

RESEARCH PAPER

Impact of Micro-Credit on the Livelihood of Rural Women of Mymensingh District in Bangladesh

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ABSTRACT

The main focus on the present study was to determine the change in livelihood status of women beneficiaries of NGOs at Bangnamari village of Gauripur Upazila under Mymensingh district. A sample size of 80% women was drawn from randomly selection of 100 women at study areas. The findings showed that most of the respondents were economically active but not well educated. It was found that the yearly average income and expenditure of the households were Tk. 68656.25 and Tk. 64542.92 respectively. Data indicated that a total of 75% was Muslim and 25% was Hindu respondents. The joint and nuclear family were 61% and 39% respectively. Contribution of NGOs in changing the livelihood status 75%, 25% and 13% were BRAC, GREEMINBANK and ASA; respectively. The average change in livelihood status score was 13.94. The largest proportion (62 percent) of women belonged to medium, compared to 25 percent and 13 percent belong to low and high change in livelihood status categories through BRAC, GB and ASA respectively. Results of t-test on change of livelihood status in three dimensions namely 'change of farm and house hold materials', 'change of housing, health and sanitation' and 'change of annual family income' in terms of 'before' and 'after' involvement were found highly significant. Out of 10 selected characteristics such as education, family size, farm size, and household income, income of respondents, savings, and access to credit, employment, health knowledge and social participation. The regression coefficient of these values was 0.06, -0.51, 0.03, 0.09, 0.02, 0.00, 0.12, 0.06, 0.02 and 0.24, respectively. Annual income from credit availability, communication with GB employee and staff and attitude towards micro-credit program of GB were positively significant and only age and non-localize behavior were negatively significant with dependent variable of change in livelihood status. Family size, farm size, organizational participation and attitude towards community did not show any significant relationship with change in livelihood status. Problems faced by beneficiaries in respect of 'low price of different products (35- High), lack of improved seeds (34-High) and high interest rate (30-High) respectively. One of them lack of sufficient amount of credit' was the most serious problem. However, the present study was conducted carefully with a view to identifying the genuine information from the respondents as well as to find out the impact of microcredit on women in changing their livelihood.

Key words: Impact, beneficiaries, credit, social, women

Introduction

Sustainable livelihood shocks from natural disaster and through enhanced adaptive capabilities and assets both now and in the future without undermining the natural resource base (Chambers and Conway, 1988). "Livelihoods" are the ways people combine their capabilities, skills and knowledge with the resources at their disposal to create activities that will enable them to make a living. A sustainable livelihood is one that can be

carried on now and trim the future without depleting the resources it depends on and without depriving other people of a livelihood. Livelihood status is the state of individuals which indicates his/her socio-economic conditions, living environment or their standard of living (Rokonuzzaman, 2004). The livelihood status of the women of Gauripur upazila of Mymensingh district is not remarkably high since their main source of income is

subsistence agricultural practices. Bangladesh is the pioneer of microcredit program in the world. At present more than 10000 micro finance institutions are operating in the country. The first Microcredit Summit (MCS) held in Washington, DC in 1997 was an important event for mainstreaming microcredit and microfinance, as the leading development initiative with the potential to address poverty alleviation and gender equity issues. The ambitious action plan, drafted by the various participating stakeholders (e.g., donors, political leaders, policymakers, NGOs, commercial lenders and multinational corporations), sought to provide "credit to 100 million of the world's poorest families" and particularly to women by 2005 (Anon., 2001). Microfinance's successfully addressed these two fronts of international development is evidenced by the UN proclamation of the year 2005 as the International Year of Microfinance (UN 1998). To coordinate and maintain consistency among the varied agencies currently engaged in these projects, the Consultative Group to Assist the Poorest (CGAP) has developed general guidelines that are now widely adopted. (Anon., 2002). In Bangladesh, Women constitute about half of the total population of which 80 percent live in rural areas (BBS, 2006) on the basis of twenty indicators related to health, marriage, children, education, employment and social equality, Bangladeshi women have been lowest in the world. The World Bank study in Bangladesh highlights that women have limited role in household decision-making, limited access and control over household resources (physical and financial assets), low level of individual assets, heavy domestic workloads, restricted mobility and inadequate knowledge and skills that leading to women's vulnerability (Sebstad and Cohen 2002: 44).

Materials and Methods

Selection of the study area

Farm management is one of the prominent livelihood options in the village areas of Bangladesh. When selecting the study area, this issue was considered. Farm management research requires selection of an area where the research is to be conducted and related information requires to be collected. Moreover, the area in which farm business survey is to be conducted depends on the specific purpose of the survey and the possible co-operation from the respondents. Keeping this in mind Bangnamari village of Gauripur Upazila under Mymensingh district was purposively selected for the present study. The main reasons for selecting the village were ; (i) poverty reduction and livelihood development program (ii) credit receivers were available in the study area; (iii) the selected area is well served by roads and rickshaw services; and (iv) perfect cooperation with the respondents so that reliable data might be obtained.

Period of survey

The data were collected from the individual women through the direct interview method. Before starting the interview, each respondent was given a brief description about the nature and purpose of the study. For the present study, data were collected during the period from July to October, 2019.

Selection of the sample

After preparation of survey schedule, sample selection is an important part of survey work. A total of 80 women were collected for collecting data by gradually. It is generally not possible to make census survey covering all the borrowers. The sample size should be as large as possible to allow for adequate degrees of freedom in the statistical analysis. In other words, administration of field research, processing and analyzing of data should be manageable within the limits imposed by physical, human and financial resources. A total of 80 women were selected to achieve the objectives of the study was taken into account. At first the leading NGOs namely ASA, BRAC, GB were targeted for data collection. Data collected in this study are hierarchical in nature where individuals are nested into villages and villages are nested into districts.

Preparation of survey schedule

Keeping the objectives of the study in mind, survey schedule was carefully prepared in such a way that all the necessary items were included. A draft schedule was first prepared having the advice of the supervisor. A set of interview schedules was prepared for collecting reliable information from the respondents. Then the draft schedule was tested and attention was paid for inclusion of new information that was not included in the draft schedule. Thus the draft schedule was improved, rearranged and modified in the light of the actual and practical experience. After making necessary adjustment, a final survey schedule was developed in logical sequence. The final schedule included the following information:

- Identification of the respondents and family composition
- . Education and occupation of the respondents
- . Information related to assets.
- . Annual income and expenditure of the respondents.

Methods of data collection

Primary data were collected from the selected respondents through the direct interview conducted by the researcher himself and with the help of other researchers. After preparing the schedule, each selected respondent was interviewed separately. The questions were asked sequentially in a simple manner. The responses were recorded directly on the interview schedules. Usually the respondents at grass root level do not keep written records of their different activities. So, the researcher had to depend on bare memory of the respondents. During interview, the researcher asked questions systematically and explained whenever necessary. After completion of each interview, the schedule was checked and verified to be sure that answer had been properly recorded. In order to minimize errors data were collected in appropriate standard units.

Processing and analysis of data

After completion of necessary information, the schedules were carefully checked scrutinized and edited to avoid irrelevant information. Collected data was classified, tabulated and analyzed in terms of the objectives set for the study to derive the relevant findings. Responses of the completed questionnaires were numerically coded and analyzed. In addition, figures and tables were also prepared by using Microsoft office (MS word and Excel).

Problems faced in data collection

> Carrying out a research depending on the collection of field level data is not an easy work and it entails some problems. The problems and limitations faced by the researcher during data collection are as follows:

> Most of the respondents initially hesitated to answer the questions because they had no previous idea about such type of interview. To overcome this situation, a good deal of time had to spend to gain their confidence.

> Sometimes the respondents were not available at home. In this case, the researcher required to make multi visit to conduct a single interview.

> Illiteracy of the respondents was another problem to the researcher. Sometimes the respondents could not answer to question accurately because of their hazy concepts.

> The respondents were women and usually they did not keep any written records of their household activities. Therefore, in collecting information from bare memory of the respondents much care was needed on the part of the researcher.

> The respondents hesitated to answer the question about the actual amount of annual income or expenditure because they were afraid of tax imposition, crop acreage restriction and land acquisition by the Government.

> It was too difficult to convince the respondents about the utility of the study. They did not want to understand or rely upon the researcher that the study was strictly for academic purpose.

In spite of these problems, the researcher always tried to collect as much as possible the correct information through continuous persuasion.

Results and Discussion

Socio-economic characteristics of the beneficiaries

Age structure:

About 75% and 25% of the respondents were Muslims and Hindus respectively. Different categories of age groups: young (20-30 years), middle aged (31-40 years) and old (41-60 years) were considered to examine the age structure. It appeared (Figure 1) that age group of 41-60 years was the highest (45%) and 20-30 years was the lowest (23%) considering all respondents.

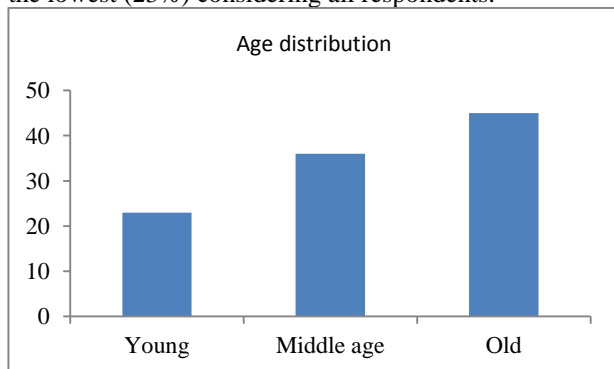


Figure 1: Religion and age structure

Family size and composition

In the present study, families were classified into two types as nuclear family and joint family. About 61% of respondents lived in joint families and 39% in nuclear families in the study area.

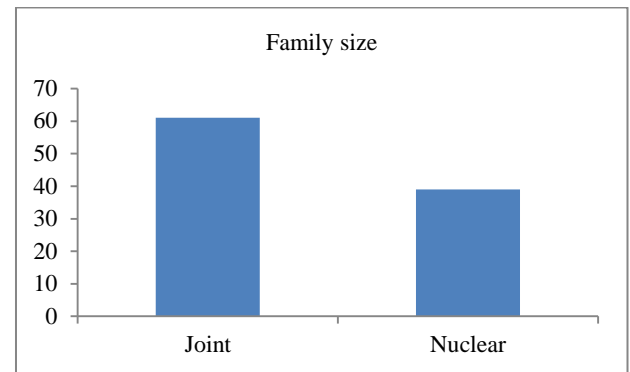


Figure 2: Family size and type of respondents

Impact or Change in livelihood status

Change in livelihood status was found to range from 1-100 with mean of 13.94 and standard deviation with 4.85. Data furnished in Fig. 3 indicated that large proportion (62 percent) of the respondents fell under medium change in livelihood status while 25 percent and 13 percent fell under low and high change in livelihood status through BRAC, GRAMEEN BANK and ASA, respectively. Interestingly, it was found that 75 percent respondents got opportunity to change their livelihood status after involving themselves with micro-credit program of BRAC.

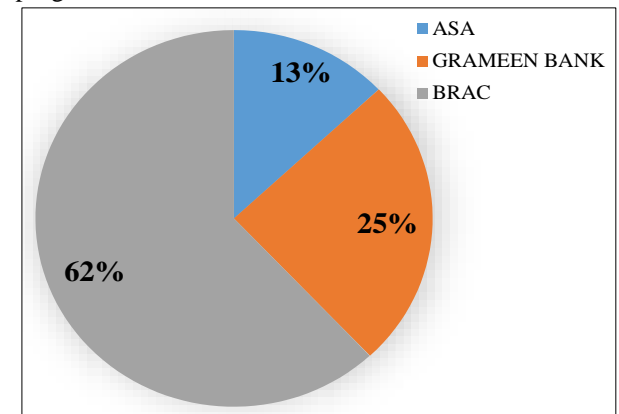


Figure 3: Different Categories of Change in livelihood status of beneficiaries by NGOs.

Table 1: Comparative change pattern of livelihood status 'before' and 'after' involvement with micro-credit program

Variables	Average		Calculated t-value
	Before	After	
Change of farm and household materials (score)	30.76	32.76	3.67
Change of housing, health and sanitation (score)	33.38	37.67	3.14
Change of annual family income (score)	45.57	51.87	4.54

Pattern of Average Yearly Income and Expenditure of the Households

In this study, annual personal income of the respondents is considered as the summation of income earned by respondents from different farm and nonfarm activities. It was found that the amount of yearly average income of

respondents from agricultural activities was Tk. 3725.00 and average income from non -agricultural activities was Tk. 4433.77 (Table 2). Total yearly average income was Tk. 8158.77. Again, annual income of the household was considered as the summation of income earned by all family members from different farm and non-farm activities. Table 2 represents the average yearly income patterns of the households. From the Table 2, it was found that the amount of yearly average income from agricultural activities was Tk. 27006.25 and average income from non - agricultural activities was Tk. 41650.00. Total yearly average income was Tk.68656.25. Annual expenditure was also calculated by considering the cost of all food and non- food items used by all family members. It was found from the table 2 that total yearly average expenditure was Tk. 64542.92 where a large amount of earning money was spent on buying food items.

Table 2: Yearly personal and households income patterns

Sources of income	Average personal income (Tk./year)	Average households income (Tk./year)
Agricultural activities	3725.00	27006.25
Non - agricultural activities	4433.77	41650.00
Total	8158.77	68656.25

Table 3 : Yearly expenditure patterns of the households

Items	Average expenditure (Tk./year)
Food	48475.00
Cloths	4025.00
Housing	1996.25
Education	3531.25
Health care	3473.75
Others	3041.67
Total	64542.92

Yearly Income of the Household and Respondents

A little number of rural women in this study area was contributing in family as an earning member. The distribution of the household and the respondents according to their income is shown in Table 4. Table shows that the highest number 50% of the respondents earned less than or equal to 30000 and 38.75% percent of the respondents have no income earning activities.

Table 4: Distribution of Yearly Income of the Household and Respondents

Categories of income	Households		Respondents	
	Number	Percent	Number	Percent
No income	0	0	31	38.75
≤ 30000	1	1.28	40	50
30000-60000	35	43.75	4	5
60000-80000	14	17.50	3	3.75
60000-80000	30	37.50	2	2.50
Total	80	100.00	80	100

Effects of Selected Factors on Livelihood assets

There is no single and direct indicator of measuring food security. Food security is dependent on agricultural production, food imports and donations, employment opportunities and income earning, intra household decision-making and resource allocation, health care utilization and caring practices. The main determinants of household food security are income, household size, Education, price of staple food and sex of household head. In spite of the common use of a relatively small number of food security indicators in much of the literature on the subject, however, not all programs can be evaluated using all or even some of these criteria. The regression result (estimated values of the co- efficient and related statistics) of this research has been presented in Table 5 and the significant variables have been described later.

Family Size: Family size affects household food security negatively. If the family size of any household is large, there will be a chance to be food in secured for that household. So, food security depends on family size of any household. The regression coefficient of family size was -0.51 which was statistically significant at 1 percent level. It indicates that holding all other variables constant, 1 percent increase in family size would lead to a decrease of food security by -0.51 percent.

Education: The co-efficient was statistically significant at 1 per cent level which indicates that it is a very important indicator of food security. Educated women know that how to be food secured in the household. So education is a prominent indicator through which the rural women become food secured in the community. Lawal (2005) also found in his research that education and land size influence rural women to utilize the improve practices for household food security and nutrition.

Annual Savings: Impact on Annual Savings as evident from Table 5 that the average saving of the respondents was Tk. 5198.59 before joining the ASA and it was increased to Tk. 8769.64 after joining the ASA loan operation. The difference came to Tk. 3571.06 and it constituted about 68.69% increase in savings of the participating families in the study area. Change in savings between the two groups was mostly in livestock rearing (around three times) compared to other occupations since after taking loan, the beneficiary community received market support from the NGO which ensured their higher market price. Therefore, the t state was 1.40 and p value of that savings was 0.16.

Farm size: Farm size affects household food security largely. If the farm size of any household is large, there will be a chance to be food in secured for that household. So, food security depends on farm size of any household. The regression coefficient of farm size was 0.03 which was statistically significant at 0.02 percent level. It indicates that holding all other variables constant, 0.02 percent increase in farm size would lead to a decrease of food security by 0.0 percent.

Health Status: Clients were asked a series of questions about the health of each of the women based on the content of the intervention. For example, they were asked how many days of diarrhea the child had experienced in the last four weeks, or whether they had

had difficulty breathing due to a cough. These data were only collected at follow-up. Additionally, height and weight were collected at baseline and follow-up using standard techniques. Wooden stadiometers were constructed locally to measure height, and digital Taylor Electronic Lithium Scales Model 7324W recorded weight. Z-scores for each child's weight-for-age, length/height-for-age, and body mass index (BMI)-for-age were calculated using WHO reference standards. These were then used to determine the prevalence of underweight, stunting, and overweight in this population. Blood hemoglobin levels were measured at baseline and follow-up with finger pricks using the HemoCue Hb 201+ System (HemoCue Inc., Lake Forest, CA). Hemoglobin levels were not adjusted for altitude because Pucallpa lies at 200 m above sea level.

Table 5: Factors affecting livelihood assets in the studied households

Parameters	Coefficients	S. E.	T State	P value
Intercept	-0.55	0.37	-1.46	0.15
Education of respondent (X1)	0.06*	0.02	2.77	0.01
Family size (X2)	-0.51*	0.05	-9.99	0.01
Farm size (X3)	0.03	0.02	1.45	0.015
Household income (X4)	0.09*	0.04	2.61	0.01
Income of respondent (X5)	0.02	0.01	0.76	0.45
Savings (X6)	0.00	0.00	1.40	0.16
Access to credit (X7)	0.12**	0.06	2.03	0.05
Employment (X8)	0.06**	0.02	0.73	0.47
Health knowledge (X9)	0.02	0.11	0.20	0.84
Social participation (X10)	0.24*	0.09	2.64	0.01

Note: ** indicates 5%, and *indicates 1% level of significant

Household Income: Household food security depends on the income of household. Households having lower income have chance to become food insecure. On the other hand, high income group or households are most of the time food secured compared to the lower income group, because high income group have ability to buy sufficient nutritional food items. The regression coefficient of household income was 0.09 which was statistically significant at 1 percent level. But the coefficient of savings was 0.00 that indicates savings has no any influence on food security.

Availability of Credit: Sometimes due to the lack of credit, households face financial problem. As a result, they are not able to buy required amount of nutritional food and sometime, they cannot apply agricultural inputs. So, there are few households whose need credit but high dependencies on credit make them poorer and through this process, they have chance to become food unsecured. The regression coefficient of access to credit was 0.12, statistically significant at 5 percent level indicates that

holding all other variables constant, 1 percent increase in access to credit would lead to an increase of food security by 0.12 percent.

Employment status: The regression coefficient of employment was 0.03. It indicates that holding all other variables constant, 1 percent increase in employment would lead to an increase of food security by 0.03 percent. It could be due to the fact that an employed person can easily fulfill the requirement of daily dietary and nutritional need. That means employment status ensures household food security.

Social participation: The regression coefficient of social participation was 0.24. The co-efficient was statistically significant at 1 percent level. It indicates that holding all other variables constant, 1 percent increase in social participation would lead to an increase of food security by 0.24 percent. Though in this research, the regression coefficient of health knowledge, decision making ability, spending ability, control over capital etc. were not found significant, but in many empirical literatures, the variables are found significant. The estimated value of co-efficient of adjusted R square was 0.60.

Table 6: Problems and constraints faced by the respondents

Problems and constraints	High	Moderate	Not at all	Total
High interest rate	30	19	31	80
Lack of storage facilities	19	25	46	80
Burden of old debt	25	31	24	80
Low price of different products	35	45	-	80
Shortage of grazing land	23	32	25	80
Lack of improved seeds	34	24	22	80

Source : Field survey, 2019

Conclusion

Women constitute nearly of half of the total population of Bangladesh. The present study revealed that most of the rural women had a great chance to ensure household income security in changing their livelihood pattern by the assistance of NGOs. In the study area, most of the rural women were not empowered. Through women empowerment we can easily overcome the problem of poverty in the society. For low income, lack of food and illiterate, women whose need to empowerment but in Bangladesh, basically in rural area women are living in social and religious prejudice. To improve this situation as well as changing their livelihood, some pragmatic steps are needed to be undertaken not only by the major intervening agencies, such as GO and NGOs but also by the rural community itself. Strategies aimed at empowering women must address both their practical and strategic gender needs. In view of the above considerations, the following strategies are recommended:

i) Promoting rural women's participation in decision-making, including through affirmative action, and

support for women's organizations, labour unions or other associations and civil society groups promoting rural women's rights;

ii) The status of rural women could be improved with the access to formal education. Community based education to rural women needs to be promoted. Governmental organizations, NGOs and local community leaders need to take necessary steps to uproot illiteracy and related social deficiencies from rural communities.

iii) Supporting remunerative non-agricultural employment of rural women, improving working conditions and increasing access to productive resources; Encouraging informal women's groups in rural areas would be a step toward increasing their empowerment since this would facilitate greater mobility outside the home and their access to media. Local community leaders, extension personnel, NGO workers and representatives from women's organization would provide a vital contribution to such group by motivating them toward engaging in various development activities. Though micro-credit played an important role in socioeconomic development of Bangladesh, in this study some problems of the NGOs micro-credit activities were detected.

These were:

- High rate of interest was one of the problems of micro-credit.
- Early start of repaying loan was another problem. It was very difficult for the respondents to repay the loan just in the next week after taking loan. It is very difficult to get return from any sector so quickly. Insufficient amount of loan was another major problem to start any activity and hence to alleviate poverty. Lack of proper supervision of the NGOs workers was found in this study.
- Interest rate was not the same in all NGOs. Different NGOs followed different methods to calculate the rate of interest. From the respondents' perspective the reasons of drop out from any NGO were small amount of loan, burden of old debt, taking loan for their husbands and not repaying the installments properly, etc. It was found that the monitoring system of the NGOs was not good. Most of the NGOs' members were from the poor families. So there was a chance to use the loan money to mitigate their emergency needs or to invest in unproductive sector(s). Thus the monitoring system of the NGOs should be increased. Proper monitoring system enhances the proper Utilization of loan and hence repaying the loan at right time, which ultimately improves the economic positions and reduce the poverty situation of the respondents. In the present study, it was recorded that none of the NGOs had taken any programme for the beggars and the disaster people affected clients (or people). So each of the NGO should take appropriate programme(s) considering the beggars and disaster prone people and should try to improve their present poverty situations which ultimately reduce the poverty situation in Bangladesh. There are some advantages of group member viz. i). A group of women is formed member fails to repay it goes to all other members and so on. But unfortunately no group member was found in this study. So the NGOs should give more

attention to combine the members into a group for drawing the loan, ii) Responsibilities of repayment lie on all the members iii) If one member fails to repay it goes to all other members and so on. But unfortunately no group member was found in this study. So the NGOs should give more attention to combine the members into a group.

Conflict of interest

None to declare.

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