

An Impact Assessment Study of BRAC's Rural Development Programme: Lessons from Methodological Issues

**A M Muazzam Husain
Debdulal Mallick
A M R Chowdhury**

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**Research and Evaluation Division
BRAC**

Introduction

BRAC's Research and Evaluation Division (RED) was established in 1975 to provide research support to its rural development programmes. The main task of RED is to assess the impact of the programmes on different aspects of the participants' lives, provide research support to the programmes including their evaluation and to assess programme sustainability (Husain, *ed.*, 1998). It also tries to understand the rural process that affects the lives of the poor, especially the women.

Any programme intervention is expected to bring about positive changes in the lives of its participants. But the crucial thing to consider is whether these changes are sustained. Long term sustained changes are defined as "Impacts", otherwise they are merely "Effects". Assessing the impact of any programme is, therefore, different from evaluating changes. The effects of an intervention, according to this distinction, can generally be seen from regular monitoring practices whereas a more systematic study is required for the assessment of programme impact.

Being an independent unit, professionally run and close to BRAC, RED is well situated to measure the real impact of BRAC programmes on its participants. In the Seventies, an initiative was taken to develop a methodology for assessing the impact of the functional education programme though unfortunately it failed to achieve any concrete result. In the Eighties the Oral Rehydration Therapy (ORT) Programme for diarrhoea control was thoroughly evaluated covering its various aspects including its impact on infant and child mortality (Chowdhury and Cash, 1996). During the early 1980's, the impact of BRAC's programme on women's lives was also studied through a series of case studies (Chen, 1986). The impact of BRAC's credit programme on income, assets and employment of participants was also studied during the decade (Chowdhury, Mahmood and Abed, 1991). During the Nineties a number of impact assessment studies were conducted on various components of BRAC programmes.

The first comprehensive impact assessment study (IAS-I) of BRAC's rural development programme (RDP) was done by RED researchers in 1993-94 with the objective of gaining an extensive understanding of the socio-economic impact of RDP, in both quantitative and qualitative terms and assisting BRAC in the development of its ongoing capacity to assess socio-economic

impact of RDP, including identifying the most appropriate methodologies to assess different aspects of BRAC's impact (Mustafa, *et al.*, 1996).

The second impact assessment study (IAS-II) conducted during 1996-97 is a follow up of the first one. The broad objectives of the IAS-II were more or less the same as those of IAS-I, i.e., to measure the material and social well-being of the RDP participants with an added focus on the poverty reduction impact of the programme by measuring poverty and its correlates. An assessment on women's empowerment had also been made but with a specified focus. Among other objectives were to measure seasonal economic vulnerability and coping capacity of the participants, membership performances, member dropout and coverage of the programme. During IAS-I BRAC decided to develop an impact assessment system for RDP. Assessing the impact of RDP is necessary not only to measure the success of the RDP participants but also to identify the shortcomings of the programme and to assess its sustainability.

Among other impact studies conducted by RED are the *Matlab Study* and the study on the impact of the human rights and legal education (HRLE) programme. The *Matlab Study* (Chowdhury and Bhuyia, 1995) was undertaken in collaboration with the International Centre for Diarrhoeal Diseases and Research, Bangladesh (ICDDR,B) in two RDP areas to measure impact on seven dimensions of human well-being, viz., women's lives, income, control over fertility, mortality, morbidity, nutritional status and environment. In another study on the impact of primary education on learning achievements, a methodology was developed which is known as ABC i.e. assessment of basic competencies which is being used by researchers nationally and internationally (Chowdhury, *et al.*, 1994). RED has also helped in formulating a *Sustainability Work Plan* for BRAC which is currently being operationalized. A conceptual framework for assessing changes in women's lives or to measure empowerment of women has been formulated by Chen and Mahmud (Chen and Mahmud, 1995). This effective tool was specifically designed while investigating the BRAC/ICDDR,B affected changes in women's lives. Thus, impact assessment of various BRAC programmes has been a concern of RED from its very beginning. In the process, it has also contributed significantly in the development of research methodologies.

BRAC and its Activities

BRAC started its operation in 1972 as a small relief and rehabilitation organization in the war-ravaged post liberation Bangladesh. It turned into a rural development organization a year later. Learning from its own experience and making necessary changes in its programme strategies and contents, the nature and scope of its activities expanded gradually. After twenty six years of its operation, BRAC is today the largest multidimensional rural development organization in Bangladesh. Its main goals are to alleviate poverty and empower the rural poor.

BRAC first adopted the community approach in its development endeavour and then changed over to the target group approach bringing the rural poor in its fold to make its programmes more effective under the existing rural socio-economic power structure in Bangladesh. The three main programmes through which BRAC intervenes are the Rural Development Programme (RDP), the Non-formal Primary Education (NFPE) programme and the Health and Population Development (HPD) programme. Besides, it has its technical support services and a few revenue generating enterprises to help finance its development programmes.

The different areas of BRAC intervention can be grouped into two broad categories - economic and social. The economic programme includes livestock, poultry, fisheries, vegetables, maize cultivation and social forestry projects, the sericulture project, and some rural enterprise projects including restaurants, grocery shops, carpentry workshops, silk rearing, prawn hatchery, grafting nursery and brick fields, etc. For addressing needs of those who belong to the very bottom of the poverty bracket, there are special programmes, viz., the Income Generation for Vulnerable Group Development (IGVGD) and the Smallholder Livestock Development Programme (SLDP) under RDP. The social development programmes include Human Rights and Legal Education (HRLE), primary health care and non-formal primary education.

RDP was launched in 1986 by amalgamating the Outreach Programme and the Rural Credit and Training Programme. RDP works with the rural poor by organizing them into village organizations (VOs) and providing credit and skill development training, awareness education and other

necessary support for raising their income and employment opportunities and their level of empowerment. RDP has placed special focus on the rural women as a result of which, by the end of 1997, 95% of all VO members were women.

RDP had experienced an impressive growth during the eleven years of its operation. The number of area offices (AOs) increased from 45 in 1986 to 372 in 1997. The number of VOs increased from 2,401 to 63,846 during the same period. The cumulative amount of loan disbursement and savings increased from Taka 97 million to Taka 21,585 million and from Taka 15 million to Taka 1,750 million respectively during the period. The programme has been expanding in different phases. The first phase covers the period 1986-89, the second phase 1990-92, the third phase 1993-95 and the fourth phase 1996-2000.

Although the five year Phase-IV of RDP, designed to fulfill certain specific goals, is an extension of the ongoing programme it has some distinguishing features. Among the main features of RDP-IV are its emphasis on women as VO members, its greater emphasis on attaining programme sustainability and development of legal framework of analysis (LFAs) to measure levels of performance and sustainability of different components of the programme, further expansion and consolidation of the programme with emphasis on institutional development of VOs and a new focus on environmental aspects of the programme.

The IAS-II: Lessons Learnt about Approaches, Tools and Methods

In IAS-I it was clearly defined what constitutes impact as opposed to effects. Impact assessment involves the analysis of changes occurred due to programme interventions, and an understanding of the causal relationships or variables underlining such changes (Mustafa *et al.*, 1996). In an impact assessment two things need to be considered. Due to programme intervention there are i) sustained changes in the outcome variable(s) over time in one direction and ii) changes in some other variables instrumental to changes in the outcome variable(s). For example, if income or asset is considered as a key indicator, it has to increase over time to realize an impact. But this change will occur through changes in some other variables, viz., occupational status or productivity.

There is always a demand from RDP and also from donors for impact assessment of the programme. The programme realizes that impact on the participants depends on the means and patterns of intervention. Impact assessment is, therefore, very essential for the programme to explore how effectively it reaches the participants in the changing socio-economic environment that helps bring dynamism in the programme.

Study design and setting of objectives: At the initial stage of the study the impact assessment team of RED had several meetings with RDP personnel to identify the components of the programme to be assessed. They identified which components of the programme had been running for periods to leave an impact and should, therefore, be researched. For example, the issue of institution building was dropped out from the study as programme personnel felt that enough time had not elapsed since the initiation of some new strategy in this respect to assess impact. Priority was given to only those components of the programme whose impact could be assessed.

IAS-I report and other studies on RDP constituted the primary guideline for us to set objectives of our study. A review of available literature on impact assessment was also conducted. Findings of these studies helped us identify the areas which needed to be researched. Although RED is a part of BRAC it is an independent research wing that works without any interference. Therefore, impact assessment study on RDP was virtually an external evaluation. Objectives were determined based on some pre-set criteria.

Setting of indicators: Once objectives of the study had clearly been defined, the task of setting indicators became easier. Since foci of the IAS-II changed with a new emphasis on the measurement of poverty reduction performances, indicators were required to be revised and fixed accordingly. Again, considering the IAS-I as a benchmark, an opportunity was opened up to go for panel data analysis by revisiting IAS-I households and to find out changes over time of different socio-economic indicators. This required retaining of as many indicators of IAS-I as possible. This raised a dilemma. We finally decided to exclude redundant or poorly specified variables included in IAS-I at the cost of the scope of the panel data analysis. Only those indicators were retained which were of substantial value and relatively easy to repeat. New indicators were also added considering

the objectives of the study. Researchers tested this draft questionnaire several times to make sure that information on the indicators could be collected. In this respect, a field study was conducted to elicit the perception of BRAC field staff and VO members on the expected impacts of the programme and the related indicators.

Several revisions in the questionnaire were made before finalizing it. One example might be appropriate here. We felt in our process of finalizing the questionnaire that people usually tend to underreport their actual income. Therefore, expenditure would be the most appropriate proxy for income. Again expenditure data, to some extent, is difficult to collect though not as much as that of income data, as people sometimes fail to recall which expenditure they made in the past. We collected information on consumption expenditure for three consecutive days asking the respondents what their family members consumed in last 24 hours and how much they spent for each of these items. For non-durable non-food items the time period for recall was one month and for durable items one year. Our realization was that people can recall only the large expenditures on durable items made long before. Moreover, data on consumption and non-durable expenditure were collected twice — once in the lean season and again in the peak season to consider seasonal fluctuation in consumption and expenditure. For conducting the survey for collection of consumption data, we made use of our *Matlab Study* experience. The above practices minimized our problem of collecting data regarding the indicators set earlier.

Sample plan and methodology used: Both quantitative and qualitative methods were used for the IAS-II. For conducting the sample survey, a total of 1250 BRAC sample households were randomly selected of which 500 were from 10 AOs which were also included in IAS-I (Panel BRAC members) and 750 were from 15 other AOs. In addition, 200 BRAC households who had demonstrated very high economic performances were purposively selected in consultation with the local RDP field staff. In the case of comparison members, IAS-II randomly selected 250 households from the 750 selected in IAS-I. For qualitative and case study work, the IAS-II sample consisted of 25 VOs. One VO was randomly selected from each of the 25 IAS-II sample AOs. Ten VOs were from the Panel areas and qualitative case study data had previously been collected from 5 of them during IAS-I. The other 15 VOs were from non Panel areas.

We used three research methods and techniques in our study viz., the household sample survey, the qualitative and case studies using different RRA/PRA techniques, and the village profile.

Firstly, a household survey was conducted covering all the sample households using pre-coded questionnaires. The data included demographic and other household characteristics, housing status, land holding and other assets, health, sanitation and family planning, food stock, credit and savings, household expenditures and consumption, coping with crisis, women's ownership and control over household assets and their access to income generating activities (IGAs), their mobility, training from BRAC, and reasons for member dropout. The survey was conducted primarily to collect quantitative data though the questionnaire included some questions covering qualitative aspects.

Data on variables affected by seasonal factors were collected in two rounds to capture seasonal variation in well-being. Two different sets of household survey questionnaires were used for this purpose with the consumption part remaining unchanged.

The main focus of the household survey was to collect quantitative data to determine, as indicated earlier, the impact of the RDP on its participants with special reference to their material well-being in general and their level of poverty in particular. The social aspects of well-being mainly considered were literacy and educational level of households, housing status, and some aspects of health, sanitation and family planning. Economic well-being covered aspects like land holding, occupation, accumulation of assets, and food security. Another aspect included was the analysis of the dropout members from relevant data collected through the household survey.

Secondly, qualitative and case study work focused on the broad areas where RDP could be expected to have some impacts on women's empowerment, at the levels of the individual members and their family. Qualitative indicators were selected based on three pathways to empowerment (material, perceptual and relational) identified in the Chen and Mahmud's conceptual framework to assess changes in women's lives (Chen and Mahmud, 1995). Of course, there are other models such as the Hashemi, Schuler and Riley model (Hashemi, *et. al.*, 1996) which we could consider.

We did not follow the Hashemi/Schuler/Riley model because we felt that many of their indicators were too arbitrary to measure women's empowerment. Issues covered include women's involvement in income generating activities, their ownership and control over assets, perceptions of own well-being, reduced economic dependence on their husbands and their mobility.

Information on these indicators was obtained by using different techniques such as physical mapping and wealth ranking. Additional data were obtained through group discussion using a check list. There were at least 6 - 10 respondents in each discussion session held in each VO and they provided us with information on the whole VO. Where possible, quantitative data from the household survey were used to substantiate the qualitative data findings. But it should be noted that since the respondents of each VO were not necessarily the same as the sample members covered by the household survey, in many cases, quantitative data could not be used to substantiate the qualitative findings. No comparison group was included, given the difficulty of determining a 'cut-off' point of time from which to ask questions. Also, even though there were some VOs that were common to both IAS-I and IAS-II, given the different scope of the two studies, a panel analysis of the changes experienced by programme participants could not be carried out.

RRA techniques were used to analyze programme impact on participant households and determine whether these households' overall situations had improved, declined or remained the same as a result of BRAC interventions. Physical mapping was used to identify the location of all members and non-members in the sample areas. Secondary sources including member lists and village census forms (completed by RDP) were also used for this purpose. Wealth ranking was used to categorize the total number of villagers according to their household landholding. The number of eligible school going children in these households was also identified to determine NFPE (non-formal primary education) coverage and reasons for not attending school (NFPE and others). BRAC members' landholding, membership status and poverty reduction performances were identified using the wealth ranking technique. After the TG group had been identified, it was seen how many of them were in BRAC and how many were not. Reasons for non-involvement were also explored.

Check lists were used to obtain data for individual case studies. These individual cases were selected from the 'success' and 'dropout/decline' cases included in the household survey sample.

Finally, to provide useful background information for the research team and a basis for creating a variable on economic vibrancy, village profiles were created by collecting some benchmark data using a structured form and deriving the data by interviewing key informants in each village covered by the household survey. The data include distance of the village from nearest city and metalled road, number of households, existence of socio-economic infrastructure such as *haats* (weekly rural market), *bazaars*, educational institutions, health centers, NGOs, electricity, etc., and access to various socio-economic institutions. The data from village profiles have been used to determine the economic vibrancy of different sample areas which is an important indicator of household level material welfare outcomes.

One of the main foci of the study, as indicated earlier, was poverty estimation. We used the conventional income (or expenditure)/consumption approach to poverty measurement and to construct summary measures of the extent of poverty. Following Ravallion (1992) we maintained that although poverty is a multidimensional concept, its characteristics (poor nutritional status, lack of physical assets, inability to work) are sufficiently well correlated with consumption and expenditure to allow us to focus on these two variables. Critics say that in this approach of poverty measurement access to common property resources and state provided commodities (such as health and education) is usually ignored and consumption of non-traded goods is often underestimated. In our study we took care of this and covered consumption from these sources as precisely as possible.

The participatory approach rejects the income (or expenditure)/consumption approach as a narrow and reductionist view that fails to understand the complex, diverse, local realities in which the poor live and therefore tends to use multiple, more subjective measures as indicators of poverty. This approach aims to elicit local people's own conceptions of poverty/deprivation and considers their own priorities in the complex and heterogeneous societies in which they live. By use of a range of

certain qualitative techniques it aims to explore local people's own perception of poverty (Chambers, 1995, Baulch, 1996).

Although the criteria used in the participatory approach tells us more about local people's multidimensional conception of poverty than conventional consumption and expenditure measures, these are, by their very nature, subjective and only definable within the norms and customs of a given society. Therefore, it is extremely difficult to compare the results of participatory poverty assessments across locations, particularly at the regional and national level. Moreover, due to self-identification involved in participatory methods it is difficult to distinguish the concept of poverty from those of deprivation and ill-being. It is possible for higher levels of ill-being to coexist with a low incidence of poverty or people to feel deprived even when they are not poor (Baulch, 1996).

Sen (1981) has distinguished two aspects of poverty measurement: identification and aggregation. Identification addresses the question of "who are the poor?" while aggregation addresses the question of "what is the aggregate level of poverty?" Aggregation is not just a question of the representativeness of the sample, but also of the need for the policy makers to have a common unit of measurement. The participatory approach focuses on the identification of the poor and is almost helpless in aggregation. At the individual village or project level, this is usually unproblematic as poor people's realities overlap substantially, but at the regional or national level it is usually not possible to aggregate the matrices of poor people's priorities generated by participatory methods.

BRAC works all over Bangladesh. Although its beneficiaries are almost homogeneous in terms of their economic status, their needs are heterogeneous and so are their perceptions of poverty as they live in different socio-cultural rural settings. To construct a single poverty estimate we recognized household survey method as more effective. But our analysis was not confined to only expenditure and consumption estimation since poverty is a many faceted concept. We attempted to evaluate their food security and vulnerability to cope with any crisis and elicit the perceptions of their poverty status though we did not use participatory approaches for this. But these results, in no way, substitute but complement the results derived from expenditure/consumption approach.

Participatory methods were used to assess impact on women's empowerment. We attempted to elicit women's perception of their changing status at the individual and family level for RDP intervention and also changing male's perception towards them. These issues are subjective and can not be quantified. Quantitative research methods can not provide in-depth exploration of women's perception. Qualitative methods were thus used but attempts were also made to substantiate these results with those derived from quantitative household survey. We tried to integrate both the quantitative and qualitative methods where possible for in-depth analysis such as in dealing with empowerment, membership performance and membership dropout.

Creating baseline: One of the objectives was to set a benchmark for RDP Phase-IV. With this in mind, sample design was done in a fashion that a fraction of total samples would be from those areas where RDP programme had started in 1996. Many of these samples did not receive any input from BRAC or even if they did, they are not likely to experience any programme impact within this short period of time. The main purpose for selecting them was to create a baseline to assess the programme impact at frequent intervals in future.

But we did not have any baseline data collected before that would help assess the mobility of the beneficiaries since joining BRAC as IAS-I did not allow any such provision. To overcome this limitation BRAC members were disaggregated according to their membership length. A comparison of different well-being indicators for members of different membership length with those joining BRAC in 1996 were made to have an indication of the impact of programme intervention on members who are with BRAC for different periods. This comparison is based on the strict assumption that these members had the same initial endowment at the time of their joining BRAC as that of the newer ones.

On the other hand, we had comparison members who are not touched by any type of intervention either by government or by any other development organization. In 1993 comparison members of similar traits as of BRAC members in terms of amount of land holding were selected from villages where no programme had yet reached. Therefore, they are not likely to realize the "spill over" effect of the development intervention. Comparison of performances of BRAC members with

those of comparison group also gave, though in an indirect way, an indication of the impact of programme intervention. However, our experience shows that getting a true comparison group is a tough problem. The IAS-I report raised a question on the validity of retaining the comparison group and suggested that the comparison group be treated with caution (Mustafa, *et al.*, 1996). Again, it was difficult to retain the comparison group sample households of IAS-I for IAS-II in connection with conducting panel data analysis because during the three year period between the two studies, 39% of the comparison group households had dropped out from the list due to their enrolment in NGOs or for other reasons.

Focusing gender issues: Ninety four percent of the programme participants were women at the time IAS-II was initiated. RDP has also adopted a policy to include only women in its programme and to terminate all male village organizations over time. Having this in mind we included only female RDP members in our sample. But for assessing impact on material well-being, we took household as the unit of analysis as it is the household as a whole, not the programme participant alone, which experiences the impact of the programme intervention. Although it can not be denied that intra-household distribution of impact was not possible to cover in this way, neither of the two research methods applied is effective to address this issue especially when dealing with a large sample size drawn out of the population from areas all over the country. Rather gender issues were focused by disaggregating households in terms of sex of the household head to explore differential impacts. Among other aspects were comparison of boy's and girl's enrollment in schools, number of female income earners, women's involvement in income generating activities (IGAs), contribution of their income to family expenditures, etc.. Apart from these a special focus was given, as indicated earlier, to women's empowerment. It may be mentioned here that there are other studies undertaken by RED to address gender issues specifically such as the *Mailab Study* (Chowdhury and Bhuyia, 1995).

External effects: RDP intervenes mainly through providing credit and skill training to the beneficiaries. Initially though it had been intended that impact on material well-being would be assessed with respect to BRAC inputs provided, a provision was also made to justify whether any exogenous factor is responsible for this impact and to what extent. Prior to the study design we had

an indication from IAS-I results that village level infrastructure had an important role to play in the economic performance of the beneficiaries. Following the methodology of IAS-I we collected information on village level infrastructure. Results of our study revealed that in addition to village level infrastructure (the vibrancy factor) some initial endowment of a household viz., age, sex and occupation of the household head, and amount of household owned land were, to a large extent, responsible for the upward mobility of a household.

Measuring changes over time: The most important part of the study was the measurement of changes over time in different socio-economic indicators of the RDP participants and the contribution of BRAC for these changes. BRAC provides different types of inputs, from loan to training, to its beneficiaries. On the other hand, comparison members, who are not members of any NGO, do not receive these. Rate of progress made by comparison group members, when compared with BRAC members, therefore, show what would have been the progress of the latter without BRAC intervention. By comparing this progress with that of BRAC members we attempted to measure BRAC's impact on the well-being of its participants.

As indicated earlier, we were restricted to comparing only some limited number of variables for the changing focus of the two IASs. In IAS-I the questionnaire did not emphasize much on the poverty situation though it was designed to focus mainly on the material well-being of BRAC members. The information required to analyze these issues which mostly consists of consumption and expenditure data, was inadequate in the IAS-I questionnaire. For example, consumption data for one single day were collected in 1993, once during the lean season and again during the peak season. But the number of food items included in IAS-I questionnaire was quite few and were mostly mixed food. Expenditure on these food items was also completely ignored. Therefore, drawing any poverty line from IAS-I data was not possible. Although one-week expenditure data was collected which included expenditure on both food and non-food items for the previous one week from the survey date, this in no way represented the expenditure on the amount of food actually consumed. This one-week expenditure could not be generalized to calculate the yearly expenditure of the household. Therefore, a comparison of poverty situation over time was not possible to make. It was made for different cross sectional units. The advantage of the panel data is

that it differentiates the households who temporarily fall into poverty during poor cropping seasons from the chronic or persistent poor. The former type of poor are likely to be in a better position in terms of education, health and other profiles. This distinction is very important because they require different types of programme intervention. Only panel data can help researchers overcome this limitation and policy makers to design appropriate policies.

This was also true for some other variables viz., value of total assets, income from IGAs etc. which reduced the extent of analysis of panel data. However, hopefully in subsequent impact studies, this limitation would be possible to be reduced.

Aggregating qualitative data: For analyzing some qualitative data statistical techniques were used. The responses on different indicators received by using RRA techniques were quantified by giving scores and were summarized in tabular form. Besides scoring, continua were developed to measure qualitative data such as changes that have occurred in women's lives due to their involvement in BRAC (Husain, ed., 1998: pp. 21-22, 27-28, 266-273).

Those involved in the process: The IAS-II research team consisted of ten RED researchers. Since both quantitative and qualitative data were involved, the team was constituted in such a way that it included both researchers having specialized knowledge in quantitative techniques and those having proficiency in qualitative techniques. A large team of trained and experienced field investigators conducted the household survey monitored by experienced field supervisors from RED. The total number involved in data collection was around sixty. Both male and female investigators were involved in data collection. For collection of qualitative data and conducting case studies the concerned research team members were involved.

As a donor of BRAC, NOVIB provided encouragement and pleaded for undertaking the study. The research team also received valuable suggestions from NOVIB on the draft study report regarding inclusion of policy recommendations in the report, dissemination of the findings at BRAC and participants level, discussion with other NGOs and researchers, and formulation of action plan and follow-up action/studies.

Problems encountered: Apart from the problem of changed objectives of the two IASs and the limitation of panel data, there were several other problems we had to encounter in the process of conducting the study. Some problems were faced in the collection of field data. One is a non-response problem due to non-availability of some respondents during the survey period. Among the missing households were both panel and non-panel BRAC members and comparison members. In case of non-panel samples, such absentees were replaced by new samples from the random sample list which contained names of additional samples to cope with such situation. During the second round data collection, there were a few cases of non-response due to non-availability of respondents or, as in case of consumption data, because the household members ate outside, partly or wholly, during the survey period. Such missing data were replaced by the mean of the distribution so that they do not affect the data set for analysis. But for panel BRAC members and comparison households there was no such provision. The size of total effective samples was thus reduced.

Field work for collecting second round data to cover the peak season was delayed to some extent due to the *Ramadan*, the month of fasting. Data were collected in February instead of January. Incidentally, peak season data for IAS-I were also collected during February.

Scattered location of sample households, poor communication facilities and the necessity to make repeated visits to many households often created heavy pressure on the work load of the field survey team members.

Another problem was regarding the comparison group households. They were similar to RDP members in terms of the amount of land holding. But their initial endowments in terms of age, sex and occupation of the household head, and household education level were different from those of RDP households. This selection bias raised the question whether they are actually a true comparison group. Moreover some of these households joined different development organizations and received inputs from there since they were selected as comparison in 1993. Therefore, comparison of performance of RDP households with them might lead to

underestimation of the actual impact of BRAC intervention. Attempts were made to control these factors by using multivariate econometric analysis.

Impacts Found

Impact found in IAS-II study may be summarized as follows. About 45% of BRAC members were themselves involved directly in any IGA. Before joining BRAC, this was only 28%. Significant positive relationship was found between the net change in members' involvement in IGA and increase in membership length.

BRAC member households owned 50% higher net-worth (asset plus savings less outstanding loan) and 380% higher assets than the comparison ones. Value of non-land assets increased with membership length.

BRAC member households had twice more savings than the comparison households. Among BRAC members this amount increased as membership length went up.

In terms of value of living houses and per capita floor space of living houses BRAC members were significantly better off than the comparison ones.

Average per capita calorie consumption and total food and non food expenditures were significantly higher for BRAC member households. Ratio of non food to total expenditure was also higher for BRAC which mainly increased with increase in the household income. BRAC members are also consuming more vegetables, fish and meat - items rich in nutritional value.

More BRAC households than comparison ones use tubewell water for washing utensils, clothes and for bathing. About 24% of BRAC and 9% of comparison households were using sanitary latrine. The rate of contraceptive use was 40% and 27% respectively for BRAC and comparison households.

Panel data analysis showed that value of assets was significantly higher for BRAC households both in 1993 and 1996 than comparison group households. But the rate at which this value increased was higher for the latter group (84%) compared to the former (22%). Apart from BRAC inputs initial land holding and occupational status (self or wage employed) of the household head were the two major indicators influencing asset accumulation.

Dependence on non-institutional cash loan decreased for BRAC households (31%) between 1993 and 1996. But households with self-employed head increased their borrowing from non-institutional sources as they are more enterprising and BRAC loan was inadequate for productive investment. The amount of such loan remained the same for comparison households.

Newer BRAC members have demonstrated comparatively better performances than older ones in terms of rate of increase of value of living houses, per capita floor space, saving, asset etc. These new members joined BRAC with higher level of initial endowment than the older ones. But older members enjoy better health and sanitation facilities.

To address gender issues, as indicated earlier, data were disaggregated in term of sex of the household head to explore differential impacts. Findings revealed that male headed households demonstrated better performances in terms of different socio-economic indicators. In rural Bangladesh a woman usually heads a households in the absence of adult male income earner in her household.

Results on incidence of poverty showed that 52% of BRAC and 69% of comparison households were below the poverty line. Percentage of households living in extreme poverty was 22% for BRAC and 37% for comparison households. Both the poverty gap and intensity of poverty of the comparison households were 41% higher indicating that their poverty level was more severe than that of BRAC member households. Among BRAC members incidence and severity of poverty decreased with increase in membership length.

BRAC member households faced less food deficit than the comparison ones. Among BRAC members those who received higher amount of loan faced less deficit.

Our findings on incidence of poverty are fairly compatible with the findings of the *Household Expenditure Survey, 1995-96* conducted by the Bangladesh Bureau of Statistics (BBS, 1997). According to the BBS results, at the national level, 56.7% of the rural population are below the poverty line.

BRAC member households whose heads were self-employed and received higher amount of loan benefited more from BRAC intervention.

Seasonal fluctuations in per capita monthly food expenditure was much lower for BRAC households than comparison ones (3% and 18% respectively). But per capita monthly non-food expenditure increased much in the peak season for the former category. However, BRAC households spent higher amount on food and non-food items in both lean and peak seasons than the comparison households. This marginal fluctuation in food and large fluctuation in non-food expenditure indicate BRAC members' better economic strength.

BRAC households had more food stock in both lean and peak seasons than comparison households and this stock increased with amount of BRAC loan indicating significant positive impact of BRAC inputs.

BRAC households employed negative coping mechanisms at a lower rate and positive mechanisms at a higher rate to confront crises encountered during the previous one year which implies BRAC households' less vulnerability to sudden shocks.

Participation in BRAC enabled women either to become involved in new IGAs or to expand the size of operation of the previous IGAs. Many became involved in non-traditional activities. However, results showed that majority of women (53%) handed over their loan money to their

male household members for use instead of investing the amount by themselves. Existing socio-economic conditions created this dependence of women on male in terms of loan utilization.

Women used their income from IGAs for a wide variety of personal and household expenses. Over 90% of all women owned any asset, either productive or non-productive. But ownership was often partial. Apart from owning poultry and livestock, group members also owned such assets as sewing machines, rickshaw/vans, trees, *dhenkis* (paddy husker) and hand looms. Among non productive assets owned were jewellery and brass utensils. Ownership increased with increase in length of membership.

Control over assets was also found to be quite encouraging which increased over time to some extent. However, women's control over assets was still limited since they tended to consider many assets as household owned rather than personal assets.

BRAC participation helped women to acquire positive self perceptions of their own personal interests. Their self-confidence increased along with reduction in dependence on male members. The husbands also gave them more importance than before. They shared more in decision making at family level. Their increased mobility enabled them to communicate better with the outside world.

Information on women's views of impact was collected by using both quantitative and qualitative methods. But the latter method provided more in-depth information.

In IAS-II 200 BRAC members who had shown exceptional performance were purposively selected with the help of RDP field staff. This was especially done to compare their socio-economic characteristics with other BRAC members. No special focus was given in the questionnaire to explore the reasons of their success. In course of data analysis some reasons came out which we did not plan to explore beforehand. In identifying factors which influenced the differences in the level of success between the two groups it was found that 61% of the success household members were involved in VO management against only 14% for the other BRAC members. Identification

of factors contributing to significantly higher level of performance of the selected success cases shows that involvement in VO management, close kinship ties in the VO, BRAC training and enjoyment of special loan privileges helped them achieve a high degree of success.

Relative Costs of Impact Assessment

The impact assessment study of BRAC entailed high costs in term of money, human resources and time required. It took more than a year to accomplish the tasks of designing the research, collection, processing and analysis of data and preparation of the preliminary draft report. A team of ten researchers were involved in conducting the study. Initially, in designing the study the team discussed various aspects of design. The IAS-I was reviewed considering variables/ indicators, sample size/component, survey instruments to be used, formulation of the questionnaire, methods of analysis, table plan and contents of the report. In this connection a quick field survey had to be conducted on the status of the IAS-I sample population especially in view of the decision to collect panel data. RDP programme personnel including field staff were consulted a number of times in determining the contents of the programme that should be assessed. In finalizing the study design valuable suggestions were received from an external consultant from IDS, Sussex.

A group of around sixty field enumerators were selected and trained for collection of household survey data. Along with the members of the research team, experienced enumerators were used for field supervision. Quality control measures were taken to minimize errors and ensure quality of data. Trained staff performed the job of cleansing and coding of data. Computer services were utilized for data entry, processing and analysis. A very large team of enumerators were required to minimize the time gap in the collection of data on consumption and other variables that might have seasonality effects. A large number of small survey teams simultaneously spread out all over the geographically dispersed areas. This, however, put high pressure on the research team in terms of supervising field data collection effectively. The active involvement of the members of the research team in the field helped improve the quality of data obtained. The beneficiaries of the programme could also improve their overall perception about BRAC programme through this process of data

collection that necessitated close contact with the beneficiaries. Qualitative data were collected by experienced and trained members of the research team.

For analysis of data and preparation of research report responsibilities were assigned to different members of the team. Attempts were made to integrate the quantitative and qualitative data wherever feasible.

About the relative costs of collecting data by using the survey method for quantitative data and qualitative approach the experience of the research team provides a mixed picture. All the field enumerators suitable for conducting a sample survey are not considered to be competent to carry out RRA/PRA exercises for collection of qualitative data. In our case, the experienced members of the research team had to do the job which we considered more costly both in terms of time and human resources required. However, we used both the methods of data collection to meet our requirements of the study.

Conclusion and Policy Implications

One of the objectives of IAS-II was to create a baseline for further impact assessments. The study gave attention to material well-being with special focus on poverty reduction performances. An analysis on women's empowerment was also made. An integrated method was used covering household survey, qualitative and case studies and village profile. Broadly speaking the research team followed the method used in IAS-I conducted in 1993-94. However, IAS-I was carefully reviewed and necessary changes were incorporated to overcome its shortcomings.

Analysis was made in line with the assumptions set out in the background paper. Although several minor revisions in the analysis became necessary to improve the quality of the report the contents of the report, as outlined in the beginning of the study, was kept intact. This was due to our experience gathered in the process of analysis and also to the valuable comments and suggestions that came from renowned academicians who reviewed preliminary drafts.

The main problem of IAS-II was to separate the impact which is only due to programme intervention. Impact of any development programme depends on several other aspects apart from the inputs the beneficiaries received from the host organization. Among these are the initial economic condition before participation in the programme, level of education, social and economic infrastructure and so on. It becomes very difficult to distinguish which part of the contribution is due to programme intervention and which part is due to these external factors. Some statistical tools were used to separate the contribution of external effects, but that always might not suffice because socio-cultural aspects can not be quantified.

We made attempts to find out the contribution of BRAC in the upward mobility of the programme participants by comparing the overtime changes in different socio-economic indicators of both programme participants and comparison households. Since these two groups started from different positions, comparison of their performances was somewhat difficult.

Some comparison members joined different development organizations and received inputs from there. Even if they did not, different development organizations intervened in those villages as a result of which these comparison households might have experienced “spill over” effect of those programme interventions. This was especially true for health, sanitation and reproductive behaviour which have impact on material well-being.

Programme participants benefited from BRAC intervention. But it is not yet studied whether there is any positive impact in the aggregate village level. Some critics of NGOs say that there might be some ‘displacement effect’, i e., programme participants might be benefiting at the expense of the rest of the poor who are not participating. Therefore, impact assessment on participants’ lives vis-à-vis on the aggregate level could be done. In IAS-II no such provision was made.

The impact assessment research results brought out certain policy implications for RDP of BRAC. RDP responded positively and certain actions are being taken which are expected to have positive impact on the beneficiaries besides improving the sustainability of the programme. Some of these are mentioned below.

Results of the study indicated a recent member selection bias towards the relatively “less poor”. In response, RDP has initiated steps to enter the hard-core poor. Over 200,000 women have been already identified. A survey is being conducted to assess their problems and needs to evolve a suitable programme of intervention for this bypassed group.

Secondly, the size of RDP loan especially for enterprising members was found to be inadequate. RDP has already taken step to raise the loan ceiling and to introduce a flexible loan pattern. Thirdly, to satisfy the demand of the participants for allowing withdrawal of savings the pilot scheme on savings withdrawal is being streamlined and a decision has already been made to open a current account for participants to facilitate deposit and withdrawal at any time.

This dynamism of RDP is expected to benefit the participants more. Impact of these revisions in the programme will be clear from the next impact assessment study that will be carried out in near future. It can not be denied that the cost of IAS-II was very high in terms of human resources and time spent. But RDP is a very large programme now working among about two million participants. The findings of IAS-II are expected to help the programme participants through the changes in the policy of RDP and the benefit must be much more higher than the cost of IAS-II.

Both quantitative (household survey, village profile) and qualitative methods were used to assess impact but each of them was mainly used for different purposes. For poverty estimation and constructing summary poverty measures and assessing impact on material and social well-being, quantitative approach was used. But the findings derived from this approach especially on food security and crisis management was matched with those derived by qualitative approach. Attempts were made to find out the implicit reasons of impact through qualitative methods. On the other hand, a provision was made in the household survey questionnaire to collect information on women’s empowerment especially on their ownership and control over assets, their involvement in and income from IGAs to substantiate the result derived from qualitative information. Comparison of the results from the two methods revealed that though the two sets of findings were not exactly the same, they did not contradict. They showed similar trends.

In any socio-economic research the two most important questions needed to be answered are 'what' and 'why'. The quantitative method was found to be most effective to answer the first question and qualitative method for the second. Therefore, as we realized, no single research method can suffice to assess impact. Only an integration of both quantitative and qualitative methods can serve the purpose.

Regarding the choice of a particular method for conducting impact studies one should remember that objectivity is one of the primary criteria of research. To ensure maximum objectivity we used the sample survey method to collect quantitative data which are amenable to statistical analysis especially where it is necessary to decompose data to isolate the effect of a single variable from the composite effect of multiple variables. Participatory/qualitative method was used, as indicated earlier, especially where we dealt with subjective issues such as perceptions, attitudes and motivations. It is often necessary to provide 'explanations' of 'facts' derived from quantitative approach for which we have used the qualitative approach. Thus in certain cases both the methods may be necessary to complement each other although in certain other cases use of the either may serve the purpose of research.

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