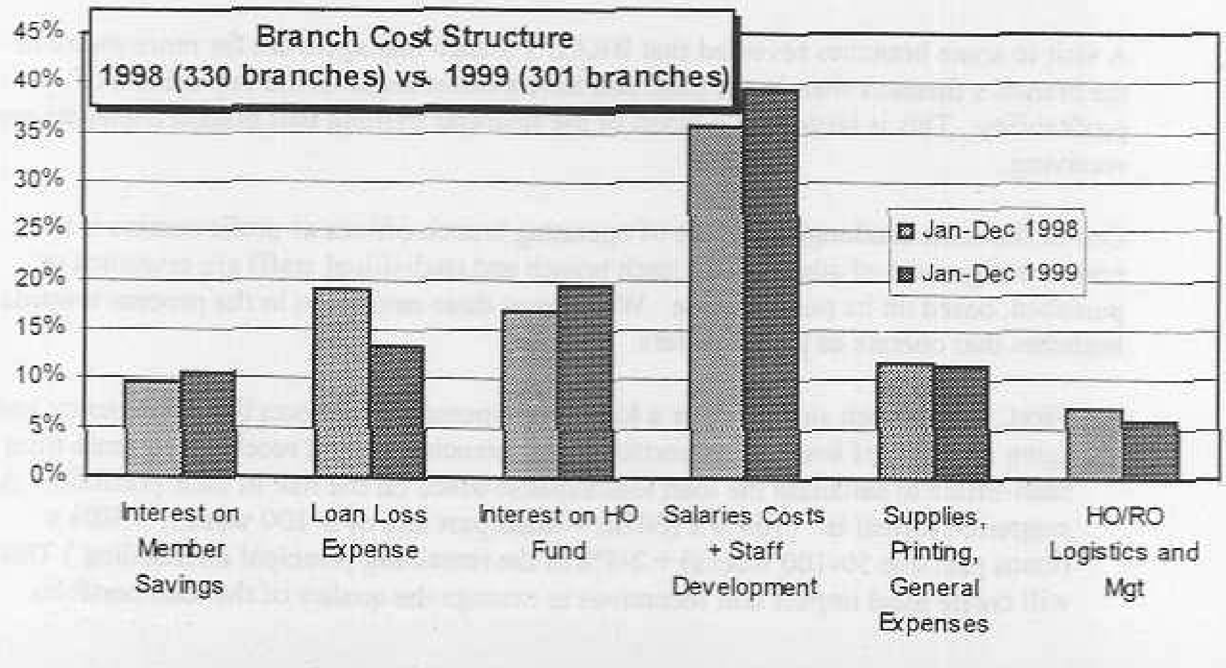
The subsidy dependence index tells us that BRAC will probably need to increase it effective interest rate of 25% by .25 if it wanted to be able to attract additional equity and be entirely free of donor support for its micro program.

A 25% increase on BRAC's current effective rate would increase the rate by six percentage points to 31%. We have included the 1999 income statement plus adjustments at the end of this report.

3.5 1998 vs. 1999 Cost Structure Analysis



As illustrated by the graphs above and below, there are no significant changes between the 1998 and 1999 cost structure that seem significant. Overall, costs grew by about 3%, which is still below the inflation rate. Staff costs have generally increased, due in part to a general staff salary in late 1998, as well as due to the fast expansion to new branches and outposts. That expense increase is balanced out by a drop in head office and regional office expenses, reduction in loan loss expense, and a slight drop in general expense.



Recommendations: Sustainability

1. BRAC should track the operational and financial self-sufficiency of its credit program *on a quarterly basis. Branch managers should also compute these ratios and should* be asked to report on any changes in trends. Branch managers should also be calculating their portfolio yield and cost of funds ratios on a monthly basis to reinforce the priority that BRAC head-office is attaching to sustainability. There should a placard on the wall at branches that talks to sustainability and cost recovery issues in much the same way as one exists for activity and delinquency reporting.

2. We recommend that BRAC pays vigilant attention to the administrative expense to average loan portfolio outstanding ratio as operating costs tend to go out of control as fast growth and expansion takes place. Without tracking the productivity and efficiency of spending, it is too easy to rationalize all expenses as being due to growth and expansion. We further recommend that the administrative costs be broken out as above, with an additional category for costs associated with the new savings products.

3. Shorebank's experience with development finance and Microfinance programs strongly suggests that unless absolutely unavoidable, the practice of hidden cross-subsidy between programs should be avoided. We recommend that each program should be defined with enough clarity so that it is clear as to whether or not the program is operating at a loss or a surplus. After that reality is ascertained, then it is up to the larger organization (BRAC in this case) to decide the possible use of any program surplus, or the justification for the organization absorbing any loss. (For that reason, the Microfinance programs in this analysis have not been combined with the sectoral programs, for although they are related they are very different programs, delivery systems, and development strategies).

3.6 Changes Necessary for BRAC Branches to Become Profits Centers

A visit to some branches revealed that BRAC's branch managers are far more aware of the branch's finances than in the past, and have a better sense of the key drivers of profitability. This is largely as a result of the financial training that branch managers are receiving.

One of the most challenging aspect of operating branch offices as profit centers is the correct assignment of costs so that each branch and (individual staff) are rewarded or punished, based on its performance. We suggest three next steps in the process towards branches that operate as profit centers:

- **First**, each branch should incur a loan loss expense that reflects the delinquency and aging situation of loans in its portfolio. All branches should receive a formula from head-office to calculate the loan loss expense based on the risk in their portfolio. A suggested format is: (100% x (NIBL + loans past due over 100 weeks) + 50% x (loans past due 50-100 weeks) + 2-3% of the remaining principal outstanding.) This will create local impact and incentives to manage the quality of the loan portfolio.

- **Second**, each branch should produce trend reports on branch profitability in much the same way as they do for the loan portfolio quality. Key ratios and indicators such as net income, portfolio yield, savings/TPO, cost of funds, administrative expenses /average outstanding, loan loss expense / average outstanding ,and return on assets should be calculated. This will enable a branch to understand how increased delinquency increases their costs (through the loan loss expense), and how mobilizing various savings products affects their cost of funds. Productivity measures such as net savings/ loan officer, and # savings account / loan officer, TPO / loan officer and # loans/loan officer should also be tracked. Trend reports are crucial to compare improvement or deterioration of key variables over time.

- **Third**, head-office should consider introducing a system of incentives to reward good performance and punish poor performance. This is an excellent technique for accountability and aligning the goals of staff with the goals of the organization. All field staff should get a base salary, with the rest of their annual salary coming out of performance incentives. The performance incentives should be such that the average staff person can improve his/her income by around 30-50% if she achieves the goals. If incentives are only 10-15% of the monthly increase in average wages, the system will not sufficiently discriminate between poor and strong performers. Incentives should be paid at one or two intervals during the year, possibly at the time when staff have extra financing needs (like before festivals or when the school season begin). If incentive payments are made monthly, staff will feel it is part of their wages, rather than a performance bonus.

Incentives should be kept simple, and designed to achieve the major goals of the organization. Key variables for an individual incentive system should include, at least, a delinquency indicator, an outreach indicator, and a growth indicator (both for portfolio growth and net savings growth). And finally, the playing field should be leveled before any inter-branch performance rating takes place.

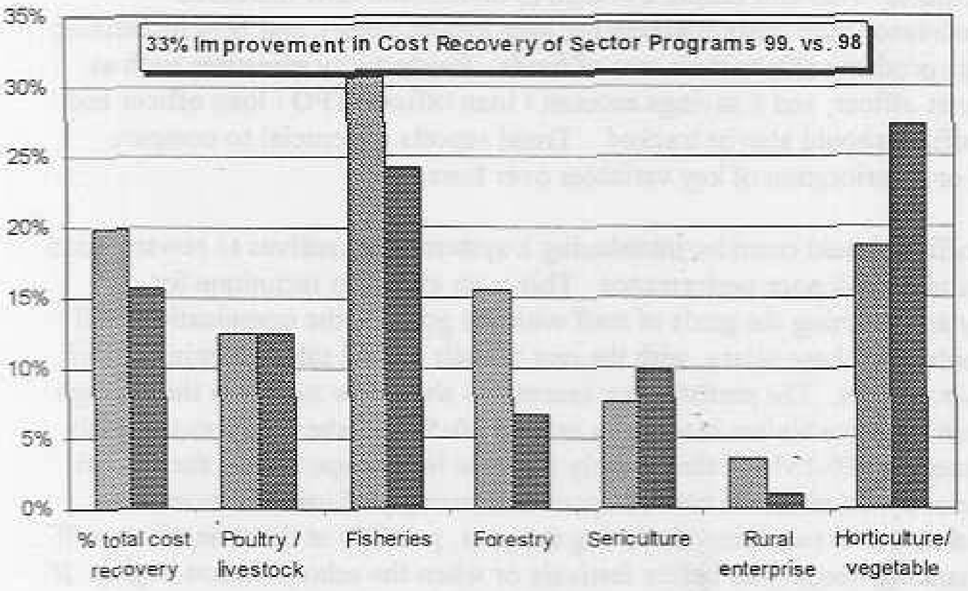
Incentives need to be carefully thought through before they are introduced as they can be destructive to staff morale and performance if they are not designed appropriately. Their introduction needs to be accompanied by a thorough explanation to staff so that everyone understands what gets rewarded and what does not. BRAC can consider piloting the incentive scheme in a number of branches before introducing it company-wide.

Recommendations: Profit Centers

A three step process as discussed above is recommended to reinforce the transition of branches into profit centers: 1) branches' income statement should reflect a loan loss expense that bears a relationship to the risk in the relevant branch's portfolio; 2) key branch profitability ratios should be track and analyzed on a monthly basis and given the same importance as activity and delinquency currently have; and 3) head-office should develop a carefully thought through system of incentives to reinforce and align staff behavior with the objectives of the program.

3.7 Cost recovery performance of the sector programs

Over the past year there was a 33% improvement in cost recovery for the sector programs. Fisheries, social forestry and essential health care (not listed here because it is highly subsidized) contributed to this improvement. Cost recovery in the poultry and livestock sector remained flat, which could be interpreted positively given that the sector's participants grew by around 9%. Costs in agriculture (vegetable and horticulture) rose significantly because 20 extension workers were trained in each branch.



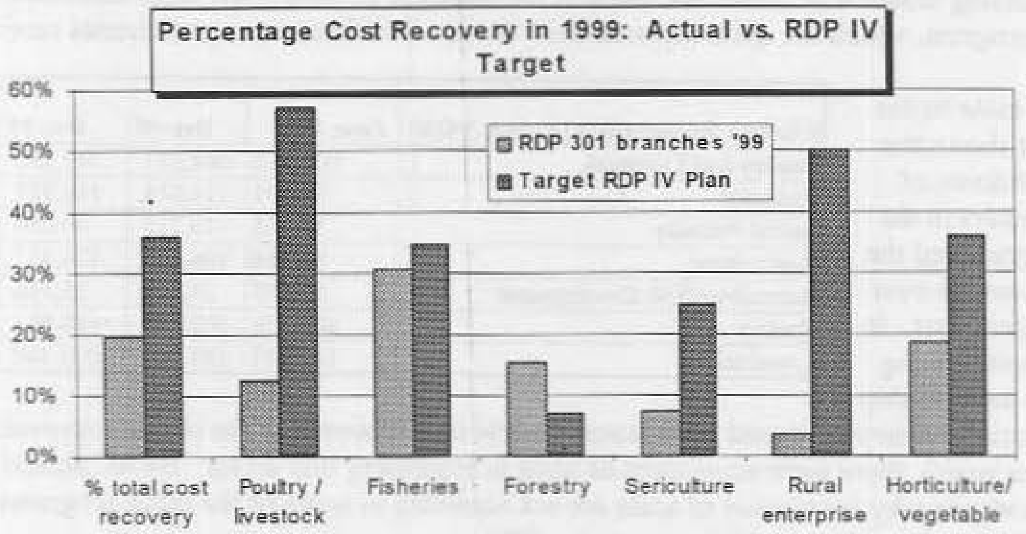
These extension workers are VO members who will now be responsible for delivery services to farmers including fertilizer, pesticides and seeds. They get commission on their sales. This is essentially a move to privatize some of BRAC services in an effort for sustainability.

The improvement in cost recovery is due to a number of factors:

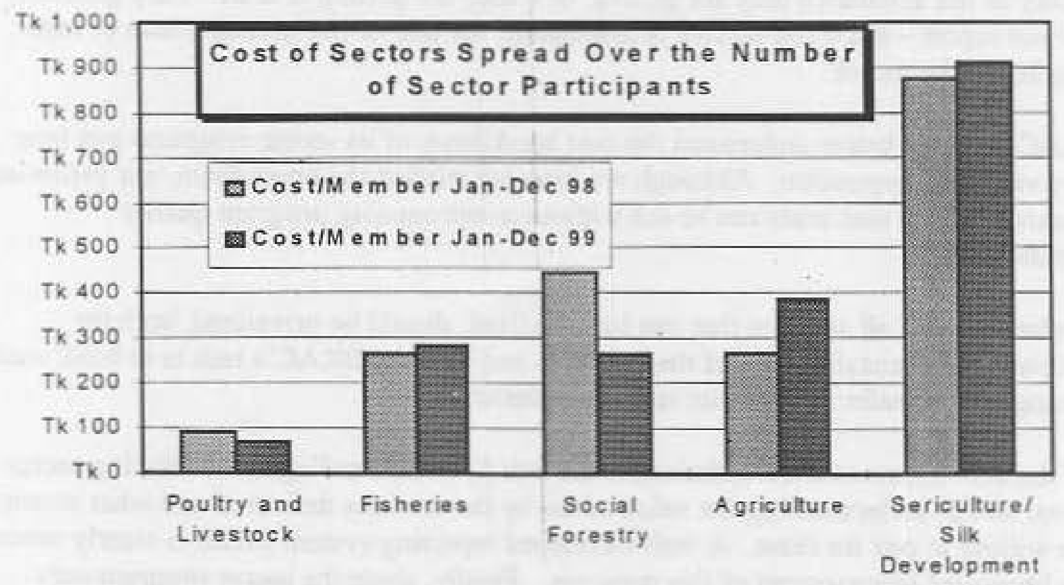
1) an improvement in the collection of service charges (less past dues)
2) an increase in the productivity of staff (more sector participants, and hence, economies of scale),
3) a slight reduction in program costs (more substantial cuts are expected in 2000).

The table shows the substantial improvement in the collections of all sectors. While this may be an overstatement given that sector managers are not always certain of the level of activity in the sectors, and hence who owes fees, that there is a substantial improvement is beyond doubt. With the computer system, managers will be able to better track both activity and service charges, and hence will be better equipped to reduce costs and increase productivity and collections wherever possible.

Service Charges	collected vs.due '98	collected vs.due '99
Poultry & Livestock	63%	86%
Fisheries	30%	89%
S. Forestry	73%	90%
Sericulture	98%	96%
Agriculture	39%	71%
Total	45%	83%



While the improvement in cost recovery is indeed significant, it is still way below the target originally set in the RDP IV budget. It is, however, beyond the scope of this analysis to determine to what extent this is a problem of inaccurate target setting vs. inadequate cost control (e.g. with respect to training) and productivity management of the sector programs. It is likely a mixture of both. But because the costs for poultry and livestock, sericulture, agriculture and rural enterprise are so significantly over the initial targets, we feel that it is important to analyze the underlying costing of the sector program in some detail before significant sector expansion takes place.



Another way to cut the expenditure data of the programs is to divide the spending in each sector by the number of participants in the sector. The chart above shows the results. It costs Tk900 to support a sericulture member and less than one tenth of that to support a poultry member. It is not clear why the cost per member in the sericulture program is increasing unless it is due to the research and business development costs associated with the program, which are quite separate from the services that sector participants receive.

The table to the right shows the breakdown of members in the program and the percentage over the past year. It is worth noting that membership in social forestry increased significantly, while cost recovery of the sector improved. In other words, there were economies of scale in expanding this sector. BRAC should investigate why economies of scale are not occurring in some of the other programs (e.g. poultry and livestock) which grew at 9 – 10%.

# Sector Participants (exclud. VGD)	June 1997	Dec-98	Dec-99	Change 98-99
Poultry and Livestock	608,229	684,243	749,182	9%
Fisheries	98,201	114,024	116,927	3%
Social Forestry	12,065	29,715	40,058	35%
Agriculture	84,160	106,653	124,417	17%
Sericulture/Silk Development	23,655	24,456	25,106	3%
Poultry	466,976	502,848	548,834	9%
Livestock	141,253	181,395	200,348	10%

Recommendations: Cost Recovery Sector Programs.

BRAC should track its activity carefully so that it knows how much to collect, from whom and when. None of these variables should be negotiable. Service charges should be as vigilantly collected as loan payments. Service charge collections are the program's only current source of income.

To the extent possible, service charge payment should be linked to value received by the customer. At present, all participants are expected pay and there is no check on the quality of the assistance they are getting, or if they are getting it at all. They generally will not report – out if the service is inadequate, for fear of not getting a loan or input supplies in the future.

BRAC needs to better understand the cost breakdown of its sector programs and how they vary with expansion. Although we have not studied the breakdown, our preliminary research tells us that costs can be cut without compromising program quality significantly.

We believe that all services that can be privatized, should be privatized, both for efficiency and sustainability of the program, and because BRAC's task is to build wealth among, and transfer skills to, its target population.

Of the above, two recommendations stand out: 1) understanding and analyzing sector costs, and 2) understanding the value added by the services delivered and what customers are willing to pay for them. A well-developed reporting system (MIS) is clearly essential for improved management of this program. Finally, since the sector program only covered 20% of their costs in 1999 (and this worsens for 2000), the obvious question is what happens beyond 2000 when there is no more donor money?

3.8 The BRAC RCP/RDP Financial Model

The microfinance financial model was built for a BRAC Microfinance situation that has changed dramatically, and so the current model is no longer adequate. As BRAC graduates from RDP IV, it will of necessity have a much more complex source of funds (multiple savings products, various types of bank and public sector capital loans, retained earnings) as well as a more complex use of funds (MELA loans, VO loans, short term and longer term loans, various types of reserves, etc.) As a result, the existing financial model is not adequate to deal with these much more complex liquidity and asset/liability balance issues.

Recommendation: Financial Model

1. In 2000, BRAC should begin the process of designing and implementing a new financial model, one that can help senior management predict some of the interaction between this emerging and more complex financial structure.

3.9 The status of the BRAC Bank Proposal

In December 1998, BRAC received a letter of intent from Bangladesh Bank regarding a bank charter. In 1999 BRAC submitted the final application papers, and is anticipating opening the bank to the public in 2000. The scheduled date has been delayed due to a court ruling, which determined that BRAC, as a charitable institution, may not run a bank. It has always been intended that BRAC Bank will be a totally separate institution with a separate governance structure, and that BRAC NGO will have no more than 50% of the ownership of the Bank. This would decrease when the Bank goes public three years after opening. BRAC is thus in the process of preparing a Supreme Court appeal.

BRAC Bank, to be capitalized with $10 million (from BRAC NGO, IFC, Shorebank Ford Foundation and another international development finance institution) will open its doors in 2000 as Bangladesh's first commercial development finance institution to target the 'unbanked middle' consisting primarily of small businesses and underserved individuals.

BRAC Bank believes that the provision of financial services to these small businesses and underserved individuals will unleash economic potential that contributes to the well being of poor people in Bangladesh, for example, through creating jobs and generating new income through exports.

While microenterprise is an effective poverty alleviation tool, it is generally not a creator of net new jobs and wealth in economically distressed regions. Small businesses, on the other hand, have shown themselves all over the world, in both developed and less developed countries, to do exactly this. And it is the very poor who often benefit most, through the creation of new, wage labor employment opportunities. Ironically, the very poor who are willing and able to engage in wage labor, are generally unwilling and often unable to take the risk of managing their own microenterprise.

Branch Network. BRAC Bank plans to have three types of branches in Bangladesh to penetrate into the different markets.

1. Large branches: BRAC Bank will open five of these branches in the next five years – three in Dhaka, one in Chittagong and one in Sylhet. These branches will provide full banking services including Letters of Credit and other specialized services.
2. Medium branches. These branches will be in the different cities of Bangladesh and will act as hubs for small branches. Credit sanctioning for the small branches will mostly be made from these branches.
3. Small branches: These branches will generally be in the district towns and/or in rural areas. *Some of them will really be booths.*

Plan for market penetration. BRAC Bank will start out with the following comparative advantages:

- Pre-existing rural distribution network and infrastructure
- In-depth knowledge of rural markets and access to urban markets
- *Brand equity*
- Experience in managing large systems professionally
- Highly competent and motivated management
- Modern and appropriate technology-based systems
- Access to network of international and domestic expert advice

Products

1. *Aggressive and innovative lending to small and medium sized businesses* (Tk50,000 – Tk10 million range or U.S. $1,000 – U.S. $200,000), with a focus on productive or manufacturing businesses that are often underserved by the conventional market. In particular, Shorebank's research reveals that most urban banks do not lend to businesses in amounts of less than Tk 2.5 million (U.S. $50,000). Even fewer lend amounts less than Tk1 million (U.S. $20,000). The scarcity of finance is far worse in rural areas. In addition, banks are reluctant to provide both working capital for businesses and longer-term finance, which is severely needed by manufacturing and industrial enterprises (e.g. leather and agri processing etc.). [vi]

2. *Aggressive and innovative saving mobilization / deposit raising from individuals and businesses* in both urban and rural areas. No competent bank is currently raising deposits from rural households. A huge untapped market exists in both urban and rural areas. Urban banks are chasing larger deposits (e.g. above a Tk20,000 or U.S. $400 minimum). A deep and wide market exists for a range of products with different maturities and pricing which are conveniently located at branches, and which offer savers liquidity, security, and a reasonable return on their investment in a comfortable and professionally operated environment.

3. *Remittances from international sources and remittances between urban and rural areas within Bangladesh.* At present, inefficient state banks have a monopoly on the

rural remittance market. It is likely that Bangladeshis living both domestically and abroad would switch from using foreign banks to using a well run Bangladeshi owned bank if superior levels of service and competitive pricing are provided. An estimated $2 billion in official remittances and another $2 billion in unofficial remittances enters Bangladesh annually from expatriate workers abroad.

4. *The card and point of sales market.* This market is not served except in a very limited way as the commercial banks in Bangladesh often do not use technology and are often averse to innovative ideas. BRAC plans to issue BRAC Bank convenience and credit cards and will put in point of sales terminals with merchants aggressively. The point of sales terminals will also help BRAC Bank reach merchants and shopkeepers in its drive to penetrate into the SME market.

5. *Provision of financial services to NGOs.* NGOs are a natural customer base for BRAC Bank because of its developmental mission. BRAC has an advantage over banks in underwriting micro-credit programs because of its substantial experience in the area.

BRAC Bank will pursue sectoral strategies in its lending and financial services where it believes that a strong confluence of profitable business opportunities coincides with development impact potential.

4. Development of BRAC RLF Reporting

At an exchange rate of Taka 50 to $1 US, as of the end of 1999 the asset base of BRAC's Microfinance program is the equivalent of a $165 million bank. In many ways, the BRAC MFI program has all of the characteristics of a bank: assets, loans, deposits, liabilities, loan officers, business risk, etc. The difficulty, however, is that the BRAC microfinance program is not a separate entity, with clearly defined legal boundaries as is the case with a bank. It is a flexibly defined "program" that exists within the larger BRAC nonprofit legal framework. Its cost structure, organizational and staff boundaries, source of funds, risk profile, and financial characteristics are quite fluid and often ambiguous, and least in comparison to a traditional bank, with its highly formalized and distinct legal and financial framework.

How to reconcile these organizational realities with the increasingly complex asset and liability issues for the microfinance program presents BRAC senior management a significant challenge. It is our firm belief that the current situation—running what is in essence a $165 million bank within the undefined boundaries of a large non-profit organization—is inappropriate as the microfinance program continues to grow and become more complex. The question is: what should come next?

As the microfinance program continues to grow, and especially as it graduates from RDP IV, its financial structure will unavoidably become more complex. BRAC's Microfinance program contains an increasingly complex asset/liability mixture, unusual funding structure, rapid growth dynamics, challenging loan and savings dynamics, and an ambitious set of business goals. Especially as BRAC continues to grow, move into more demanding lending and savings product activities, acquire increased visibility, and continue to raise external funds, there is an increased need for a more regular and rigorous process of external reporting. The purpose of this section is to begin the discussion of an expanded external reporting process.

4.1 The NGO Disease: Information Not Analysis

It is a common characteristic of non-governmental and non-profit organizations around the world that they "turn out reports." These reports are frequently in response to government or private funders, or are just a generally accepted method to create some sense of internal and external communication and accountability. However, unlike for-profit entities, the measurement "rules" for an NGO are often less clear: how does one measure "economic development, empowerment, increased health quality" and similarly important but difficult-to-measure outcomes. "The bottom line" for a for-profit company seems simple and clear by comparison.

The common response by non-profits and NGOs is to churn out "information", with tables, charts and references to grant applications and previously adopted plans. BRAC is similar in this regard, in that it turns out a substantial amount of reporting "paper" that works hard to create a sense of measurement, progress, and transparency. Unfortunately, while this information satisfies the formal reporting requirement, it often does not generate insight into essential questions.

The difficulty is that while there are pages after pages of information, there is often little analysis. In a bureaucratic culture—as is the case for many developing countries—the emphasis is on scorekeeping, accounting, measurement, and "reporting up" to some higher power, rather than on analysis. This trend can be seen in BRAC's analysis of its loan portfolio, of its various programs, in its various RDP IV reports, and throughout the organization: an excess of information and a shortage of meaningful analysis. Rarely answered in depth are questions such as "So What?" or "What does this information indicate or imply?" or "Being ahead or behind on this indicator means what?" and "What are the forces causing this information to change? Are we measuring the right indicator?"

BRAC's "reporting culture" is similar to many NGOs, in that it is heavy on "reporting" and light on "analysis". Nowhere is this truer than with respect to the financial issues surrounding the Microfinance program. This dynamic, which is certainly not unique to BRAC, is a result of a historical focus on outputs and impact, traditional NGO behavior, measurement against a detailed project plan, a complex bureaucratic structure, the difficulty of obtaining complex information from the field, and an general lack of financial analysis skills in the Microfinance program.

For many years, the emphasis has been on the areas of operational efficiency, accounting accuracy, managing staff growth, individual borrower impact, and reporting various types of performance to donors. As a result of these historical conditions and biases, there has been less attention on business and financial analysis, market dynamics, economic (not borrower) impact, and the increasingly complex asset-liability management issues facing the Microfinance program. This must change.

4.2 Recommendation: Advisory Board and Annual "Bank" Report

Shorebank would recommend that BRAC develop an external report on its microfinance program that is for all intents and purposes a "bank" report, with all of the trappings of a traditional bank. (This recommendation is not to be confused with the emerging new entity called the BRAC Bank, which is a distinct, for-profit entity). At the same time, we would recommend that BRAC create an Microfinance Advisory Board of internal and external advisors that are skilled in finance, risk management and banking that would serve as a management resource for the BRAC MFI program.

We understand that there already is a BRAC Board of Directors and this Microfinance Advisory Board can in no way replace or supplant the formal BRAC Board of Directors. The reality is, however, that the scope and breadth of BRAC's 57,000 employees and over $100 million annual budget are well beyond that of just the microfinance program. The BRAC Board of Directors must cover a very broad set of institutions, missions, and operational challenges. Perhaps they could cover that much organizational and management terrain five or ten years ago, when BRAC was much smaller and less complex. That is no longer possible. To effectively cover this much organizational territory is not any longer possible: the BRAC Board and the BRAC management team is spread very, very thin. Management and Board are spread much too thin, in our judgement.

The danger is that the increasingly complex issues and challenges facing the rapidly growing BRAC microfinance program will not receive the focus, definition, expertise and response that they need. One response, therefore, should be to set up an Advisory Group that is to focus only on the MFI program and related "banking" issues. These people would not focus on the many other areas of BRAC's programs: health, education, empowerment, human rights, and so forth. They would focus on the unavoidable and undeniable issues of an increasingly impressive and complex financial institution that in any other legal setting would be a stand-alone bank, heavily regulated by the public sector and the investment community.

With respect to reporting, our general recommendation is that the BRAC microfinance program adopt and publish annually an internally written but independently audited "bank" annual report. Shorebank does not have an unusual set of recommendations for the ingredients of that report. An examination of a standard, regulated, bank from business setting will yield a consistent set of parameters and issues, some of which have been discussed in the risk management section of this report, but most of which are relatively straightforward and common. Some of the most common elements should be:

- CAMEL capital and management system measurements
- Sectoral concentration and risk analysis
- Asset/liability balance issues
- Overall—not detailed—development and economic impact (not main focus)
- Savings trends and new product developments
- Loan product trends and new product developments
- Traditional measures: net interest margin, return on assets/equity, sustainability indices, unusual off-balance sheet liabilities, etc.

None of these items are unusual, nor should they be. All of this should be audited by an external auditor, and reviewed by the BRAC microfinance advisory board.

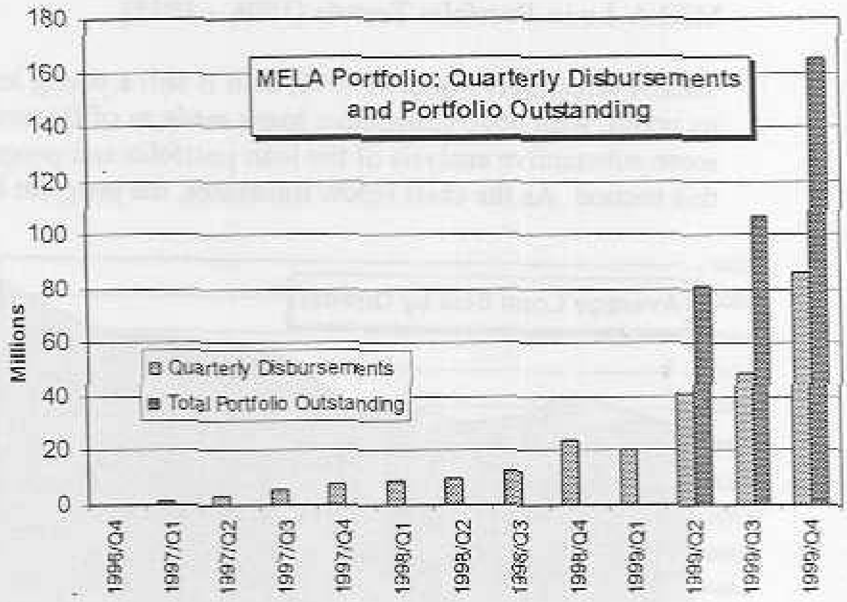
4.2 Recommendation: Financial and Business Research Unit

BRAC needs to create much greater internal capacity to do business, finance and risk analysis. We would recommend an initial staff of 2-3 MBA graduates attached to the microfinance Program Coordinator's office. This capacity is sorely lacking at present, and must be used to analyze overall BRAC portfolio performance, support the creation of an improved risk management system, support the Microfinance Advisory Board, and perform risk analysis for senior and regional management. This unit must produce a monthly series of risk assessment and management reports that help all levels of BRAC about risk management issues and performance. This unit should be responsible for producing the recommended microfinance "bank report" and for instituting the BRAC CAMEL system, discussed below.

5. Other Areas of Special Donor Concern

5.1 *Micro-Enterprise Lending Assistance (MELA) Program*

Overview



As it enters the 21st century with a very healthy outstanding loan portfolio of Tk165 million lent to over 4,700 borrowers in *one hundred branches*, the MELA program has arrived at a transition plateau in its evolution to a mature development finance program. It is large enough to have a lending history, significant cash flow, and an emerging management capacity. On a practical and immediate basis, the two primary MELA constraints at this point are a shortage of management talent and loan capital. However these constraints are resolved, the very good news is that the program has clearly moved beyond the "pilot program" stage while maintaining a high quality loan portfolio.

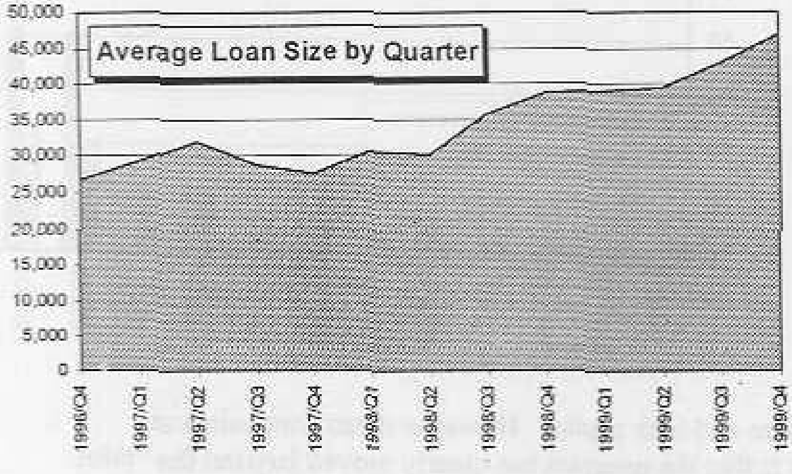
However, in spite of its growth it is still very much a child of the parent BRAC VO program. In almost all ways, MELA is still primarily defined by its historical roots, in that it is still very much a "large VO program" offering standardized loan products based on the VO lending structure, heavy emphasis on collateral and personal relationship rather than business analysis, emphasis on volume and risk avoidance rather than calculated risk management, and characterized more by centralized rule-setting, rather than creative business strategy.

This stage is an appropriate and unavoidable step in the evolution of the MELA program. The central question is if MELA will grow beyond its historical constraints to become a distinct and fundamentally different BRAC program, focused on small enterprises serving external markets. The unanswered question is whether MELA will succeed in its stated goal of creating wage employment and net new income and employment for rural Bangladesh communities.

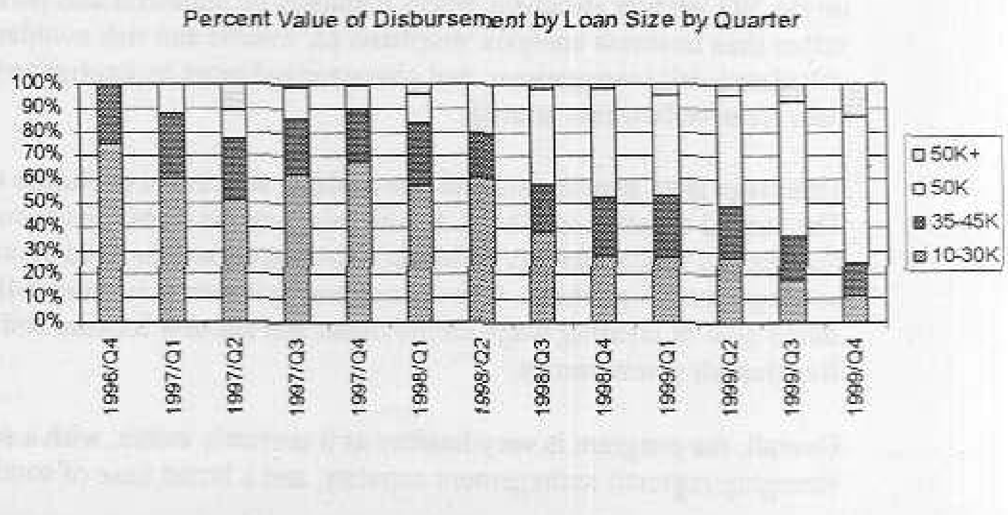
Overall, the program is very healthy as it currently exists, with a solid portfolio, slowly emerging regional management capacity, and a broad base of small business loans. The *gap that currently exists is not in what MELA has done, but in what it has failed to do.* As mentioned previously, the current program can best be described as a "large VO program" and as such is unlikely to have any significant economic impact without significant change. The current lending activity is insufficiently focused and strategic to have much more of an impact than shuffling income and employment from one community business to another.

MELA Loan Portfolio Trends (1996 – 1999)

MELA effectively began in 1997, so it is still a young and emerging program. In spite of its youth, with 6500 cumulative loans made as of December 1999, it is possible to begin some substantive analysis of the loan portfolio and program strategy. That is the intent of this section. As the chart below illustrates, the program has grown rapidly since 1997 to its year-end 1999 Tk165 million outstanding level. What is most interesting is not the fact that the portfolio and program in general has grown, for there has never been a question that the "large VO/small business" lending market was quite large, and could certainly absorb all of the funds that BRAC MELA would be able to generate. What is more interesting is the way that the MELA loan portfolio has emerged in terms of other characteristics besides simply volume.



As illustrated by the chart to the left, one of the strongest trends has been the consistent increase in average loan size, increasing from Tk26000 in 1996 to Tk47000 as of the end of 1999. As will be discussed elsewhere, this increase in loan size has occurred without a significant increase in delinquency. It is believed that this increase in loan size is a

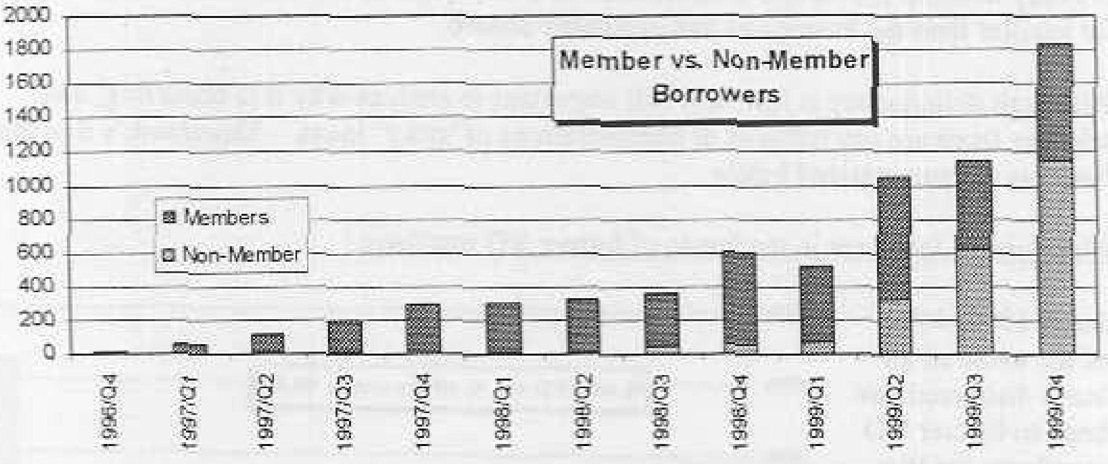


result of both the growing confidence of the MELA staff/lending system and the very strong market demand in this loan segment. The irony is that, based on interviews with field staff and District Managers, the market demand is so strong that were it not for the still conservative, VO-trained MELA staff and the constraints of the MELA lending bureaucracy, this average loan size would be significantly greater, probably around Tk100,000 or more.

This chart shows the increasing concentration of the total portfolio outstanding in the Tk50,000 loan level. Specifically, 61% of the total disbursement volume in the fourth quarter of 1999 were in loans of Tk50,000. Overall, this trend is both positive and necessary, for if MELA is to achieve its stated goal of growing existing small businesses, new rural jobs and wage employment, it must consistently increase its average loan size, eventually up to at least Tk150,000. This portfolio growth must be accompanied by a parallel development of staff, management and strategic capacity, for it is only through the development of strong management skills focused on implementing a highly focused and strategic MELA plan will this program achieve its economic development goals.

MELA Borrower Profile

As the average loan size of the MELA loan has evolved, so have the characteristics of the MELA borrower. The primary shift with respect to MELA borrowers, as suggested by the graph below, has been to move away from the VO Member as a MELA borrower to the Non-VO Member. This is natural and not surprising, for the great majority of VO

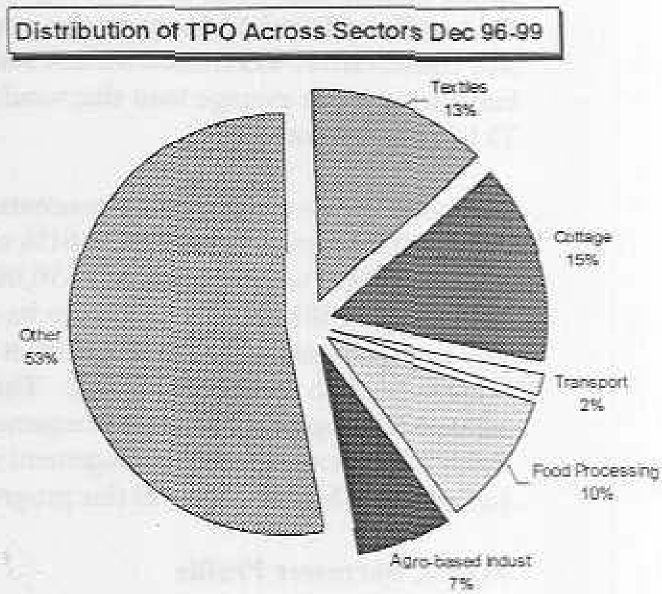


Members have neither the experience, skills or capital to move beyond self-employment to the creation of job creating, wage-employment generating small business firms.

This slow but important evolution away from VO Members as MELA borrowers is also consistent with the fact that the portfolio quality and past due loan data strongly suggest that VO Members are much higher risk MELA borrowers than Non-VO Members, as will be discussed in the loan credit quality section of this report. In the fourth quarter of 1999, 67% of MELA loan disbursements were made to Non-VO Members.

MELA Portfolio Quality Analysis

Despite strong growth in loan size, in branches, in membership and in total portfolio outstanding (TPO) since MELA's inception, portfolio quality remains strong, and a net job creation impact is being made through portion of productive loans in the sector. A trip to the field office and to several borrowers reveals that most jobs created are going to extremely poor wage earners.

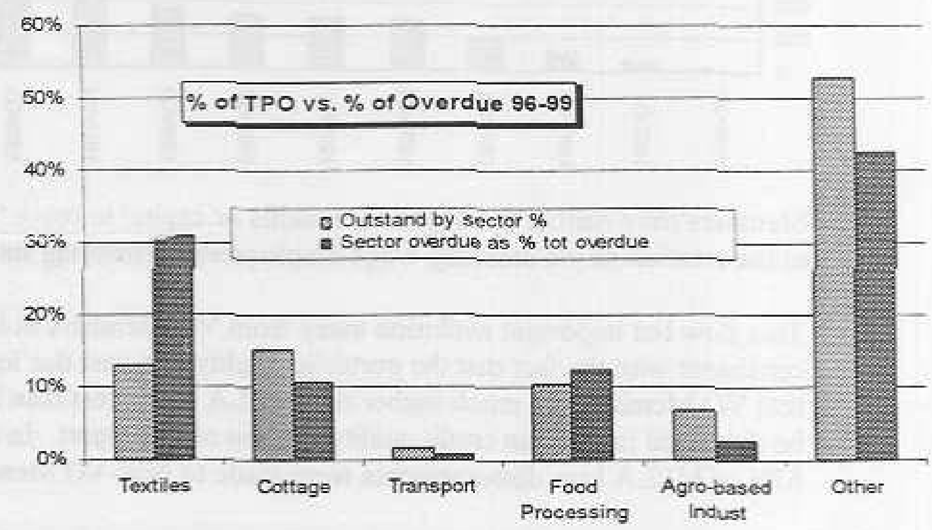


Overdue loans and portfolio at risk (PAR) as a percent of the outstanding portfolio in December 1999 are at 0.6% *(Tk417,778)* and *2.34%(Tk3.6 MM)* respectively. This is not surprising for four reasons. First, MELA lending officers and managers are all from BRAC's RDP program where a strong risk-averse culture prevails. Second, MELA makes up a tiny fraction of the market, thus MELA POs are easily able to cream the best customers. Third, POs are lending primarily to local retailers whose businesses are easier to both find and analyze. And fourth, larger loans are only made to businesses with substantial collateral, and the loan sizes disbursed are far smaller than the businesses can profitably absorb.

Although delinquency is low, it is still important to analyze why it is occurring, and whether there are any patterns or concentrations of 'risky' loans. Shorebank's five main findings are summarized below.

<u>Most 'risky' loans are in the hands of former VO members</u>

Since 1996, 40% of the value of all loans disbursed has been to former VO members, yet this group holds 72% of all loans at risk. It is likely that this is a function both of unsatisfactory borrower selection (i.e. not rejecting borrowers outright), as well



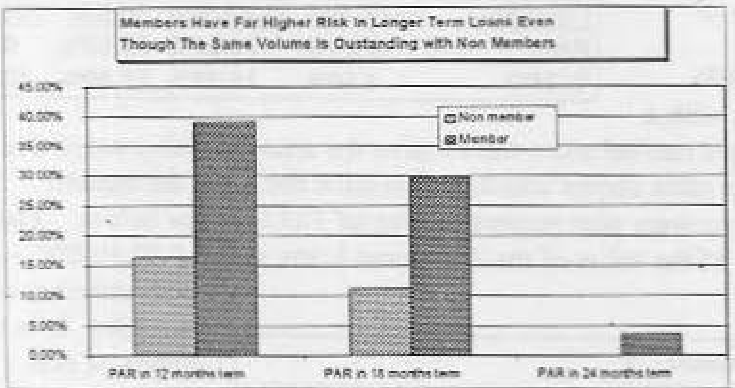
as inadequate business analysis (especially in terms of cash flow and debt service coverage) and monitoring. VO members have historically handled far less cash at any one time with more frequent repayment periods. The larger MELA loan disbursements and the less frequent repayment period contribute to their inability to manage on time repayments.

<u>Most overdue loans are found in the 'other' category</u>

The "other" category is made up primarily of groceries, restaurants and hotels. While it is not surprising given the total TPO in this sector (53%), we believe it should be lower given that these businesses are local retailers whose businesses should be relatively easy to analyze and monitor.

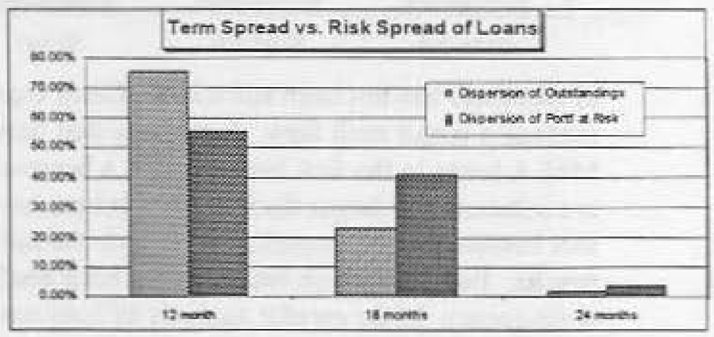
<u>The textile sector has disproportionately more risk</u>

The textile sector has disproportionately more risk (30% of overdue loans) relative to its size in the outstanding portfolio (13%). Most (9%) of the risky textile loans have a term of 18- months. Since late 1996, former VO members make up 75% of the number of textile sector loans disbursed. Based on discussions with ten district managers, the handloom business is the most risky subsector in the textile group. The food-processing sector has a slightly higher risk than its weight of TPO. Agro-based and cottage industries hold less risk relative to their weight in the portfolio. Yet, surprisingly, many district managers mentioned agro businesses as being one of the higher risk areas to lend in. The evidence, however, for the category as whole, does not bear this out. Cottage industry, a productive sector with significant job creation potential, has far less 'risky' loans outstanding (10%) compared with its weight in the TPO (15%). An effort to grow this sector will improve both MELA profitability and it development impact.



<u>There is a disproportionate concentration of risk in longer-term loans to VO members.</u>

All 'risky' 24 - month loans are in the hands of VO members. Non-VO members do not have any delinquent loans in this category, despite the outstanding 24-month



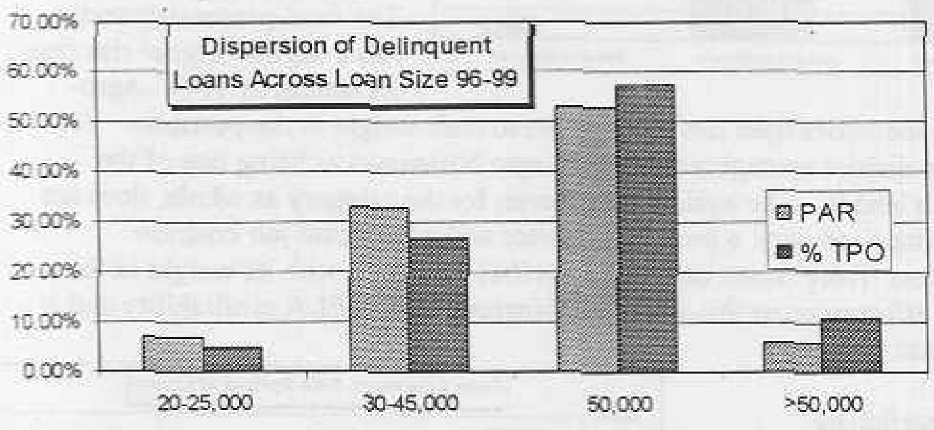
portfolio being split more or less equally between these groups. 18-month loans show similar trends in that former VO members hold three times as much or the 'risky' portfolio in this category. The chart above shows that both members and non-members have roughly the same outstanding taka in longer-term loans. Thus, all else being equal, we would expect these larger businesses to display similar delinquency trends. The chart above shows this is not the case. The problem is not simply one of proportionately higher delinquency in longer term loans (as the table below would suggest). Rather, it rests with both borrower selection and the structuring of the longer-term debt to fit the nature and cash flow of the business.

Smaller loan sizes (<Tk45,000) have proportionately higher delinquency

This surprising finding has a MELA corollary: larger loans (> Tk50,000) have relatively lower delinquency. Even more startling is that, in absolute terms, there is 6% of value of delinquent loans in the above Tk50,000 category and 7% in the > Tk25,000 category (see adjacent table). All delinquent borrowers in the <Tk25,000 loan size group are members. In the >Tk50,000 loan size group, delinquency is evenly split between members and non members.

Loan Size	20-25,000	30-45,000	50,000	>50,000
PAR	7.00%	33.00%	53.00%	6.00%
% TPO	4.90%	26.69%	57.50%	10.91%

The chart shows that since 1996 *loans disbursed to borrowers with a* loan size below Tk45,000 have carried more risk relative the amount disbursed in the same loan size category. The table shows which sectors have the most delinquent outstanding (taka) among borrowers who received a loan of Tk45,000 or below. The table below shows that most of the value of the delinquent loans in the < Tk50,000 – disbursement size category is in the hands of non members.



Extensive discussions with MELA field staff *as well as a visit to* two branches lead Shorebank to believe that business analysis of members has not been sufficient. Good character is not a substitute for being able to manage a larger cash flow. It is likely that certain members should never have received MELA loans in the first instance (i.e. a borrower selection problem). Even 'small loans' are substantially larger than what members have ever handled in the past. It is unlikely that borrowers can immediately absorb the full loan amount, and diversion of funds results. Fund diversion was cited by both head-office and field staff as another cause of delinquency. More careful analysis of loan use and appropriate loan size is needed.

Where loans are made, more frequent repayment periods (e.g. bi-weekly) will reduce cash flow risk.

MELA Future Opportunities and Issues

The constraints on the MELA program are staff lending skills, culture and program design constraints that are internal to BRAC, not external market constraints. As has been demonstrated over the past three years, there is a very substantial untapped market in rural (and probably in urban) markets for small business loans between Tk25,000 and Tk200,000. The primary barrier that MELA must wrestle with is developing an ability to recruit, train and retain capable MELA lending staff. The business analysis skills that is required of a MELA loan officer are not the traditional VO organizing skills that has served BRAC's VO lending program so well in the past.

Finally, BRAC must continue to wrestle with raising capital funds necessary to support the continued growth of the MELA program. MELA has already used significantly more than the Tk100 million that was originally set aside for its initial development. It will be easily possible to grow the MELA portfolio to Tk300 million. It is beyond the scope of this review to evaluate alternate paths of capital raising, but there are several possible that are being currently pursued by BRAC management.

Recommendation: MELA

Shorebank has furnished a comprehensive set of recommendations to MELA management during a visit earlier this year. Many of these recommendations are already in the process of being implemented. For the purposes of this report, we would like to reiterate three of them:

1. BRAC should develop new ways to both recruit business analysis skills from outside of BRAC as well develop those skills with current BRAC staff, so that loan officers can lend to more complicated productive businesses that have potential for larger job creation among wage earners.

2. MELA management should work hard to streamline the lending process (e.g. reduce the time from loan application to approval and disbursement which is now far too long), as well as develop new products to meet market demand.

3. A thorough market analysis of key productive sectors in MELA's target area should be undertaken so that lending officers can 1) develop appropriate products; 2) be strategically guided towards the opportunities that deliver the greatest development impact for the region, and 3) reduce underwriting risks. A focus on specific sectors will also help to reduce underwriting risks.

5.2 BRAC Urban Lending Program

The Urban Lending Program, modeled on BRAC's rural program, is not funded out of the RDP budget. It began in 1996 when BRAC made the decision to extend its poverty alleviation program to urban areas with the intention of having an impact on urban poverty among squatters. In Dhaka alone, around 33% of the city's 10 million population, live in as squatters (on government or corporation owned land) or slum dwellers (private landlords). The need for finance among these urban poor workers is currently unmet. There is thus enormous potential for growth of the Urban Program.

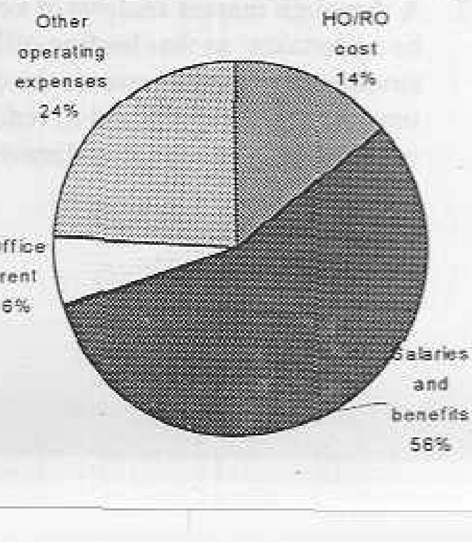
Urban Lending Program	Dec-98	Dec-99
# Members	*40,973*	*96,259*
% Growth in Members		135%
% Borrowers	39%	61%
Per Member Net Savings	Tk51.34	Tk81
Total Principal Outstanding	Tk 29,065	Tk 161,141
Growth in TPO		454%
Savings/TPO	43%	51%
No past due	93%	99.8%
Average loan size	Tk 3,783	Tk 4,800
Growth in avg loan size		27%

This urban program, which had *18,000* members in *10* branches as of November *1997*, more than doubled its membership base to 40,973 December 1998. By December 1999, the Urban Program had close to 100,000 members in 30 branches – a 135% increase in a period of 12 months. These 30 branches make up 4 larger area offices in Dhaka, Chittagong, Rajshahi, and Kulna. Currently, the plan is to grow by 50% to 150,000 members by the end of 2000, and to keep growing at around that rate.

Lenders worked hard to increase principal outstanding by 454% over the past year, while maintaining a high portfolio quality (99.5% of borrowers are 100% current). The portfolio at risk for the urban lending program is 1% of principal outstanding or Tk600,000. In January 2000, there was a substantial worsening of the absolute number of borrowers who did not make a single payment in the month (427 in December vs. 691 in January). This is worth investigating. Not surprisingly, almost 100% of the *delinquency is in Dhaka, as it is the oldest program, and delinquency usually takes a* while to manifest.

The sharp increase in portfolio growth was driven both by the 135% increase in membership and, a 27% increase in the average loan size to Tk4,800 in December 1999. Currently, approximately 60% of members are borrowers, which represents a 100% increase over a year ago. The total saving to outstanding ratio is 50% and is expected to increase substantially with the introduction of three new special

Breakdown Of Urban Program's Operating Costs (Excluding LLP at 2%)



savings products. Overall program sustainability for 1999 is 43%. A breakdown of the main costs incurred by the program appears is the chart above.

Barring an increase in the interest rate, the Urban Lending Program must focus on getting is administrative expenses/average portfolio ratio down in the shortest possible time if it wishes to achieve sustainability within a year. This will happen much faster if the average balance per loan increases, the borrower/member ratio rises from its current 60% level, the program benefits from repeat customers who take up less staff time, and if there are very few problem borrowers that takes up the time of staff (i.e. very low delinquency).

Three main variables that drive efficiency in an MFI are:

- The average wage paid to staff
- The average balance per loan or average loan outstanding
- The number of clients per staff member.

The main drivers of sustainability (which, in turn depends on efficiency) are the Portfolio Yield (interest income and fees/average portfolio outstanding) and the administrative expenses/average portfolio outstanding ratio. The former should rise and the latter should fall as an organization achieves sustainability.

Finally, it is worth noting that the constraints to the Urban Program's growth will not be market potential. There is more demand out there than it can ever hope to satisfy in the near term. The constraints the program will face will be internal (i.e. how fast can it afford to grow given its funding constraints), and external (e.g. the politics of forced removal of squatters). To date, the program is performing well on both these fronts by improving cost recovery, growing fast, keeping a high quality portfolio, and liaising with government to deal with the external concerns that affect the stability of the program.

5.3 Suggestions for Developing Line Staff and Management

BRAC has made some improvement in the past year in developing another tier of senior management. Four senior regional managers now oversee the *all* the regional offices *10-12* regional offices each. At present, it appears that they are reacting to daily situations in the regions as they arise, rather than following a strategic approach to deal with opportunities and challenges in an ex-ante sense. They should also be developing a serious of key indicators to track performance and compare performance among region.

One area where there is room for major improvement is in changing the culture of head-office mid and junior level staff from being data capturers, to being more analytical. In other words, making the numbers *mean* something. MELA, for example, should be able to analyze the changing trends in its portfolio along with the changes in delinquency instead of reporting raw numbers for each month and each sector independently. Without this kind of approach, senior managers can never be asking the right questions about how to improve the program further. The problem is similar in nearly every department where the head of the department is almost the only person doing some level of analysis.

Recommendations: Developing Staff

1. We recommend that the senior regional managers get training in analysis so that they can better understand and analyze trends that are happening in their group of regions. This will also help them be more strategic about the direction, support and advice that they give regional managers.

2. We also recommend that:

- Senior managers receive support and training in how to grow and mentor staff
- Mid and junior level staff receive training in analysis pertinent to their work area
- Reporting formats and performance incentives at all levels should reinforce growing BRAC's staff analytical and strategic skills.

At a branch level, the suggestions in the section on 'changes necessary for BRAC branches to become profit centers' outlines some of the areas where BRAC needs to focus its field staff development. Both branch managers and loan officers need to understand the key drivers of development impact (i.e. reaching the poor), and profitability. An incentive system should reinforce the performance goals of the organization

5.4 Repayments to RCP by BRAC for the HO Building

BRAC borrowed Tk150 million from RDP for the purposes of building the BRAC Center building. As per the agreement, Tk15 million was repaid to RCP in June of 1997, and another Tk30 million has been paid in two six-monthly installments. As at June 1998, Tk105 million remained outstanding. Since then, three additional installments of Tk15,000 each have been made leaving an outstanding loan balance of Tk60,000 which will be repaid over the next two year.

6. Risk Management, Capital Adequacy and CAMEL

Managing risk is complex for any financial organization. It involves a continuous process of identifying, measuring, monitoring and managing the potential for adverse events with negative consequences. BRAC now has a portfolio of over $135 MM in loans and, the value of its total assets is around $165 MM. Many regulated banks in the developing world are less well capitalized. This section of our report focuses on BRAC's understanding of the importance and value of comprehensive financial and risk management, and its approach to managing some of its risk, to safeguard those assets and *deliver development impact outcomes as per its strategic commitments.*

6.1 Background on the Use of CAMEL Ratings

As background for the reader, we first provide a brief overview of a generic risk management process as a context to briefly evaluate BRAC's approach in this regard.

Risk management is about protecting an organization from undesirable downside risks and enabling it to take advantage of upside opportunities. Key financial risks MFIs face include: credit risk, interest rate risk, liquidity risk, funding risk, and currency risk. Non-financial risks include: operational risk, fraud, fiduciary risk, reputation risk, new product risk, strategic risk and legal and compliance risk.

To design a risk management system, an organization goes through a process of:

- Identifying, assessing, and prioritizing the risks;
- Developing strategies to address them (accept, mitigate, eliminate, transfer)
- Designing cost-effective controls to monitor or reduce them (e.g. policies and procedures, management reporting, technology, and analysis);
- Assigning clear responsibility for each risk
- Testing to see whether the controls work

While BRAC has clearly done this in relation to aspects of credit risk and fraud risks, its approach to other key risks has been less comprehensive. This is because BRAC did not need to worry about liquidity risk much before it introduced its voluntary savings products. Nor did it need to worry about funding risk (asset-liability risk) while funds from donor sources and internally generated revenues were adequate for its projected growth. However, this is no longer the case. The introduction of its special savings products, and its projected growth trajectory will increase the need to raise funds from external sources. How BRAC manages the challenges and risks associated with being more 'market driven' will determine its success in the future. Fraud and operational risks also tend to increase as organizations grow larger and new products (like the special savings products) with fraud 'loopholes' appear. Since many of these risks tend to work off and impact one another, it becomes necessary to look at key risks comprehensively with the organization.

Institutions that effectively manage risk share several elements:

- Active board and senior management oversight;
- Adequate policies, procedures, and limits;
- Adequate risk measurement, monitoring, and management information; and
- Comprehensive internal controls.

Again, for credit risk, BRAC has done very well against most of these measures, although there is room for improvement (e.g. in respect of improving delinquency management and reducing portfolio concentrations). For other key risks, this is still to be done. A risk management framework is a tool for MFI managers to acknowledge, understand and develop strategies and controls to deal with different risks, their potential impacts, and how they may interact with one another on a systematic basis.

Risk management is not an event.

It is an organizational <u>culture</u>, which embraces the continuous and systematic anticipation of things that my 'go wrong' so as to minimize the negative impact on the MFI and its customer base. It is a culture of learning, adapting, managing and evaluating identified risks. Managing risk successfully creates value for an MFI. Not managing risks destroys value.

6.2 A Discussion of CAMEL and BRAC's Response

[Note: While it is beyond the scope of this review to do a CAMEL analysis, we provide BRAC's response to each of the evaluation areas listed below}

One of the main functions of classical risk management is to protect and help ensure the financial viability and managerial soundness of an organization. The North American bank regulators adopted the CAMEL methodology to review and rate five areas of financial and managerial performance: <u>C</u>apital Adequacy, <u>A</u>sset Quality, <u>M</u>anagement, <u>E</u>arnings, and <u>L</u>iquidity Management. More recently a "<u>S</u>", which represents 'sensitivities', has been added onto the CAMEL acronym.[vii]

If any of the above areas are not managed adequately, risk to the financial and managerial soundness of the financial institution is threatened. For example, not managing the loan portfolio (the biggest asset base of MFI's) results in credit risk. Poor cash flow planning increases liquidity risk. It is useful for BRAC, and indeed all MFI's, to consider using a CAMEL type approach on a systematic basis, not only for their regulators (if applicable), but as a tool to help monitor and manage risk in their organization.

A CAMEL analysis relies on accurate financial statements, budgets and cash flow projections, portfolio aging schedules, information on funding sources, the board of directors, operations and staffing and macroeconomic information.

A very brief discussion on each of the indicators, as they apply to MFIs, follows:[viii] It is by no means comprehensive, or without shortcomings.[ix] However, it is a risk management tool that BRAC's senior managers and directors should concern themselves since BRAC will need to access substantial amounts of commercial capital in the future to fund its loan growth.[x]

Capital Adequacy: The objective of capital adequacy is to measure the financial solvency of an MFI by determining whether the risks it has incurred are adequately offset with capital and reserves to absorb potential losses. Can the MFI support both the growth of the loan portfolio and a potential deterioration in assets? Can it raise equity in case of losses? What are its policies to establish reserves against the risks inherent in its operations?

One indicator is *leverage*, which illustrates the relationship between the risk-weighted assets of the MFI and its equity. Another indicator, *ability to raise equity*, is a qualitative assessment of an MFI's ability to respond to a need to replenish or increase equity at any given time. A third indicator, *adequacy of reserves*, is a quantitative measure of the MFI's loan loss reserve and the degree to which the institution can absorb potential loan losses.[xi]

- Leverage Ratio = adjusted risk assets / adjusted equity.

  Most banks have a capital ratio of at least 10%. Many have 12.5%. In Latin America, among MFIs, the ratios used in the sample varied between 5.41% to 17 times. The maximum leverage for MFI should be lower than that recommended for commercial banks because: 1) MFIs have a higher volatility in their delinquency rates; 2) operating expenses as a percentage of assets are much higher than for banks, so that when they spin out of control, the impact is much worse; and 3) the ability of the MFI to raise traditional funding is much more difficult. ACCION gives the highest rating to MFIs that have a ratio less than or equal to 6% and the lowest rating to those that have a rating over 10%

- Adequacy of Reserves = actual loan loss reserve (after write-offs) / adjusted LLR

  ACCION evaluates the aging of the loan portfolio, size of the current LLR, the rescheduled loan portfolio and the CAMEL-adjusted historic loss rate and determines what should be reserved. If an MFI reserves 80% of higher of this amount, it gets the highest rating.

-

BRAC's response with comments:

BRAC does not have a formal policy on capital adequacy. The Chief Accountant, who is in essence a financial manager as well, together with the CEO and deputy directors pay great attention to reserving adequately against a potential deterioration in the loan portfolio. There is general acknowledgment that there is a sufficient cushion in the equity base to absorb losses that may arise from other risk, although these have not been identified or prioritized. Currently, BRAC is more concerned with raising additional debt (vs. raising equity). To do this, it has to improve its debt: equity ratio to encourage banks to lend. Currently the debt-equity ratio is around 3%, and banks would prefer that it is be around 2-2.5%. There is thus a need for BRAC to increase its total capital, presumably by improving its retained earnings position. Apart from the debt: equity ratio, and the LLR/Outstanding Ratio, no other ratios are tracked with any consistency.

Asset Quality: The objective of asset quality analysis is to identify, measure and manage / control the quality of existing and potential credit risk associated with the loan and investment portfolios, other real estate owned, and other assets as well as off balance sheet transactions. MFI's hold most of their assets in loans.

For an MFI, the analysis of asset quality is divided into three components: portfolio quality, portfolio classification system, and fixed assets. Portfolio quality includes two quantitative indicators: *portfolio at risk,* which measures the portfolio past due over 30 days; and *write-offs / write-off policy,* which measures the MFI's adjusted write-offs based on CAMEL criteria. The portfolio classification system entails reviewing the portfolio's aging schedules and assessing the institution's policies associated with assessing portfolio risk. Under fixed assets, one indicator is the *productivity* of *long-term assets,* which evaluates the MFI's policies for investing in fixed assets. The other indicator concerns the institution's *infrastructure,* which is evaluated to determine whether it meets the needs of both staff and clients.

Portfolio at Risk = [adjusted portfolio past due > 30 days +loans in legal recovery + rescheduled portfolio 0-30 days] / adjusted gross loan portfolio. ACCION gives the highest rating if the average is below 3%. Most of its eleven programs studied in the sample get the second highest rating for a ratio of less than 6%. The worst rating is 15% or higher.

- Write-offs = adjusted net write-offs / adjusted relevant loan portfolio. Write-offs of < 2% get the highest rating. Write-offs greater than 10% of the loan portfolio get the lowest rating.

BRAC's response with comments:

BRAC portfolio at risk is well defined and it tracks it on a monthly basis at the head-office level. With branch computerization, PAR will be done more frequently at the regional and branch levels as well. Although BRAC's historical loan losses are below 2%, it BRAC does not have a well-defined write-off policy. Write-offs have occurred twice over the past three years. We recommend a formal write-off policy for any loans that are over two years past due. BRAC does not have a policy to manage, replace or expand its fixed assets base. This will be increasingly necessary as branches are opened in new areas etc.

Management. Five qualitative indicators make up this area of analysis: governance; human resources; processes, controls, and audit; information technology system; and strategic planning and budgeting. *Governance* focuses on how well the institution's board of director's functions, including the diversity of its technical expertise, its independence from management, and its ability to make decisions flexibly and effectively. The second indicator, *human resources,* evaluates whether the department of human resources provides clear guidance and support to operations staff, including recruitment and training of new personnel, incentive systems for personnel, and performance evaluation system. The third indicator, *processes, controls, and audit,* focuses on the degree to which the MFI has formalized key processes and the effectiveness with which it controls risk throughout the organization, as measured by its control environment and the quality of its internal and external audit. The fourth indicator, *information technology system,* assesses whether computerized information systems are operating effectively and efficiently, and are generating reports for management purposes in a timely and accurate manner. An analysis of this indicator reviews the information technology environment and the extent and quality of the specific information technology controls. The fifth indicator, *strategic planning and budgeting,* looks at whether the institution undertakes a comprehensive and participatory process for generating short- and long-term financial projections and whether the plan is updated as needed and used in the decision-making process.

BRAC's response with comments:

The importance of improving the information technology system and infrastructure (currently in process) is regarded as important. An improved model for the microfinance program is needed for better strategic planning, budgeting and fund management. Controls are in place for credit risk management, but not for adequate savings risk management at the branch level (e.g. how much cash the branches should have to fund withdrawals etc.). These need to be established. Tested and well-defined processes are in place for credit, but not sufficiently for the soon to be introduced savings program.

Staff development is acknowledged as a priority but no significant processes are in place to grow a second tier of strong managers in nearly all BRAC's departments. This is a key risk for the future of such a fast growing organization.

Earnings. The ACCION CAMEL chooses three quantitative and one qualitative indicator to measure the profitability of MFI's: adjusted return on equity, operational efficiency, adjusted return on assets, and interest rate policy. *Adjusted return and equity* (ROE) measures the ability of the institution to maintain and increase its net worth through earnings from operations. *Operational efficiency* measures the efficiency of the institution and monitors its progress toward achieving a cost structure that is closer to the level achieved by formal financial institutions. *Adjusted return on assets (ROA)* measures how well the MFI's assets are utilized, or the institution's ability to generate earnings with a given asset base.

CAMEL analysts also study the MFI's *interest rate policy* to assess the degree to which management analyzes and adjusts the institution's interest rates on microenterprise loans (and deposits if applicable), based on the cost of funds, profitability targets, and macroeconomic environment.

ROE = adjusted net income / adjusted average equity. *Above 15% receives the* top rating. Less than 5% gets the lowest rating.

- Operational Efficiency = adjusted operational expenses / adjusted average gross loan portfolio. Less than 20% gets the highest rating. Above 50% gets the lowest rating. (In Asia the ratios for operational efficiency are more in the 10% - 12% range for top performing MFIs because the staff costs are far lower than in Latin America)

- ROA = adjusted net income / adjusted average assets. Above 3% gets the highest rating. Less than 1.9% gets the lowest rating.

BRAC's Response

BRAC has begun tracking its ROE and ROA on an annual basis. No clear targets appear to be set. BRAC is also very concerned with operational efficiency and *tracks this ratio quarterly at a head-office level. The regional level receives the* results. BRAC does not review the interest rate on loans in any systematic way.

Liquidity Management The fifth area of the ACCION CAMEL evaluates the MFI's ability to accommodate decreases in funding sources and increases in assets and to pay expenses at a reasonable cost. Indicators in this area are liability structure, availability of funds to meet credit demand, cash flow projections, and productivity of other current assets.

Under *liability structure*, CAMEL analysts review the composition of the institution's liabilities, including their tenor, interest rate, payment terms, and sensitivity to changes in the macroeconomic environment. The types of guarantees required on credit facilities, sources of credit available to the MFI, and the extent of resource diversification are analyzed as well. This indicator also focuses on the MFI's relationship with banks in terms of leverage achieved based on guarantees, the level of credibility the institution has with regard to the banking sector, and the ease with which the institution can obtain funds when required. *Availability of funds to meet credit demands* measures the degree to which the institution has delivered credit in a timely and agile manner.

Cashflow projections evaluate the degree to which the institution is successful in projecting its cash flow requirements. The analysis looks at current and past cash flow projections prepared by the MFI to determine whether they have been prepared with sufficient detail and analytical rigor and whether past projections have accurately predicted cash inflows and outflows. *Productivity of other current assets* focuses on the management of current assets other than the loan portfolio, primarily cash and short-term investments. The MFI is rated on the extent to which it maximizes the use of its cash, bank accounts, and short-term investments by investing in a timely fashion and at the highest returns commensurate its liquidity needs.

- *Productivity of Other Current Assets* =(interest income received on cash and cash equivalents over the past 12 months) / [(average monthly cash +cash equivalents- liquidity cushion) * (av monthly CD rate) + liquidity cushion *average savings rate)}

  The formula for the liquidity cushion is: [operating expenses + financial expenses - depreciation + loan disbursements – loan repayments] /52 * 4.

  ACCION gives the highest rating to organizations that have a 0 – 10% ratio and the lowest to organizations that have over a 50% ratio.

BRAC's response with comments

Sufficient funding to finance the credit program's growth is the number one concern of the accountant / financial manager at BRAC. He is thus very much in touch with the portfolio growth projections in the branches, which are revised on a monthly basis. Ratios and indicators tracked include savings/TPO (as savings is used to fund loan growth) and the growth outstanding.

Although there are not formal written policies, BRAC has learnt on the basis of historical experience how much cash to have on-hand and how much to reserve for times of unexpected need (e.g. during a hartal). Generally, it keeps 1% of assets on call at banks. Five percent of savings are kept liquid at any given time for withdrawals. This will increase by an additional 20% as it introduces its new savings products.

BRAC does not yet have a separate asset liability management function. Informal meetings take place among key senior managers on as 'as needed' basis. BRAC does not yet have a model to help it predict liquidity needs. This is something that they are planning to have in the future. Despite this, BRAC manages its external funding needs and cash flow requirements from the branches by getting regular reports from its regional offices. Everyday branch managers produce a cash flow position report. Funds move on a weekly basis from the regional to the branch level. Head-office adjusts its annual cash flow forecast monthly based on information from operations. BRAC does not have a dynamic liquidity model.

On a more qualitative level, BRAC is making an effort to improve its relationship with key banks and now has access to overdraft facilities, as well as loan finance. This is also very important for liquidity management.

As with all risk management tools, a CAMEL - type analysis is often most helpful when it measures trends and changes in the MFI over time. It will help detect whether operating costs are exploding out of control or decreasing as the MFI rapidly increases is coverage of borrowers. Clearly, some ratios should be tracked very regularly (e.g. portfolio at risk). For others, quarterly ratios may suffice.[xii]

Recommendations: Overall Performance and Risk Management

1. BRAC should develop policies, goals, and targets for each of the major CAMEL areas (qualitative and quantitative), using the ACCION's CAMEL as a guide.

2. BRAC should conduct a full CAMEL-type analysis on an annual basis to assess its performance. This analysis could form part of the external reporting annual report that we recommend BRAC produces.

3. BRAC should pay special attention to managing the risks associated with its asset-liability structure, both in the short term (liquidity risk) and in the longer term, given the changing nature of its liabilities. Although a dynamic liquidity planning model is preferable for day to day management, we have inserted a series of liquidity measures in the attachment for BRAC senior officers to consider using as an overarching management tool. With the introduction of BRAC's savings program and its increasing reliance on commercially based finance, formal policies, systems, procedures and associated accountability for managing liquidity at the branch and head-office level needs to be developed.

4. We highly recommend that BRAC introduces a risk management framework to systematically track and manage the key internal and external risks that it microfinance program faces. We suggest that BRAC begins the process by identifying a senior executive who will be responsible for leading BRAC towards a comprehensive risk management approach, and then picks a couple of key risks to initially focus on.

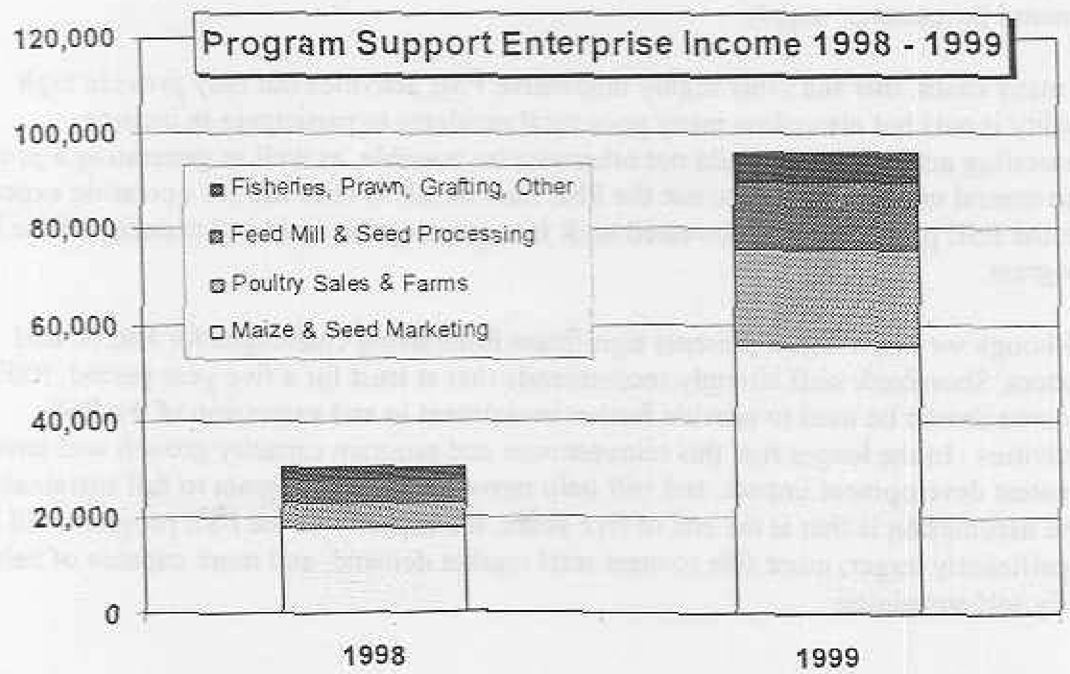
7. Beyond 2000: Moving Toward Sustainability

As the title of this Donor Review suggests, one of the primary challenges facing BRAC as it enters the new century and graduates from RDP IV is the issue of sustainability: the ability to fund operating and loan capital needs as BRAC programs continue to grow.

As was suggested in section 3.1, organizational sustainability is not a straightforward question with a yes or no answer, but rather a continuum of questions and answers that apply differently to different programs and activities. This section should be understood as just an initial glimpse at the issues and possible directions facing BRAC in this area.

Our summary of the question of sustainability is that the microfinance program is sustainable, but still faces the challenging question of obtaining additional loan capital to support portfolio growth. The sector program is not sustainable, and yet is a very important part of the entire development equation. For the sector program, the recommended route is working to obtain continued grant support from external sources as much as possible. If necessary, BRAC can use PSE income to support the sector program, but this is less desirable, at least for the next five years. In our view, the best use of the PSE income is to reinvest in growing the capacity and scale of the PSE programs, for the long-term impact of growing the PSE capacity is much greater for the country than just consuming current PSE profits to run the programs. We also recommend (as we discussed in our 1998 report in detail), that components of technical assistance continue to be 'privatized' wherever it makes sense.

7.1 Sector Programs and PSE Income: A Key Funding Decision



BRAC's sector programs cover a wide range of activities: agricultural extension, social forestry, fisheries, rural enterprise, poultry & livestock, and sericulture. These programs have been primarily supported via RDP IV grant income, and that will continue through the year 2000. Assuming no growth in the program budgets, for the year 2001 the operating budget for these programs is projected to be around Taka 360 million, of which Taka 130 million would be earned through program fees. This will leave a gap of Taka 230 million. At the same time, if BRAC wishes to continue to grow the scale and capacity of the PSE programs—which we believe they should—then there will be an additional capital investment gap of perhaps Taka 100-300 million. The question is how to fill these two gaps in 2001 and beyond? There are two possible answers: continued/additional grant support from external sources and income from the Program Support Enterprise (PSE) activities.

One of the candidates to fill sector program operating income gap is revenue generated by the PSE programs. PSEs provide high-quality inputs to BRAC sectoral programs and customers, and in that process generate profits. In 1999, PSEs generated Taka 85 million in profits, up from Taka 25 million in 1998. The intent for 2000 is that they will generate Taka 200 million, and the hope is that growth will continue.

The Seed PSE program is one of the shining stars of the PSE programs. The seed PSE produces 80 types of seed, and currently provides 60% of its customers with BRAC and locally produced seeds; the remainder is from imports. There are two locations, both of which should be operating at a one-shift capacity by the end of 2001 (they can increase to two shifts of production capacity). 75% of the seed is for vegetable farming; 25% is for maize and rice. The market for vegetable seed is nearly infinite at this point, in that the per capita consumption of vegetables in Bangladesh (at 35 grams per day) is only about 10% of the recommended 350 grams per day, and according to market reports, the demand far outstrips supply.

In many cases, this and other highly innovative PSE activities not only provide high quality inputs but also allow many poor rural residents to participate in income generating activities that would not otherwise be possible, as well as generating a profit. The central question is how to use the PSE income: short term use for operating expenses for the PSE programs, for reinvested back into growing the scale and capacity of the PSE program.

Although we know that it presents significant fundraising challenges for BRAC and donors, Shorebank staff strongly recommends that at least for a five year period, PSE income should be used to provide further investment in and expansion of the PSE activities. In the longer run, this reinvestment and program capacity growth will have the greatest development impact, and will help move the sector program to full sustainability. The assumption is that at the end of five years, the capacity of the PSE program will be significantly larger, more able to meet total market demand, and more capable of being fully self-sustaining.

In addition, we suggest that BRAC investigate the use of debt to expand the capacity of these highly productive enterprises as quickly as possible, for early indications are that the pay-back on investment capital is relatively quick (1-3 years), which would make this a very sound investment and as well as supporting additional sectoral program activity growth.

7.2 Microfinance Program: Operational Income & Debt

As was discussed in section 3.3, the microfinance program has successfully grown to the point that it generates an operational surplus (see detail to the right). This is a remarkable achievement in face of the constant growth, and assuming that the current portfolio quality problem is resolved, this is anticipated to continue.

Program Name	1999 Income or Loss from Operations
RDP	(17,723,851)
RCP	120,792,535
IGVGDP	(5,597,569)
BUP	(25,040,827)
PLDP	2,912,951
PKSF Credit	45,492,710
Total	**119,420,471**

It is proposed in this review that the microfinance operating surplus be used to increase the capital base of the various growing microfinance programs, only some of which have reached the stage where they can generate a surplus. The BRAC Urban Program (BUP) and the IGVGD Program both continue to need subsidy, and are reaching new and important low-income populations, and so utilizing the overall microfinance surplus in this way seems to be very appropriate. This operational surplus will not be sufficient to respond to the very substantial, and much greater capital-funding requirements that the MFI program will satisfy if it is to be able to continue to respond to rising borrower needs. At a minimum, to satisfy current borrower capital needs, BRAC needs at least Taka 3 billion. To respond to future capital needs, BRAC will have to approach external sources of funds such as PKSF and other potential lenders, as well as substantially grow its savings programs.

9. Recommendations for Additional Technical Support

BRAC's microfinance program has successfully entered the millennium with over three million members and $165 million in assets -- a very large microfinance program by any standards. While its development impact and financial performance to date is very impressive, especially given its rapid growth over the past ten years, there are several challenges that BRAC now needs to face. These challenges arise from both external and internal forces: Externally, the microfinance environment in Bangladesh has become increasingly competitive and market-oriented, forcing BRAC to adapt to international standards of performance reporting and risk management. Internally, BRAC's fast growth has left a competent middle management vacuum in nearly all of the programs departments. *We discussed these human capital dimensions at length in our 1998 Annual* Review Report.

We recommend that future technical assistance focus on two aspects:

Risk Management Framework

The development of a risk management framework for BRAC which management can use as a tool to acknowledge, understand and develop policies, strategies and controls to deal with different risks (both internal and external) that MFIs face, their potential impacts, and how they may interact with one another on a systematic basis. Such a system should have regular performance reporting, and accountability should be assigned to specific individuals and levels for managing the various aspects of the program.

Establishing a framework is especially important given the new voluntary savings *products that BRAC is introducing, and the increasing extent to which it is relies on* market-based external sources of funds to finance the program's growth.

BRAC will also have to invest in the necessary technology, systems and skill upgrades for staff to support the system. A business-planning model, and a liquidity management model are two examples of system upgrades which we feel are necessary. A new branch rating system is another. Training in rolling budgets and MFI-centered asset-liability management will also prove useful in the 'new' environment.

Human Capital

The second major area of focus is on human capital. BRAC needs to invest in appropriate training for all levels of management and staff throughout the organization. At a head-office level, for example, mid level staff and managers should be able to analyze the programs for which they have responsibility. Overall, we continue to believe *that BRAC's management structure and capacity is stretched very, very thin.*

In general, analytical ability is lacking throughout the organization except the most senior level. Staff is excellent at following instructions, capturing detail, and responding to the field. They are not in most respects true 'business managers' focusing on strategy, inputs, costs, outputs and impact. This training will need to be department specific. Sector managers need different skills than PSE managers, and both need different skills than MELA loan officers who are targeting high impact productive enterprises without knowing properly how to analyze their businesses.

We also believe that it will be useful for all senior managers to attend a course on how to mentor and grow staff. BRAC's system of incentives throughout the organization should reward managers who perform well in this area. At the moment, it is a culture of "sink or swim" and not one that is focused just as much on growing "human capital" as it is on growing and deploying "financial capital". This imbalance is not healthy, for it is the quality of the human capital in the system that will determine the health and performance of the financial capital.

Funding Suggestion:

To safeguard its initial investment and to support the ongoing institutional capacity building of BRAC, we suggest that the donors allocate a moderate amount of funds for *two institution-building initiatives each year, such as those suggested above or others.* We also recommend that BRAC provide a 50% match for any new donor funding which is allocated towards building the management strength of its programs.

10. Summary of Major Recommendations

[Please note that a summary on BRAC's actions taken following Shorebank's 1998 recommendations are included as an attachment].

TOP FIVE RECOMMENDATIONS:

1. **Analyze and Reduce Delinquency**. Conduct a thorough analysis of the causes of increased delinquency (6% -7% increase since June 1998) and develop a concerted, high-priority strategy to reduce it.
2. **Create Overall Risk Management System**. Introduces a risk management framework to systematically track and manage the key internal and external risks that it microfinance program faces.
3. **Focus on Savings Program Expansion**. Reduce interest on current account savings. Set up systems to manage all risks in the program (skill related, cost related, reputation related, liquidity and fraud related etc.)
4. **Create Microfinance Advisory Board**. Set up an external advisory board to build the institutional capacity and enhance the risk management of BRAC's $165 million (and fast growing) micro program.
5. **Grow Organizational Analytical Capacity**. To take advantage of the system wide improvement in the quality of portfolio and borrower data available, BRAC should create a small financial and business Research Unit that will focus entirely on providing business and financial analyses for senior and regional management.

SUMMARY OF KEY RECOMMENDATIONS

Recommendations: Portfolio Management

1. We strongly recommend that BRAC do a thorough analysis of the causes of increased delinquency (6% -7% since June 1998). Such an analysis will help BRAC determine to what extent delinquency is a function of: borrowers receiving larger loan sizes; borrowers receiving double loans, borrowers who were refinanced as a result of the flood, concentrations in particular sectors; delinquency concentrations in branches that were not hit by the flood or hartals etc. Without this information, BRAC is ill prepared to be able to know either the real cause of delinquency, or how to address it. This is our number one recommendation regarding BRAC's loan portfolio quality for the year 2000.

2. BRAC should develop a much deeper market and business insight into higher risk loan sectors (fisheries, food processing, sericulture and housing), and sectors where the portfolio has become concentrated (e.g. in rural trading and food processing).

3. BRAC must breaking its "catch all" rural trading and food processing categories down into its significant constituent parts to support better understanding on the risks inherent in both these sectors, particularly rural trading which has almost 50% of all

outstanding. As it stands, the rural trading category is effectively useless for any analytical purposes and defeats the whole point of having sector differentiation in the first place.

4. BRAC needs to develop increased staff capacity and a formal process for overall portfolio risk analysis. We recommend that, to begin with, Senior Regional Managers be trained in basic analysis skills. They should be responsible for producing quarterly analyses the regions they are responsible for, in much the same manner as Shorebank has done for BRAC's entire credit program. As a start, taking each portfolio related chart we have done in this report and updating the indicators for their regions and analyzing the changes on a quarterly basis will be a tremendous start as no similar systematic analysis is taking place currently.

Recommendations: Loan Loss Reserve

5. As a general rule, BRAC should retain its system of reserving 2% of disbursements across all branches as it does at a head-office level. We recommend though that branches contribute an amount that reflects their performance, rather than a flat 2% of disbursements. Some variation of the system we used above (i.e. 100% of NIBL and over 100 weeks past due) is suggested. Each branch should be required to prepare a one page summary statement of the loan loss reserve on a quarterly basis that reconciles the balance sheet figure with the treatment of various loans. Branches will need a quarterly APO to do this –the new computer system (already in 60 branches) should facilitate this process.

6. We also recommend that any loan that is over two years past due plus all NIBL should be formally written off the balance sheet. BRAC should continue efforts to collect these loans should this be possible and any income should be shown as a recovery, but these loans should not be carried on the balance sheet.

Recommendation: 'Old' Savings Products

7. We recommend that BRAC retain its forced weekly savings but rename it as a "Mandatory Pension Contribution". We also are in favor of BRAC continuing to take 5% off the top of loans (i.e. compulsory savings), but rename this as "Loan Deposit Requirement". This will reduce confusion between the new savings products that are being introduced and which are voluntary, and the old mechanisms where BRAC forced members to make savings deposits.

Recommendations: Special Savings Products

8. **Current account product challenges**. This product allows both for very small savings to incrementally build an asset base for the poor, as well as providing flexibility of withdrawals for those who prefer to make larger deposits in a secure institution where they have access to the funds. The challenge for BRAC with respect to this product will be fourfold.

- Manage the potential for fraud, which is far larger with this product than with other products where the term and amounts deposited are fixed.
- Manage the demands on administrative staff if the number of transactions among even a portion of these savers is high.
- Manage the higher transactions costs associated with more frequent withdrawals and smaller deposits; and
- Manage the liquidity at the branch level as it is unclear when, how often, and how much current account savers will withdraw.

Recommendation: New Savings Products

9. Reduce the Interest Rate on Current Accounts. This is the most pressing recommendation in this section given that it will be very difficult to decrease rates once savers have received a higher rate. The interest rate on this product is too high, given both the transaction and other costs to BRAC as well as the competitive market situation where people pay the bank a fee for a current account;

10. We recommend that BRAC do a thorough cost analysis of its savings delivery system. Understanding the cost of savings products allows the microfinance institution to adjust both the product and the delivery system in order to enhance their contribution to overall financial performance. A study of the full costs of administering a savings account service could be structured by dividing the costs into five major groups: [xiii]

    - financial costs (i.e. interest paid on deposit,
    - variable operational costs (transaction costs),
    - fixed operational costs (prorated branch office expenses)
    - indirect costs (general overhead of the bank's head office), and
    - organizational costs (onetime setup costs).

11. BRAC must reorient its lending officers (currently BRAC's savings officers as well) who are used to chasing up services charges, loan delinquencies and forced weekly savings, to have a 'hands-off' approach towards their new savings customers, who may or may not have a delinquent loan outstanding.

12. Head-Office will need to develop and provide resources for the implementation of a strategic marketing plan. The savings environment in both urban and rural areas is becoming increasingly competitive. Being 'first' in the market will be an enormous advantage, as long as products are competitive, and customers receive excellent customer service. POs will need to be trained in the marketing of savings products. For example, they will need know the alternatives offered by banks so that they can

be convincing when associate members ask them the advantages of banking with BRAC vs. a bank (i.e. location, interest on current savings, monthly product etc.)

13. Risk Management and MIS: This is essential for liquidity management, fine tuning and developing new products, marketing, tracking performance, cost management, and fraud minimization. Relevant indicators (individual behavior, market, cost, productivity and profitability, indicators, both at the individual saver level and program wide) need to be tracked and analyzed on a regular basis. Systems need to be set up to prevent and deter fraud. Managing costs, liquidity (idle cash vs. not having enough on hand when savers want to withdraw), and fraud will all be major challenges. BRAC's reputation will be on the line if it fails on its savings promises.

14. Management should set clear performance expectations and should reward staff accordingly. The system should be simple and well communicated. For example, if staff are expected to increase branch profitability by raising savings, then indicators should reflect the productivity of staff in this regard, and the branch's cost of funds. We thus recommend that BRAC increases its transfer price for head office funds to branches from 9% to 12%, otherwise there is no incentive for branches to raise fixed deposits at 9%, and very little incentive for them to raise long term savings at 8%.

Recommendations: Sustainability

15. BRAC should track the operational and financial self-sufficiency of its credit program on a quarterly basis. Branch managers should also compute these ratios and should be asked to report on any changes in trends. Branch managers should also be calculating their portfolio yield and cost of funds ratios on a monthly basis to reinforce the priority that BRAC head-office is attaching to sustainability. There should a placard on the wall at branches that talks to sustainability and cost recovery issues in much the same way as one exists for activity and delinquency reporting.

16. We recommend that BRAC pays vigilant attention to the administrative expense to average loan portfolio outstanding ratio as operating costs tend to go out of control as fast growth and expansion takes place. Without tracking the productivity and efficiency of spending, it is too easy to rationalize all expenses as being due to growth and expansion. We further recommend that the administrative costs be broken out as above, with an additional category for costs associated with the new savings products.

17. We recommend that each program should be defined with enough clarity so that it is clear as to whether or not the program is operating at a loss or a surplus. After that reality is ascertained, then it is up to the larger organization (BRAC in this case) to decide the possible use of any program surplus, or the justification for the organization absorbing any loss

Recommendations: Profit Centers

18. A three step process as discussed above is recommended to reinforce the transition of branches into profit centers: 1) branches' income statement should reflect a loan loss expense that bears a relationship to the risk in the relevant branch's portfolio; 2) key branch profitability ratios should be track and analyzed on a monthly basis and given the same importance as activity and delinquency currently have; and 3) head-office should develop a carefully thought through system of incentives to reinforce and align staff behavior with the objectives of the program.

Recommendations: Cost Recovery Sector Programs.

19. BRAC should track its activity carefully so that it knows how much to collect, from whom and when. None of these variables should be negotiable. Service charges should be as vigilantly collected as loan payments. Service charge collections are the program's only current source of income.

20. To the extent possible, service charge payment should be linked to value received by the customer. At present, all participants are expected pay and there is no check on the quality of the assistance they are getting, or if they are getting it at all. They generally will not report – out if the service is inadequate, for fear of not getting a loan or input supplies in the future.

21. BRAC needs to better understand the costs breakdown of its sector programs and how they vary with expansion. Although we have not studied the breakdown, our preliminary research tells us that costs can be cut without compromising program quality significantly.

22. We believe that all services that can be privatized, should be privatized, both for efficiency and sustainability of the program, and because BRAC's task is to build wealth among, and transfer skills to, its target population.

23. Of the above, two recommendations stand out: 1) understanding and analyzing sector costs, and 2) understanding the value added by the services delivered and what customers are willing to pay for them. A well-developed reporting system (MIS) is clearly essential for improved management of this program. Finally, since the sector program only covered 20% of their costs in 1999 (and this worsens for 2000), the obvious question is what happens beyond 2000 when there is no more donor money?

Recommendation: Financial Model

24. In 2000, BRAC should begin the process of designing and implementing a new financial model, one that can help senior management predict some of the interaction between this emerging and more complex financial structure.

Recommendation: Risk and Growth Management and External Reporting

25. Shorebank would recommend that BRAC develop an external report on its microfinance program that is for all intents and purposes a "bank" report, with all of the trappings of a traditional bank. At the same time, we would recommend that BRAC create an Advisory Board of internal and external advisors that are skilled in finance and banking that would serve as an informal "Board of Directors" for the BRAC MFI program.

Recommendations: MELA

26. BRAC should develop new ways to both recruit business analysis skills from outside of BRAC as well develop those skills with current BRAC staff, so that loan officers can lend to more complicated productive businesses that have potential for larger job creation among wage earners.

27. MELA management should work hard to streamline the lending process (e.g. reduce the time from loan application to approval and disbursement which is now far too long), as well as develop new products to meet market demand.

28. A thorough market analysis of key productive sectors in MELA's target area should be undertaken so that lending officers can 1) develop appropriate products; 2) be strategically guided towards the opportunities that deliver the greatest development impact for the region, and 3) reduce underwriting risks. A focus on specific sectors will also help to reduce underwriting risks.

Recommendations: Developing Staff

29. We recommend that the senior regional managers get training in analysis so that they can better understand and analyze trends that are happening in their group of regions. This will also help them be more strategic about the direction, support and advice that they give regional managers.

30. We also recommend that:

- Senior managers receive support and training in how to grow and mentor staff
- Mid and junior level staff receive training in analysis pertinent to their work area
- Reporting formats and performance incentives at all levels should reinforce growing BRAC's staff analytical and strategic skills.

Recommendations: Overall Performance and Risk Management

31. BRAC should develop policies, goals, and targets for each of the major CAMEL areas (qualitative and quantitative), using the ACCION's CAMEL as a guide.

32. BRAC should conduct a full CAMEL-type analysis on an annual basis to assess its performance. This analysis could form part of the external reporting annual report that we recommend BRAC produces.

33. BRAC should pay special attention to managing the risks associated with its asset-liability structure, both in the short term (liquidity risk) and in the longer term, given the changing nature of its liabilities. Although a dynamic liquidity planning model is preferable for day to day management, we have inserted a series of liquidity measures in the attachment for BRAC senior officers to consider using as an overarching management tool. With the introduction of BRAC's savings program and its increasing reliance on commercially based finance, formal policies, systems, procedures and associated accountability for managing liquidity at the branch and head-office level needs to be developed.

34. We highly recommend that BRAC introduces a risk management framework to systematically track and manage the key internal and external risks that it microfinance program faces. We suggest that BRAC begins the process by identifying a senior executive who will be responsible for leading BRAC towards a comprehensive risk management approach, and then picks a couple of key risks to initially focus on.

Recommendation: Technical Assistance

35. We recommend that BRAC seek technical assistance support for the creation of a risk management framework that can more effectively manage the more complex risk and financial structure of the MFI program.

36. In addition, we suggest that BRAC invest in a wide-ranging but ongoing training program aimed at developing increased analytical capacity in mid- and regional level managers. This general skill is sorely lacking in the BRAC culture, and that absence places the organization at risk. This training will vary depending on whether the target management group is responsible for portfolio management, PSE management, savings products, etc.

Appendices

Appendix 1: Self-Sufficiency Income Stmt. Adjustments

BRAC
Micro Credit Program
Statement of Income and Expenditure
For the year ended December 31, 1999

	Taka
Income :	
Financial Income	
1. Service charge on loan	1,378,922,205
2. Bank interest income	93,918,517
3. Other project income	45,644,558
Total Income	1,518,485,280
Financial Cost of Lending :	
Interest paid on deposits & loans	233,452,233
Gross Financial Margin	1,286,033,047
Provision for Loan losses	219,965,842
Net Financial Margin	1,066,067,205
Expenditure	
1. Village organization formation	2,936,911
2. Salaries and Benefits	648,651,522
3. Traveling & transportation	65,160,632
4. Staff training and Development	27,104,115
5. Office Rent	17,188,243
6. Utilities	19,985,520
7. Stationeries	44,722,791
8. Maintenance	26,104,425
9. General Expenses	16,441,667
10. VO members insurance benefit	26,138,400
11. Depreciation	19,248,702
12. HO Logistics and Manage ##	40,432,607
Total Expenditure	954,115,535
Net income from Operation	111,951,671
Add: Income from Grants for cred	53,241,322
Balance carried to Balance Sheet	165,192,993

BRAC
Micro Credit Program
Adjusted Statement of Income and Expenditure
For the year ended December 31, 1999

	Taka
Income :	
Financial Income	
1. Service charge on loan	1,378,922,205
2. Bank interest income	93,918,517
3. Other project income	45,644,558
Total Income	1,518,485,280
Financial Cost of Lending :	
Interest paid on deposits & loans	233,452,233
inflation adjustment expense (equity	210,678,009
inflation adjustment income (fixed a	(33,873,943)
net inflation adjustment	176,804,066
subsidized cost of funds adj exp	62,152,578
TOTAL Interest and Fee Expense	472,408,877
interest (and fee) margin exclud.loan	1,046,076,403
Provision for Loan losses	(125,111,000)
Net Financial Margin Including loa	1,171,187,403
Expenditure	
1. Village organization formation	2,936,911
2. Salaries and Benefits	648,651,522
3. Traveling & transportation	65,160,632
4. Staff training and Development	27,104,115
5. Office Rent	17,188,243
6. Utilities	19,985,520
7. Stationeries	44,722,791
8. Maintenance	26,104,425
9. General Expenses	16,441,667
10. VO members insurance benefits	26,138,400
11. Depreciation	19,248,702
12. HO Logistics and Management	40,432,607
Total Expenditure	954,115,535
Net income from Operation	217,071,868
Add: Income from Grants for credit	53,241,322
Balance carried to Balance Sheet	270,313,190

Below are the specific adjustments that were applied to the income statement above. As mentioned in the main body of this report, we use a higher cost of funds adjustment for the subsidy dependence index calculation (SDI). (BRAC's program would still be financially self-sufficient even with the higher cost of funds applied to its debt, but not when it is applied to its equity base as well as the SDI calculation in the main body of the report implies).

Inflation Adjustments at 6% for 1999			
inflation adj on equity from prev year		210,678,009	
inflation adj onfixed assets from prev year		33,873,943	
Net inflation adjustment expense		176,804,066	
Write off and Adjusted Loan Portfolio			
Unadjusted loan portfolio	7,021,581		
> 360 days	20,678		
Write off		20,678	
Adjusted loan port			7,000,903
90-180 days	175,854		
X50%		87,927	
180-360	17,529		
X100		17,529	
Adjusted Loan Loss Provision			105,456
Unadjusted Portfolio	7,021,581		
Unadjusted Loan loss Provision	471,210		
Unadjusted net loan port		6,550,371	
adj tot loan port	7,000,903		
adj LLP	105,456		
Adjusted net loan port		6,895,447	
Diff adj and unadjusted net loan por		(345,076)	
Unadjusted LLP Expense (from income state)		(219,965)	
Adjust LLP Expense on IS			(125,111)
Cost of Funds Adjustment			
cost of funds currently at subsidized rates		1,679,799,400	
x shadow price (0.087)			
market cost of funds		146,142,548	
Less interest paid@5%		83,989,970	
Cost of Funds Adj Expense		62,152,578	

Notes: An inflation rate of 6% was used and the adjustment was applied to net fixed assets and equity of the previous year. The loan loss expense was calculated according to the formula used by the Microbanking Bulletin (CGAP and Calmeadow), which compares the performance across over 100 MFI many of whom are top performers. BRAC traditionally expenses substantially in excess of its losses, hence the add-back. The rate applied for the cost of funds adjustment was 0.087 (the rate used by the MBB Bulletin in 1998). In reality, the cost of funds would be around two to three percent higher and we take this into account in our subsidy dependence index calculation)

Appendix 2: BRAC's Write-Up on it's response to Shorebank's 1998 Financial Review Recommendations

Recommendations	Comments	Action Taken
Sector Programs:		
ρ BRAC should set new targets for its sector program coverage, which systematically underestimate achievement.	ρ RDP has reviewed its targets of sectors and sets up a new activity wise target for service charge of sectors.	ρ It has started from 1999.
ρ An extensive evaluation of BRAC's sericulture program should start for identifying the reasons behind the delinquency and also knowing the impact of sericulture on its borrowers.	ρ RDP will make a request to BRAC to monitoring department undertake such kind of study	ρ Monitoring department will undertake this study in later of 2000.
Loan Portfolio:		
ρ For identifying the reason of delinquency a study should be revealed on fisheries and sericulture.	ρ The reason of delinquency of fishery sector is due to seasonal effect and sericulture is because of technical problems.	ρ Special monitoring will be conducted for identifying the reasons.
ρ Percentage of total portfolio outstanding on rural trading and food processing should be more and accurate categorized.	ρ It will be very difficult to break down rural trade and food processing into more categories. Because under rural trading all sorts of small business and services are included. Again food processing include paddy husking, puffed paddy, pulse husking, oil processing etc. which takes more time and more complicated to maintain.	
ρ BRAC should put all NIBL into 100 weeks missed payments and write-off all NIBL and all two years past due (at most 3 years).	Generally BRAC put past due amount after 104 weeks into NIBL. Again, all NIBL are in this position for one year then its write-off.	ρ In November 1999 BRAC has written off all NIBL loans.

Loan Loss Reserve: ρ Branches require making a one page summary statement for loan loss reserve on a quarterly basis to reconcile it with balance sheet.	ρ When branch will computerized this kind of statement will be taken.	
ρ Branch should reserve the amount which they need rather 2% flat on disbursement.	ρ RDP is more interested to charge 2% flat on disbursement globally as it has to maintain outreach focusing in the organization that may be economically potential or less potential. After the flood, RDP started to charge 3% flat on disbursement but after few months significant improvement have shown in the repayment rate (from APO Report), it continues to charge 2%. ρ The rate that charge on disbursement, as loan loss provision including MELA will be reviewed.	
ρ Including MELA program a loan loss provision should be charged 4% on disbursement. ρ All loan that over three years past due and NIBL should be written off formally from the balance sheet.	ρ BRAC already has started written off loan that over three year past due and NIBL from the balance sheet.	ρ It has done once in a year.
ρ Different product with different pricing and maturity should be introduced.	ρ BRAC (RDP) now introduces four different products (security savings, current savings, long-term savings & fixed savings), which are in different maturity at different interest rate.	ρ This will be started from January 2000.
ρ A head office savings manager is needed in each region that will be dedicated to savings mobilization.	ρ BRAC recruited one senior regional manager transfer to head office and assigned him to look after different product. He is reportable to PC (RDP). Besides, one	ρ This will be started from January 2000.

ρ *Individual level and branch level savings data* needs to be collected and analyzed the same dedication that disbursement and outstanding are tracked.	program organizer (savings) is assigned to mobilize savings in each region. ρ MIS always provide branch wise savings performance on a regular basis.	ρ This has started from 1999.
ρ *BRAC should develop a data base system for* savings pattern that forecast its fund requirement that is the need for liquidity at the branch level.	ρ *BRAC starts continually computerized information* system in branch level, which will provide a clear data on saving and fund requirements. RDP also use a format to project fund requirement in a month basis.	
ρ New branch rating system should include a savings measure (e.g. savings-outstanding ratio and savings mobilization per PO (ODCO)). ρ Current account savings product *should* continue to be marketed until additional products are developed.	ρ *BRAC did rating of different branch in ad hoc basis.* But now this is not doing regularly. BRAC needs an external consultant to develop branch-rating system. ρ Current savings has modified and make it customer friendly.	ρ The financial management team will develop branch rating by 2000.
ρ Branch managers are forced to allow members to withdraw freely within the proper guideline.	ρ A new guideline has been formulated for the members' savings withdrawal.	ρ *This will be started from* January 2000.
Management of Branch Operations: ρ BRAC should begin a multivariate analysis of branch performance and within several years develop a system of branch categorization that is not *based solely on the age of the branch but other more* revealing variables.	ρ BRAC not only measure branch performance on the basis of age of the branch and also analyze disbursement, savings mobilization, outstanding, *delinquency.*	ρ BRAC will start it from 2001.

Sector Program Charge Recovery: ρ A sound MIS tracking system is necessary for BRAC to improve its service charge realizations as well as to be able to cut costs where feasible. ρBRAC should set up a tight collection system, which members know inflexible.	ρ Already RDP MIS provide regular service charge and cost recovery information to management. ρ Service charge collection system has been strengthening. Here PO (EIG) continually follows up and PO (ODCO) involved in collecting this service charge.	
ρ The past due should be tracked over time as per APO model (e.g. 0 weeks, 1-4 weeks etc.) ρ The performance of sector staff should be based on percentage on on-time collections as well as on the quality of past dues.	ρ It will be possible when all branches will come under computerization. ρ BRAC will consider this but it will be possible when BRAC's every branch will be fully computerized.	
ρ Branch staff should revise activity targets for sector on a quarterly basis. ρ BRAC should concern about the services that add value of the members.	ρ Both branch staff and sector staff will involve in revising activity target. ρ BRAC always concern to increase borrowers' productivity and income level that help them to improve financial and social status.	ρ This will be started from January 2000.

Appendix 3: Notes on Liquidity Management [xiv]

How to measure liquidity?

A MFI can use historic data from the balance sheet, but liquidity management should be mostly forward looking. One cannot be sure that an MFI will be able to cover all cash outflows on a specific day in the future simply by observing a 10% liquid asset to total deposit ratio. Assurance of future liquidity can only be achieved by deriving detailed estimates of the size and timing of future cash inflows and outflows.

To do these estimates, the MFI manager must take into account the strategic plan together with the MFI's operational plans and short-term action plans developed by the operating divisions and assess their impact on liquidity. At the big picture level of strategic planning, it makes sense to represent the liquidity condition by a margin of safety rule or a target value for a particular liquidity ratio.

At the operational level, all plans should be evaluated in terms of their cash flow implications. Liquidity is an important consideration in deciding from which source (equity, deposits, loans, bonds etc) and under what terms this funding should be procured.

Certain balance sheet indicators and ratios are helpful to generate general operating rules as well as for a higher level of planning. Ratios give a quick indication of the overall liquidity position of the MFI. They are also useful for comparing liquidity between different institutions or to calculate the liquidity average for an industry.

Suggested Liquidity Measurement Recommendations for MFIs

It is useful to distinguish three basic scenarios that will help determine the choice of liquidity indicators.

Scenario 1: Small Micro-Lending Institution. The typical MFI fitting this scenario is small with limited professional staff, maybe even entirely volunteer-based, makes only micro-loans and generally has no voluntary savings business. Here, the basic *cash position indicator* would be the most useful ratio.

$$\text{Cash Position Indicator} = \frac{\text{Cash and deposits due from banks}}{\text{Total assets}}$$

Since this type of institution does not have access to short-term commercial funding and does not invest in the short-term money market, the more sophisticated ratios covering purchased funds and investment balances do not apply. Once such a small micro-lender does begin mobilizing voluntary deposits, it would be advisable to also track the *total deposit ratio* and the *reserve ratio*.

$$\text{Total Deposit Ratio} = \frac{\text{Cash and deposits due from banks}}{\text{Total assets}}$$

$$\text{Reserve Ratio} = \frac{\text{Cash assets}}{\text{Customer deposits}}$$

Scenario 2: Mid-Size MFI. An MFI in this category is characterized by a professional organization, by a sophisticated loan operation and by significant deposit mobilization. Mid-size MFIs should look at the above *cash position indicator, total deposit ratio* and the *reserve ratio*. As a refinement, one may consider using the *core deposit ratio* instead of the total deposit ratio. Those mid-size MFIs that are actively using or are beginning to develop commercial short-term funding opportunities should also look at the *purchased funds ratio.*

$$\text{Core Deposit} = \frac{\text{Core deposits}}{\text{Total assets}}$$

$$\text{Purchased Funds Ratio} = \frac{\text{Short-term borrowings and purchased funds}}{\text{Total assets}}$$

Scenario 3: Large Full-Service MFI. The typical MFI in this scenario has highly developed voluntary savings operations, regularly draws on commercial funding sources and uses sophisticated short-term investments to store liquidity. Such an MFI would find it worthwhile studying all the above liquidity ratios plus the *loan-to-deposit ratio*, the *capacity ratio* and the *net non-core funding dependence*.

$$\text{Loan to Deposit Ratio} = \frac{\text{Net loans}}{\text{Total deposits}}$$

$$\text{The Capacity Ratio} = \frac{\text{Net loans}}{\text{Total assets}}$$

$$\text{The Net Non-Core Funding Dependence} = \frac{\text{Non-core liabilities - Short-term investments}}{\text{Net loans}}$$

Liquidity Ratios - Quick Reference Table [xv]

Name	Definition	Comment
Current Ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	Primarily used by non-banks. Not recommended for MFIs because current assets includes liquid assets plus short-term loans to customers. In other words, it combines the liquidity safety stock with the most important use of liquidity (i.e. the loan portfolio since most MFIs lend predominantly short-term).[xvi] In fact, an MFI that has not made a single loan and holds all current assets in vault cash would have the same current ratio as an MFI that is completely

		loaned up with short-term loans.
Cash Position Indicator	$\frac{\text{Cash and deposits due from banks}}{\text{Total assets}}$	Asset liquidity measure. Measures ability to meet immediate cash needs from cash and demand deposits held from other banks. No simple rule for what the indicator should be. Look at trends and asking questions as to why it is higher or lower than expected is critical.
Capacity Ratio	$\frac{\text{Net loans}}{\text{Total assets}}$	Asset liquidity measure. Mirror image to the cash position: a negative liquidity ratio. Indicates the extent to which the bank is loaned up. Net loans are total loans minus accumulated loss allowance for bad loans. If ratio is closer to 1, MFI liquidity risk is higher. Always < 1 even if no liquidity because of fixed assets.
Total Deposit Ratio	$\frac{\text{Cash and deposits due from banks}}{\text{Total assets}}$	Liability measure showing MFI's capacity for borrowing cash assets. Deposits are considered a stable source of funding. High ratio means lower liquidity risk. A potential lender to an MFI looks at loan performance, capital base and the composition of the outstanding deposits and liabilities. Generally easier to raise debt if the MFI has a large stable deposit base and does not already have most of its business financed by short-term commercial borrowings or so-called purchased funds.[xvii] A low deposit ratio should be interpreted with the purchased funds ratio.
Purchased Funds Ratio	$\frac{\text{Short-term borrowings and purchased funds}}{\text{Total assets}}$	Liability ratio. The complementary negative liquidity measure to the total deposit ratio. High purchased funds ratio means high liquidity risk because it is 'hot money' which is very sensitive to interest rates. This money is the first to dry up during financially difficult periods.
Core Deposit Ratio	$\frac{\text{Core deposits}}{\text{Total assets}}$	Liability ratio. Refinement to the total deposit ratio. Considers only the stable base of deposits. The base line of core deposits below which, in all likelihood, the actual deposit level will never fall. Higher ratio means lower liquidity risk.
Loan-to-Deposit Ratio	$\frac{\text{Net loans}}{\text{Total deposits}}$	Combined A/L ratio. High loan-to-deposit ratio means low liquidity and higher liquidity risk. Relates use of liquidity (loans) to primary source of stable funds (deposits). Low ratio means bank has additional liquidity to grant new loans (not our of large purchased liabilities).[xviii]
Net Non-Core Funding Dependence	$\frac{\text{Non-core liabilities - Short-term investments}}{\text{Net loans}}$	Combined A/L measure. Indicates how dependent a bank is on volatile sources to fund its non-liquid earning assets (loans). High net non-core funding dependence means high liquidity risk. Non-core liabilities are defined as volatile deposits, purchased funds and other interest rate

		short term borrowings. One does not have to worry about the volatility of non-core liabilities in as far as they are offset by relatively liquid short-term investments. So here we are comparing the part that is not offset to net loans.
Reserve Ratio	$\frac{\text{Cash assets}}{\text{Customer deposits}}$	Not commonly used in commercial banks. MFIs like *reserve ratio because they see deposits as "risk capital".* It helps answer the question: How much cash should the MFI hold against savings deposits. Could argue that numerator should be all highly liquid assets. Note: minimum regulated reserve requirements are a tax on deposits and should be subtracted, not added, from liquidity.
Liquidity Ratio	$\frac{\text{Cash plus expected cash inflows}}{\text{Anticipated cash outflows}}$	Dynamic, forward-looking ratio. Limited use in practice because it cannot be calculated from the balance sheet. The MFI needs the entire rigor of detailed cashflow planning. Even then its usefulness is limited. The superior indicator is the cumulative daily cash balance, which must stay positive over the entire planning horizon.

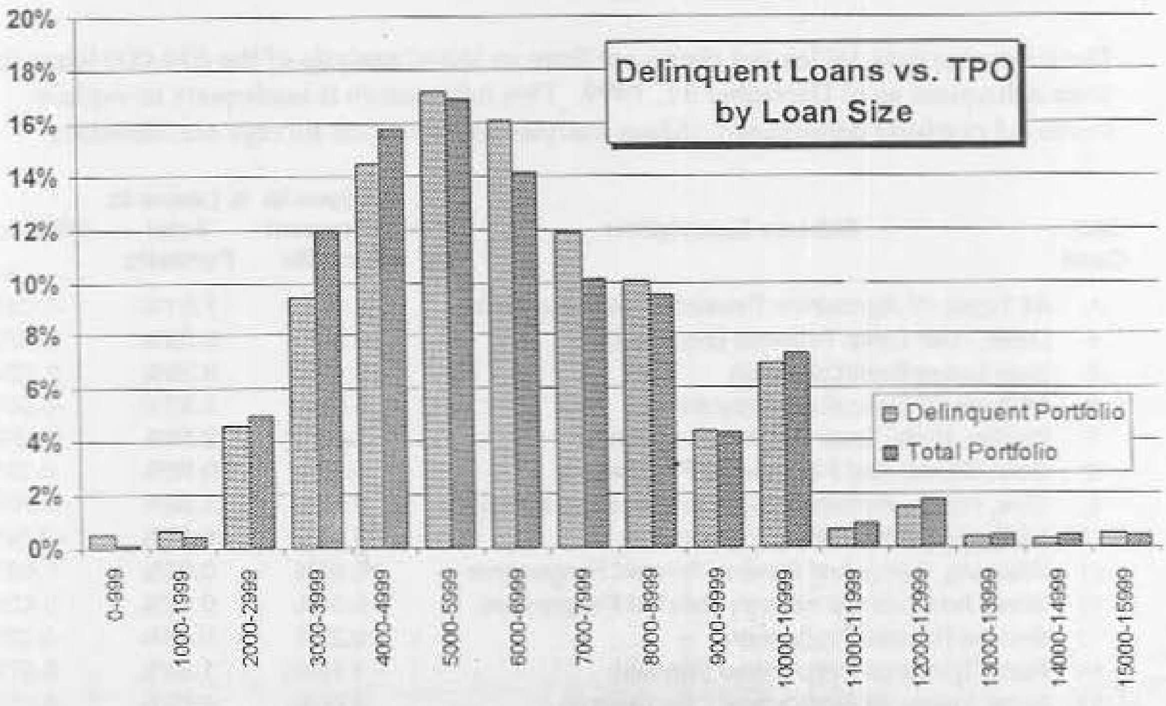
Appendix 4: Ratios Index: Micro Banking Bulletin

RATIO	DEFINITION
OUTREACH INDICATORS	
TOTAL ASSETS	US dollars
NUMBER BRANCH OFFICES	Number
NUMBER STAFF	Number
PERCENT LOAN CLIENTS WOMEN	Percentage
PROFITABILITY	
UNADJUSTED RETURN ON ASSETS	Net operating income/avg total assets
ADJUSTED RETURN ON ASSETS	Adjusted net operating income/avg total assets
ADJUSTED RETURN ON EQUITY	Adjusted net operating income/avg equity
OPERATIONAL SELF-SUFFICIENCY	Operating income / operating expense
FINANCIAL SELF-SUFFICIENCY	Adjusted operating income / adjusted operating expense
PROFIT MARGIN	Adjusted net operating income / operating income
INCOME & EXPENSES	
ASSET UTILIZATION	Operating income/avg total assets
OPERATING EXPENSE	Adjusted operating expense/avg total assets
INTEREST MARGIN	Adjusted net interest margin/avg total assets
INTEREST EXPENSE	Interest expense/avg total assets
ADJUSTMENT EXPENSE	Adjustment expense/avg total assets
LOAN LOSS PROVISION EXPENSE	Loan loss provision expense/avg total assets
SALARY EXPENSE - ASSETS	Staff expense/avg total assets
SALARY EXPENSE - PORTFOLIO	Staff expense / avg loan portfolio
SALARY EXPENSE - PORTFOLIO	Staff expense / total loan portfolio
OTHER ADMIN EXPENSE - ASSETS	Other administrative expenses / avg total assets
OTHER ADMIN EXP. - PORTFOLIO	Other administrative expense / avg loan portfolio
TOTAL ADMIN EXPENSE	Total administrative expense / avg loan portfolio
PORTFOLIO YIELD	Total interest and fee income from portfolio / avg loan portfolio
SALARY STRUCTURE	Avg staff salary / GNP per capita
PHYSICALSTAFF PRODUCTIVITY	No. of loan clients per staff member
PORTFOLIO INDICATORS	
PORTFOLIO AT RISK > 90 DAYS	Outstanding balance loans overdue > 90 days/avg loan portfolio
TOTAL LOAN PORTFOLIO	US dollars
AVG LOAN BALANCE	Total loan portfolio / active clients (US dollars)
AVG LOAN BALANCE / GNP per capita	Percentage
NO. OF ACTIVE CLIENTS	Number
CAPITAL & LIABILITY STRUCTURE	
"MARKET" BASED FUNDING	All liabilities with "market" price / avg loan portfolio
EQUITY MULTIPLIER	Avg total assets / avg total equity

Appendix 5: Initial Delinquent Portfolio Review and Analysis

The following data, tables and charts are from an initial analysis of the 630,000 loans that were delinquent as of December 31, 1999. This information is inadequate to explain increased portfolio delinquency. More analysis and borrower surveys are necessary.

MIS Code	Scheme Description	% Loans in Delinquent Portfolio	% Loans in Total Portfolio	Difference
1	All Types Of Agriculture Development Programme	6.77%	7.81%	-1.03%
4	Other Than Deep Tubewell (Irrigation)	0.05%	0.03%	0.02%
5	Boar Lease/Rent/Operation	0.49%	0.28%	0.22%
6	All Type Of Fishculture Programme	4.63%	5.23%	-0.60%
7	Poultry, Birds, Duck Related Programme	2.24%	2.09%	0.15%
8	Goat, Sheep And Pig Related Programme	0.70%	0.95%	-0.25%
9	Cow, Horse, Buffalo Drought Animal Programme	3.15%	3.06%	0.09%
10	All Types Of Sericulture Programme	0.13%	0.18%	-0.04%
11	Weaving, Dying And Printing Related Programme	0.03%	0.03%	0.00%
12	Small And Cottage Industry Related Programme	0.84%	0.42%	0.42%
13	Service Related Programme	0.23%	0.43%	-0.20%
14	Rural Transport Programme (Manual)	1.10%	1.03%	0.07%
15	Rural Transport Programme (Mechanical)	0.05%	0.03%	0.02%
16	Small And Rural Trading	38.27%	44.53%	-6.26%
17	All Types Of Food Processing Related Programme	9.44%	7.94%	1.51%
18	All Types Of Health Related Programme	0.21%	0.35%	-0.14%
19	All Types Of Miscellaneous	0.25%	0.28%	-0.03%
22	Poultry Nutrition	0.35%	0.75%	-0.40%
23	Poultry Workers	0.01%	0.04%	-0.03%
25	Beef Fattener	0.02%	0.06%	-0.04%
31	SLDP Check Rearing Unit	0.16%	0.07%	0.09%
32	SLDP Poultry Rearing (Key Rearer)	2.83%	3.22%	-0.39%
33	SLDP Model Rearer	0.22%	0.07%	0.15%
34	SLDP Poultry And Duck Hatchery	0.03%	0.02%	0.01%
37	SLDP Goat Rearer	0.10%	0.05%	0.05%
40	Miscellaneous (Codes 40-60)	0.18%	2.76%	-2.58%
61	IGVGDP Poultry And Pullet Rearing	4.73%	3.62%	1.11%
62	IGVGDP Chick Rearing	0.34%	0.13%	0.21%
63	IGVGDP Model Rearer	0.06%	0.03%	0.03%
64	IGVGDP Cattle Rearer	1.67%	0.83%	0.85%
65	IGVGDP Goat Rearer	0.44%	0.23%	0.22%
69	IGVGDP Vegetable Cultivation	0.80%	0.71%	0.09%
70	IGVGDP Grocery Shop	0.06%	0.08%	-0.02%
71	IGVGDP Restaurant	0.02%	0.03%	-0.01%
73	IGVGDP Others	13.06%	10.58%	2.48%
99	All Types Of Housing	6.28%	2.03%	4.25%


Delinquent Loans vs. TPO
by Loan Size
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Delinquent Portfolio
Total Portfolio
0-999
1000-1999
2000-2999
3000-3999
4000-4999
5000-5999
6000-6999
7000-7999
8000-8999
9000-9999
10000-10999
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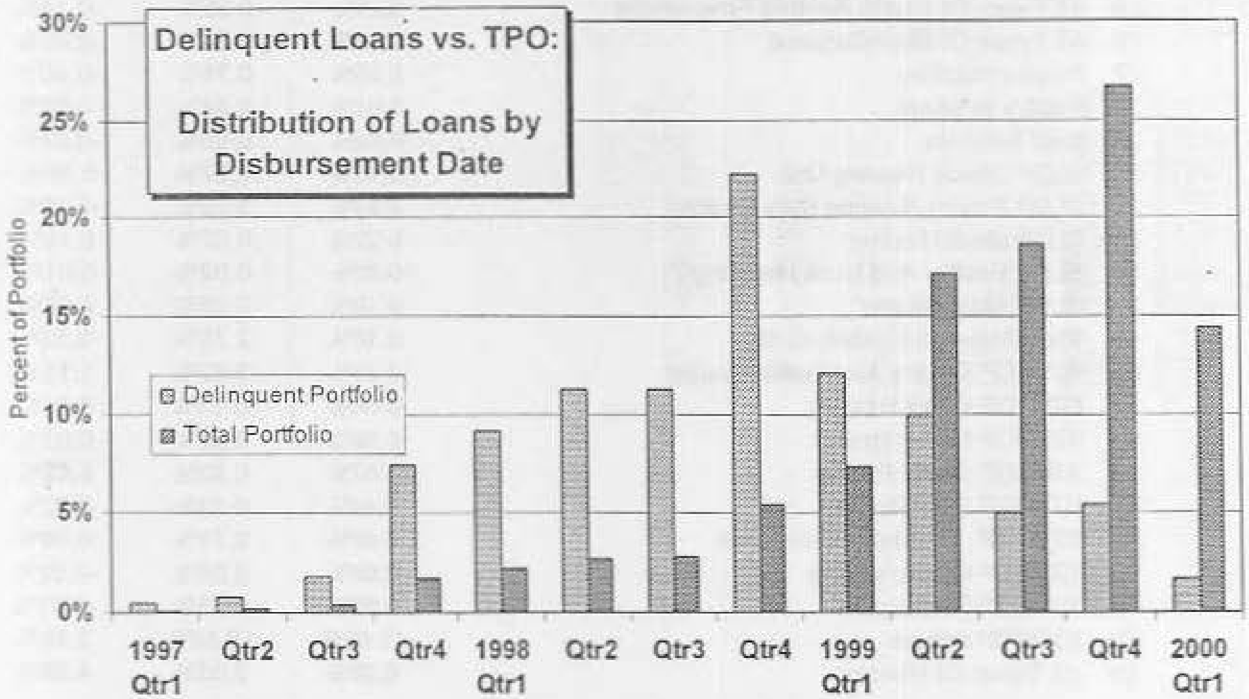
14000-14999
15000-15999


Delinquent Loans vs. TPO:
Distribution of Loans by
Disbursement Date
Percent of Portfolio
30%
25%
20%
15%
10%
5%
0%
Delinquent Portfolio
Total Portfolio
1997 Qtr1
Qtr2
Qtr3
Qtr4
1998 Qtr1
Qtr2
Qtr3
Qtr4
1999 Qtr1
Qtr2
Qtr3
Qtr4
2000 Qtr1