

2002

# The Role of Carmeen Bank as a Micro-credit Institution: A Critical Evaluation of Some Selected Areas in Rajshahi Zone

Majumder, Md. Humayun Kabir

University of Rajshahi

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**THE ROLE OF GRAMEEN BANK AS A MICRO-CREDIT  
INSTITUTION: A CRITICAL EVALUATION OF SOME  
SELECTED AREAS IN RAJSHAHI ZONE**



**A DISSERTATION SUBMITTED TO RAJSHAHI UNIVERSITY IN FULFILMENT  
OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN ECONOMICS**

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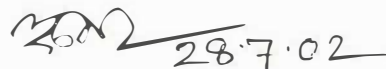
**JULY 2002**

*DEDICATED TO THE MEMORY OF MY DEPARTED PARENTS  
WHO TAUGHT ME TO TELL THE TRUTH*

## ***DECLARATION***

I, the undersigned hereby declare that this dissertation entitled, "*The Role of Garmeen Bank as a Micro-credit Institution: A Critical Evaluation of Some Selected Areas in Rajshahi Zone*" is my original research work and submitted to Rajshahi University of Bangladesh, for the award of the degree of Doctor of Philosophy in Economics. It is to be mentioned that this work has been done under the supervision of Dr. Dilip Kumar Nath, Professor of Economics University of Rajshahi and has not been submitted previously for any Degree, Diploma, Fellowship or any other similar purpose to any University or Institution.

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ফোন : ৭৫০০৪১-৯/৪১৬০ (অফিস)

## ***CERTIFICATE***

I have much pleasure in certifying that the Dissertation entitled,  
*“ The Role of Grameen Bank as a Micro-credit Institution: A Critical Evaluation of Some Selected Areas in Rajshahi Zone”*, submitted by Mr. Md. Humayun Kabir Majumder, is his original work and carried out under my supervision. I also certify that I have gone through the entire dissertation and found it satisfactory for submission in fulfilment of the requirements for the degree of Doctor of Philosophy in Economics.

**Dated:** 28.7.02

  
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## ABBREVIATIONS

ADB	: Asian Development Bank
ADP	: Annual Development Program
ASA	: Association for Social Advancement
ASCA	: Accumulating Savings and Credit Association
BADC	: Bangladesh Agricultural Development Corporation
BARD	: Bangladesh Academy for Rural Development
BAS	: Bangladesh Agricultural Survey
BASIC	: Bank of Small Industries and Commerce
BB	: Bangladesh Bank
BBS	: Bangladesh Bureau of Statistics
BER	: Bangladesh Economic Review
BIBM	: Bangladesh Institute of Bank Management
BIDS	: Bangladesh Institute for Development Studies
BKB	: Bangladesh Krishi Bank
BOESL	: Bangladesh Overseas Employment Service Ltd.
BRAC	: Bangladesh Rural Advancement Committee
BRDB	: Bangladesh Rural Development Board
BSB	: Bangladesh Shilpa Bank
BSBL	: Bangladesh Samabaya Bank Ltd.
BSIC	: Bangladesh Small and Industries Corporation
BSRS	: Bangladesh Shilpa Reen Sangsta
BSS	: Bittaheen Samabaya Samity
CBD	: Comprehensive Village Development Program
CDF	: Credit and Development Forum
CDP	: Crop Diversification Programme
CIDA	: Canadian International Development Agency
CIRDAP	: Center for Integrated Rural Development for Asia and the Pacific
DAE	: Department of Agricultural Extension

## ABBREVIATIONS

DSL	: Debt Service Liabilities
DTW	: Deep Tube Well
DWA	: Department Women Affairs
DYD	: Department of Youth Development
EFA	: Education for All
ERD	: External Relations Department
FAO	: Food and Agricultural Organization
FFEP	: Food for Education Programme
FPSTC	: Family Planning Service and Training Centre
FY	: Fiscal Year
GB	: Grameen Bank
GBP	: Grameen Bank Project
GDP	: Gross Domestic Product
GEP	: General Education Project
GOB	: Government of Bangladesh
HDI	: Human Development Index
HES	: Household Expenditure Centre
HFWC	: Health and Family Welfare Centre
HRD	: Human Resources Development
HYV	: High Yielding Variety
IAS	: Impact Assessment Studies
IBRD	: International Bank for Reconstruction and Development
IDA	: International Development Association
IFAD	: International Fund for Agricultural Development
IMF	: International Monetary Fund
INFEP	: Integrated Non-formal Education Program
IRDP	: International Rural Development Programme
IRDP	: Integrated Rural Development Program
KSS	: Krishi Samabaya Samity

## ABBREVIATIONS

KSS	: Krishak Samabaya Samity
LDC	: Least Developed Countries
LFS	: Labour Force Survey
LOC	: Land Occupancy Survey
MBSS	: Mohila Bittahin Samabaya Samity
MC	: Micro-credit
MFI	: Micro-finance Institution
MF-NGO	: Micro-finance Non-Government Organization
MIDAS	: Micro-Industries Development Assistance Service
MOYS	: Ministry of Youth and Sports
MWCA	: Ministry of Women and Children Affairs
NCB	: Nationalized Commercial Banks
NCWD	: National Council for Women Development
NGO	: Non-Government Organization
NORAD	: Norwegian Aid Department
NPC	: National Policy for Children
OCEF	: The Overseas Economic Co-operation
PCB	: Private Commercial Banks
PCBs	: Participating Commercial Banks
PKSF	: Palli Karma Sahayak Foundation
PROSIKA	: Proshikkhan Shikkha (Training Education and Works)
PVDO	: Private Voluntary Development Organizations
RAKUB	: Rajshahi Krishi Unnayan Bank
RCS	: Rural Credit Survey
RFEP	: Rural Financing Experimental Project
SACP	: Special Agricultural Credit Programme
SB	: Sanirvor Bangladesh
SCI	: Small and Cottage Industries
SEDP	: Small Enterprise development Project
SIDA	: Swish International Development Agency
TCCA	: Thana Central Co-operative Association

## ABBREVIATIONS

TLM	: Total Literacy Movement
TMSS	: Thengamara Mohila Sabuj Sanga
UCCAs	: Upazila Central Cooperative Associations
UNDP	: United Nations Development Program
UNICEF	: United Nations International Children Emergency Fund
UP	: Union Parishad
USA	: United States of America
USAID	: United States AGENCY for International Development
VGDP	: Vulnerable Group Development Programme
WB	: World Bank
WE	: Women Empowerment
WEDP	: Women's Entrepreneurship Development Program

## GLOSSARIES

Boalia	: Name of a Thana under Rajshahi District
Bittahen	: Destitute
Damkura	: Name of a Village where a Branch Office GB is Situated
Deopara	: Name of a Village where a Branch Office GB is Situated
Godagari	: Name of a Thana under Rajshahi District
Grameen	: Rural
Karma	: Work
Krishi	: Agriculture
Matikata	: Name of a Village where a Branch of GB is Situated
Mohajon	: Informal Moneylender
Mohanpur	: Name of a Thana under Rajshahi District
Matihar	: Name of a Thana under Rajshahi District
Mohila	: Female
Paba	: Name of a Thana under Rajshahi District
Pakri	: Name of a Village where a Branch of GB is Situated
Palli	: Rural
Parila	: Name of a Village where a Branch of GB is Situated
PROSHIKA	: Name of an NGO
Rajshahi	: Name of a Division of Bangladesh( Unit of Local Government)
Rin/ Reen	: Loan
Sabuj	: Green
Sagnsta	: Source
Samabaya	: Cooperative
Samity	: Society
Sangah	: Association
Sanirvor	: Self-reliant
Shilpa	: Industry
Sohayak	: Assistance

## **GLOSSARIES**

Taka	: Currency unit of Bangladesh
Thana	: Sub-district (Police Station and a Unit of Local Government)
Thangamara	: Name of a Village
Unnyan	: Development
Upzila	: Sub-district (Unit of Local Government)

CHAPTER-1  
INTRODUCTION

# CHAPTER-I

## INTRODUCTION

### **1.1 Introduction**

Widespread poverty has become the main challenge to development in the developing countries including Bangladesh. Although the world has entered into the new millennium with greater prospects and the latest blessings of science, still nearly 80% of the world population are suffering from low per capita income. About 50% of the total population of the third world countries are living below the poverty line. For the betterment of the poor people of the poor nations, economic assistance in the form of foreign aid had been undertaken after the Second World War. The inflow of international aid in many LDCs in the form of food, commodity and technology by many bilateral and multilateral organizations like World Bank, USAID, UNDP has been absolutely remarkable in the last four decades. But due to the lack of technological progress, inefficient management and uneconomic utilization of aid coupled with various conditionalities imposed by the donor countries and agencies, the inflow of foreign aid in different LCDs has not achieved the target significantly. Global efforts of poverty alleviation have been concentrated in the field of agricultural and rural development after the failure of trickle-down growth theory. Agricultural production, specially food grain production has increased in many of the third world countries between 1960s to 1980s after adopting HYV technology with the assistance of FAO and IFAD. But the incremental growth did not reach the large part of the society. As a result, poverty situation has not significantly improved despite the rise of GDP. Moreover, the incidence of poverty and unemployment in many of the LDCs has reached dangerous level in the 80s due to an unequal distribution of resources.

Later on, it was realized that poverty can not be removed by achieving only a high rate of growth. The issues of welfare and redistribution of resources must be taken into account. As Dudley Seers put it, "The questions to ask about a



country's development are therefore; What has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all three of these have declined from high levels, then beyond doubt this has been a period of development for the country concerned", (Dudley Seers, 1979). Nobel laureate Dr. Amartya Sen has also identified the uneven distribution of resources and uneven power structure as the causes of poverty. He has given emphasis on the establishment of the freedom of collective choice in democratic way and on reducing the discrimination in the distribution to obtain the goal of poverty alleviation. Micro-credit has come to light as the latest alternative approach to alleviating rural poverty after the failure of the previous approaches. The principle of group-based micro-credit program, initiated by Dr. Yunus, a professor of economics, Chittagong University, Bangladesh in 1976 has been acknowledged as a model of poverty alleviation. It has created a notion of high expectation since early 90's as a powerful instrument of creating freedom and self-employment opportunities for the distressed rural poor. At present, micro-credit programs following 'Grameen Bank Model' (henceforth mentioned below as 'GB Model') are being run in more than seventy countries of the world for the eradication of massive poverty from the countries in question.

## **1.2 Statement of the Problem**

Bangladesh, a small country of 147570-sq. km., emerged as an independent country in 1971 through a sanguinary war of liberation, after long suffering from colonial and sub-colonial oppressive rule and exploitation of the British and Pakistan respectively. As a result, the war-torn and war-ravaged economy of Bangladesh inherited features of backwardness i.e, scanty natural resources, low level of per capita income, massive illiteracy, high unemployment, industrial backwardness, unequal distribution of resources, massive malnutrition, gender discrimination, agrarian base, a traditional mode of production and a very big population with high density.

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### **Introduction**

Bangladesh is primarily an agrarian country, where agriculture is characterized by low level of productivity, subsistence farming, climatic uncertainty, underemployment and unemployment, low level of technology and a high rate of dependency. Although country's food-grains production has increased from mid 70s after adopting HYV technology, it was not sufficient to meet the demand of growing population.

Bangladesh has a huge population of 130.2 million of which 48.31% are female. The density of population per square kilometer is 760, which is highest in the world (BER, 2000, p-20). Almost 40% of the total population are unemployed. About 85 % of the total population depend on agrarian sector for their livelihood. Among 56 million of civilian labour of which 35 million are male and 21 million are female, 63.20% are working in agriculture. Of them 57% and 6.20% are in farm and non-farm activities respectively (BER, 2000). Largest share of the country's GDP is obtained from agriculture, which is about 32%, (BER, 1999). The contribution of industrial sector in the GDP is only 11.20%, in which the shares of large-scale industry and small industry are 7.4% and 3.8% respectively (BER, 1999). Only 07.70% of the total labour force are employed in industrial sector. So the agrarian sector is the leading one in the economy and the country's progress is dependent on the development of the agrarian sector.

The rate of rural unemployment is alarming, which has been shown by Khuda as 46% and 70% to 85% in the peak and slack seasons respectively (Khuda, 1990). Unequal distribution of land, lack of institutional credit, lack of education and vocational knowledge, shortage of technical support and inadequate scope of self-employment are the main constraints to rural development.

The land, which is a crucial determinant of the incidence of rural poverty, is unevenly distributed among the households. More than 60% of the total households are functionally landless (BAS, 1983-'84), 50% of the total households are occupying only 04% of total cultivable land while 25% of the total cultivable

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### **Introduction**

land are occupied by only top 02% of households (Rahman and Jahan, 1986). The size of holding is also uneconomic, which is below 1 acre in case of 59.40% of the households and more than 5 acres in case of 8.5% of the households (LOS, 1978). The average size of cultivable land is 2.3 acre (WB, 1987). The cultivation pattern is also inappropriate. The owners cultivate only 10.26% land and 40.48% land are cultivated by the hired labour (LOS, 1978). The crop intensity is very low, which is 175% only.

The government of Bangladesh has been implementing Five Year Plans since 1973, aiming at a common goal of poverty alleviation and rural development, depending on mainly the assistance of her development partners. A total of six development plans, including a 'Two Year Plan' have been undertaken by the government till recently. Some of the common objectives of these development plans are: infrastructure development, mass-education, human development, science and technology development, creation of sustainable self-employment opportunity, accelerated agricultural production, family planning and population control, elimination of gender inequality, emphasis on female education, improvement of health and nutrition, reducing inequalities in distribution of resources, high industrial growth, macro-economic reform, establishment of social justice and security, administrative decentralization etc.

The inflow of foreign assistance in Bangladesh is noteworthy. A total of TK. 18,00000 million has been received by the government as foreign aid in the form of food, commodity and project aids from 1971 to 1999 (ERD, February 2000), and disbursed to achieve the goal of socio-economic development. A lot of national and international non-governmental organizations have also been working alongside the government programs for the socio-economic progress of the rural poor. A total of Tk. 75667 million foreign grants has been received by only 1361 registered NGOs to run the development programs in the country till December 1999 (NGO Affairs Bureau, 2000).

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Since labor is one of the main resources of the agrarian sector of the economy, it is obvious that the progress of the agrarian economy can be attained by optimum utilization of the potentials of unemployed and underemployed people. As the amount of land is very limited compared to surplus labor, creation of self-employment in diversified non-farm activities in the rural sector is very much essential. And this can be achieved by providing monetary and technical supports to rural poor on easy terms. So a suitable financial network is a must for the creation of self-employment opportunity for the rural poor. But the banking sector of Bangladesh is fragile and inefficient in mobilizing financial savings, allocating them to productive uses and promoting discipline in economic activity (WB, 1987). Moreover, it serves the interests of the well-to-do class mainly. So a huge number of rural poor is kept out of the institutional credit market, who are bound to be dependent on the informal moneylenders charging an exorbitant rate of interest.

In such a situation GB came to scene as group-based micro-credit institution in 1983 with very high promise to eliminate rural poverty. Although some of the commercial and specialized banks and a few NGOs had been providing small amount of credit to the rural poor before the establishment of the GB, GB claims itself as the pioneer of micro-credit program. Micro-credit refers to a small size of loan, which varies from Tk.1000 to Tk. 10000, with the condition of weekly repayment with interest. The micro-credit programs have tremendously expanded in Bangladesh after the GB's advocacy about its effectiveness in poverty alleviation. Mentioning the micro-credit as an engine of development, its proponents have shown its tremendous success on the rural poor households. GB claims that it is providing small amount of loan without any collateral at a reasonable rate of interest. It is claimed that people need not go to GB; GB itself goes to the borrowers' doorsteps with financial services. It is also claimed that a lot of non-farm activities were accomplished with GB credit. And the income elasticity of demand of those non-farm products were calculated to be highly



elastic (Rahman, 1986). It is also claimed that poor households need only five years to cross the poverty line and eight years to achieve economic strength so they can stop borrowing after ten years (Khandker & Chowdhury, 1996).

In this circumstances upto September 2000, GB has disbursed a total of Tk. 126789.40 million among 2.37 million households covering almost all rural areas of the country. Seeing the success of GB, a lot of government-supported and non-government organizations have started micro-credit programs in the rural areas with the same features. The government has initiated a huge number of credit programs for the rural poor, which are being implemented through various divisions and ministries. The commercial banks have also started dealing with the poor rural households with micro-credit. It is seen that as of December 1999 a sum of total TK. 305880 million has been disbursed by the major micro-credit institutions, and 15 million rural poor, of whom more than 90% are female, have been included into the MC programs of the NG-MCIs. So it is seen that overwhelming majority of rural poor have already been undertaken into the micro-credit programs. But in spite of the huge coverage of GB-model of MC in the last two and a half decades, the socio-economic and socio-political progress of the poor rural poor including women empowerment, have not been significantly achieved. So there might have been some problems either in the operational system of GB or in the credit utilization process of the borrowers, which should be examined critically.

### **1.3 Rationale of the Study**

As the major part of rural people have been living below the poverty line for a long time resulting from low level of earning and inadequate employment opportunities, indebtedness has also appeared as a common phenomenon among the rural households of Bangladesh. Incidence of indebtedness was found to have increased over time i.e, it was 49% in 1965 (RCS, 1995), 71% in 1968 (Khan, 1970) and 75% in 1970 (Assaduzzaman and Hossain). Although the government of Bangladesh have undertaken some credit programs for the rural

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development being run by some organizations, like the BKB, RAKUB, SACP, cooperatives under the BRDB and commercial banks, the amount of credit of the above mentioned institutions are inadequate. It was 10% to 15% in 1978 (RFEP, Baseline Survey, 1978) and 30% in 1983 (Hossain, 1983) of the total demand of rural credit and is used mainly in farming. Moreover, a major part of the rural savings is being diverted to urban sectors through the conventional commercial banks. It is seen in a recent study that only 18% of the total credit of commercial Banks is disbursed in the whole rural sector from where 20% of the total capital of these banks are accumulated (Daily Sangbad, 5<sup>th</sup> July, 1998). The landless households have not the opportunity to borrow from commercial banks because of lack of collateral, which is preserved by the banks against the loan. So they are obliged to borrow from the informal sources which are being run as a parallel money market in the economy. The rate of interest of informal money market has been found to be 64% on an average (Khan, 1983) and to be varied from 24% to 300% in the different region of the rural Bangladesh. So the institutional credit is obviously a crying need of the vast majority of rural people by which they can rescue themselves from the usurer and simultaneously create self-employment opportunities specially in non-farm activities to remove the abject poverty. In such a situation the group-based credit program of GB emerged as new miracle to fulfil the crying needs of rural financing.

It is claimed that the GB has been providing credit facilities without collateral and at a lower interest rate in comparison with informal moneylenders to the doorsteps of those people who were before out of the reach of institutional network. Moreover the borrower-members are shown as the owners of the bank. The founder of the Grameen Bank has mentioned that from his realization about the potentiality and credit worthiness of the rural poor, he initiated this special type of credit program. According to his claim it may be inferred that a huge number of rural poor have already been made as the engine of economic development. He said, 'The poor can be transformed into the engine of growth if we only allow them to unleash their capacity'. About a

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### **Introduction**

total of 500 activities have been identified to be done by the credit most of which are non-farm activities. Women empowerment is shown as another vital objective of the GB and at present almost 95% of the total borrowers are female. As to its own financial growth, the GB which started its credit program as an applied research project in 1976 with an amount of \$ 36 only, is at present one of the largest financial institutions of the country. Moreover at present a total of 18 sister organizations including cellular phone are running with the collaboration of the GB. So the financial viability of the GB is unquestionable.

The tremendous success shown by the Grameen Bank has also induced almost all NGOs of Bangladesh to transform their development-oriented activities into micro-credit programs. As a result the NGO and micro-credit program has become almost synonymous and the normal NGO activities regarding the formation of human capital is being squeezed in the rural area. From the size of total coverage of the micro-credit institutions including the GB, it is seen that almost the whole rural area has been covered in the meantime and already these institutions are serving for a long period of time. Although all of the MFIs claim tremendous success of their programs in poverty alleviation, real picture of poverty situation, human development index, unemployment, women empowerment and the contribution of agrarian sector including small manufacturing in GDP do not bear testimony to their claims.

A number of studies have been done regarding the performance of the Grameen Bank till recently. The viability of GB's credit program has been shown to be absolutely remarkable almost in all of the studies. An excellent positive impact of the loan of GB on the borrower households specially in the early stage of the MC program of GB has been shown by some of the studies. The excellent rate of recovery, small amount of weekly installment to repay, the pattern of borrower choice, efficient management, the rise in income level of the borrower households, were the main indicators by which they have shown the success. On the other hand, some of the renowned development experts have expressed their apprehension about the long-run impact of GB credit in the economy,

because of small size of loan, its immediate recovery and slower progress of non-farm production in the rural area.

However, some important issues were not clearly identified or were omitted by the previous researchers. These are: a) external advantages enjoyed by the GB b) the velocity of credit creation by GB c) gross return from lending d) GB's contract with borrowers regarding share and dividend e) scope of employment for the members of the borrowers households in the operational area of GB. f) the actual cost of borrowing, g) changes of borrowers dependency on informal borrowing h) whether or not the weekly recovery is being generated from the surplus earned out of GB's credit i) proportion of borrowing actually utilized on productive purposes j) whether or not the contribution of credit is significant in the total income generation of the borrower households k) causes and magnitude of dropouts, their present socio-economic conditions and relationship with the bank as shareholders l) non-credit developmental support to borrower households m) the amount of self-employment creation among the members of the borrower households including women by GB.

Slow progress of the agrarian sector coupled with the gaps of the previous researches has given rise to the need of the present study. In the present study attempts have been made to critically examine the actual impacts of the loan of the GB on the borrower households.

#### **1.4 Objectives of the Study**

The prime and foremost objective of the present study is to critically evaluate the effectiveness of micro-credit program of the Grameen Bank in the light of socio-economic progress of the borrower households. The objectives are specified here:

- 1) To evaluate the effective cost of credit borne by the borrowers, which varies with the size of loan, number of installments to repay, interest gap of obligatory savings and transaction cost.



## Chapter-1 Introduction

- 2) To appraise financial viability of GB examining the actual interest rate, the velocity of credit creation and external advantages.
- 3) To evaluate the role of GB on the nature and extent of existing informal money market.
- 4) To examine GB's contract with the borrowers who are considered as the owners of share and dividend.
- 5) To examine the relationship of the member borrowers within groups and centers.
- 6) To examine, whether or not the amount of regular repayment is obtained from the earning resulting from borrowed credit of GB.
- 7) To examine, whether the loan is being used in productive purpose and to what extent.
- 8) To separate credit incomes from the income of other factors so as to measure the contribution of credit in the total income of borrower households.
- 9) To examine the effectiveness of the '16-decisions' and other non-credit facilities as developmental support of GB on the borrowers households.
- 10) To examine the scope and sustainability of self-employment created for the members of borrower households by GB.
- 11) To assess the impact of GB loan on the different indicators of women empowerment.
- 12) To appraise the scope of employment of the borrowers households in the operation area of GB.
- 13) To examine the impact of GB loan on different socio-economic indicators of the borrower households as a measure of empowerment.
- 14) To identify the causes and extent of dropout and the present socio-economic condition of the dropout borrowers of GB.
- 15) To identify the causes and trend of overlapping of the Grameen borrowers with other sources of micro-credit.
- 16) To evaluate the impact of GB in breaking the prevailing traditional rural power structure in Bangladesh.

- 17) To reveal a comparative analysis of different micro-credit institutions operating along with the GB in the rural area.
- 18) To assess the impact of non-credit assistance of government and non-government organizations on the households of GB borrower.
- 19) Recommendation of a set of policy measures for the optimal use of micro-credit to alleviate rural poverty.

## **1.5 Limitations of the Study**

The present study is primarily based on primary source data, collected from the household level of poor borrowers. So it can not claim to be free of limitations fully. An appropriate methodology has been developed and applied from the start to the completion with a great care to keep the data unbiased as well as to obtain a correct result from the study. But still some limiting factors are to be mentioned here, which may be seen in the different sections of the study as:

First, due to lack of adequate money, manpower, materials and time all of the branches and all borrowers of GB could not be covered in the present study. A total of 218 borrowers from five branches of GB have been selected as area of the present study.

Secondly, most of the borrowers of GB have been found to be functionally illiterate. They did not maintain documents regarding the borrowings, installments, obligatory deposits and field of expenditure of GB loan.

Thirdly, apart from the micro-credit of GB a large number of non-credit activities of government and NGOs exist in the rural economy, which strengthen the socio-economic condition of the borrower households. In addition to this, a huge number of borrowers of GB have been found using multi-sources of MC at a time. So there is a real difficulty to assess the actual contribution of GB in changing the socio-economic condition of the rural poor.

Fourthly, at present a lot of MFIs and MF-NGOs are working along the GB in the rural area. The information of all of these institutions could not be covered in the study.

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### **Introduction**

Finally, the common limitations of statistical and econometric measurement might exist in the calculation procedure.

However the study has been designed in such a way so as to minimize the limitations mentioned above. A set of activities have been done like applying alternative methods to justify the reliability of data, rearranging the data and closer observation in every steps of the study. In spite of all possible precautionary measures, some limitations still remain which are considered to be normal for any study and those are least harmful to the findings of the present study.

## **1.6 Organization of the Study**

### **Chapter-I: Introduction**

This chapter contains the statement of problems, rationale, objectives and limitations of the study.

### **Chapter- II: Review of Literature**

This chapter comprises the summary of some studies regarding the performances of the Grameen Bank and similar micro-finance institutions. The gap of the previous research has also been identified here.

### **CHAPTER- III: Methodology of the Study**

In this chapter the conceptual issues, selection of samples, nature and sources of data, sample design, techniques of data collection and processing, necessary tools of analyzing and the methodological limitations in the study have been discussed.

### **CHAPTER-IV: Background of the Study**

In chapter IV, attempt has been made to give a brief outline of the policies and programs of the Grammen Bank and some other similar micro-credil institutions including NGOs of Bangladesh.

### **CHAPTER- V: Data Analysis and Interpretation**

In chapter V, attempts have been made to analyze the primary data in details.

**CHAPTER- VI: The Socio-economic changes of the Borrowers after Joining the Grameen Bank and the Contribution of GB Credit in the Total Income Generated by the Households**

An attempt has been made in chapter VI to show the changes of the borrower households after joining the Grameen Bank and the contribution of GB credit in the total income generated by the households in both qualitative and quantitative figures.

**CHAPTER- VII: The Impacts of Grameen Bank on Women Empowerment**

The impacts of GB's micro-credit program on self-employment and socio-political status of women have been examined in chapter seven.

**CHAPTER- VIII: The Socio-economic Condition of the Dropout Borrowers**

In this chapter the socio-economic conditions of the dropout borrowers of GB have been analyzed.

**CHAPTER- IX: Summary and Recommendations**

In the final chapter the analytical findings of the study have been summarized and recommendations for policy making and further research have been made.

## CHAPTER 6: THE SOCIO-ECONOMIC CHANGES OF THE BORROWER HOUSEHOLDS AFTER JOINING THE GB AND THE CONTRIBUTION OF GB CREDIT IN THE TOTAL INCOME GENERATED BY THE HOUSEHOLDS

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CHAPTER-2  
REVIEW OF LITERATURE

## CHAPTER-2

### REVIEW OF LITERATURE

#### 2.1 Introduction

A number of studies have been undertaken by local and international researchers, academics and experts on the performance of the group-based credit program of the GB. The GB itself has also published extensive and convincing literatures through which the MC program of GB has already achieved global recognition as a very successful approach to poverty alleviation. A brief summary of the literatures put forward both by the proponents and opponents of the GB-model MC programs are discussed in the following sections.

#### 2.2 A Brief Review of the Main Literatures

**Hossain, Mahbub (1984)** in a study on "Credit for the Rural Poor- The Experience of Grameen Bank in Bangladesh" showed that GB micro credit program has significant positive effects on income, output, and consumption level of the rural poor. He directed a field study among 611 households in Tangail district (in 1982) and showed significant positive results. Firstly, a 67.6% of the total respondents owned no cultivable land, 26.8% owned up to 0.40 acres, 3.9% owned between 0.41- 1.0 acres, and only 1.7% owned more than 1.0 acre of cultivable land. Considering the distribution pattern of cultivable land of the borrowers households mentioned above, he claimed that GB had reached the target group. Secondly, he found that income level of the borrower households had grown up with the length of membership which was Tk.11997 at the first time borrowing and Tk.11499 and Tk.12813 were for the second and third time borrowing respectively. Based on these information he concluded that GB had contributed a lot to enhance the income of the borrower households. Thirdly, he presented statistical evidence that the income level of GB borrower households were higher than that of non-borrower households in his study area. Fourthly, he

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argued that the wage rate in "Grameen Bank Villages" was higher than the average country wage rate, so agricultural labourers were getting indirect benefits through increased wages. Finally, he found a decreasing trend in the size of the borrowers' family in comparison with non-borrower families.

+ **Hossain, Mahbub (1988)** in another research work on "Credit for Alleviation of Rural Poverty: The Grameen Bank in Bangladesh" had the following findings. Firstly, the rate of recovery was very high; there was a minimum overdue installments and female borrowers were more efficient than the male borrowers. No overdue was found among 81% of female and 74% of male borrowers. Secondly, GB loans were used mainly in non-crop activities (of which 46% were on livestock and poultry-raising, 25% on processing and manufacturing activities and 23% were on trading and shop-keeping). Thirdly, the working capital invested by the members in small business and manufacturing increased three-fold in only 27 months, and investment in fixed assets had increased about two and a half times in case of those borrowers taking loans for three years in comparison with the borrowers taking loan only once. Fourthly, number of cattle owned increased by 26% per year. Fifthly, the income of targeted and non-targeted household groups in the GB villages were respectively 43% and 28% higher than the income of households remaining outside the GB program area. Sixthly, as about one third of the members reported that they were unemployed before joining the bank so GB generated self-employment for them. Seventhly, excellent rate of recovery resulted from: i) precision in determining the true target group ii) developing strong management system iii) activities initiating to generate regular income iv) small amount paid as an installment v) the excellent performance of GB officials. Finally, operating cost of GB loan was found to be very high (21.7% in 1986) because of intensive supervision and participation of GB workers in social development activities.

√ **Hossain, Mahbub (1998)** in a recent study showed the relationship between the length of membership and economic capability of the borrower households

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### Review of Literature

of BRAC members. It is found from the study that the material gains of the borrower households in terms of housing is significant but the gains in other major indicators as consumption expenditure, expenditure on clothing and households income level did not change significantly with the length of membership.

**Rahman, Atiur (1985)** conducted a study among 60 GB borrowers in a single branch of Tangail as a follow-up of the report published by Hossain (op.cit.). The main findings of his study were i)-Larger size of loans yielded higher level of income ii) Marginal propensity to consume of the commodities produced in the non-crop sector were quite high and the income elasticity of demand for non-farm commodities were highly elastic iii) The micro-finance activities of GB had commercialized the rural economy.

✓ **Maola, Syed, Golam (1997)** in his study "The Grameen Bank Model: Critical Evaluation of Some Conceptual and Operational Issues," examined the various aspects of GB operations. His findings were that the effective rate of interest paid by the borrowers to GB was 38.68%, which was higher than all other financial institutions of Bangladesh whereas forced savings to GB fund resulted in a negative savings for the borrowers. On the other hand, higher rate of interest and rapidly mobilized savings helped the GB survive as a viable financial institution. He also argued that the availability of subsidized fund and grants from foreign and local sources proved that GB was not operating efficiently and did not reach the optimal scale. The higher rate of recovery could not be the indicator of the borrowers' success or the optimum utilization of loan. And lastly he termed the GB as a profit making organization.

**Jahan, Khursheed and Hossain, Mosharaff (1998)** directed a research work "Nature and Extent of Malnutrition in Bangladesh (Bangladesh National Nutritional Survey 1995-1996)" on 1245 households of 32 rural and 9 urban locations. They found that one-sixth of the total rural households were under the micro-finance programs of GB and other organizations. Striking point in their



survey was that the calorie intake level of the borrower households were significantly lower (1826 calorie) than that of non-borrower households (1901 calorie). They also found no positive correlation between the amount of loan and calorie intake.

**Alamgir, Mohiuddin (1998)** calculated the contribution of GB to the Gross Domestic Product (GDP) of Bangladesh and showed that the contributions of GB to GDP were 1.5%, 1.3%, 1.1% in 1994, 1995, and 1996 respectively. He argued that GB had contributed to GDP directly and indirectly and was strengthening the rural financial sector.

**Osmani, S. R. (1989)** in his article "Limits to the Alleviation of Poverty Through Non-farm Credit" criticized severely the idea of poverty alleviation through non-farm activities. He expressed his great apprehensions about the long-run viability of GB operations. He mentioned that the whole process of GB might cease to an end in the long run like the Integrated Rural Development Program (IRDP) of India. The barriers shown by him are: a) The market of non-farm commodities and services are very limited and unstable in rural sector because of low per capita income of the rural people b) The rural people substitute quality products from urban or foreign sector with the rise of their income level and so the products of rural non-farm sector become "inferior goods" which would be demanded from the poorest section only. As a result the supply of non-farm rural products would exceed the demand that would reduce the profit margin of rural entrepreneurs through falling price level c) He mentioned that the matching of three situations i.e. i) matching between the type of assets and previous resources ii) matching between output pattern of demand and iii) matching between potential supply of assets and quantum of assets to be acquired, must be guaranteed for the long-run sustainability of borrowers through ensuring the productive uses of credit d) He also mentioned that comprehensive planning and price stability of agricultural and non-agricultural product are essentially needed for the long-run viability of micro-finance operations.

**Quasem, A. (1991)** has made some arguments against Osmani's doubt about the long-run viability of GB. His arguments in favour of GB were: i) GB was trying to identify the potential matching between demand and supply through portfolio diversification and enhanced the share of agricultural credit in total loan disbursement; and it was possible to attract wage laborers to self-employment in due course of time ii) He mentioned that GB did not ignore the question of local level comprehensive planning and if it started producing commodities and services which have high income elasticity as well as low cost of production it would be viable in the long-run.

**Rahman, Rushidan, Islam (2000)** prepared a report in order to examine whether the micro credit programs were making sustainable progress in achieving the target groups or whether these programs were creating problems for the future generation. She showed the relationship between the length of membership and progress of the borrowers of various micro-finance institutions. Two hypotheses can be established from her study: i) The borrower households were using their borrowed money mainly on consumption as well as housing sector rather than productive purposes ii) The borrower failed to earn satisfactory profit from the investment as a result of which their net worth was reduced in the long-run (48 month & above) iii) A stagnation on employment, consumption and assets of the borrower households would be inevitable in the long-run.

**Bashar, A. (2000)** analyzed various features and documents regarding micro-finance programs and showed his doubt about the declared excellent achievement by micro-finance institutions and their advocates. He argued that because of the involvement of many autonomous factors in the economy; the assessment of the effect of micro-finance must be replaced from these autonomous factors. He also mentioned that though the MFI claimed absolute success, practically it was yet to be achieved. He suggested that government inter-mediation is needed for the optimum utilization of micro-credit through the development of human & social capital.

**Khandker, S.R. Khalily, B. and Khan, Z. (1995)** discussed different features of GB in the paper, "Grameen Bank: Performances and Sustainability" using panel-data, both of the time series and the cross section of 118 branches (1985- 1991) collected from different sources of GB. They considered the joint output viz. disbursement, membership, recovery rate, and savings mobilization of GB which were predetermined as a function of input prices, along with they considered some other control variables that influence cost of inputs. And they analyzed the performances through deriving a conditional Trans -log cost function as:

$$\ln TC_{jt} = \alpha_0 + \alpha_1 \ln S_{jt} + 1/2 [\alpha_2 \ln S_{jt}^2] + \alpha_3 \ln W_{jt} + 1/2 [\alpha_4 \ln W_{jt}^2] + \alpha_5 \ln N_{jt} + 1/2 [\alpha_6 \ln N_{jt}^2] + 1/2 [\alpha_7 \ln S_{jt} \ln W_{jt}] + 1/2 [\alpha_8 \ln S_{jt} \ln N_{jt}] + 1/2 [\alpha_9 \ln W_{jt} \ln N_{jt}] + IF_{jt} + d_j + e_{jt} \quad \text{-----21}$$

Where,  $TC_{jt}$  is the  $j$ th branch's' program costs in period  $t$ ;  $S$  is a vector of membership, lending and savings;  $N$  is the fixed unit cost of lending;  $W$  is the price of labor,  $IF$  is a vector of control variables,  $D_j$  is a vector of area-specific fixed endowments.

From equation 2.1 they proved that GB exhibited a sufficient economies of scale in its operation. The findings of their analysis were: i) the micro-finance operation of GB was cost effective and enjoyed sufficient economies of scale and so viable in the long run ii) GB should charge the break-even rate of interest in order to reduce the dependency on subsidy iii) borrowers are viable in terms of loan repayment performances, drop-out rate and changes of wage rate in the rural areas iv) they also mentioned that the swift expansion and extremely high rate of recovery rate was partly due to the shrewd leadership of its founder MD and partly due to decentralized management structure.

✓ **Rahman, R.I. and Khandker, S.R (1995)** in their study "Role of Targeted Credit Programs in Promoting Employment and Productivity of the Poor in Bangladesh" estimated the impact of three major micro-finance institutions GB, BRAC and BRDB with the help of Cob-Douglas production function. They compared the economic progress of the people belonging to these programs and control areas. Their findings were: i) Employment per worker was higher in the program areas than in the control areas and the MC programs improved the overall

productivity in agriculture, non-agriculture and livestock production ii) In agricultural sector marginal productivity of female labor was positive; but the marginal productivity of male labor was zero but in non-agricultural sector marginal productivity of male labor was positive and significant; on the other hand the marginal productivity of female labor was zero.

✓ **Khandker, S.R. and Latif, M.A. (1995)** in a study "Role of Family Planning and Targeted Credit Programs in Demographic Changes in Bangladesh", showed that contraceptive uses, other programs of family planning and health interventions were higher in micro-credit program areas than non program areas.

✓ **Khandker, S.R., Alam, M. and Vincent, G. (1995)** in their econometric analysis "Determinants and Impact of Basic Skill Attainment: The Role of School and Targeted Credit Programs in Bangladesh" showed that in the program areas of GB and other micro-finance institutions the basic education and girls education was higher than that of non-program areas. They concluded that micro-finance programs were improving status of women in rural Bangladesh.

**Pitt,M.M. and Khandker,S.R. (1995)** in a paper titled " Impact of Credit Programs for the Poor on Household Behavior " showed that credit provided by GB had significant positive impact on different variables typically associated with assets, women empowerment, social status and liberty etc. They also mentioned that the micro-finance program of GB was found more effective than other micro-finance programs like BRAC, BRDB considering schooling the children, women labor supply, asset owned by women and total expenditure of borrower households.

**Khandaker,S.R. and Chowdhury, O.H. (1995)** in their study on "Targeted Credit Programs and Rural Poverty in Bangladesh" mentioned that the previous development plans for income generating activities could not achieve visible



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success due to high transaction cost and high collateral involved in those system of banking and which excluded the poor. They claimed that the targeted approach by micro-finance institutions GB, RD-12 of BRDB, BRAC along with other organizations could play an important role in both lessening poverty and sustaining households prosperity in the long-run by lowering transaction cost. They argued that the borrower households could overcome poverty line by using micro-credit for five years and achieve self-sufficiency after eight years use of micro-credit. They concluded that mentioned micro-credit credit programs already increased the asset base of the rural poor.

**Chowdhury, O.H. and Khandker, S.R (1995)** in their study "Do Targeted Credit Programs Improved the Nutritional Status of the Poor?" showed that the level of calorie intake in the areas under the program of GB were higher than the program areas of BRDB and BRAC which meant that Grameen Bank was more successful than other NGOs programs. They also claimed that calorie intake was found higher in the targeted areas than that of non targeted areas as a whole.

**Hossain, Mosharaff (March, 1995)** in a group discussion on "poverty alleviation and credit programs" mentioned that due to higher interest charged by the informal money lenders, the huge demand for credit emerged in rural area from governmental or non-governmental agencies at moderate rate of interest. He argued that the rate of interest charged by the micro-finance institutions were very high (over 30%) and the repayment must begin within one or two weeks of the borrowing. He expressed his view that there was no economic activity in rural area of the country by which the borrower could make profit to begin the repayment of installments within one or two weeks after receiving the credit. He also mentioned that the production of tradable commodities in rural area was not remarkable though millions of borrower households were incorporated in micro-credit programs. So some realistic studies from the borrowers point of view were to be undertaken.

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**Chowdhury, O.H. (1989)** mentioned that social awareness, economic strength and access to public resources of the participants of various MC programs including GB have increased.

**Riazi, M. H. (1995)** in an academic research paper analyzed the cost structure of GB from both the lenders and borrowers point of view. Depending on primary data collected from 100 GB borrower households of twelve villages under Dhaka and Manikgonj Districts and secondary data collected from different sources of GB, he calculated effective cost of borrowing by estimating transaction cost of borrower households. He calculated transaction cost by the equation given below:

$$TC = TRAC + SUC + STAC + LD \cdot W \text{-----} 2.2$$

Where, TC = transaction cost; TRAC = transportation cost;

SUC= supplementary cost; STAC= stationary cost; LD= lost of working day;

W= market wage rate.

He estimated a transaction cost of Tk.3.95 per Tk.100 borrowing. He found that the effective cost of credit was much higher than that is shown by GB. He also calculated the cost of credit disbursement of GB and made a comparison with the operating cost of BKB and some other commercial banks and showed that the operating cost of GB was higher than other banks in question. He concluded that marginal revenue earned by GB was higher than the marginal cost and so there was economy of scale in GB operations.

**N. J. Kurein (1995)** gave emphasis to examine the investment opportunities in the rural areas, especially in the areas covered by micro-finance programs of various organizations. He mentioned that some justified criterion must be developed to measure the progress and sustainability instead of recovery rate of the borrowers.

**Yunus, M. (1999)** claimed that he started GB micro-credit programs with \$27 only in 1976 and its fund reached \$1 billion till march 1995. Average size of loan



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stood at \$180, repayment rate was between 96% to 100% during that period on an average. He cited that 96% of the share were owned by the borrowers and 94% borrowers were women. Nine members out of thirteen were directly elected from the member borrowers in the Board of Directors of GB. He also mentioned that in a normal year 5% of Grameen borrower households crossed over the poverty line. The Grameen Bank approach of MC had been applied in 40 countries. Finally he mentioned that GB had been economically self sufficient since 1995 and already established more than a dozen enterprises, and concluded that about 22 million poor people around the world had access to small loans; and upheld strongly that micro-credit would be able to make a poverty free world.

**Baker, M. A. (1996)** examined some selected micro-credit programs and identified some constraints both from the lenders and from the borrowers side as: weak organizational structure, poor supervision of loan, high operating cost, inadequate size of loan, and low rate of returns from certain activities. He showed that the average size of loan for female borrowers was smaller (Tk.1686) than that for male borrowers (Tk.2798) though the recovery rate was same for all (98%).

**Mostafa, G. (1995)** showed that from the use of same amount of loan, trading activities generated larger returns in comparison with the activities like poultry, husking, goat rearing etc. He also mentioned that success of female borrowers was dependent on the previous experience of their husbands and the previous working capital owned by the households.

**Ahammad, A. K.M.U (2000)** in an article severely attacked the idea of poverty alleviation and development through the 'GB model' of micro-credit. He argued that the idea of MC was disproportionately highlighted in the global context and was highly rewarded. He mentioned that prevention of famine did not mean

development. He concluded that without production oriented employment creation, welfare of the people could not be attained.

**Hossain, (1998)** in a study observed that among the dropout cases, 69% resulted from incapability to repay the loan installments.

**Matin, I. (1998)** in his study on " Mis-Targeting by the Grameen Bank: A Possible Explanation" showed that 49% and 71% sample GB borrowers, who joined the GB before and after 1992 respectively, were from non-target group in terms of land ownership. He also found higher rate of loan defaulter among the older groups and branches.

### **2.3 Research Gap**

From the review of the literatures it is seen that the proponents of the GB-model of micro-credit have claimed tremendous success of the program. On the other hand some researchers who are not paid GB consultants, have expressed their great apprehension about the long-run viability of GB programs. But some vital issues have been omitted in all of these research studies. These are:

- ♦ Due to the weekly repayment system the actual rate of interest might have been higher than the rate of interest shown by GB. But in no study, the actual rate of interest has been calculated which is important for both the borrowers and lender.
- ♦ The multiplier of credit creation by weekly recovery and obligatory savings of the borrowers are not examined in any study.
- ♦ The trends of the use of multi-sources (over lapping) of micro-credit among the borrower households of GB were not clearly examined in any of the mentioned studies.
- ♦ The authority of GB mentions that the landless member borrowers own 94% shares of the Bank. But in no research work the relationship between the member borrowers as a share holder and GB as a limited financial company regarding

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share certificates, distribution of annual dividends and so on have been examined.

- ◆ There is no clear indication in any of the previous research work to what extent the GB has been able to lessen the influence of informal moneylenders in the rural areas.

- ◆ The nature and magnitude of member dropout from the credit network of GB has not clearly been established in the previous works.

Previous researchers did not show how non-credit earnings are influencing the high recovery rate of GB borrowers.

- ◆ It is not identified in any of the previous studies how many female borrowers are handling the loan directly and how credit is empowering them.

- ◆ The youth as well as educated unemployment is one of the major challenges of rural development but the previous studies did not mention the impacts of GB program on youth unemployment situation.

- ◆ The operation area of GB is extensive enough to employ some members from borrower households but this aspect was not highlighted in any study.

CHAPTER-3

METHODOLOGY OF THE STUDY

## CHAPTER-3

### METHODOLOGY OF THE STUDY

#### **3.1 Introduction**

As every research work in social science has to follow some specific and scientific methods, the present study maintains a well defined methodology from the very identification of the problems to obtaining the results. In order to examine the impacts of the micro-credit programs of Grameen Bank on the vulnerable rural poor of Bangladesh, empirical and inductive methods have been followed in the present study. In this chapter, various conceptual issues concerning the field of the study and the methodology are explained.

#### **3.2 Conceptual Issues**

Definitions of various socio-economic terms and concepts, which have been used in the present research work, are briefly discussed here.

**3.2.1 Rural Indebtedness:** It is a situation, in which a person is obliged to take loan from another to meet his expenditure over income. The indebtedness among the rural households is a common feature and is seen almost in all of the rural areas of Bangladesh. The nature and profundity of indebtedness among the rural poor households is examined in the present study.

**3.2.2 Micro-credit:** Micro-credit has drawn global attention as one of the most powerful and effective instrument to eradicate rural poverty. Grameen Bank, the pioneer of group-based micro-credit, started its credit operation in 1983 with the objective of poverty alleviation through creating self-employment opportunity as well as the empowerment of the rural poor. According to Prof. Yunus, the model builder of GB, micro-credit is the 'engine' of development and 'a poverty free world' could only be created through micro-credit (Yunus, 1994). He expressed his views that poverty can be removed through providing small amount of money to the poorest people as loan. He declared, "Poverty should be a matter



which will find its place in the poverty museum". He also mentioned that the theoretical framework of economics did not have any room for self-employment and so he was going to write 'new economics text-books' (Yunus, 1998) which would be obviously micro-credit based. Grameen Bank is now one of the largest micro-finance institution in the world, which disbursed Tk. 124,035.00 million as micro-credit among 94,33,974 members upto December 1999. Many governmental and non-governmental organizations have been following Grameen Bank model of micro-credit in Bangladesh since last two decades as a strategy of poverty alleviation. The GB model of micro-credit has also been adopted by nearly 60 countries of the world as a tool of poverty alleviation.

But, neither the proponents nor any micro-finance institution have yet defined the concept of micro-credit clearly though they claim it as the 'engine' of development. There is also no concrete definition of micro-credit in economics. From the practices of micro-credit institutions in the field level it is seen that the term 'micro-credit' refers to the small size of loan, which is found to be an amount of TK.1000 to Tk.10000, disbursed with the condition of weekly repayment with interest. Upto December'99 more than Tk. 290000.00 million have been disbursed in Bangladesh by all the recognized micro-credit institutions. Many other non- recognized organizations are also dealing with such business especially in rural areas in Bangladesh. All micro-credit institutions are providing group-based credit facilities to the poor in order to reduce poverty by creating self-employment. Their target group is mainly women who are being excluded from the facilities of ongoing commercial banking system in the country.

**3.2.3 Micro-credit or Micro-finance Institution (MCI or MFI):** The formal and semi-formal institutions including NGOs, which are providing group-based small scale financial services to the rural poor with the aim of poverty alleviation have been considered in the present study as micro-credit or micro-finance institutions.



**3.2.4 Rural Credit Market:** It refers to the area of the credit market of the country, in which the rural dwellers are dealing with money matters. At present the rural credit market of Bangladesh consists of three sources. a) Formal source: the scheduled and specialized banks b) Semi-formal source: the GB and other micro-credit institutions including MF-NGOs and c) Informal source: individual moneylenders (Saha and Habib 1998). All these are performing financial intermediation among the rural dwellers in different manners. The third one has been playing a parallel role to the formal money market in Bangladesh for long time and where the exorbitant rate of interest is visible.

**3.2.5 Borrower:** It has been defined as those persons who join any MFIs including the GB and take loan at least for a single period.

**3.2.6 Borrower Household:** The household in which the borrower lives with his or her spouse, children and other relatives has been considered as the borrower household in the present study.

**3.2.7 Dropout Borrowers:** The borrowers who have been forcefully driven away or willingly stopped borrowing GB loan have been defined as the dropout borrowers in the present study.

**3.2.8 Overlapping Borrower:** In the present study overlapping has been defined as the situation when a borrower borrows from more than one sources on interest.

**3.2.9 Poverty:** Poverty refers to the incapability of achieving a minimum standard of living. The concept of poverty may be expressed in both absolute and relative sense. Absolute poverty refers to inability of an individual to meet the minimum necessities of life; on the other hand relative poverty indicates income inequality in society (Islam, Huda, Narayan, & Rana-1997). In the conventional approach of economics income or expenditure was the indicator

of measuring poverty. In modern economic approach nutritional and social deprivation also have been considered as the indicators of measuring poverty (Sen, 1981). The inability of GB borrowers to fulfill the basic needs of life has been considered as poverty in the present study.

**3.2.10 Poor:** People who are unable to meet the minimum level of basic requirements of life i.e, food & nutrition, housing, education, medical facilities, drinking water, sanitation and security have been defined as poor. The persons failing to cope with the future crises have also been considered poor. According to the Bangladesh Bureau of Statistics (1998), 44.9 percent of the rural people are poor. In terms of calorie intake the poor have been divided into three categories such as a) Extreme/Hardcore poor people who take less than 1805 kilo calorie per day b) Moderate poor people those taking less than 2122 kilo calorie per day and c) Vulnerable non-poor people staying just above but close to the poverty line.

**3.2.11 Poverty Line:** Bangladesh Bureau of Statistics has determined the poverty line as the minimum level of per capita calorie intake, which was below 2200 kilo calorie per day till 1988, and at present below 2122 kilo calorie per person per day. For the hardcore or extreme poor the poverty line is below 1805 kilo calorie per day, which was previously below 1800 kilo calorie per person per day.

**3.2.12 Poverty Line Income:** The minimum level of income that is needed to overcome the poverty level has been defined as poverty line income. Hossain estimated it to be per capita Tk. 6287 to overcome the poverty and Tk. 3560 per capita to overcome extreme poverty situation in 1995. In the present study, per capita income of TK. 3560, TK. 6287 and TK. 6300 or more are considered to indicate the extreme poor, moderate poor and vulnerable non-poor households respectively.

**3.2.13 Methods of Interest Calculation:** In the present study, the interest rate charged by the GB has been estimated by using three alternative methods. These are briefly discussed below:

**3.2.13.a The Average Balance Method:** The working formula of this method is

$$IRAB = \frac{TAI}{ABL} \times 100 \quad \text{and, } ABL = \frac{FB + LB}{2}$$

Where, IRAB= Interest rate on average balance, TAI= Total amount of Interest, ABL= Average balance of loan, FBL= First balance of loan, LBL= Last balance of loan,

**3.2.13.b The Effective Rate Method:** The working formula of this method is

$$ERI = \frac{2PC}{A(n+1)} \times 100$$

Where, ERI= Effective rate of interest, P= Number of annual installments, C= Total interest payment, A= Amount of loan, n= Total number of installments

**3.2.13.c Flat Rate Method:** The working formula of this method is

$$RI = \frac{TAI}{TAL} \times 100$$

Where, RI= Rate of interest, TAI= Total amount of interest, TAL= Total amount of loan.

**3.2.14 Effective Cost of Borrowing:** The cost incurred by the borrowers per hundred Taka loans on the average portfolio of the GB is considered as the effective cost of borrowing in the present study. It has two components i.e, interest payment and transaction cost.

**3.2.15 Velocity of Credit Creation of GB:** The multiplier/ velocity of credit creation is defined as the amount by which the GB raises its initial fund through its short term and weekly recovery process. The working formula of the velocity of credit creation is

$$V = \frac{IC + \sum_i^n Xi}{IC} \times 100$$

V= Velocity of credit creation, X= Amount of credit created per week and IC = Amount of Initial credit.

**3.2.16 Rural Unemployment:** a situation, where the rural people seek a job but cannot get it. In the present study the voluntary unemployment is excluded at the time of analyzing the rural unemployment situation.

**3.2.17 Rural Youth Unemployment:** In Bangladesh persons constituting the age group 15-30 have been recognized as the youth by the government (Masum, BEA, 2000). The youth as well as literate men and women who seek job but cannot obtain are considered as rural youth unemployment in the present study.

**3.2.18 Self-employment and Income Generation:** In the present study, the concept of self-employment generation is defined as the involvement of the unemployed members of the society in diversified economic activities of their own choice. The additional income, that is earned from self-employment and extended business is termed as income generation.

**3.2.19 Farm Activity and Non-farm Activity:** The activity based on the soil of the earth regarding production is defined as farm activity and manufacturing

and business activity is considered as the non-farm activity for the borrowers households in the present study.

**3.2.20 Women Empowerment:** The involvement of women in economic activities, in household decision making and in socio-political level with a view to removing discrimination and persecution imposed by male partners is considered as women empowerment. The self-employment, literacy, vocational knowledge, freedom in decision making, legislative rights, health and nutrition, persecution, early marriage and dowry have been taken as the indicators to measure the women empowerment in the present study.

**3.2.21 Literacy:** literacy is the ability to write a letter in any language (RPMS-BBS, 2000)

**3.2.22 Human Development:** The increase in educational level, health status, vocational knowledge and other skill building regarding income generating activities among the borrower households is considered as human development indices in the present study.

**3.2.23 Indicators of Socioeconomic Empowerment:** Amount of income, land, labor force, housing, savings, capital goods, livestock, poultry, debt liabilities, human development, freedom of choice in socio-economic and political level etc of the borrower households are considered as socioeconomic indices to measure empowerment of the borrowers.

**3.2.24 Voluntary Savings and Obligatory Savings:** The amount of savings that is generated by the households from the regular income is defined as voluntary savings and the amount of savings, which is accounted in the fund of different MFIs due to the obligations imposed by the institutions are considered as obligatory savings in the present study.



**3.2.25 Credit Earnings and Non-credit Earnings:** The credit earnings and non-credit earnings have been defined as the earnings, which are respectively dependent and independent of the credit programs of the GB and other MFIs.

### **3.3 Selection of Sample**

#### **3.3.1 Selection of the Study Area**

In the present research the study area has been selected with a great care so that the fruitful results emerge. Five thana areas of Rajshahi district have been selected purposefully. These are: a) Boalia b) Paba c) Mohanpur d) Godagari and e) Motihar. Of these thanas, characteristics of rural economy and rural mode of production are relatively more pronounced in Mohanpur and Gadagari. But as all the study areas lie in close proximity with Rajshahi Metropolitan City, there is more likelihood for the borrowers to avail the opportunities of transportation, product marketing and so on. Again the selected areas are almost flood-free, the soil is fertile having excellent climatic condition. So if the GB supported micro-credit has anything to do in generating higher income of the poor this study area may be considered to be very appropriate.

#### **3.3.2 Selection of the Branches**

A total of 1142 branch offices, 122 area offices and 15 zonal offices constitute the organization of GB (August 1999) for its micro-credit operation in Bangladesh. It is virtually impossible for an academic researcher to collect data from every branch or visit all operational area of Grameen Bank due to the insufficiency of time, money and logistics. For this reason, a total of five branches of Grameen Bank have been selected. These are Deopara, Pakri, Matikata, Damkura, Parila.

#### **3.3.3 Selection of Respondents**

As the study is a socioeconomic research, selection of respondents is the most significant part. For the purpose of the present study, respondents are



selected in such a way so that unbiased results can be obtained as to the effect of GB's expanding program on the poor borrowers in question. A total of 218 borrowers have been selected randomly from among the Grameen Bank members, and all of them are female members taking loan for at least five years. Of the total respondents 188 are still borrowing and the rest 30 have been dropped-out from micro-credit pipeline of GB.

### **3.4 Nature and Sources of Data**

Both the primary and secondary data have been collected to meet the fundamental needs of the present study. The nature and sources of data, which have been used in the present study, are mentioned below:

**3.4.1 Primary Data:** The primary data have been collected over a period of 6 month from 1<sup>st</sup> January 1999 to 30th June 2000. The active borrower, dropped out borrower and the GB officials have been interviewed by separate interview schedule from the field level in the study area.

**3.4.2 Secondary Data:** In addition to collecting data from primary sources, the secondary sources have also been used for the fulfillment of the study. These secondary data have been collected from various local and international publications. The sources of secondary data are given below:

**3.4.2.a The Publications of Grameen Bank:** The annual reports of Grameen Bank, the annual activity reports of Rajshahi zonal office and the selected branches, newsletters as well as many other publications of Grameen trust have been used for the study.

**3.4.2.b The Credit and Development Forum (CDF):** The Credit and development forum has been working as a network of micro-finance institutions of Bangladesh since 1992. It is the only organization in Bangladesh which collects and stores data from different governmental and non-governmental

organizations dealing with micro-credit programs in Bangladesh and abroad. It is also providing some advisory and managerial support to different micro-finance organizations. The "CDF Statistics", the data bank reports, and other publications of Credit and Development Forum bearing the latest micro-credit pictures of Bangladesh have been obtained as the secondary data for the enrichment of the study.

**3.4.2.c The Palli Karma-Sahayak Foundation:** The annual reports and some other publications of Palli Karma-Sahayok Foundation (PKSF) have been collected to support the study with secondary data.

**3.4.2.d The Publications of Bangladesh Government:** The publications and planning documents of various departments, divisions and ministries have been used as the sources of the secondary data. Special emphasis has been given to the publications of Bangladesh Bureau of Statistics, different periodic Plans, Economic Reviews, Annual Development Programs, Budget Statements and many other publications of GOB concerning development activities, rural financial markets and micro-credit.

**3.4.2.e The Publications of Bangladesh Bank:** The annual reports, banking statistics, and various circulars of Bangladesh Bank regarding financial affairs were used as secondary data for the purpose of the study.

**3.4.2.f The Commercial Banks and Financial Institutions:** The annual reports and activities of commercial banks as well as other financial institutions have also been taken as the secondary sources of data.

**3.4.2.g The Non-governmental Organizations:** In Bangladesh there are more than 3000 local and international NGOs. The annual reports and prospectus of some of the largest NGOs have been collected as sources of secondary data.

**3.4.2.h The International Publications:** The Reports of World Bank, Asian Development Bank, UNDP, FAO and some other organizations have been taken into account as the source of certain types of secondary data.

### **3.5 Sampling and Methods of Data Collection**

The sampling and methods of data collection are mentioned below.

#### **3.5.1 Sampling**

In the present study; two types of sampling: a) the random sampling and b) the purposive sampling have been used for the collection of primary data from the field level member borrowers of the GB.

**3.5.1.1 Random Sampling:** The primary data have been collected randomly after the collection of the name and address of the active borrowers of GB under the respective branches.

**3.5.1.2 Purposive Sampling:** To collect the primary data from the dropout and expelled borrowers, the method of purposive sampling has been applied in the present study. In addition to this, the purposive mode has also been applied in the case of collecting the primary data from the active borrowers to exclude the borrowers who have been taking GB loan for less than 5 years.

#### **3.5.2 Method of Data Collection**

For collecting data the following methods have been applied in the present study.

**3.5.2.a Interview Method:** Three sets of questionnaire were prepared for three types of respondents (active borrowers, dropout borrowers and GB officials) for conducting interview. These were prepared with great care so that the accurate results could be achieved for the purpose of the study. The respondents were

interviewed in a very cordial atmosphere at their own houses and offices respectively.

**3.5.2.b Observation Method:** A number of vital information were collected through observation which, are related to the objective of our study but it was not possible to include those interview schedules. This was done through visiting the houses of the borrowers as well as their neighbour and maintaining the record regularly.

**3.5.c Library Work Method:** At the very initial stage of the study, a lot of published and unpublished literatures regarding the micro-credit operations of Grameen Bank and its significance in the context in Bangladesh were reviewed. For that purpose the libraries of Grameen Bank, Bangladesh Institute of Development Studies, Institute of Bangladesh Studies, Dhaka University, Rajshahi University, Bangladesh Bank, PKSF, CDF and many other micro-finance institutions were intensively used.

### **3.6 Tools Used**

In the present study the following tools have been used for data compilation, tabulation and test.

**3.6.1 Statistical and Econometric Tools:** To collect, scrutinize and tabulate and analyze the collected data, various statistical and econometric tools such as, graphs, charts, sampling, measures of central tendency, correlation, regression etc. have been used in the present study. The tools are of great help to present the data systemically and obtain correct results.

**3.6.2 Computer Tools:** In the present study the tools of computer has been used to obtain the result correctly and promptly. Three rendition of computer as I) M.S word II) M.S Excel and III) SPSS have been used.

### **3.7 Reliability of Data**

The accuracy of the outcome of the study depends on the reliability of the data. Reliability of the data on the other hand depends on the observation pattern and sincerity of the observer. In social research there are some limitations almost in all methods of study because of the inclusion of irrelevant information. The data, which are collected from individuals of the society may some times deviate from ideal situation because of difference in socio-cultural values and customs, attitude etc of the persons interviewed. The standards of observation can also vary with the change of time. In the present study data have been collected very carefully, so as not to be affected adversely by the problems mentioned above.

### **3.8 Brief Summary**

From the foregoing discussion, it is evident that, as special emphasis has been laid on the objectivity of the study so the methodology has been formulated scientifically. The issues raised and analyzed in the different stages of the study have been defined clearly at the beginning. As to the choice of the study area, Rajshahi Zone of the GB has been selected, as it is the most successful operational as is evident from the major indices of GB. The collection of secondary data to supplement the primary data, where necessary, were collected from various sources in order to make the analysis more objective. The survey area has been confined to five branches of GB considering time and resource constraint. During the collection of data the interview method has been emphasized while keeping close observation on the respondents.



## CHAPTER-4

### BACKGROUND OF THE STUDY



## CHAPTER-4

### BACKGROUND OF THE STUDY

#### **4.0 Introduction**

Alarming situation of poverty and unemployment especially in the rural areas of Bangladesh appears as the main challenge to development. Low level of savings, lack of capital formation and employment opportunities, gender discrimination and low level of productivity in both farm and non-farm sectors can be identified as the main causes of poverty and unemployment. As the rural poor are unable to meet their basic needs because of the low income, they face savings gap. As a result they try to fill the gap by borrowing from the usurers who dominate the rural money market and charge exorbitant rate of interest. These loans are used by the rural poor both for consumption and investment purposes. In such a situation they need to be provided with soft credit by the formal and semi-formal sources. But due to inappropriate credit policy pursued by the government the rural poor could not get adequate credit from formal institutions and were exploited by informal moneylenders. In the recent past semi-formal institutions (GB & MF-NGOs) have come into prominence with credit programs for fighting poverty in Bangladesh. (Saha & Habib, 1998). These micro-finance institutions are providing group-based credit to the rural poor for ensuring their wellbeing and protecting them from the exploitation of the usurers.

Although the commercial banks of Bangladesh have been asked to provide agricultural and rural credit since mid 1970s in order to supplement the government's efforts of alleviating rural poverty, the rural credit programs of the commercial banks could not reach the poor significantly and the programs almost came to a halt in the decade of 1990s due to corruption and frustrating rate of recovery (Saha & Habib' 1998). BRDB started credit programs for the rural poor to generate income through the creation of non-farm activities in 1974, but it could meet a very little part of vast demand for

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### **Background of the Study**

credit of the rural poor. The Grameen Bank initiated a group-based micro-credit programs for the alleviation of rural poverty in 1983 and many other NGOs have also come forward with micro-credit programs following the GB approach.

The government of Bangladesh has given emphasis on micro-credit and related activities in the Fifth Five Year Plan (1997-2002) as a strategy of poverty alleviation along with other development efforts. At present, huge amount of money are being disbursed by the different ministries and divisions of the government as micro-credit in the rural areas.

It is asserted by all formal and semi-formal micro-credit institutions that they are providing group-based collateral-free credit and non-credit developmental support at a reasonable rate of interest to the poorest people so that they could alleviate rural poverty through creation of self-employment. It is also claimed that micro-credit is empowering the rural poor specially the rural women through creation of freedom of choice in the socio-economic and political decision making. In the meantime the MC-NGOs have mobilized huge amount of savings from their borrowers.

Although Some NGOs and Commercial Banks started micro-credit operations before the GB's inception, GB claims itself as the pioneer of the group based micro-credit programs and it achieved global recognition for that. Attempt has been made to analyze the overall operational aspects of the credit programs carried out by the Gramen Bank and other micro-credit institutions in the present chapter.

## **4.1 GRAMEEN BANK AT A GLANCE**

The history of foundation and overall activities of the Grameen Bank is briefly discussed here.

**4.1.1 History of Establishment:** Grameen Bank of Bangladesh, is at present the largest specialized micro-credit institution in the world. The credit program of the GB was initiated by Dr. Muhammad Yunus, a professor of economics, university of Chittagong, as a research project aiming at poverty alleviation in August 1976, from "Jobra", a village of Chittagong district. It disbursed small size of collateral-free credit among the landless people and successfully recovered 100 percent of credit including interest in the scheduled time. Seeing the excellent performance of recovery rate, Dr. Yunus was able to convince Bangladesh Bank to extend the experience of GB project under the supervision of Bangladesh Bank with financial support. In 1979 GBP started its micro-credit operation in Tangail district as a project of Bangladesh Bank (Yunus, 1987). The project operated with excellent rate of recovery which was 98-99 % ( Yunus, 1987) in all the nineteen branches in Tangail region. Grameen Bank project received huge grants and soft loans from many international agencies like IFAD, FORD Foundation, SIDA, UNICEF etc along with the financial support of central bank and nationalized commercial banks of Bangladesh. Later on, it expanded its credit programs in Dhaka, Rangpur and Patuakhali districts till early 1983. In September 1983, the government of Bangladesh announced 'Grameen Bank' ordinance by which the GBP became a scheduled financial institution named 'Grameen Bank'. Finally GB was launched as a specialized bank with group-based micro-credit programs to uplift the rural poor from poverty in 2<sup>nd</sup> October 1983 with an authorized capital of Tk. 100 million and a paid-up capital of Tk. 30 million. The Grameen Bank was declared as a share holding financial institution. Initially 60 percent and 40 percent share was shown under the ownership of the government of Bangladesh and the poor borrowers respectively. The percentage of shares under the ownership of the poor members has been increasing with the of

expansion of the credit programs. At present it is shown that member borrowers own 93.28 percent of the shares and the government owns only the remaining 6.72 percent shares. GB has been providing group-based credit without collateral to the landless poor who were left out of the conventional banking system with a view to inducing income generating activities for poverty alleviation. Unlike many other commercial banks, the GB credit delivery model is designed to ensure its financial viability (Khandker, Khalily and Khan, 1995) and within very short time GB has got recognition as a unique financial institution for the alleviation of rural poverty.

#### **4.1.2 Specialities of Grameen Bank**

By nature the commercial banks create fund and make profit by lending at higher rates of interest relative to the deposit and borrowing rates. The demand and supply of funds in free markets usually determine the rates of interest. The GB also maintains this principle of fund accumulation and profit creation. The commercial banks of Bangladesh are regulated by the Bank Companies Act and are obliged to follow the directions and guidelines of the Central Bank. But the GB is operating under its own ordinance 'The Grameen Bank Ordinance 1983' and enjoying full autonomy. The commercial Banks secure collateral against lending but the GB is lending without any visible collateral. Unlike other banks, GB do not provide loan to an individual. It forms group of borrowers before loan sanction. GB is fundamentally a group-based lending institution designed especially to work with the rural poor and unlike many other financial institutions it recovers the lending weekly in equal installments with interest. It collects different types of compulsory savings from the group members, through which capital accumulates.

#### **4.1.3 Goal and Objectives of GB**

The goal, which is proclaimed by the GB, is poverty alleviation. Mentioning the credit as the most powerful instrument or engine of



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development, it has been providing group-based credit facilities to the poorest section of rural society for the creation of self-employment and income generating activities. The objectives which are specified by the Grameen Bank are mentioned here:

- 1) To empower the rural poor especially the women who are seriously neglected and ignored, through creation of self-employment opportunities and freedom for them.
- 2) To provide financial services exclusively to the poorest section of rural area which is excluded from the formal credit institutions.
- 3) To rescue the poor people from the informal moneylenders who are exploiting them by charging exorbitant rate of interest on credit.
- 4) To provide organizational support to the disadvantaged people for the better use of credit and income as well.
- 5) To develop human capital in the rural areas through providing developmental programs regarding education, health, nutrition, disaster management etc.
- 6) To mobilize savings as a part of future hope for the poor.
- 7) To reduce rural unemployment and dependency rate by offering self-employment opportunities in rural non-farm sector.

GB has made a guideline consisting of a lot of advises named 'Sixteen Decision' as a comprehensive program for the socio-economic development of the rural poor. The 'Sixteen Decisions' are as follows:

1. The four principles of the Grameen Bank: discipline, unity, courage, and hard work- we will follow and advance in all walks of our lives.
2. We will bring prosperity to our families.
3. We will not live in dilapidated houses. We will repair our houses and work towards constructing new houses.
4. We will grow vegetables all the year round. We will eat plenty of them and sell the surplus.

## **Chapter-4**

### **Background of the Study**

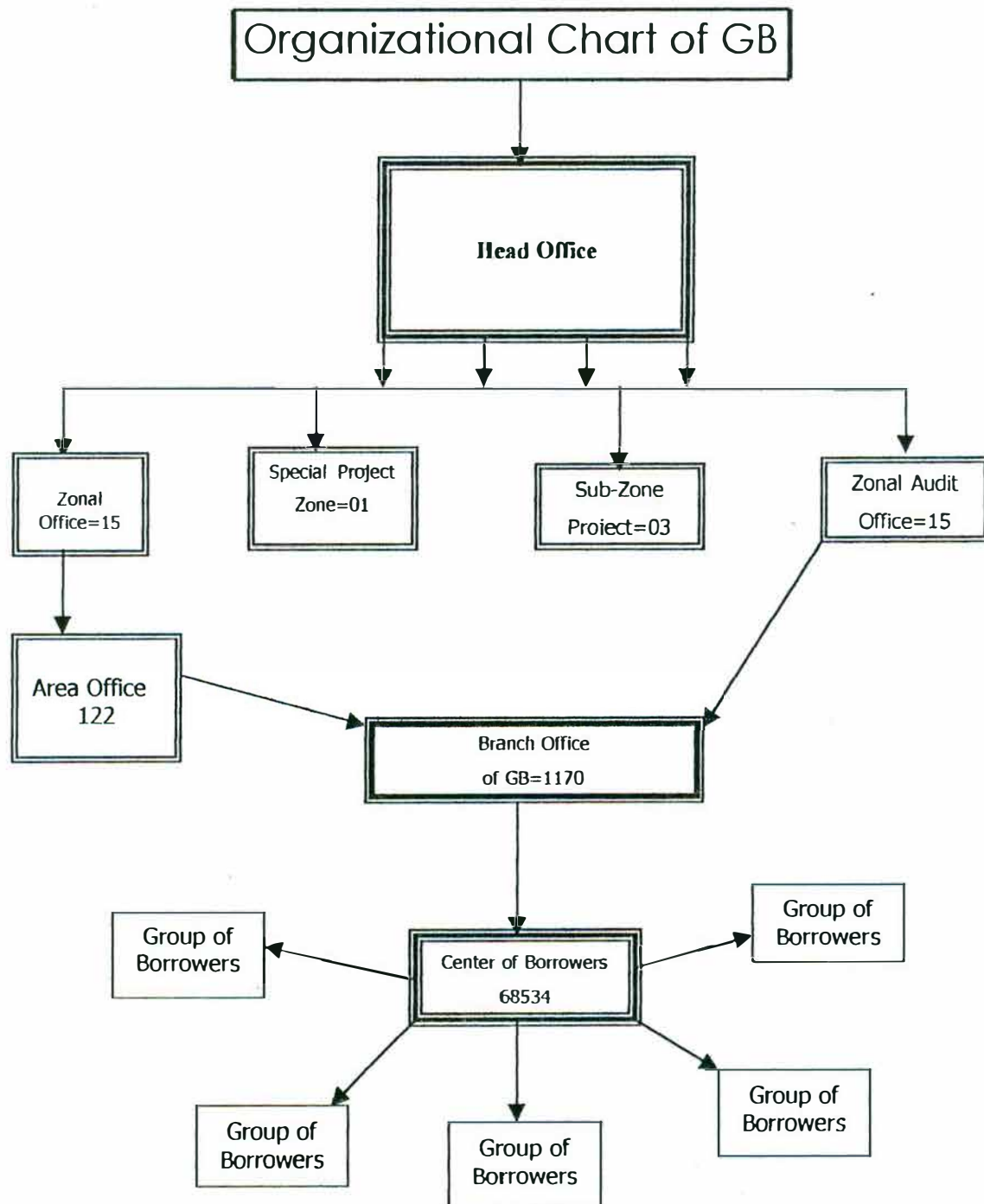
5. During the plantation season, we will plant as many seedlings as possible.
6. We will plan to keep families small. We will minimize our expenditures. We will look after our health.
7. We will educate our children and ensure that they can pay for their education.
8. We will always keep our children and the environment clean.
9. We will build and use pit-latrines.
10. We will drink tubewell water. If it is not available, we will boil water or treat it with alum.
11. We will not take any dowry in our son's wedding, neither will we give any dowry in our daughter's wedding. We will keep the center free from the curse of dowry. We will not practice child marriage.
12. We will not inflict injustice on anyone, nor will we allow any one to do so.
13. For higher income we will collectively undertake bigger investments.
14. We will always be ready to help each other. If anyone is having difficulty, we will help him.
15. If we learn of any breach of discipline in any center, we will help to restore discipline.
16. We will introduce physical exercise in our centers. We will take part in all social activities collectively.

GB has introduced these sixteen decisions to achieve overall uplift of the rural disadvantaged people.



## Chapter-4 Background of the Study

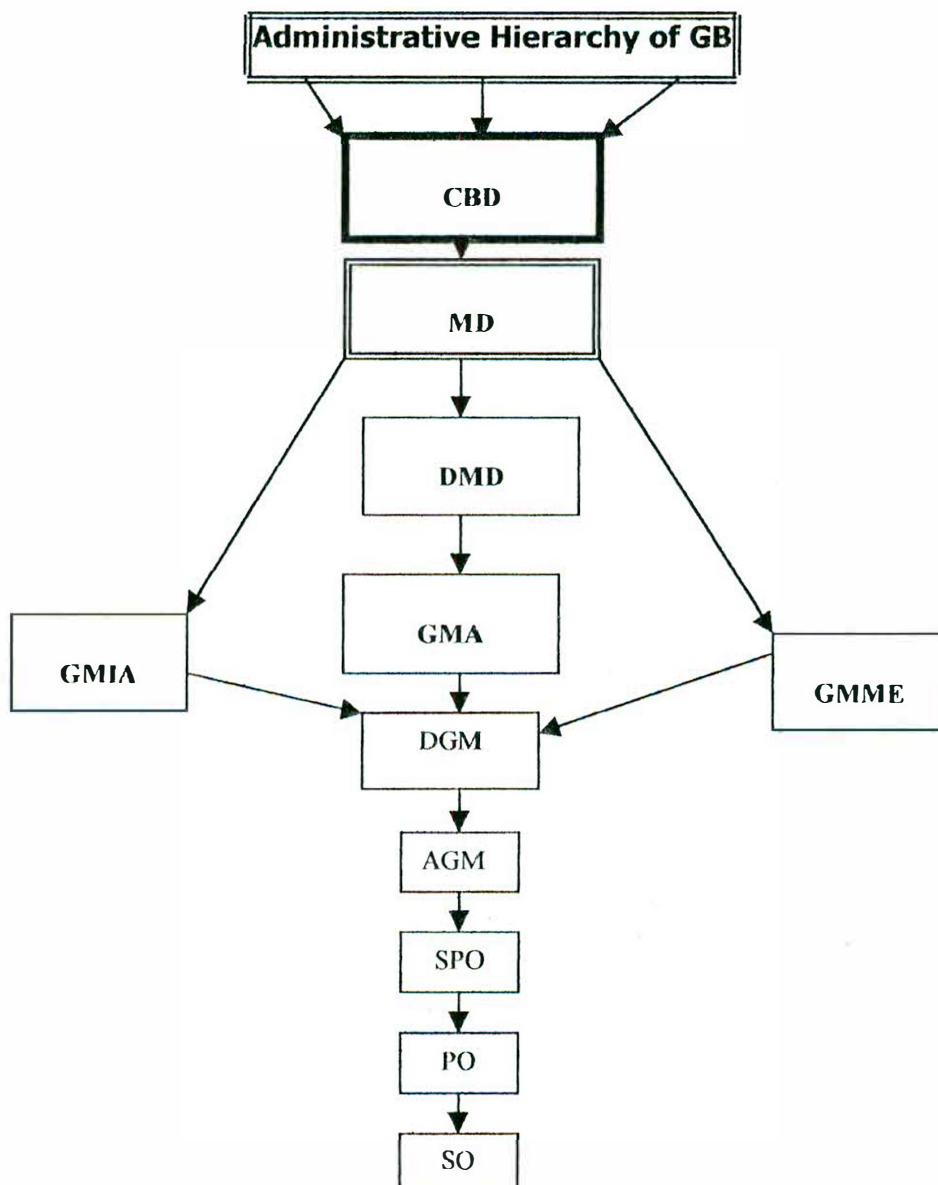
**4.1.4 Organizational Structure:** The Organizational structure of Grameen Bank is shown in the following chart.



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The policies regarding the overall activities of the GB are formulated in the head office. Branch office is the micro unit of credit marketing and is the profit earner for the GB. Each of the branch offices supervises 60 to 70 centers with only 6 to 8 personnel. The decisions, which are formulated in the center of administration come to the branch offices/ operational units through 'top to bottom' path for implementation regularly. Other offices between Head office and branches are doing intermediary activities.

**4.1.5 Administrative Hierarchy:** The administrative hierarchy of Grameen Bank is shown in the following diagram.



## Chapter-4

### Background of the Study

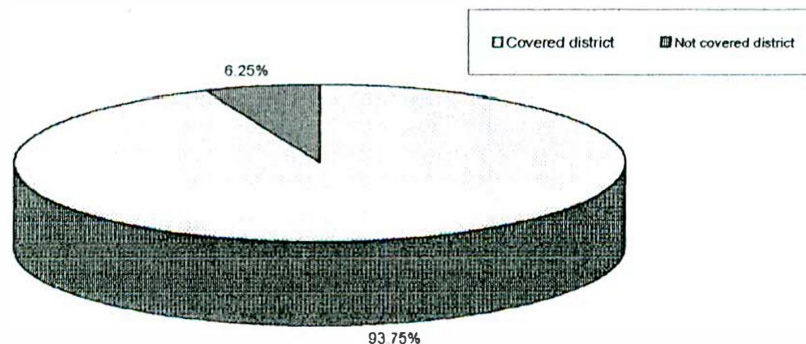
**Note:** CBD= Chairman of the Board of Directors, MD= Managing Director, DMD= Deputy Managing Director, GMA= General Manager Administration, GMTIA= General manager Training and International Affairs, GMME= General Manager Monitoring and Evaluation, DGM= Deputy General Manager, AGM= Assistant General Manager, SPO= Senior Principal Officer, PO= Principal Officer. SO = Senior Officer, JO= Junior Officer.

**4.1.6 Expansion and Coverage:** The Grameen Bank, which was inaugurated in a small village in 1976, with US Dollar 27 only, at present stands out as the world's largest specialized micro-credit institution. The expansion of fund, coverage of geographical area and rural dwellers are mentioned here.

**4.1.6.a Expansion of Credit Fund:** Up to September 2000 Grameen Bank has disbursed a cumulative total of Tk. 1,26,789.40 million credit, which is higher than any other specialized micro-credit institutions credit not only in Bangladesh but in the world.

**4.1.6.b Geographical Coverage:** The geographical coverage of the credit programs of the GB in Bangladesh is shown in the following charts.

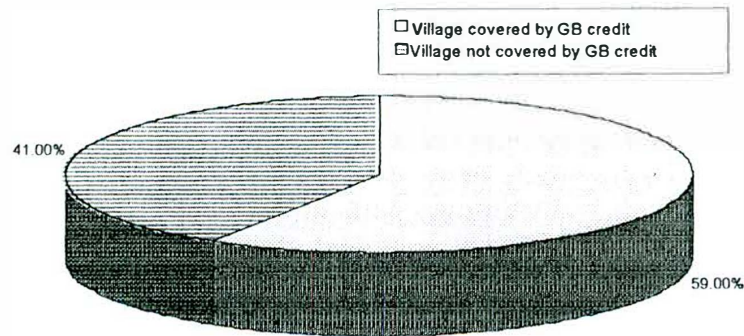
**Chart-4.1: Geographical Coverage-Districts**



## Chapter-4

### Background of the Study

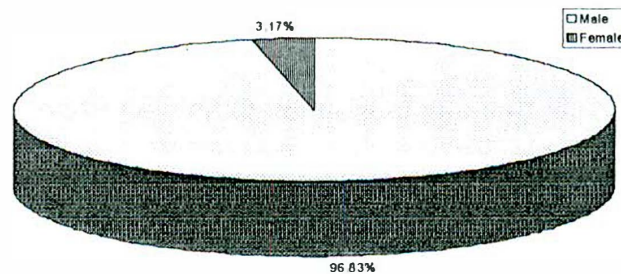
**Chart-4.2: Geographical Coverage-Villages**



It is seen from the charts 4.1 and 4.2 that the Grameen Bank has already covered 59% villages under 94% districts of Bangladesh.

**4.1.6.c Coverage of Rural Dwellers:** Up to September 2000 Grameen Bank has incorporated more than 2.37 million rural dwellers under its credit program. Of its total members 96.83% are female.

**Chart-4.3: Coverage of Rural Dwellers according to Gender (in million)**



\*\*Total=2.37 million, Male=3.17% and Female=96.83%

**4.1.7 Formation of Group and Center:** The Grameen Bank forms a group of five members chosen from five separate households living in the same area and bearing same socio-economic and socio-cultural status. The enrollment of more than one member from the same household in the same group is strictly prohibited. It is mentioned by the GB that it considers those individuals who belong to landless or assetless households only. A member of the group is elected as the chairman, by whom the GB maintains financial discipline in the group level. The group members undergo a training program for a period of at least 7 days. After the completion of the training program, the workers of the GB select the potential groups as well as members for delivering credit. A center consists of eight groups. A member of the center is elected as the chairman of the center by the chairmen of the groups and he manages the activities of the members under a center. The respective members of the groups and centers elect an alternative member as the chairman in every year. In this way the poor members are taken under the leadership of the chairmen of the groups and centers respectively.

**4.1.8 Credit Delivery and Recovery Mechanism:** GB does not disburse loan to all the members of a group at a time. Two persons relatively poorer among the group members, are selected by the GB workers and are given credit for the first time. After the observation of the recovery performance of the first two for a period of 6 to 8 weeks the rest of the members remain in the credit line are considered in turns. Each member of the group is accountable for the recovery of the loan installments sanctioned to any one of the groups. Similarly responsibility for repayment of any borrower lies to every member of the centers. The chairmen of the groups and centers bear the sole responsibility in this regard.

The first credit sanctioned to the borrower appears to be a meagre amount of Tk. 1000 to Tk. 3000. The GB deducts Tk. 5% during credit delivery as group-fund/group-tax from the sanctioned money and then recovers Tk.24



per thousand as weekly repayment installments of which Tk.22 is the principal and Tk.2 is interest. Every borrower is obliged to deposit Tk.5 to GB fund as weekly savings with the repayment installments. The amount of weekly installment varies with the size of the loan. GB also collects Tk.2 per day from each of the members during the training period. Previously GB used to collect many types of contribution as 'emergency-fund' ( Rahman, 1999), children fund etc. At present GB recovers its loan and interest within 46 weeks from the date of delivery in equal installments according to the fixation mentioned above. Previously, the number of installments was 52. If any borrower delays to repay, other members including the leaders of the groups and centers create pressure on him. GB expels the member if she or he fails to repay the duly installments.

**4.1.9 Nature of Capital Formation:** At present, different types of obligatory savings and weekly collection of loan installments from the member borrowers and loan from BB and other commercial banks are the main components of the working capital of GB. GB that started its banking operation in October 1983 with a total of Tk. 130 million of which Tk. 100 million is authorized and Tk.30 million is paid-up capital. At the very early stage, GB received huge amount of grants and concessional loan from external sources. Till December 1994 it received a total of Tk. 31365.30 million as grants and subsidized loan from foreign as well as domestic sources. The shares of different sources is shown in the following table:



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### Background of the Study

**Table-4.1: External Funds Received by GB from Different Sources, 1984-'94**  
(TK. in million)

Year	IBR Loan	IFAD Loan	NORAD Loan	Netherlands Loan	SIDA Loan	Ford foundation Loan	CBs Loan	Grants from Various sources	Grand Total	Foreign funds % of the total
1985	206.60	180.10	00.00	00.00	00.00	03.96	43.30	—	—	—
1986	80.80	587.60	00.00	44.30	00.00	03.96	00.10	05.92	886.98	90.88
1987	19.00	556.30	123.40	44.30	156.20	18.08	—	07.33	905.61	97.90
1988	14.80	747.20	187.90	44.30	220.70	18.08	—	180.54	1413.52	98.95
1989	193.80	957.10	267.90	44.30	238.90	18.08	—	377.22	2097.30	90.76
1990	183.40	1085.70	267.90	44.30	238.90	66.37	—	967.12	2853.69	93.57
1991	173.00	1085.70	267.90	44.30	238.90	66.37	—	1351.46	3227.63	94.64
1992	—	1257.70	267.90	44.30	238.90	66.37	03.10	2445.86	4324.13	99.93
1993	3500.00	1352.60	267.90	44.30	238.85	66.37	—	2886.27	8356.29	58.12
1994	3500.00	—	—	—	—	—	3250.00	261.49	7011.49	03.73
Total	7871.40	7810.00	1650.80	354.40	1571.35	327.64	3296.50	8483.21	GT=31365.30	—

**Source: GB as Khandker, Khalily and Khan edt. 1996, page-84.**

From table-4.1 it is seen that till 1993 the major part of the GB's external funds came from foreign grants and subsidized loans i.e, 90.88%, 97.90%, 98.95%, 90.76%, 93.57%, 94.64%, 99.93%, 58.12% and 03.73% in 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993 and 1994 respectively.

#### **4.1.1o The Terms and Conditions of the Loan Received by the GB from Different Sources till 1994**

**4.1.10.a IFAD:** The loan received from IFAD in 1981 was to be repaid in 17 half-yearly installments from 15<sup>th</sup> March 1997 to 15<sup>th</sup> September 2005 with only 3% rate of interest. The Fund received in 1985 was to be repaid in 20 half-yearly installments from 15<sup>th</sup> March 1995 to 15<sup>th</sup> September 2004 with only 2% rate of interest. The Fund received in 1990 and 1992 has to be repaid in 80 half-yearly installments from 15<sup>th</sup> march to 15<sup>th</sup> September 2038 with only 2% interest (GB, AR, 1999).

**4.1.10.b NORAD:** The fund received from NORAD in 1986 has to be repaid in 40 equal semi-annual installments with 2% rate of interest within 30 years from 1997 (GB, AR, 1999).

**4.1.10.c SIDA:** The fund which was received from SIDA in 1986 is to be repaid in 40 equal half-yearly installments with 2% rate of interest within 30 years from 1997 (GB, AR, 1999).

**4.1.10.d Ford Foundation:** The fund received from Ford Foundation in 1985, 1987 and 1989 has to be repaid in 3 equal installments starting after 8 to 10 years of the receiving date. The installments, due in 1999 were kept pending according to the instruction of Ford Foundation. No interest has been mentioned (GB, AR, 1999).

**4.1.10.e Dutch Loan:** The concessional loan of Netherlands is to be repaid in 15 yearly installments within 16 years from the date of receiving (GB, AR, 1999).

**4.1.10.f The Overseas Economic Co-operation Fund:** From OCEF GB has received Tk. 393,133,462, Tk. 419,216,041 and Tk. 289,800,159 in 1996, 1997 and 1998 respectively. It is also repayable with 2% rate of interest in half-yearly installments within 30 years (GB, AR, 1999).

**4.1.10.g Bonds and Debentures:** Under the guarantee of the GOB, GB has issued bonds and debentures of Tk. 6,500,000,000 and Tk. 2,000,000,000 in 1996 and 1999 respectively with 4% to 10% interest rates (GB, AR, 1999).

**4.1.10.h Grameen Kalyan and Grameen Fund:** GB has also received Tk. 2,759,103,079 in 1999 from Grameen Kalyan with 2% rate of interest and Tk. 60,000,000 in 1999 from Grameen Fund with 10% rate of interest. The loan of Grameen Fund is repayable within three years with interest (GB, AR, 1999).

**4.1.10.i Bangladesh Bank:** GB has received a total of TK. 7871.40 million soft loan from BB till 1994. In 1999 it received TK. 1000 million from BB with bank rate of interest, which was repayable within 12 months and it was renewed for another 12 months in December 1999. (GB, AR,1999).

It is to be mentioned here that the Government of Bangladesh has made almost all of the loan agreements with the donor and creditors on behalf of the GB.

**4.1.10.j Interest Earnings:** Although GB claims that it charges 20% interest against loan, but the actual rate of interest is much more higher than what GB shows. It is seen that GB fixes weekly installments as: Tk. 22 per thousand as principal, Tk. 2 per thousand as interest and Tk. 5 as weekly savings with every installment. According to average use of credit, the effective rate of interest has been measured in the present study which amounts to 26.34% (Appendix: P-217). As GB is delivering huge amount of money as credit constantly, so it is naturally inferred that it is accumulating large part of capital from the interest paid by the borrowers.

**4.1.10.k Collection against the Name Share:** By nature GB is a share holding company /private limited company which receives Tk. 100 from each of the members during their enrollment. So it has accumulated at least a total of Tk. 237.05 million from the 2.37 million member borrowers against share.

**4.1.10.l Velocity of Credit Creation:** GB deducts 5% from the sanctioned loan and then recovers the loan weekly with interest. So in every week it can generate new capital from the weekly collection for the new borrowers. It may be guessed from the rapid expansion and excellent recovery performance that there is no scope of the GB to hold idle money in its own fund. So the obligatory savings and weekly recovery can serve new borrowers regularly. In such a way GB has been creating huge amount of credit. The

velocity of GB's credit creation is found to be 353% in the present study ( Appendix : Page-222)

**4.1.11 Manpower Employed:** At present the GB is doing micro-credit business almost in all rural area of Bangladesh except three hill districts. About 14000 people are employed in the GB activities at present. Of them more than 3000 are officers, who are highly educated and are high salaried.

**4.1.12 Extra Benefit:** It is seen from the above analysis that the Government of Bangladesh has signed all the loan agreements from foreign sources on behalf of GB. As it has declared itself as a service oriented organization aiming at alleviation of rural poverty, it has enjoyed many kinds of extra benefils than many other financial organizations. These benefils include tax relaxation, free-transfer of money through other commercial banks till 1995, grants and interest-free loan, soft loan from foreign and domestic sources, many types of advantage for capital accumulation in the early stage etc.

**4.1.13 Rajshahi Zone at a Glance:** The Rajshahi Zone is the second largest among the 15 credit delivery zones of the Grameen Bank. The credit program under this operational zone was inaugurated at Deopara, Godagari in November 1988. At present GB is doing credit business with more than 0.18 million rural people through 88 operational branches under this administrative zone. The overall performance of Rajshahi Zone of the GB is shown in the following table.

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**Table-4.2: The Overall Performance of Rajshahi Zone of the GB**

<b>1. General Information</b>		
<b>Sl.No.</b>	<b>Description</b>	<b>Number</b>
1.a	Number of branches	88
1.b	Number of area office	09
1.c	Number of village covered	3641
1.d	Number of centers	5295
1.e	Number of groups	38605
1.f	Number of active borrowers	178197
1.g	Total Employee	789
1.g	Number and % of absent borrowers	29632 (16.23%)
1.h	Number of Br. office under GB's ownership	33
<b>2. Total Loan Disbursement (Tk. in million)</b>		
<b>Sl. No.</b>	<b>Types</b>	<b>Amount (TK. in million)</b>
2.a	General loan	5160.14
2.b	Seasonal loan	3102.61
2.c	Housing loan	395.03
2.d	Leasing loan	37.71
2.e	Other loans	67.34
	<b>Total</b>	<b>8762.83</b>
<b>3. Other Information</b>		
<b>Sl. No.</b>	<b>Description</b>	<b>Number/Percentage</b>
3.a	Average rate of recovery	91.68%
3.b	Total amount and % of savings generated	3434.22 (39.19%)

Source: Rajshahi Zonal Office of GB

It is seen from the table that at present a total of 178197 active borrowers under 38605 group and 5259 center of 6341 villages are using the loan of the GB in Rajshahi Zone. A total of TK. 5160.14, 3102.61, 395.03 and 67.34 million has been disbursed in the head of general, seasonal, housing and other loan respectively. It is also seen from the table that a total of TK. 3434.22 million, which is 39.19% of the total disbursement has already been



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accumulated as savings from the borrowers by Rajshahi operational zone of the GB till December 1999. The average rate of recovery is 91.68%. A total of 789 employees are working under this operational zone. Out of 88 office buildings, 33 are under the ownership of GB.

In the light of the importance mentioned above the Rajshahi Zone has been selected as the field of the present study. The field survey has been conducted in the area of five selected branches. The details of the branches are shown in the following section.

### 4.1.14 The Activities of the Selected Branches at a Glance

A total of 188 active and 30 dropout borrowers from six operational branches have been selected at random for the purpose of the present study. The details of the selected branches are shown in the following table.

**Table-4.3: Activities of the Selected Branches till December 2000.**

<b>Name of branches</b> → <b>General information</b> ↓	<b>Deopara</b>	<b>Matikata</b>	<b>Pakri</b>	<b>Parila</b>	<b>Damkura</b>
Date of inception	26.11.1988	09.3.89	07.11.1988	26.2.89	2.11.1998
Total share holder at present	1867	1476	2009	2231	2245
Year of obtaining Highest active member and year	2175 1990	2460 1997	1902 1999	2113 1999	2520 1996
Total disbursement (cum. in TK.)	145325242	141548089	13112298	177214611	210104989
Total Savings generation (in TK.)	30715735	27546786	39237180	37660978	55571299
Average size of loan (in TK.)	6000	5000	5000	6000	8000
Types of loan delivered	04	5	6	6	6
Year of highest member enrolled	1990	1998	1989	1990	1996
Year of lowest member Enrolled	1999	1999	1994	1997	1998
Total share returned (dropout)	1245 (40)	1637 (52.58)	1420 (41.41)	1695 (43.17)	1250 (37.94)
Average rate of recovery	100	100	98%	100	100%

**Source: Collected from branches and zonal office records**

**\* Figure in parenthesis shows the percentage of dropout**



It is seen from table 4.3 that at present a total of 1867, 1476, 1883, 2231 and 2245 loanees are active in Deopara, Matikata, Pakri, Parila and Damkura branches respectively. The number of active borrowers has reduced in all branches. It is also seen from the table that although a huge amount has been accumulated by the branches as savings from different types of obligatory savings of the borrowers, almost half of the borrowers were not able to continue their membership in the GB. A total of 40%, 52.58%, 41.41%, 43.17% and 37.94% members were dropped out from Deopara, Matikata, Pakri, Parila and Damkura branches respectively. It is seen that although GB has been extending its credit program quickly, the number of borrowers is shrinking after a certain period of time at branch level. No vocational or job oriented training were found to have been provided by the GB in the sample areas.

A Principal Officer/ manager is the head of a branch office. Under the branch manager two or three junior officers and three workers work in the field level. Members of staff of the branch are well educated, well organized and hardworking and they are very dutiful regarding the collection of member and recovery of the loan. No technical expert was found among the personnel in operational branch level. It is clearly seen from the table that all branches have been disbursing general and seasonal loan mainly and no loan disbursement for human development, like educational loan was found in the sample branches.

#### **4.2 Some of the Major Micro-credit Programs in Bangladesh**

At present the micro-credit is one of the most important sectors in the economy of Bangladesh where the poor people are making vast financial transactions everyday. The expansion, coverage, savings mobilization, interests and recovery performance of some reputed (reported to CDF) micro-credit institutions are discussed below.

### **4.2.1 Government and Government supported Micro-credit Programs**

**4.2.1.a Ministries and Departments of the GOB:** The government of Bangladesh has been providing micro-finance facilities to the rural poor through various boards, divisions and departments of different ministries. Till December 1999 a total of Tk.23675 million have been disbursed from the government funds to the poorest households with the aim of poverty alleviation through the administrative units of the government.\*\* ( Source: Bangladesh Economic Review 2000, Ministry of Finance, Dhaka, p-120). The Rural Development & Cooperative Division, Ministry of Women & Children Affairs, Ministry of Industries, Ministry of Youth & Sports, Ministry of Agriculture and some other ministries and departments have been directing the micro-credit operations on behalf of the GOB. The following table shows the disbursement as well as recovery of the micro-credit programs of the government of Bangladesh.

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**Table-4.4: Micro-credit Disbursement by the Administrative Departments/  
Divisions of the GOB (TK. in million)**

Ministry/Division	Organization	Cum. Up to june,96	1996/97	1997/98	1998/99	1999/2000	Cum. Total
Ministry of Finance	Banking Dept.	53.30	91.10	128.00	165.80	89.60	527.60
Rural Devl. & coop. Division	BRDB	5051.70	2314.20	2937.80	2780.60	1577.50	14661.80
	BARD	254.10	86.10	75.90	89.40	44.60	550.10
	RDA	03.60	06.10	07.70	10.50	10.30	38.20
Ministry of Women & Children Affairs	Women Dept.	326.80	191.10	301.10	389.00	124.50	1332.50
	National Women Org.	10.00	09.80	04.50	08.40	00.90	23.50
Ministry of Social Welfare	Directorate of Social Welfare	1075.00	74.80	57.60	159.90	72.40	1439.60
Ministry of Labor & Employment	BOMET	107.20	49.20	39.60	21.50	00.00	196.00
Cabinet Division	Cabinet Division	06.00	05.00	07.90	02.70	03.40	25.00
Ministry of Fisheries & livestock	Fisheries	15.40	06.60	24.50	31.80	02.80	82.70
	Livestock	109.40	23.80	45.40	152.10	210.00	388.60
Ministry of Industry	BASIC	238.70	120.00	138.50	157.20	63.50	718.00
Ministry of Agriculture	Cotton	14.00	03.40	03.90	02.70	03.50	27.50
	BAE	108.70	13.20	34.60	76.80	46.20	275.50
Ministry of Land	Land	126.90	12.60	00.00	---	---	139.50
LGED Division	LGED Division	38.00	02.10	15.00	10.00	05.00	60.10
MOYS	Dir. of Youth Devl.	857.40	698.60	564.70	781.00	350.20	315.18
Total	Types of Organizations =16	8396.20 (6656.00 i.e 79.30%)	3607.60 (3148.50 i.e 87.30%)	4386.60 (3975.70 i.e 90.60%)	4862.80 (4327.10 i.e 89.28%)	2613.70 (4862.80 i.e 76.10%)	23675.00 (19922.80 i.e 84.20%)

Source: CDF statistics and BER, 1999 and 2000

\*Figure in parenthesis shows the recovery

The table-4.4 shows that the government of Bangladesh disbursed Tk.6396.30 million up-to 1996, TK. 607.60, 4386.60, 4862.80, and 2613.70 million in

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the fiscal year 96/97, '97/98, '98-99, and 99/2000 respectively. It is also clear from the table that the average rate of recovery till 1996 was 79.30 percent and that were 87.30%, 90.60%, 89.28%, and 76.10% in the fiscal year 96/97, 97/98, 98/99 and 99/2000 respectively.

### 4.2.1.b Micro-credit Disbursement and Recovery by Nationalized Commercial Banks of Bangladesh

The nationalized commercial banks including BKB and RAKUB have been providing small credit to the rural poor in order to enable them to meet the challenge of poverty through creation of self-employment opportunities in both the farm and non-farm rural sectors. The delivery of micro-credit by the nationalized commercial banks is shown in the following table.

**Table- 4.5: Micro-credit Disbursement and Realization by Nationalized & Specialized Commercial Banks**

Banks	Cum. dis. Upto June, 1996	Fiscal Year 1996/97	Fiscal Year 1997/98	Fiscal Year 1998/99	Fiscal Year 1999/2000	Cum. Upto 1999/2000	Total no. of Beneficiaries
Sonali Bank	25556.50	2582.70	2949.30	2554.80	1674.50	35317.80	5974900
Disbursement	21884.90	3002.90	2761.00	1236.80	2439.00	31324.80	
Recovery	(85.63)	(116.27)	(93.62)	(48.38)	(145.67)	(88.69)	
Augrani Bank	5653.20	714.60	1001.80	1957.50	647.70	9327.10	2778935
Disbursement	5829.90	623.00	870.50	1417.50	779.10	8740.90	
Recovery	103.13)	(87.18)	(86.89)	(72.41)	(120.29)	(93.72)	
Janata Bank	8953.10	1259.10	950.60	1422.10	466.40	13051.30	
Disbursement	7709.70	1222.10	1064.20	783.10	599.00	11378.10	361518
Recovery	(86.11)	(97.07)	(111.95)	(55.06)	(128.42)	(87.18)	
Rupali Bank Ltd.	166.50	05.30	04.80	08.60	03.30	188.50	-----
	155.30	04.20	06.60	05.50	03.80	175.40	
	(93.27)	(79.25)	(137.50)	(63.95)	(115.15)	(93.05)	
BKB	1597.90	834.50	983.00	1444.30	629.10	5488.80	
Disbursement	1019.30	656.20	764.40	1018.40	524.60	3982.90	1051441
Recovery	(63.79)	(78.63)	(77.76)	(70.51)	(83.39)	(72.56)	
BAKUB	246.40	61.10	68.50	109.10	97.00	580.00	76718
Disbursement	178.70	57.40	61.90	77.70	66.00	441.17	
Recovery	(72.53)	(93.98)	(90.29)	(71.27)	(68.07)	(75.88)	
Total	42173.60	5457.73	5958.00	7496.40	3518.00	63955.50	10243512
Disbursement	36777.80	5565.80	5528.60	4538.30	4411.70	56043.10	
Recovery	(87.21)	(101.99)	(92.79)	(60.54)	(125.40)	(87.63)	

Source: BER, 2000

\*Figure in parenthesis shows the recovery of the previous loan with interest



Table-4.5 shows that till FY-1999/2000 four nationalized & two specialized commercial banks (Sonali, Agroni, Janata, Rupali, BKB and BAKUB) have disbursed a total of Tk.63955.50 million among 10243512 borrowers. The average rate of recovery of Sonali, Agroni, Janata, Pubali, BKB and RAKUB were 88.69%, 93.72%, 87.18%, 93.02%, 72.56% and 75.88% respectively, the average being 87.63%.

#### **4.2.1.c Palli Karma-Sahayak Foundation (PKSF)**

Palli Karma-Shahayak Foundation has been established in 1990 to support the poor with credit and other socio-economic assistance for enhancing quality of their life. It mobilizes funds from grants, soft loans and donations from many international as well as domestic sources including the Government of Bangladesh and then provides credits to the poorest people through its partner organizations (Pos) with the aim of poverty alleviation. Since its inception in 1990 to June 1999, PKSF has disbursed Tk. 5664.54 among 1.5 million borrowers 90 percent of whom are female. This disbursement was carried on through its 182 POs in 62 districts of Bangladesh (Annual Report 1998/99, PKSF, Dhaka). PKSF charges an interest rate of only 3-5% from its POs.

#### **4.2.1.d Bangladesh Rural Development Board (BRDB)**

Bangladesh Rural Development Board (BRDB) is an agency of the Government of Bangladesh, which was launched in 1972 as an Integrated Rural Development Programme (IRDP) and subsequently transformed into BRDB in 1982. The BRDB has been working for rural development and poverty alleviation through creating income generating activities in the rural areas by implementing a number of development projects including group-based credit operations. It started delivering credit in 1974 before the inception of the GB. As a part of poverty alleviation efforts, BRDB, the pioneer of micro-credit, disbursed Tk. 13084.31 million till 1999 among 1650377 members of whom 60 percent are female. In the mean time it has covered all the districts of Bangladesh. It has been charging 15-20 percent interest on credits, which is

calculated by reducing balance method formula (CDF Statistics, June, 1999 and BRDB, August, 98).

#### **4.2.2 Non Government Organizations (NGOs)**

At present more than 1000 NGOs (Saha and Habib, August, 1998) are dealing with micro-credit in Bangladesh. The number of institutions, amount of loan disbursement and number of borrowers are increasing day by day. All of these MF-NGOs are providing group based micro-credit facilities to the rural poor specially the women with the aim of poverty alleviation through the creation of self-employment and self-empowerment.

Although now a days micro-credit is considered to be very vital issue of development in Bangladesh, the MF-NGOs are still running without regulations of the government. The government has not established legal regulatory clauses to maintain transparency as well as accountability of the micro-finance NGOs. Even the bureau of NGO affairs, working under the Prime Minister's secretariat does not maintain or publish the actual information of micro-finance NGOs. As a result, these MF-NGOs are operating on the basis of self-regulatory mechanism. The CDF is the only organization which is working as a common platform of micro-finance operations in Bangladesh. Basing on the information regarding the activities of different micro-finance institutions, it publishes data bank of micro-credit twice a year. But as CDF is an organization in NGO category, the MC institutions are not obliged to provide information to it. Up to June'99 it was able to collect and compile information of 524 MF-NGOs which is approximately a half of the total MF-NGOs working in the country. According to the CDF statistics vol. 8 published in June 1999 a total of Tk. 773,52 million (Cumulative) has been disbursed by 524 reputed (reported to CDF) NGOs among 8,703,247 borrowers till June' 99 of whom 7,376,960 are female. These MF-NGOs have mobilized Tk. 5951 million as savings from the members up to June 1999.



CDF statistics volume-8, June 1999 shows that total RLF of 524-reported MF-NGOs was Tk. 20,370.61 million till June 1999. Of this amount 23.63% accrues from members savings, 23.48% from PKSF, 20.70% from foreign donation, 11.48% from service charge, and 20.71% percent from local banks & other sources. Own share of these MF-NGOs in total RLF is insignificant (5.11%), the major part of the total fund stemming from grants and subsidized loans. Most of the MF-NGOs show the rate of interest of their credit as 10% to 20 %, which is measured by using the flat rate formula. And they give only 5% to 7% on lending and give only 5% to 7 % interest on members savings.

#### **4.2.2.1 Prominent NGOs and Their Activities in MC Programs**

A large number of NGOs have been playing vital role in the socio-economic progress of the country since independence. Prominent NGOs with MC programs are also playing an ever-increasing role in creating self-employment opportunities for the rural poor. The nature of credit delivery, coverage, total disbursement, amount of savings generated, the recovery rate and the rate of interest charged on loan of some of the largest MF-NGOs are discussed below.

#### **4.2.2.2 Bangladesh Rural Advancement Committee (BRAC)**

BRAC, one of the largest NGOs in the world (RBAC Annual Report, 1999), was established in 1972 for temporary relief operation and its focus was shifted from relief operation to long-run community development in 1973. It has been doing a lot of development programs like education, human resource development, health & nutrition and self-employment creation from its inception for the purpose of poverty alleviation and socio-political progress of the rural poor. BRAC started its micro-credit operations in 1974 (CDF Statistics, June, 1999) and gradually shifted its main concentration to micro-credit programs. Like GB, BRAC also believes that micro-credit is very important tool to break the cycle of poverty. The Group formation, attendance in weekly meeting and saving deposits are the prerequisites for

BRAC loan. BRAC also gives priority to women at the time of selecting the member borrowers. It recovers the loan on weekly basis in equal installments with 15 percent flat rate of interest. Up to December 1999 BRAC has disbursed a total of Tk. 40,791 million as loan and at present the number of active members are 3.3 million of whom 97.30 percent are female. It has mobilized a total of Tk. 2903 million savings from the member borrowers up to December 1999. The average rate of recovery is 98.29 percent. The main part of the revolving fund of BRAC is injected from members savings, grants and long term soft loans from the GOB & commercial banks. BRAC does not secure any collateral against loan and, at present, it is working in all the rural areas of Bangladesh.

#### **4.2.2.3 Association for Social Advancement (ASA)**

ASA is the second largest MF-NGOs in Bangladesh. It started in 1978 with various types of development programs for the socio-economic progress of the distressed rural poor. It started micro-credit operation in 1991 and gradually shifted all kinds of development programs into micro-credit programs. Since 1998 ASA has been doing only micro-credit operation by discarding all other social programs. It is providing group based micro-credit and is recovering the loan weekly in equal installments with 24% rate of interest according to declining balance method. ASA is providing group based micro-credit both in the rural and urban areas of Bangladesh. As of December 1999 ASA has disbursed a cumulative total of Tk. 18,306 million. The number of its active borrowers is 1.18 million (CDF, Vol. 9, 1999) of whom 92.71 percent are female. ASA has been providing micro-credit for the purpose of non-farm and commercial activities mainly. At present, ASA is lending through 800 operational units (branches) of credit in 61 districts of the country. The average rate of recovery is 99.94 percent and the growth of membership is quite remarkable. ASA has already generated Tk.1269 million as savings from the member borrowers till December 1999 (CDF Vol. 9, 1999) The compulsory/ obligatory reduction from the sanctioned loan, the voluntary savings and the

fee collection from pass books are the main components of the total savings. In addition to direct disbursement, ASA has also been providing micro-credit through some of its Partner Organizations (POs). Up to December, 1999 ASA has given a total of Tk. 35.75 million to its 20 POs for micro-credit operations in the respective areas in Bangladesh. The total revolving fund of ASA has accumulated from different sources as follows: 34.08 percent from members savings, 26.77 percent from PKSF, 18.75 percent from international donors, 12.69 percent from service charges, 02.52 percent from own fund, 00.74 percent from local banks, and rest of 4.45 percent from other sources (CDF Statistics, Volume 8, June 1999).

#### **4.2.2.4 PROSHIKA MANOBIK UNNAYAN KENDRA (PROSHIKA)**

PROSHIKA is the third largest micro-finance NGOs in Bangladesh. It was established in 1976 with the aim to assist the disadvantaged poorest section of the society for their socio-economic progress. Although it started credit programs from the beginning, its main activities centred round the human resource development through giving the poorest people various types of developmental supports like education, vocational training, cultural changes, health & nutrition, housing, environmental concepts as well as self-empowerment through building organizations. From the mid-nineties it has shifted its major developmental activities into micro-credit operations considering it as a powerful tool of poverty alleviation and empowering the rural poor. It is working both in the rural and urban areas for the purpose of inducing non-farm activity mainly. PROSHIKA provides group-based loan and considers the landless poor specially the poor women as the target people. Up to December 1999 PROSHIKA has disbursed a cumulative total of Tk. 11,304 million credit. At present, the number of active members is 1.45 million of whom 60.66 percent are female. It has already covered 12776 villages and 939 urban slums under its micro-credit operations till June'99 in 51 districts of Bangladesh. PROSHIKA also builds groups and trains them on the credit recovery system before sanctioning loan. The revolving fund consists of grants,

members savings and long term loans from the GOB & commercial banks. It does not secure any collateral against loan. It also recovers the loan weekly in equal installments with 18 percent rate of interest according to reducing balance method. Mobilization of savings from the member borrowers is an integral part of PROSHIKA. It has mobilized a total of Tk. 727 million as savings from the member borrowers till December 1999.

#### **4.2.2.5 Swanirvar Bangladesh**

The Swanirvar Bangladesh was established in 1979 as a micro-credit organization covering 10 thanas of the country with the support of the government of Bangladesh. At present, it is fourth-largest MF-NGOs in Bangladesh, which is working in the rural areas with the goal of poverty alleviation. Up to December 1999 it has disbursed a total of Tk. 1846 million credit among .7 million borrowers of whom 73.46 percent are female. It also provides group based credit without collateral and recovers the loan in weekly installments. It has already expanded its credit program in 11213 villages under 167 thanas of Bangladesh. Savings mobilization is one of the major objectives of this institution like other micro-finance institutions. Up to December 1999 it has mobilized a total of Tk. 155 million from the borrowers. The average rate of recovery is 82.95 percent.

#### **4.2.2.6 Thengamara Mohila Sabuj Sangha (TMSS)**

TMSS, established in 1987 as a non-government micro-credit institution specialized for the rural women. It has been trying to empower the rural disadvantaged women through providing small size credit facilities. Up to December 1999 it has disbursed a total of Tk. 1546 million of loan (cum. total) among .30 million landless rural women to involve them in earning process and empower them. It also forms groups before credit delivery and recovers the loan weekly in equal installments with 15 percent flat rate of interest. It does not secure collateral against loan. In the meantime, TMSS has mobilized a total of Tk. 126 million as savings from the borrowers. The average rate of recovery is 99.54 percent. Although it started credit programs in the northern



part of Bangladesh at present it is working almost in all areas of the country. According to the criterion of area covered, it is the fifth largest micro-credit NGOs in Bangladesh now.

#### **4.2.2.7 RDRS-Bangladesh**

RDRS-Bangladesh is another specialized micro-credit NGO, which was established in 1991. Up to December 1999 RDRS-Bangladesh has disbursed a cumulative total of Tk. 1687 million loan among .23 million borrowers of which 61% are women. It has mobilized a sum of Tk. 88 million as savings till December' 99. It charges 15 percent flat rate of interest on lending and recovers the loan weekly in equal installments. The average rate of recovery is 93.17 percent.

#### **4.2.2.8 CARITAS-Bangladesh**

CARITAS is one of the top listed as well as popular NGO in Bangladesh. It has been performing various kinds of development activities for the bottom twenty percent people. These are: education, human development, community development health & nutrition and many supporting activities for the extension of farm and non-farm productivity. It has been providing micro-credit along with other development activities since 1983 in the rural areas of Bangladesh. Up to December 1999 it has disbursed Tk. 963 million among .232 borrowers, of which 65 percent are female. It is charging 12 percent flat rate of interest on lending and recovers the lending through weekly installments. It has mobilized a total of Tk. 126 million as savings from the borrowers up to December 1999. The average rate of recovery is 91.03 percent.

The overall activities of seven big MF-NGOs are shown in the following table.



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**Table-4.6: Coverage and Performance of Seven Largest MF-NGO of Bangladesh**

Name of NGOs	Year of establishment	Active member (in 000)			Total Cumulative disbursement (in TK.)	Interest Charged & Nature	Savings Generated (Net)	Rate of Recovery (%)
		Male	Female	Total In number				
BRAC	1974	73,185	2637389	2710574	3465300000	15 % Flat method	2481000000	98.29
PROSHIKA	1976	548960	847020	1395980	9646110000	18% Dec. Meth	585,300,000	97.03
ASA	1991	78213	994151	1072364	14428867951	24 % Dec. met.	1145752913	99.93
SWANIRV-AR BD	1979	182540	505210	687750	1736000,000	-----	151761822	82.95
TMSS	1987	00	275294	275294	1517096050	15 % Flat	103677514	99.54
RDRS-BD	1991	92908	145317	238225	1501893000	15 % Flat	76237000	93.17
CARITAS- BD	1983	76072	141269	217341	663864000	12 % Flat	98179201	91.03
Total	-----	869,338	5040440	5909778 (5.91 million)	62410831001	-----	4,490,146,628	

**Sources: CDF statistics**

It is seen from the table 4.6 that a total of Tk. 62410.83 million has been disbursed among 5.91 million of borrowers, of whom 86% are female by only seven prominent MF-NGOs till Dec. 2000. The interest rates varied from 12% to 24% and the average rate of recovery above 90%.

### 4.2.3 Private Commercial Banks

At present private commercial banks are also operating micro-credit programs in Bangladesh to make the poorest people bankable. PCBs are taking initiative and implementing micro-credit programs directly and indirectly through different linkage approach with NGOs. The micro-credit programs of all commercial banks are financially viable as to the rate of recovery (Saha & Habib, 1998).

## Chapter-4 Background of the Study

### 4.3 Comparative Picture of Different MFIs in Bangladesh

A comparative picture of the micro-credit programs of Government, government-supported organizations, Grammen Bank, commercial banks and 533 MF-NGOs is shown in the following table.

**Table-4.7: Disbursement, Coverage, Savings Mobilization, and Nature of Recovery and Interest Charged by the Reported Micro-credit Institutions of Bangladesh as of December 1999**

Name of Sources	Total Disbursement In Million (Cum.)	Total Active Members (in million)	Net Savings mobilization (Tk. in million)	Recovery Rate (Average)	Nature of recovery	Interest charged (Nominal)
533 reported NGOs	92,436.20 (30.22)	Total=9.44 Female = 7.99 (84.64) Male =1.45 (15.36)	6922.00	95.11 %	Weekly installments	12-20%
GB	124,035.00 (40.55)	Total =2.36 Female =2.25 (95.34) Male = 00.122 (04.66)	9675.80	92.00 %	Weekly installments	20%
NCB	44,214.70 (14.45)	Unknown	Unknown	88.86 %	Yearly	18%
Ministries / divisions	23675.00 (07.74)	Unknown	Unknown	84.20 %	Yearly & Weekly installment	10-18%
BRDB	15854.46 (05.18)	Total = 01.61 Female = 01.07 (66.46) Male =00.54 (33.54)	Unknown	88.06	Weekly installments	15-20%
PKSF	5664.54 (01.85)	1.6 million Female = 01.35(90%) Male = 00.15 (10%)	-----	95.11 %	Weekly installments	----- -
Total	305879.90 (100)					

Source: CDF Statistics Vol. 9 Dec. 1999 & BER, Jun 2000

**\*Figures in the parenthesis show Percentage contribution of mentioned sources of MC in total disbursement**

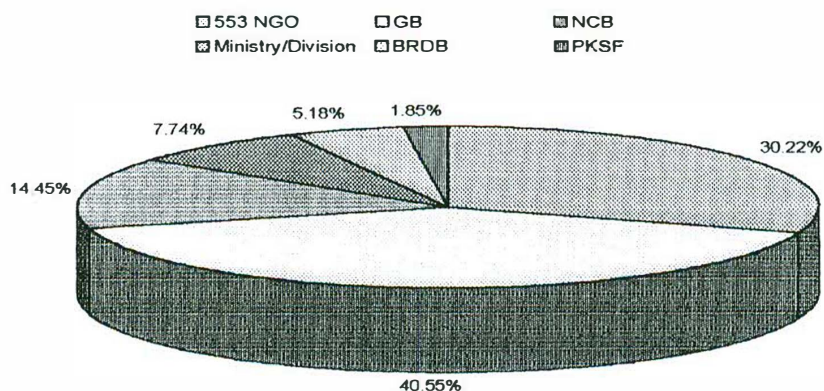
It is seen from the table that a total of Tk.305879.9 million has already been disbursed among the poor households till December 1999 by these sources. It

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is also seen from the table that the GB and reported micro-finance NGOs have incorporated more than 15 million borrowers in their micro-credit programs till December 1999. The number of borrowers under the government micro-credit programs and the micro-credit programs of commercial banks have not been stated, but it can be safely inferred from their disbursed loans that they too have involved substantial borrowers in their programs. It is very clear from the table that except some government departments and commercial banks all other MFIs are selecting the women as borrower and recovering their credit through weekly installments. Differences in rates of interest charged by different organizations appear because of using different methods of calculation by different MFIs. A total of TK. 16597 million has been mobilized as savings from the borrower households by the GB and 533 MF-NGOs only. A total of Tk. 16597 million has been mobilized as savings from the household by only the GB and 533 MF-NGOs.

The percentage shares of the micro-credit disbursement by the mentioned MFIs are shown in the following chart.

**Chart-4.6: Percentage Shares of Different MCIs in Total Credit Disbursement**



## **Chapter-4**

### **Background of the Study**

It is seen from the chart that in the total disbursement of micro-credit till December 1999 the percentage shares of the GB, 533 MF-NGO, NCB, Ministry and division of the GOB, BRDB and PKSf are 40.55%, 30.22%, 14.45%, 7.74%, 5.18% and 1.85% respectively

#### **4.4 Brief Summary**

It is seen from the analysis that the GB, which was launched as an applied research project in 1976 with very insignificant resource, has already established itself as one of the largest financial institutions and has covered almost the whole rural area of Bangladesh. GB wants to achieve a set of objectives including poverty alleviation as the primary objective. Unlike other Commercial banks, the loan of GB is to be repaid through weekly installments with interest and some sort of obligatory savings. As a result the cost of borrowing stands much higher than that is apparently shown. Although it is claimed that GB is service oriented rather than profit seeking by nature, the gross profit earning does not support this argument.

The tremendous success of the GB has influenced a huge number of governmental and non-governmental organizations to start micro-credit programs in the same manner to achieve the national goal of poverty alleviation within the shortest possible time. Except some governmental organizations, almost all MFIs are following the credit delivery and recovery mechanism of the GB.

As of December 1999 a total of Tk. 305880 million has been delivered only by the reputed MFIs including the GB and a total of 15 million borrowers have been undertaken into the financial network of these non-governmental micro-finance organizations. The non-governmental organizations have accumulated a total of Tk. 16598 million from the borrowers as savings, which is shown as an integral part of their credit programs.

## **Chapter-4**

### **Background of the Study**

Besides the above mentioned sources of micro-credit, a lot of NGOs are also doing micro-credit business with the rural poor alongside the above mentioned organizations.

From the analysis it is seen that micro-credit programs of government and NGOs is one of the key development strategies in Bangladesh. The borrowers of the GB have been taken as the primary data in the present study because the GB is the pioneer and at present the largest micro-credit institution and other MFIs generally follow GB model.



## CHAPTER-5

### DATA ANALYSIS AND INTERPRETATION

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### DATA ANALYSIS AND INTERPRETATION

#### 5.1 Personal Profiles of the Respondents

##### 5.1.1 Introduction

An attempt has been made here to analyze the individual profiles of the borrowers before and after joining the GB. In that pursuit, the primary field survey data have been used.

**5.1.2 Gender of the Respondents:** All borrowers of Grameen Bank under the sample branches are female, so 100% of the selected borrowers for the present study have been found to be female.

**5.1.3 Age Structure of the Respondents:** Age of a person is a crucial determinant of the ability to perform a job. A young person can better apply his or her eagerness, dedication, consciousness and motivation towards achieving a target successfully. Due to acute and massive malnutrition, very few of the total female labor force can apply their full potentiality in earning process after 40 years in a poor country like Bangladesh. So age structure of the borrowers is very important in the context of their ability to get out of poverty. The age structure of the selected borrowers of GB in our study is displayed in the following table.

**Table –5.1: Age Structure of the Respondents**

Age in Years	At Present		Before Enrolled in the GB	
	Number of Respondents	Percentage (%)	Number of Respondents	Percentage (%)
Below---20	03	01.60	01	00.53
21---30	12	06.38	31	16.49
31---40	43	22.87	76	40.43
41---50	98	52.13	73	38.83
51 and above	32	17.02	07	03.73
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.1 shows the distribution pattern of the selected borrowers of Grameen Bank according to age groups. It is seen that at present 01.60%

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### Data Analysis and Interpretation

borrowers are below 20 years of age, 06.38% are between 21-30 years age, 22.87%, 52.13% and 17.02% are staying between 31-40, 41-50, 51-and above years of age-group respectively. At the time of joining the GB this position was 00.53% below 20 years, 16.49%, 40.43%, 38.83% and 03.73% percent were in the age groups of 21-30 years, 31-40 years, 41-50 years and above 50 years respectively. From the classification of the age structure of the selected borrowers it is seen that 69.15% of our selected borrowers are at least 41 years old at present. So the GB is not selecting the most potential youth group as borrowers.

**5.1.4 Marital Status of the Respondents:** The marital status of the selected borrowers is shown in the following table.

**Table-5.2: Marital Status of the Respondents**

Marital Status	At present		Before enrolled in GB	
	No. of respondents	Percentage( %)	No. of Respondents	Percentage( %)
Married	166	88.30	182	96.81
Unmarried	00	00.00	00	00.00
Widow	08	04.26	03	01.60
Divorcee	09	04.79	00	00.00
Deserted	02	01.06	02	01.06
Separated	03	01.60	01	00.53
Total	188	100.00	188	100.00

Source: Field Survey

From the Table table-5.2 it is seen that the Grameen Bank hardly considers any unmarried person as a borrower of Grameen Bank. At present 88.30% of the borrowers are married and in wedlock, 04.26% are widow, 04.79% are divorcee, 01.06% deserted and 01.60% are separated. Before enrolling in the GB the share of married and in wedlock, widows, deserted and separated were 96.81%, 01.60 %, 0.06 %, and 0.53% respectively. No unmarried or divorcee persons were found to have joined the GB.

**5.1.5 Educational Status of the Respondents:** Education is a very important factor for an individual to achieve better alternatives available in rural areas in

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which he or she can invest the borrowed fund profitably and efficiently. Educational status of the respondents is shown in the table below.

**Table-5.3: Educational Status of the Respondents**

Education level	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
Illiterate	96	51.06	100	53.19
Can put Signature only	76	40.42	72	38.29
Primary level	13	06.91	13	06.91
Up-to Class eight	03	01.60	03	01.60
Total	188	100.00	188	100.00

Source : Field Survey

From the classification of our collected data, table 5.3 shows that during enrollment in GB 53.19% borrowers were completely illiterate, 38.29% could put signature only, 06.91% and 01.60% completed primary and junior high school level. At present the status are 51.06%, 40.42%, 06.91% and 01.60% respectively. On an average 91.49% borrowers have been found functionally illiterate during survey.

**5.1.6 Vocational Knowledge of the Respondents:** Vocational knowledge is obviously an important factor for the rural poor to utilize their potentiality in income earning activities. So some sort of vocational knowledge is necessary to enhance their income level. Table 5.4 shows types of vocational knowledge of the respondents.

**Table-5.4: Level of Vocational Knowledge of the Respondents**

Types of Vocational Knowledge	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
None	181	96.28	184	97.87
Sewing	03	01.60	01	00.53
Handicraft	02	01.07	01	00.53
Pottery	02	01.07	02	01.07
Others	00	00.00	00.00	00.00
Total	188	100.00	188	100.00

Source: Field Survey

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Table 5.4 shows that at present 96.28% borrowers have no vocational knowledge, 03.72% have some sort of vocational knowledge. Before the joining the GB the position was 97.87% and 02.13% respectively. So role of GB micro-credit program in imparting vocational knowledge to the borrowers is not significant.

**5.1.7 Occupation of the Respondents:** For the successful utilization of GB credit, the borrowers need to be engaged in some economic activities. GB claims that micro-credit programs are empowering poor borrowers through creation of diversified self-employment opportunities for them. To verify this GB claim, the occupations of the selected borrowers before and after their joining the GB is shown in the following table.

**Table-5.5: Occupations of the Respondents**

Occupations of the Respondents	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
Only housewife	159	84.58	169	89.89
Housewife and daily laborer	04	02.13	03	01.60
Housewife and housemaid	06	03.19	02	01.06
Housewife and service	02	01.06	02	01.06
Housewife and husking	04	02.13	04	02.13
Housewife and sewing	02	01.06	02	01.06
Housewife and small poultry	02	01.06	01	00.53
Housewife and handicrafts	01	00.53	01	00.53
Housewife and petty business	06	03.19	04	02.13
Housewife and money lending	02	01.06	00	00.00
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.5 shows that at present 84.57% of the respondents are not engaged in any economic or commercial activities and only 15.43% are involved in income-oriented activities besides household work. Before their enrollment in the GB, 89.89% of the respondents were confined to household work and rest of 10.11% were engaged in income earning activities alongside household work. From the statistics shown in the table above, it can be said that impact of GB programs are not significantly positive for self-employment creation of the borrowers.



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**5.1.8 Number of Children of the Respondents:** Number of children of the respondents is shown in the following table.

**Table-5.6: Number of Children of the Respondents**

Number of Children of the Respondents	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
0	01	00.53	10	05.32
1	06	03.19	27	14.36
2	23	12.23	46	24.47
3	43	22.87	53	28.19
4	44	23.40	39	20.74
5	47	25.00	07	03.72
6 and above	24	12.77	06	03.19
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.6 shows that at present 00.53% of the total respondents have no children. 03.19%, 12.23%, 22.87%, 23.40%, 25% and 12% have one, two, three, four, five and six or more children respectively. Before joining the GB corresponding percentage of respondents having same amount of children were 5.32%, 14.36%, 24.47%, 28.19%, 20.74% 3.72% and 3.19% respectively. It is seen from the above table that GB programs could not create self-consciousness among the respondents regarding family planning programs.

**5.1.9 Average Monthly Income of the Respondents:** The average monthly income of the selected borrowers before and after joining in the GB is shown in the following table.

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**Table-5.7: Average Monthly Income of the Respondents**

Average monthly income in Tk.	At present		Before enrolled	
	No. of respondents	Percentage	No. respondents	Percentage
00-00	159	84.57	169	89.89
01-200	02	01.06	02	01.06
201-400	16	05.85	09	04.79
401-600	04	04.79	05	02.66
601-800	03	01.60	03	01.60
800 +	04	02.13	00	00.00
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.7 shows that at present 84.57% of the total respondents do not earn any income, the rest 15.43% earn some income, which is also very small. Before joining the GB, this position was 89.89% and 10.11% respectively. It is seen clearly that only 05.32% borrowers have entered into the earning process during the borrowing period of GB loan. So the statistics in the above table implies that the impact of GB loan on the borrowers income level is insignificant. After receiving GB loan, 84.57% of the total respondents give it to the male members of the family. As a result, they can not be self-employed to earn income by GB Loan significantly.

From the analysis of the personal socio-economic profiles of the selected borrowers before and after their joining the GB, it is seen that the impact of GB loan regarding creation of income opportunities on the borrowers is not significantly positive.

## 5.2 Household Profiles of the Respondents

**5.2.0 Introduction:** The structure and characteristics of rural families in Bangladesh play very important role in their socioeconomic conditions. Here, attempts have been made to examine overall socioeconomic conditions prevailing in the households of the selected borrowers. We have examined, whether the micro-credit of GB actually and effectively reached the households of poor borrowers.

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**5.2.1 Types of Family of the Respondents:** Types of family of the respondents, an important factor in micro level decision making are considered here. According to the nature of the formation of the family of our selected borrowers, we have divided them into two categories: a) Nuclear family which consists of husband, wife and unmarried children and b) Extended family where more than one nuclear family exist or permanent existence of other relatives are found along with the nuclear family.

**Table 5.8: Types of Family of the Respondents**

Nature of family	Number of Respondents	Percentage
Nuclear	148	78.72 %
Extended	40	21.28 %
Total	188	100.00

Source: Field Survey

Table 5.8 shows that 78.72% families of the selected borrower are nuclear and remaining 21.28% are extended in nature. The domination of the nuclear types of family is the indication of favorable condition for the borrowers to take decision at household level for the optimum use of micro-credit.

**5.2.2 Family Size of the Respondents:** The size of family has diversified effects on the socioeconomic circumstances of the borrowers. A large family has more laborers to earn income by doing different types of activities with or without credit support in the rural area and it enhances the borrower's capability to repay weekly installments of loan. On the other hand a small family can save to more out of increased income. The size of the family of the borrowers is also important to assess the impacts of GB programs on family planning objectives. The size of family of our selected borrowers is shown in the following table.

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**Table-5.9: Size of Family of the Respondents**

Number of Family Members	At present		Before enrolled	
	No. of Respondents	Percentage	No. of Respondents	Percentage
Up to- 05	65	34.57	119	63.30
6	69	36.70	47	25.00
7 and above	54	28.72	22	11.70
Total	188	100.00	188	100.00
Average	06.01		04.92	

Source: Field Survey

Table-5.9 shows that before enrollment in GB activities 63.30% of the borrower households consisted of less than six members, 25.00% and 11.70% consisted of six and more than six members respectively. At present 34.57%, 36.70% and 28.72% households consist of less than six, six and more than six members respectively. The average size of the family at present is 6.01, which was 4.92 before enrollments in GB. Size of the family shown in the table does not establish the Grameen Bank's claims of contribution towards the goal of national family planning program.

**5.2.3 Decision-maker of the Respondent Households:** The power of decision making of the borrower in household level is very important factor for better utilization of loan. The empowerment of a female borrower also depends on her ability to take decision or at least her capability to share views at the time of settling the household socio-economic affairs. To achieve desired results from the loan, the borrowers must have power to choose the field investment or expenditure. The patterns of the power of decision making of the households of our selected borrowers are shown in the following table.



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**Table-5.10: Decision-maker of the Respondent Households**

Decision-maker in Borrower Households	At present		Before enrolled	
	No. of Respondents	Percentage	No. of Respondents	Percentage
Borrowers themselves	08	04.26	07	03.72
Jointly with male members	16	08.51	11	05.85
Borrower's Husband	158	84.04	168	89.36
Borrower's Father/Father-in-law	02	01.06	00	00.00
Borrower's Son or Brother	04	02.13	02	01.06
Total	188	100.00	188	100.00

Source: Field Survey

It is seen from above statistics that at present only 04.26% of the selected borrowers can take decision themselves regarding household socio-economic affairs, 08.51% can share views with male members. Before enrollment in GB this position was 03.72% and 05.85% respectively. Absolute domination of the male members over the household socio-economic affairs in both before and after respondent's joining GB (90.43% & 87.23%) indicates that the impact of GB programs on borrowers regarding decision-making is not significantly positive.

**5.2.4 Educational Status of the Respondent Households:** The educational status of a family reflects its socioeconomic condition. The educational status of the families of our selected borrowers is shown in the following table.

**Table-5.11: Educational Status of the Respondent Households**

Number of Literate	At present		Before enrolled	
	No. of Respondents	Percentage	No. of Respondents	Percentage
0	19	10.11	26	13.83
1	75	39.89	101	53.72
2	62	32.98	33	17.55
3 and above	32	17.02	28	14.89
Total	188	100.00	188	100.00
Average	31.15		27.57	

Source: Field Survey

\*\*Total literate members before enrollment in GB were 255, which is at present 352.



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Table 5.11 shows that at present 10.11 % families have no literate member, 39.89 %, 32.98 % and 17.02% have one, two and three or more members respectively. Before their enrollment in GB the situation was 13.83%, 53.72%, 17.55% and 14.89 % respectively. The person who can read, write and count is considered here as a literate person. Twenty persons were found having certificates of SSC and above (Masters=02, Degree = 02, HSC=06 and SSC=08) among the families of the selected borrowers. Although it is seen from above table that the number of literate members have increased among the borrowers households but the trend of progress is not significant compared to the national progress of education. It can be mentioned here that borrower households are not only GB members they are also enjoying the benefits of the government as well as NGO programs for the improvement of education simultaneously. So the impact of GB programs is not found to be significantly positive on the borrower households.

**5.2.5 Vocational Knowledge Status of the Respondents Households:** It is widely claimed that the GB provides not only credit facilities to the poorest households, but also conducts many developmental activities including training to imparting vocational knowledge to the borrower households. The level of vocational Knowledge among the households of the selected borrowers before and after their joining in GB is considered here.

**Table 5.12: Vocational Knowledge Status of Household Members**

Number of family members with vocational knowledge	At present		Before enrolled	
	No. of Respondents	Percentage	No. of Respondents	Percentage
0	171	90.96	179	95.21
01	12	06.38	06	03.19
02	04	02.12	03	01.60
3 +	01	00.53	00	00.00
Total	188	100.00	188	100.00

Source: Field Survey

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Table 5.12 reveals that at present 90.96% households of the sample borrowers have no member with vocational knowledge, 06.38%, 02.12% and 00.53 % have one, two, and three members with some sort of vocational knowledge respectively. Before their enrollment in GB this position was 95.21%, 03.19%, 01.60 percent and 00.00% respectively. So it can be concluded that GB programs could not impart vocational knowledge to significant number of borrower of borrower households.

**5.2.6 Total Number of Labourer in the Respondent Households:** The number of laborer in the households of the borrower before and after joining the GB is shown in the following table.

**Table-5.13: Total Number of Labourer in the Respondent Households  
(Aged above 13 Years)**

Total number of laborers	At present		Before enrolled in the GB	
	Number	Percentage	Number	Percentage
02	22	11.70	62	32.98
03	64	34.04	103	54.79
04	55	29.26	16	08.51
05 and above	47	25.00	07	03.72
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.13 shows that the number of young laborers has significantly increased among the borrower households in the period of GB borrowing. It is seen that at present 25%, 29.26%, 34.04%, and 11.70% borrower households have more than five, four, three and two laborer respectively. Before their enrollment in the GB this percentage was 3.72%, 08.51%, 54.79% and 32.98% respectively. As the poor families of the rural area depend mainly on daily labour the children of those families instead of attending educational institution are engaged in some sort of income earning not related to household micro-credit, gross income of the borrower households increases and supplements borrower's ability to repay the installments.

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**5.2.7 Male Laborer in the Respondent Households:** We have assessed the existence of male laborer in the borrower households in pre-credit and post - credit period, which is shown in the following table.

**Table-5.14: Male Laborer (above 13 years old)**

Number of male laborer in respondent households	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00	01	00.53	02	01.06
1	53	28.19	108	57.45
2	84	44.68	66	35.10
3 and above	50	26.60	12	06.38
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.14 shows that at present 00.53 percent of the borrower households have no male laborer 28.19 percent households have one male laborer, 44.68 percent households have two male laborers, 26.06 percent households have three or more male laborers. Before enrollment in GB 01.06 percent households had no male laborer, 57.45 percent had one, 35.10 percent had two and 06.38 percent had three or more laborers in the households respectively. So it is clearly seen from the table that during the use of the GB loan, the male laborer has significantly increased among the borrower households.

**5.2.8 Female Member in Earning Process:** The number of female members in income earning activities of the borrower households is shown here to examine GB's claim of self-employment creation for women. Table 5.15 shows women participation in income earning activities including the borrowers themselves.

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**Table-5.15: Female Member in Earning Process**

Number of female in earning process	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00	151	80.31	162	86.17
01	26	13.83	18	09.57
02	11	05.85	08	04.26
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.15 shows that at present 80.31 percent of the borrower households have no female member in earning process, 13.83% and 05.85% have one and two female earning members respectively. Before enrollment in the GB 86.17% borrower households had no female earning member and 09.57% & 04.26% had one and two female members in earning process respectively. From the statistics shown in above table, it can be concluded that the micro-credit programs of GB could not create self-employment for women to any significant level.

**5.2.9 Number of Male Labourer in Earning Process in the Respondent Households:** The amount of labour among the borrower households in earning process is shown in the following table.

**Table- 5.16: Number of Male Labourer in Earning Process in the Respondent Households**

Number of labourer	At present		Before Joining	
	No. of respondents	Percentage	No. of respondents	Percentage
01	02	01.06	52	27.66
02	94	50.00	104	55.32
03	60	31.91	30	15.96
04	32	17.02	02	01.06
Total	188	100.00	186	100.00

Source: Field Survey



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From the table 5.16 it is clearly seen that the number of daily labourer has significantly increased in the households of the borrowers. Present study has assessed how many of the new income earners are created by the credit programs of the GB.

**5.2.10 Main Occupation of the Respondent Households:** To assess the socioeconomic strength of borrower households, we have seen their main occupations before and after enrollment in GB activities.

**Table-5.17: Main Occupation of the Respondent Households**

Main occupation of the respondent households	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
Agriculture	81	43.09	95	50.53
Petty business	25	13.30	21	11.17
Daily laborer	34	16.49	42	22.34
Rickshaw/Van pulling	16	08.51	12	06.38
Service/Field worker	07	04.79	04	02.13
Fishing	06	03.19	06	03.19
Small poultry	02	01.06	01	00.53
Small manufacturing	03	01.60	02	01.06
Husking	02	01.06	03	01.60
Money lending	01	01.06	00	00.00
Informal business	11	05.85	02	01.07
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.17 shows that at present the principal occupation of 43.09% of the borrower households is agriculture, 13.30%, 16.49%, 08.51%, 04.79%, 03.19%, 01.06%, 01.60%, 01.06%, 01.06%, and 05.85% borrower households are engaged in petty business, daily labour, rickshaw or van pulling, service, fishing, small poultry, small manufacturing, husking, money lending and informal business respectively. Before enrollment in the GB, respective percentage for these occupations were 50.53%, 11.17%, 22.34%, 06.38%, 02.13%, 03.19%, 00.53%, 01.06%, 01.60%, and



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01.06%. From the above table it is clearly seen that the programs of the GB could not create self-employment for the borrower households remarkably.

**5.2.11 Subsidiary Occupation of the Respondent Households:** Majority households in the rural areas have subsidiary occupations alongside main occupations. The subsidiary occupations of the households of selected borrowers before and after their joining in the GB are shown in the following table.

**Table-5.18: Subsidiary Occupation of the Respondent Households**

Subsidiary Occupations	At present N=146		Before enrolled N= 112	
	No. of respondents	Percentage	No. of respondents	Percentage
Agriculture	22	15.07	20	17.86
Petty business	25	17.12	27	24.11
Daily laborer	47	32.19	46	41.07
Rickshaw/Van pulling	09	06.16	04	03.57
Service/Field worker	01	00.68	00	00.00
Fishing	02	01.37	01	00.89
Small manufacturing	01	00.68	02	01.79
Husking	00	00.00	03	02.68
Money lending	06	04.11	00	00.00
Informal business	33	22.60	09	08.04
Total	146	100.00	112	100.00

**Source: Field Survey**

Table 5.18 shows that at present 77.66% of the selected borrower households have some subsidiary occupations in addition to the main one. Before enrollment in the GB this position was 59.57%. Percentage of subsidiary occupations at present is for agriculture 15.07%, for petty business 17.12%, for daily laboring 32.19%, for rickshaw or van pulling 06.16%, for service 00.68%, for fishing 01.37%, for small manufacturing 00.68%, for money lending 04.11% and for illegal border trade 22.60%. Before the borrowers enrollment in the GB the respective percentages for this subsidiary occupations were 17.86%, 24.11%, 41.07%, 03.75%, 00.89%, 01.79%, 02.68% and 08.04%. It is seen from the table that

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only illegal border trade has increased notably after the borrower enrollment in the GB, which is not authorized by the government. On the other hand some of the borrowers have started informal money lending with the loan of GB. So the loan of GB has created a new class of usurer in the rural areas.

**5.2.12 Duration of Employment in a Year:** The yearly employment time is different in the different locations of rural areas in Bangladesh. The Yearly employment time, which the borrower can avail in the area of the present study, is mentioned in the following table.

**Table- 5.19 : Duration of Employment in a Year**

Types of activity → Time ↓	Farm Activities		Non-farm Activities	
	No. of respondents	Percentage	No. of Respondents	Percentage
12 month	96	51.06	178	94.68
11 month	12	06.38	04	02.13
10 month	28	14.89	06	03.19
9 month	36	19.15	00	00
8 month	16	08.51	00	00
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.19 shows that 94.68% households of the selected borrowers can perform non-farm activities for the whole year and the rest 5.32% get at least 10 months employment in a year. For farm activities 51.06%, 14.89%, 19.15% and 8.15% of the respondent households have twelve, eleven, ten, nine and eight months employment time respectively. So the members of the sample households have opportunity to perform economic activities almost for the whole year.

**5.2.13 Annual Gross Income of the Respondent Households:** The annual gross income of the respondent households before and after their joining in the GB is shown in the following table.

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**Table-5.20: Annual Gross Income of the Respondent Households**

Amount of income	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
Up to-15000	06	03.19	16	08.51
15001-25000	56	29.79	74	39.36
25001-35000	72	38.30	52	27.66
35001-50000	34	18.09	36	19.15
50001-65000	16	08.51	08	04.26
65001 and above	04	02.13	02	01.06
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.20 shows that at present 03.19 percent households of the selected borrowers belong to the income group up-to 15000, 29.79%, 38.30%, 8.09%, 08.51%, and 02.13% belong to the income groups of Tk. 15001-25000, Tk. 25001-35000, Tk. 35001-50000, Tk. 50001-65000, and Tk. 65001 and above respectively. Before enrollment in the GB the percentage for these income groups were 08.51%, 39.36%, 27.66%, 19.15%, 04.26% and 01.06% respectively.

**5.2.14 Annual Gross Expenditure of the Respondent Households:** The annual gross expenditure of the respondent households is shown in the following table.

**Table-5.21: Annual Gross Expenditure of the Respondent Households**

Amount of expenditure (in TK)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
Up to-15000	03	01.60	05	02.66
15001-25000	22	11.70	16	08.51
25001-35000	58	30.85	120	63.83
35001-50000	84	44.68	42	22.34
50001-65000	19	10.11	04	02.13
65001 and above	02	01.06	01	00.53
Total	188	100.00	188	100.00

Source: Field Survey

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Table 5.21 shows that at present 1.6%, 11.7%, 30.85%, 44.68%, 10.11% and 1.06% of the respondent households belong to expenditure group upto TK.15000, TK. 15001-25000, TK. 25001-35000, 35001-50000, 50001-65000 and TK. 65001 and above respectively. Before enrollment in the GB percentage for these expenditure groups were 2.66%, 8.51%, 63.83%, 22.34%, 2.53% and 1.06% respectively.

### 5.3 Asset and liability of the Respondent Households

Economic strength of the borrower households before and after their joining the GB is shown in the following sections.

**5.3.1 Cultivable Land Ownership Pattern of the Respondent Households:** GB claims that it considers the landless and assetless i.e, the extreme poorest people of the rural area as their borrowers. Table 5.22 shows the cultivable land ownership pattern of the selected borrowers.

**Table-5.22: Cultivable Land Owned by the Respondent Households**

Amount of cultivable land (in decimals)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00-00	28	14.89	19	10.11
01-25	15	07.98	18	09.57
26-50	38	20.21	33	17.55
51-75	42	22.34	43	22.87
76-100	24	12.77	32	17.02
101 and above	41	21.81	43	22.87
Total	188	100.00	188	100.00

Source: Field Survey



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Table 5.22 shows that at present 14.89 percent households have no cultivable land but before their enrollment in the GB 10.11 percent of the selected households had no cultivable land. It is also seen from the table that before joining GB 9.57%, 17.55%, 22.87%, 17.02%, and 22.87% households of the selected borrowers had 01-25, 26-50, 51-75, 76-100, and more than 100 decimals of cultivable land respectively. At present the 7.98%, 20.21%, 22.34%, 12.77% and 21.81% households have 01-25, 26-50, 51-75, 76-100, and more than 100 decimals of cultivable land respectively. Therefore the above table reveals that 62.77% of the borrower households were not functionally landless at the time of joining the GB. On the other hand 5.86% of the borrower households became landless and most of the households lost some of their cultivable land during use of GB loan.

**5.3.2 Homestead Owned by the Respondent Households:** The ownership pattern of homestead of the borrower households is shown in the table 5.23

**Table 5.23: Homestead Owned by the Respondent Households**

Amount of homestead ( in decimals)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00-00	05	02.66	06	03.19
01-10	39	20.74	42	22.34
11-20	104	55.32	93	49.47
21-30	23	12.23	29	15.43
31 and above	17	09.04	18	09.57
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.23 shows that at present 02.66% of the selected households have no homestead, 20.74%, 55.32%, 12.23% and 9.04% have 01-10, 11-20, 21-30 and more than 30 decimals of homestead respectively. Before their joining the GB percentages were 03.19 %, 22.34%, 49.47%, 15.43 and 9.57% for the respective homestead range.



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**5.3.3 Land Leased-in by the Respondent Households:** The status of land leased-in by the households of the respondents before and after joining in the GB is shown in the table 5.24

**Table-5.24: Land Leased-in Status of the Respondent Households**

Amount ( in decimals)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00-00	180	95.74	182	96.81
01-10	02	01.06	01	00.53
11-20	03	01.60	01	00.53
21-30	01	00.53	03	01.60
31-40	02	01.06	01	00.53
Total	188	100.00	188	100.00

**Source: Field Survey**

Table-5.25 reveals that at present 04.26 percent households of the respondent households have upto 40 decimals of cultivable land as leased-in. Before their enrollment in GB programs, 03.19 percent of the respondent households had upto 40 decimals of cultivable land in the form of leased-in. So the impact of the GB credit was not significant in the case of land leased-in by respondents households.

**5.3.4 Land Leased-out by the Respondent Households :** The leased-out pattern of cultivable land of the borrower households is shown in the table 5.25

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**Table- 5.25: Land Leased-out by the Respondent Households**

Land leased-out by the respondent households (in decimals)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00-00	176	93.62	184	97.87
01-10	01	00.53	00	00.00
11-20	04	02.13	02	01.06
21-30	05	02.66	00	00.00
31-50	02	01.06	02	01.06
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.25 exhibits that 06.38 percent households of the borrower have leased-out upto 50 decimals of their cultivable land but before enrollment in the GB only 01.06 percent of the selected households had leased-out their cultivated land.

**5.3.5 Land under Sharecropping in the Respondent Households:** To see their effort to increase income through extension of farm activity, we have measured land under sharecropping in the respondent households before and after joining the GB programs. Table 5.26 shows the size of cultivable land under sharecropping in the households of the selected borrowers.

**Table-5.26: Land under Sharecropping in the Respondent Households**

Amount of land under sharecropping in respondents households (in decimals)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00-00	172	91.49	174	92.55
01-50	05	02.66	04	02.13
51 and above	11	05.85	10	05.32
Total	188	100.00	188	100.00

Source: Field Survey

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Table 5.26 shows that at present 08.51 percent of the borrower households use land of others under sharecropping, the percentage being 7.45 before their enrollment in the GB. Percentage increased of sharecropping is very negligible.

**5.3.6 Large Livestock Owned by the Respondent Households:** The number of livestock owned is one of the indicators of the economic strength of the rural household. Table 5.27 shows the number of large livestock owned by the respondent households.

**Table-5.27: Large Livestock Owned by the Respondent Households**

Number of large livestock	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00-00	179	95.21	166	88.30
01	05	02.66	14	07.45
02	04	02.13	08	04.25
Total	188	100.00	188	100.00

Source: Field Study

Table 5.27 shows that at present 95.21% households of the selected borrowers have no large livestock (cow, buffalo etc) the rest 04.79% have one or two large livestock. Before joining GB 88.30 households had no large livestock and the rest of 11.70% had one or two. So it is seen that 6.91% of the borrower households sold out cattle after joining the GB.

**5.3.7 Small Livestock Owned by the Respondent Households:** Table 5.28 shows the number of small livestock (goat, sheep etc,) owned by the respondent households before and after the joining the GB.

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**Table-5.28: Small Livestock Owned by the Respondent Households**

Small livestock ( in numbers )	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00-00	161	85.64	154	81.91
01	12	06.38	06	03.19
02	06	03.19	16	08.51
03	07	03.72	08	04.26
04 and above	02	01.06	04	02.13
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.28 shows that number of small livestock has declined in 14.36% households and 3.73% households have sold their total small livestock after joining the GB.

**5.3.8 Poultry Owned by the Respondent Households:** The number of poultry owned by the selected households before and after joining the GB is shown in the following table.

**Table-5.29: Number of Poultry Owned by the Respondent Households**

Number of Poultry	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00	102	54.26	82	43.62
Upto-05	31	16.49	42	22.34
Upto-10	28	14.89	26	13.83
Upto-15	16	08.51	28	14.89
Upto-20	11	05.85	10	05.32
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.29 shows that at present 54.26% of the respondents households have no poultry, but before their enrollment in the GB respective percentage was 43.62%. That means 10.64% households have lost their full amount of poultry after joining the GB. It is also seen from the table that the number of poultry has fallen almost in all households after joining the GB. At present 16.49%, 14.89%,



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8.51%, and 5.85% households have upto 5, upto 10, upto 15 and upto 20 poultry respectively. Before joining the GB 22.34%, 13.83%, 14.89% and 5.32 % households had upto 5, upto 10, upto 15 and upto 20 poultry respectively. It is seen here that only three households could increase the amount of poultry during their GB membership.

**5.3.9 Capital Goods Owned by Respondent Households:** It is seen during the field survey that except one shallow tube-well and two sewing machines, main capital goods of the respondent households consist of country-carrier like Rickshaw, van and carts etc. The amount of capital goods is shown in the following table.

**Table-5.30: Capital Goods Owned the Respondent Households**

No. of capital goods	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00	161	85.64	172	91.49
01	20	10.64	14	07.45
02	07	03.72	02	01.06
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.30 shows that at present 10.64% and 3.72% households have one and two capital goods respectively. Before joining the GB 7.45% and 01.06% households had one and two capital goods respectively. It is also seen that only 5.85% households have become the new owner and 2.66% have increased the their capital goods during the use of GB loan.

**5.3.10 Condition of Houses of the Respondent Households:** GB has disbursed huge amount of housing loan. Following table shows the changes of housing of the borrower households.



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**Table-5.31: Condition of Houses of the Respondent Households**

Type of houses	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
No house	02	01.06	04	02.13
Building (pakka)	04	02.13	03	01.60
Tin-shed house ( adha-pakka )	18	09.57	09	04.79
Katcha (Tin -roofed)	110	58.51	94	50.00
Katcha (built in mud and thatched)	54	28.72	78	41.49
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.31 shows that at present 01.06% of the borrower households have no dwelling houses, 02.13%, 9.57%, 58.51% and 28.72% respondents have Building, tin-shed houses, tin-roofed and katcha dwellings respectively. Before enrollment in the GB, respective percentages were 2.13%, 1.60%, 4.79%, 50% and 41.49% respondents for these types of houses. From the table it is seen that the condition of the houses of the borrowers has improved after enrollment in the GB.

**5.3.11 Furniture Owned by the Respondent Households:** The quantitative and qualitative amount of furniture owned by the household is another indicator of the socioeconomic progress of the borrowers. We have measured the approximate monetary value of the furniture owned by the respondent households before and after their joining the GB, which is shown in the table 5.32

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**Table-5.32: Furniture Owned by the Respondent Households**

Amount of monetary value of furniture (in TK.)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
Up to – 1000	67	35.64	72	38.30
Up to- 2000	52	27.66	58	30.85
Up to-5000	37	19.68	30	15.96
Up to –10000	32	17.02	28	14.89
Total	188	100.00	188	100.00

Source: Field Survey

The table 5.32 shows that at present the approximate monetary value of the furniture of 35.64%, 27.66%, 19.68% and 17.02% households are up to Tk. 1000, Tk. 2000, Tk.5000 and Tk.10000 respectively. Before enrollment in the GB percentages of households holding these amount of furniture were 38.30%, 30.85%, 15.96% and 14.89% respectively. It is also clear from the table that the approximate monetary value of furniture owned by the selected households before and after joining in the GB is almost same.

**5.3.12 The Nature of Furniture of the Respondent Households:** The nature of furniture of the respondent households is shown in the table 5.33

**Table-5.33 Nature of Furniture of the Respondent Households**

Category of furniture	At present		Before enrollment	
	Number of respondents	percentage	Number of respondents	percentage
Nil	20	25.00	22	27.66
Very ordinary	88	46.81	96	51.06
Traditional	38	20.21	28	14.89
Modern	15	07.98	12	06.38
Total	188	100.00	188	100.00

Source: Field Survey

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Table 5.33 shows that at present 25 percent of the selected households have no furniture, 46.81%, 20.21%, 20.21%, and 07.98% have very ordinary, traditional, and modern furniture respectively. Before enrollment in the GB 27.66% households had no furniture, 51.06%, 14.89% and 06.38 percent households owned very ordinary, traditional and modern furniture respectively. It is seen from the table that a very few of the selected households could increase the amount of furniture during use of GB credit.

**5.3.13 Number of Beneficiary of F.F.E or Other Govt. Grants Program among the Respondent Households:** The government of Bangladesh has initiated various programs like FFE, VGF etc, which have positive impact on the income level of rural poor families. The following table shows the number of beneficiaries under F.F.E. program of government among the selected households.

**Table-5.34: Number of Beneficiary under the F.F.E Programs or Other Govt. Grants**

Number of children under FFE program	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00	125	66.49	179	95.21
01	41	21.81	07	03.72
02	22	11.70	02	01.06
Total	188	100.00	188	100.00

Source: Field Survey

Table-5.34 shows that at present 33.51% households of the selected borrowers enjoy direct benefit of the FFE programs for their children. Before enrollment in the GB only 04.79% borrower households enjoyed such grants. So 28.72% of the households became the beneficiary of the FFE program for their children's education after joining the GB. It also seen from the table that 21.81 percent borrower households have one and 11.70 percent have two children under the FFE program. It is also known from the respondents that they get 15 kg of wheat or 13 kg of rice per month per children. So the government grants

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program has significantly enhanced the income level of the selected households.

**5.3.14 Amount of Voluntary Savings of the Respondent Households:** The amount of voluntary savings of the borrower households is shown in the table 3.35

**Table-5.35: Amount of Voluntary Savings of the Respondent Households**

Amount of Voluntary Savings (in TK.)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
00-00	172	91.49	132	70.21
Up to 500	04	02.13	23	12.23
Up to 1000	10	05.32	14	07.45
Up to 5000	02	01.06	19	10.11
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.35 shows that amount of voluntary savings of the selected households of the borrower has declined after their enrollment in the GB. It is seen from the table that at present 91.49% households have no savings. Before enrollment in the GB 70.21% borrower households had no savings. It is clearly seen from the table that the impact of the GB loan on the amount of willful savings of the borrower households is significantly negative.

**5.3.15 Amount of annual Investment of the Respondent Households in Farming:** The amount of annual investment of the respondents households in farming is shown in the following table.



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**Table-5.36: Total Investment of the Respondent Households in Farming**

Amount (in TK.)	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
No Investment	28	14.89	14	07.45
Upto 4000	60	31.91	74	39.36
4001-6000	22	11.70	26	13.83
6001-8000	16	08.51	15	07.98
8001-10000	24	12.77	23	12.23
More than 10000	38	20.21	36	19.15
Total	188	100.00	188	100.00

Source Field Survey

Table 5.36 shows that at present 14.89% selected households have no investment in farm activities but before joining GB 7.45% households had no investment in farm activities. It is also seen from the table that at present 31.91%, 11.70%, 8.51%, 12.77% and 20.21% households invest upto TK.4000, TK. 4001-6000, TK. 6001-8000, TK. 8001-10000 and more than TK. 10000 respectively. Before joining the GB the respective percentage for these amount of investment were 39.36%, 13.38%, 7.98%, 12.23% and 19.15%. From this statistics it is seen that the amount of investment of the sample households in farm activity has not significantly increased. Moreover, some of the households have stopped investment in farming after joining the GB.

**5.3.16 Total Investment of the Respondent Households in Non-farm Activities:** The success of the borrowers of GB obviously depends on creation and extension of non-farm activities for self-employment as well as on increasing income earned from borrowings. Table 5.37 shows total investment on non-farm activities or petty business of the borrower households before and after joining the GB.



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**Table-5.37: Total Investment of the Respondent Households in Non-farm Activities**

Total Investment in non-farm activities (in TK.)	At present		Before joining	
	No. of respondents	Percentage	No. of respondents	Percentage
No Investment	117	62.23	129	68.62
Bellow – 5000	26	13.83	22	11.70
Up to 6000	13	06.91	07	03.72
Up to 8000	06	03.19	08	04.26
Up to 8000	08	04.26	08	04.26
Up to 9000	02	01.06	04	02.13
Up to 10000	06	03.19	04	02.13
More than 10000	10	05.32	06	03.19
Total	188	100.00	188	100.00

Source Field Survey

Table 5.37 shows that at present 62.23% of the selected borrowers have no investment, 32.45% have a total investment of less than Tk. 10000 and rest 05.32% have more than Tk. 10000 investment in non-farm activities. Before enrollment in the GB respective percentages for these level of investments were 68.62 percent, 28.19 and 03.19%. It is clear from the table that the number of investors as well as volume of investment among the selected households in non-farm activities has not increased significantly after their joining the GB. So GB claim of the creation of self-employment in non-farm activities is not substantiated in the study area.

**5.3.17 Type of Non-farm Activities of the Respondent Households:** The nature of non-farm activities i.e, petty business activities in which the borrower households are engaged is shown in table 5.38

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**Table-5.38: Type of Non-farm Activities of the Respondent Households**

Type of non-farm or petty business activity	At present		Before enrolled	
	No. of respondents	Percentage	No. of respondents	Percentage
Grocery shop	06	08.45	05	08.48
Tea, belel-leaf etc selling	04	05.63	04	06.78
Hawkey / fari	05	07.04	07	11.86
Paddy/wheat husking and selling	03	04.23	05	08.48
Vegetable and fruits selling	17	23.94	11	18.64
Tailoring and clothing	03	04.23	02	03.39
Milk-selling	01	01.41	02	03.39
Fish-selling	05	07.04	05	08.48
Poultry	02	02.82	01	01.69
Pottery	02	02.82	02	03.39
Illegal border business	20	28.17	13	22.03
Motor workshop	01	01.41	01	01.69
Transport business	02	02.82	01	01.69
Total	71	100.00	59	100.00

Source: Field Survey

Table 5.38 shows that the nature of non-farm activity or petty business activities in which the borrower households are engaged remain almost same except illegal border trade and vegetable sale before and after joining the GB. The illegal border trade has increased from 06.15% to 10.64% and the business of vegetable sale has increased from 05.85% to 09.04%. We see that only 06.38 percent of the total respondents started petty business after their enrollment in the GB. It is seen that the progress of petty business and entrepreneurial activities among the borrower households by GB credit is insignificant, although GB claims that almost 500 activities are done by its credit.

#### **5.3.18 Main Sources of Capital Invested by the Respondent Households after Joining GB:** It is seen from table 5.38 that only 12 households started non-farm

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activities business after enrollment in the GB. The sources of capital of non-farm activities of borrower households is shown in the table 5.39

**Table-5.39: Main Sources of Capital for Petty Business of Respondent Households at Present**

Sources of capital of petty business	Number of respondents	Percentage
Own Savings	00	00.00
Loan from GB	02	16.67
Loan from GB and other NGOs	05	41.67
Loan from Informal sources	01	08.33
Sale of assets	01	08.33
Other (dowry, assistance from relatives etc.)	03	25.00
Total	12	100.00

Source: Field Survey

Table 5.39 shows that 16.67% borrower households, who have started non-farm activities after joining the GB, accumulated the capital from GB loan, 41.67% accumulated from GB and other NGOs, 8.33% accumulated from informal sources, 8.33% had their capital from selling assets and rest 25% got capital from dowry taken at the marriage of sons respectively.

**5.3.19 Amount of Obligatory Savings of the Respondent Household in the GB and other MCIs:** The table 5.40 shows picture of the different types of obligatory savings deposits of the respondent households in GB and other micro-credit institutions.

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**Table- 5.40: Amount of Obligatory Savings of the Respondent  
Households in GB and other MCIs**

Amount of obligatory savings (in Taka)	In all MCIs		Only in GB	
Up to 1000	08	04.26	06	03.19
Up to 2000	07	03.72	04	02.13
Up to 3000	10	05.32	16	08.51
Up to 4000	08	04.26	26	13.83
Up to 5000	18	09.57	48	25.53
Up to 6000	20	10.64	42	22.34
Up to 7000	24	12.77	18	09.57
Up to 8000	36	19.15	12	06.38
Up to 9000	32	17.02	14	07.45
Up to 10000	17	09.04	02	01.06
Above 10000	08	04.26	00	00.00
<b>Total</b>	<b>188</b>	<b>100.00</b>	<b>188</b>	<b>100.00</b>

Source: Field Survey

The above table reveals that 4.26 percent of the selected households have upto 1000 taka, 03.72 percent have upto 2000 taka, 05.32 percent have upto 3000 taka, 04.26 percent have upto 4000 taka, 09.57 percent have upto 5000 taka, 10.64 percent have upto 6000 taka, 12.77 percent have upto 7000 taka, 19.15 percent have upto 8000 taka 17.02 percent have upto 9000 taka, 09.04 percent have upto 10000 taka and 04.26 percent have more than 10000 taka in different MC institutions as obligatory savings. In the GB separately, 03.19 percent have upto 1000, 02.13 percent have upto 2000, 08.13 percent have upto 3000, 13.83 percent have upto 4000, 25.53 percent have up to 5000, 22.34 percent have upto 6000, 09.57 percent have upto 7000, 06.38 percent have upto 8000, 07.45 percent have upto 9000 and 01.06 percent have upto 10000 taka as obligatory savings respectively. It is also seen that 72.87 percent of the borrower households have more than 5000 thousand taka in the different MC



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### Data Analysis and Interpretation

institutions as the obligatory savings, which is the vital indicator of overlapping of credit received by borrower households from different MC institutions.

#### 5.4 Purpose of Borrowing from GB and Achievements

**5.4.1 Source of Inspiration behind Joining the GB:** Sources, who have inspired the respondents to join the GB, are mentioned in the following table.

**Table-5.41: Inspiration Sources of Joining GB Programs**

Sources of Inspiration	Number of the respondents	Percentage
Own initiative	13	06.91
Inspired by other borrowers of GB	87	46.28
Inspired by the chief of the households	50	26.60
Inspired by GB worker	38	20.21
Total	188	100.00

Source: Field Survey

Table 5.41 shows that only 6.91% borrowers joined the GB by self-inspiration, 46.28%, 26.60%, and 20.21% were inspired by other members of GB, chief of the households and GB workers respectively. So it is seen that most of the respondents were inspired by other members of the group and centers to join the GB.

**5.4.2 Social Constraints faced at the time of Joining GB:** Table 5.4 below shows whether or not the borrower faced any type of constraints during their enrollment in the GB.

**Table-5.42: Problem Faced during Enrollment in the GB**

Problem faced	Number of respondents	Percentage
Did not face problem	178	94.68
Faced problem	10	05.32
Total	188	100.00

Source: Field Survey

It is seen from 5.42 table that most of the borrowers did not face any problem at the time of their joining the GB.



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**5.4.3 Purpose of taking GB loan:** The purposes of taking loan cited by the selected borrowers at the very first year and in the present year are shown in the following table.

**Table-5.43: Purpose of Taking Loan**

Activities shown as purposes of loan	In the present year/season		In the first year/season	
	Number of respondents	Percentage	Number of respondents	Percentage
Husking and Trading	10	05.32	08	04.26
Cultivation	20	10.64	27	14.36
Milch-cow rearing	05	02.66	22	11.70
Cattle fattening	22	11.70	18	09.57
Fishing and trading	11	05.85	09	04.79
Processing and manufacturing activities	03	01.60	05	02.66
Trading and shop-keeping	66	35.11	61	32.45
Rickshaw/Van purchase	22	11.70	14	07.45
Tailoring and cloth trading	03	01.60	02	01.06
Poultry raising	16	08.51	03	01.60
House building	02	01.06	11	05.85
Sinking Tube-well	03	01.60	01	00.53
Constructing sanitary latrine	02	01.06	00	00.00
Purchase of homestead	00	00.00	02	01.06
Lease-in of cultivable land	00	00.00	02	01.06
Seasonal business	02	01.06	03	01.60
Transport business	01	00.53	02	01.06
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.43 shows that most of the respondents have cited non-farm activities as purpose of taking GB loan.

**5.4.4 Utilization of loan by the Respondent Households:** Utilization of GB credit taken by borrower households is shown in the following table.

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**Table-5.44: Utilization of GB Credit by the Respondent Households**

Utilization pattern	In the year/season		First year/season	
	Number of respondents	Percentage	Number of respondents	Percentage
Full amount invested in the mentioned field	14	07.45	18	09.57
Partly invested in the mentioned field	61	32.45	85	45.21
Not used in cited/ productive purposes	113	60.11	85	45.21
Total	188	100.00	188	100.00

Source: Field Survey

Table 5.44 shows that in the present year/season 60.11% of the total respondents do not use their loan for purposes mentioned at the time of taking loan. A total of 7.45% borrower households used full amount and 32.45% used a part of loan on productive purposes, which were shown at the time of taking loan. If the first year/season of taking loan these percentages were 45.21%, 9.57% and 45.21% respectively. So it is seen that major part of GB loan was not used in productive purposes by the borrower households.

**5.4.5 Number of Respondents Who got Sufficient Amount of Loan according to Demand:** The percentage of respondents who got sufficient amount of loan according to their demand for loan is shown in the following table.

**Table-5.45: Number of Respondents Who got Sufficient Amount of Loan according to Demand**

Status of getting loan	Present Year/Season		first year/Season	
Did not get sufficient amount	145	77.13	178	94.68
Got sufficient amount	43	22.87	10	5.32
Total	188	100.00	188	100.00

Source: Field Survey

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Table 5.45 shows that the 77.13% and 94.68% respondents did not get sufficient amount of loan from the GB in the present year and at the first time respectively according to their demand for loan.

**5.4.6 Opinions about the Size of GB Loan:** The opinion of the respondents about the size of loan, which should be sanctioned by GB in the initial stage is shown in the following table.

**Table-5.46: Respondents Opinion about the Size of Loan**

Amount of loan (in TK)	No. of respondents	Percentage
Upto 10000	25	13.30
10000- 15000	98	52.13
15000 and more	65	34.57
Total	188	100.00

Source: Field Survey

Table 5.46 shows that majority of the respondents mentioned the size of GB loan should be more than Taka ten thousand in the initial stage.

**5.4.7 Length of Membership of the Respondents in GB:** The length of membership of the respondents in GB credit program is shown in the following table.

**Table-5.47: Length of Membership of the Respondents in GB**

Length of membership	Number of respondents	Percentage
10 Years and above	05	02.66
09 Years	19	10.11
08 Years	42	22.34
07 Years	41	21.81
06 Years	44	23.40
05 Years	28	14.89
04 Years	09	04.79
Total	188	100.00
Average use	6.87 years	

Source: Field Survey

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Table 5.47 shows that 2.66%, 10.11%, 22.34%, 21.81%, 23.40%, 14.89% and 4.79% of the total respondents used GB loan for the period of ten years or more, 9 years, 8 years, 7 years, 6 years, 5 years and 4 years respectively. It is also seen that 67% of selected borrowers have used GB loan for a period between 6 and 8 years. The average length of membership is 6.87 years.

#### 5.4.8 Total Amount of Loan taken by the Respondents from GB till Interview:

The total amount of GB credit taken by the respondents households is shown in the following table.

**Table-5.48: Total Amount of Loan Taken by the Respondents from GB till Interview**

Amount of GB loan taken till interview (in Tk. )	Number of respondents	Percentage
Below-30000	02	01.06
30001-40000	12	06.38
40001-50000	13	06.91
50001-60000	23	12.23
60001-70000	28	14.89
70001-80000	32	17.02
80001-90000	34	18.09
90001-100000	16	08.51
100000 and above	28	14.89
Total	188	100.00

Source: Field Survey

It is seen from table 5.48 that majority of the respondents households have already borrowed more than sixty thousand Taka before our field survey.

**5.4.9 Types of Loan taken by the Respondents till the Interview:** The types of loans taken by the borrower households are shown in the following table.

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**Table-5.49: Types of Loan used by the Respondents till the Interview**

Types of loan used	Number of respondents	Percentage
General-1	188	100 %
Seasonal-1	102	54.26
seasonal-2	78	41.49
Housing	34	18.09
Tube-well	11	05.85
Sanitary	07	03.72
leasing	05	02.66

Source: Field Survey

Table 5.49 shows that all respondents have taken general loan and 54.26%, 41.49%, 18.09%, 5.85%, 3.72%, and 2.66 percent have taken seasonal-1, seasonal-2, housing, tube-well, sanitation and leasing loan respectively along with general loans. No educational loan was found have been sanctioned in the sample area.

**5.4.10 Opinions about the Collateral Freeness:** The opinion of the respondents about the collateral freeness is shown in the following table.

**Table-5.50: Opinion of the Respondents about the Freeness of Collateral**

Opinions	Number of respondents	Percentage
Credit is collateral free	21	11.17
credit is not collateral free	167	88.83
Total	188	100.00

Source: Field Survey

Table 5.50 shows that only 11.17% of the total respondents think that the MC of the GB is collateral free, rest 88.83% of the respondents think GB loan is not actually collateral free. The pressure created by other members of group and center for loan recovery is mentioned by respondents as the active collateral against GB loan. Some respondents have complained that GB has taken the



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documents of the ownership of land during house loan disbursement. So the loan of GB is seen not to be actually collateral-free.

**5.4.11 Opinions about the Risk of GB loan:** The opinion of the respondents about the risk of GB loan is shown in the following table.

**Table-5.51: Opinion of the Respondents about the Involvement of Risk of GB Loan**

Opinions	Number of respondents	Percentage
No risk	14	07.45
Risk involved	153	81.38
No comment	21	11.17
Total	188	100.00

Source: Field Survey

It is seen from table 5.51 that 81% of the respondents mentioned that the loan of the GB is risky, 11.17% did not make any comments and the rest of 7.45% mentioned it to be risk-less.

**5.4.12 Opinions about the Rate of Interest of GB Loan:** The opinions of the respondents about the rate of interest of GB loan is shown in the following table.

**Table-5.52: Respondents Opinion about the Rate of Interest of GB loan**

Opinions	No. of respondents	Percentage
High interest loan	168	89.36
Low interest loan	08	04.26
No comments	12	06.38
Total	188	100.00

Source: Field Survey

Table 5.52 shows that 89.36% of the respondents think that GB charges high rate of interest against loan.

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#### 5.4.13 Opinions about the Reminder and Pressure for the Recovery of

**Installments:** The opinion about reminder and pressurization for the recovery of installments is shown in the following table

**Table- 5.53: Opinions about Reminder and Pressure for the Recovery**

Opinions	Number of respondents	Percentage
Create excess pressure	186	98.94
Do not create excess pressure	00	00.00
No comment	02	01.06
Total	188	100.00

Source: Field Survey

It is seen from table 5.53 that almost 99% of the respondents face tremendous pressure for weekly recovery of loan installments.

**5.4.14 Main Pressure Creator for the Recovery:** The persons who behave cruelly play vital role for the recovery is shown in the following table.

**Table-5.54: Persons Who Behave Cruelly for Recovery**

Persons who behave cruelly	Number of respondents	Percentage
GB workers	18	09.68
Other member of the group or center	168	90.32
No comment	00	00
Total	186	100 .00

Source: Field Survey

Table 5.54 shows that the leader or other members of the group and center create more pressure on the borrower than the worker of the GB for the weekly recovery of loan. So it is seen that the borrowers themselves play the role of collateral, which belies GB claim of collateral freeness of its loan.

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**5.4.15 Sources of Money for Regular Repayment of Installments:** Sources of money from where regular repayment of installments are made by the respondents are shown in the following table.

**Table-5.55: Sources of Money for Regular Repayment of GB Loan**

Sources of money	First quarter of the year		Second quarter of the year		Third quarter of the year	Fourth quarter of the year		
	Number	%	Number	%	Number	%	Number	%
Cash in hand from GB loan	68	36.17	10	05.32	00	00.00	00	00.00
Earning from non-credit activities	74	39.36	66	35.11	84	44.68	82	43.62
Profit from investment of GB loan	02	01.06	04	02.13	04	02.13	02	01.06
From the capital of business activities ran by GB and NGO loan	03	01.60	04	02.13	02	01.06	06	03.19
Earning from business activities run by non GB fund	02	01.06	03	01.60	06	03.19	10	05.32
Borrowing from relatives or neighbors	23	12.23	52	27.66	42	22.34	53	28.19
Borrowing from informal sources with higher interest	00	00.00	00	00.00	01	00.53	01	01.06
From ration, grants	06	03.19	09	04.79	08	04.26	07	03.72
Sale of temporary assets	00	00.00	06	03.19	11	05.85	02	01.06
Borrowing From other MC institutions	10	05.32	21	11.17	16	08.51	11	05.85
Other types of loan from GB	00	00.00	11	05.85	12	06.38	10	05.31
Sale Permanent assets	00	00.00	00	00.00	01	00.53	02	01.53
Dowry at the marriage of sons	00	00.00	02	01.06	01	00.53	02	01.06
Total	188	100.00	188	100.00	188	100.00	187	100.00

Source: Field Survey

Table 5.55 reveals that most of the respondents repay installments from unused cash taken from GB as loan in the first quarter of the period, borrowing from the neighbors or relatives and non-credit earnings are main sources of installments repayments in the second quarter, borrowing from other MC-NGOs and usurers are the main sources of repayments in the third and fourth quarter of the season respectively. It is also seen that a very few of the respondents can make repayment from the in the third and forth quarter of the period.

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**5.4.16 Number of Other MF-NGOs used by the Respondent Households alongside the GB:** The number of MF-NGOs used by the respondent households alongside the GB is shown in the following table.

**Table-5.56 Number of Other MF-NGOs used by the Respondent Households alongside the GB**

Number of MF-NGOs Used	No. of respondents	Percentage
Only GB	86	45.74
GB and one NGO	44	23.40
GB and two NGO	46	24.47
GB and three NGO	12	06.38
Total	188	100.00

Source: Field Survey

Table 5.56 shows that among the sample households 45.74%, 23.4%, 24.47% and 6.38% are taking loan from only GB, GB and one NGO, GB and two NGO and GB and three NGOs respectively. So 54.26% of the selected households of GB borrowers simultaneously borrow from other MCIs.

**5.4.17 Number of Borrowers in Other MF-NGOs from the Respondent Households:** The number of borrowers from the respondent households in different MF-NGOs is shown in the following table.

**Table-5.57 Number of Borrowers in Different MF-NGOs**

Number of Borrowers	No. of respondents N=102	Percentage
01	76	74.51
02	20	19.61
03	06	05.88
Total	102	100.00

Source: Field Survey

Table 5.57 shows that 74.51%, 19.61% and 05.88% of respondent households, using other sources of MC along with GB have one, two and three borrowers in different MF-NGOs respectively.



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**5.4.18 Respondents' Willingness to Continue Borrowing from GB in the Long-run:** The willingness of the respondents to continue borrowing from GB for long period is shown in the following table.

**Table-5.58: Willingness to Continue Borrowing from GB for Long-period**

Opinions	No. of respondents	Percentage
Yes	42	22.34
No	102	54.26
Not decided	44	23.40
Total	188	100.00

Source: Field Survey

It is seen from table 5.58 that majority of the borrower borrowers are not willing to continue borrowing from the GB for long period.

**5.4.19 Reasons to Continue Borrowing from GB:** Reasons for which some of the respondents are willing to continue borrowing from the GB are shown in the following table.

**Table-5.59: Reasons to Continue Borrowing from GB**

Reasons	No. of respondents N= 42	Percentage
Income generating employment	12	28.57
Survival	30	71.43
Total	42	100.00

Source: Field Survey

From table 5.59 it is seen that survival rather than income generating employment appears as the main reason to continue borrowing from GB.

**5.4.20 Reasons behind Willingness to Stop GB Borrowing in Near Future:** Reasons for which some of the respondents are willing to stop borrowing from the GB are shown in the following table.



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**Table-5.60: Reasons to Stop GB Borrowing in near Future**

Reasons	No. of respondents N= 102	Percentage
GB is exploiting	68	66.67
Other institutions give more benefit	24	23.53
Became self-sufficient	00	00.00
It hampers family life	10	09.80
Total	102	100.00

Source: Field Survey

Table 5.60 reveals that none of the respondents, who are willing to stop GB borrowing mentioned self-sufficiency as the reason. Most of the respondents mentioned exploitation by GB as the reason to stop GB borrowing.

**5.4.21 Comparative Advantage enjoyed from different MCIs by the Respondent households:** Opinion regarding comparative advantage of GB and other micro-credit institutions of the borrower households, taking credit from different MC institutions simultaneously is shown in table 5.61

**Table-5.61: Comparative Advantage of Different MCIs**

Name of Institution	No. of respondents N= 98	Percentage
GB	16	16.33
BRAC	28	28.57
ASA	06	06.12
PROSIKA	15	15.31
KARITAS	21	21.43
TMSS	12	12.24
Total	98	100.00

Source: Field Survey

The above table shows that among these households 16.33%, 28.57%, 6.12%, 15.31%, 21.43% and 12.24% have mentioned GB, BRAC, ASA, PROSIKA, KARITAS and TMSS respectively as better source of micro-credit. It is very clear

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### Data Analysis and Interpretation

that BRAC preferred by 28.57% and KARITAS preferred by 21.43% appear to be favorite MCI. GB is in third position according to the preference of the respondents.

**5.4.22 Borrowing from Informal Sources by the Borrower Households:** Table 5.62 gives information about the number of informal sources from where the borrower households borrow on interest before and after joining the GB.

**Tabl-5.62: Information about Borrowing from Informal Sources by the Borrower Households on Interest**

Number of sources	At present		Before joining GB		
	Number	Percentage	Number	Percentage	Rate of interest
00	158	84.04	174	92.55	—
01	22	11.70	11	05.85	50% -100%
02	08	04.26	03	01.60	50%-100%
Total	188	100.00	188	100.00	————

Source: Field Survey

It is seen from table 5.62 that the use of informal loan on interest has increased among the borrower households after their joining the GB. The rate of interest of these informal sources is seen to be between 50% and 100%.

**5.4.23 Opinions about the Ownership of GB Loan:** The opinion of the respondents about the ownership of GB loan is shown in the following table.

**Table-5.63: Respondents Opinion about the Ownership of GB**

Opinions about ownership	No. of respondents	Percentage
Do not consider himself as one of the owners of GB	182	96.81
Consider himself as a owner of GB	01	00.53
No comments	5	02.66
Total	188	100.00

Source: Field Survey

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### **Data Analysis and Interpretation**

It is seen from table 5.63 that 97% of the respondents do not consider themselves as owners of GB.

#### **5.5 Brief Summary**

This chapter discusses various individual and household information of the GB borrowers, their assets and liabilities, expectations and achievements. Comparing their socio-economic conditions before and after joining GB, it is seen that impact of GB on the rural poor households is not significantly positive.

100% sample borrowers were found to be female, of them 69.15% were at least 41 years old. These borrowers are vulnerable in terms of age, mobility to other place and power holding. As a result GB can easily recover its loan installments in schedule time by creating pressure on them. No significant changes have been found to have taken place in the personal profiles of these borrowers in terms of human development, self-employment and income generation after their joining the GB. On the other hand unmarried, educated women and male persons of poor households, who are supposed to strive hard in terms of motivation, work-attitude, physical and mental strength and other organizational capabilities related to income generating activities and thereby uplift their economic conditions, are totally excluded by GB.

From the analysis of household profiles of the sample borrowers, it is seen that GB did not select the actual landless and assetless households as per its claim. Only 37% of the sample households were functionally landless at the time of joining GB. No significant impacts of GB loan on the members of the borrower households regarding self-employment and income generation, human development and socio-political empowerment have been found. Moreover, the level of household assets of the respondents has been found to have reduced during the use of GB loan.

## CHAPTER-6

THE SOCIO-ECONOMIC CHANGES OF THE BORROWER HOUSEHOLDS AFTER  
JOINING GB AND THE CONTRIBUTION OF GB CREDIT IN THE TOTAL INCOME  
GENERATED BY THE HOUSEHOLDS

## CHAPTER-6

### THE SOCIO-ECONOMIC CHANGES OF THE BORROWER HOUSEHOLDS AFTER JOINING GB AND THE CONTRIBUTION OF GB CREDIT IN THE TOTAL INCOME GENERATED BY THE HOUSEHOLDS

#### 6.1 Introduction

In the present chapter attempts have been made to measure the socio-economic changes of the borrower households using GB credit for a period of seven years on an average. The contribution of GB credit in the total income generated by the borrower households is also estimated here. Both the qualitative and quantitative techniques have been applied to measure and expose the impacts of GB loan on different socio-economic indicators of the sample households.

**6.1.1 Changes in Poverty Status of the Respondent Households in terms of Annual Per Capita Income:** The change in poverty status of the sample households in terms of per capita income is shown in the following table.

**Table- 6.1: Poverty Situation of the Respondent Households in terms of Annual Per Capita Income**

Poverty Groups in terms of annual per capita income	Before Joining GB		At Present	
	Number of households	Percentage	Number of households	Percentage
Extreme poor: upto Tk. 3560, per capita per year	37	19.68	48	25.35
Moderate poor: Tk. 3560 to Tk. 6287, per capita per year	110	58.51	94	50.00
Vulnerable non-poor: more than TK. 6287 per capita, per year.	41	21.81	46	24.46
Total	188	100.00	188	100.00

**Source: Field Survey**



## Chapter- 6

### The Socio-economic Changes of the Borrower Households after joining GB and the Contribution of GB Credit in the Total Income Generated By the Households

It is seen from table 6.1 that before joining the GB 19.68%, 58.51 and 21.51% of the respondent households were under extreme poor, moderate poor and vulnerable non-poor groups respectively. At present 25.35%, 50.00% and 24.46% households are under these categories. So it can be concluded that the incidence of poverty has increased among the households of the sample borrowers.

**6.1.2 Changes in Total Income:** The change in the total income of the selected households is shown in the following Table.

**Table- 6.2 Changes in Total Income of the Respondent Households after Joining GB**

Changes in the total income of the respondent households	No. of Respondents	Percentage
Increased	109	57.98
Decreased	54	28.72
Remained constant	25	13.29
Total	188	100.00

**Source: field Survey**

It is seen from the above table that the amount of total annual income of the respondent households has increased, decreased and remained constant in case of 57.98%, 28.72% and 13.29% households respectively.

**6.1.3 Changes in Total Income of the Respondent Households according to Poverty Groups:** The changes in total income of the respondent households according to poverty groups are shown in the following table.

**Chapter- 6**  
**The Socio-economic Changes of the Borrower Households after joining GB and the Contribution of GB Credit in the Total Income Generated By the Households**

**Table-6.3: Changes in Annual Income of the Borrower Households According to Poverty Groups**

Poverty groups	Income change						Total number of Households	
	No change		Decrease in income		Increase in income			
	Number	Percentage	Number	Percentage	Number	Percentage		
Extreme poor Households (Annual Per capita income upto Tk.3560)	1	0.53	27	14.36	9	4.79	37	19.68
Moderate poor Households (Annual Per capita income Tk. 3560-6287)	22	11.70	23	12.23	65	34.57	110	58.51
Vulnerable non-poor Households (Annual per capita income more than TK. 6287)	2	1.06	4	02.13	35	18.62	41	21.81
Total	25	13.29	54	28.72	109	57.98	188	100.00

**Source: Field Survey**

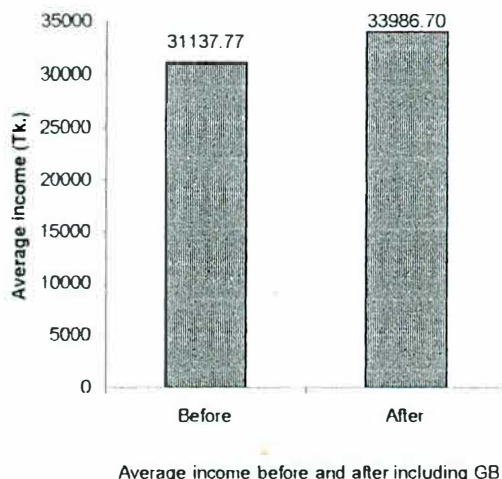
From the above table it is seen that most of the households in which income has increased have come from moderate and vulnerable non-poor groups. On the other hand the amount of income has decreased in most of the poorest households.

**6.1.4 Changes in Average Income:** The change in the level of average annual income is shown in the graph 6.1. It is seen the graph that the average level of income of the borrower households has increased from TK. 31137.72 to TK. 33986.70, over a period of 7 years on an average, which is estimated on the basis of constant price of the fiscal year 1995-1996.

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### The Socio-economic Changes of the Borrower Households after joining GB and the Contribution of GB Credit in the Total Income Generated By the Households

**Chart-6.1 : Changes in Average Income**



From the graph it is seen that the impact of GB loan on the average income of the borrower households is not significant.

## **6.2 Impacts of GB Loan on Different Socio-economic Indicators of the Borrower Households: The Qualitative Exposure**

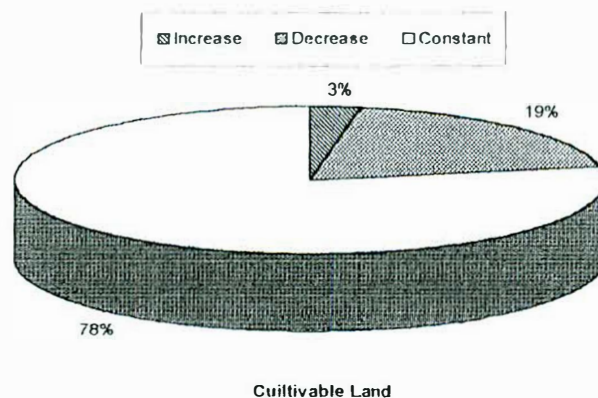
The changes that have taken place in different socio-economic indicators of the borrower households after the use of GB loan is shown here by using pie-charts. The respective frequency tables of this graphical presentation are shown in appendix-6, page 223.

**6.2.1 Changes in the Amount of Cultivable Land:** From chart 6.2 it is seen that the amount of cultivable land owned by the borrower households has decreased in case of 78% households, which indicates a negative impact of GB loan on the amount of cultivable land of the borrower households.

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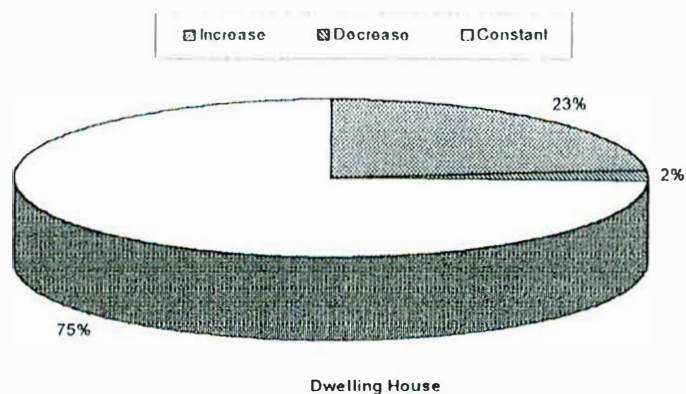
### The Socio-economic Changes of the Borrower Households after joining GB and the Contribution of GB Credit in the Total Income Generated By the Households

**Chart-6.2 : Changes in the Amount of Cultivable Land**



**6.2.2 Changes in Dwellings:** From chart 6.3 it is seen that the amount of dwellings of the sample borrowers has increased in case of 23% of respondents, so the impact of GB loan on housing status is seen to be significant.

**Chart-6.3: Changes in Dwellings**

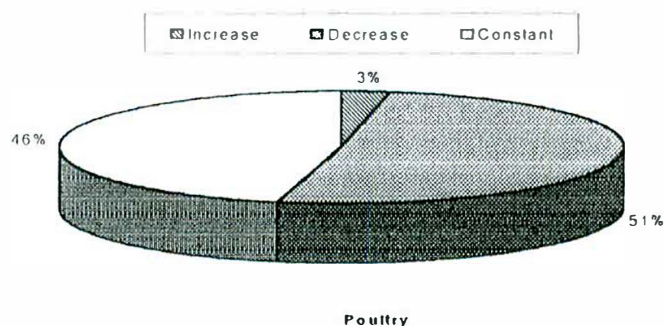


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### The Socio-economic Changes of the Borrower Households after joining GB and the Contribution of GB Credit in the Total Income Generated By the Households

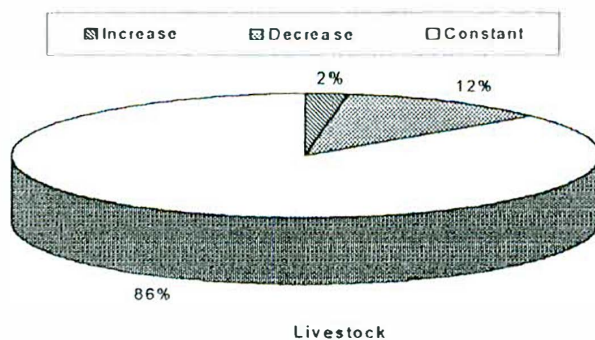
**6.2.3 Changes in the Amount of Poultry:** It is seen from chart 6.4 that the amount of poultry owned by the borrower households has increased in case of only 03% of the sample households but decreased in case of 51% households. So the impact of GB loan on the amount of poultry is significantly negative.

**Chart-6.4: Changes in the Amount of Poultry**



**6.2.4 Changes in the Amount of Livestock:** Although a number of borrowers have been found taking GB loan for the purpose of cattle rearing, the amount of livestock owned by the borrower households has increased in case on only 02% households of the borrowers, whereas it decreased in case of 12% sample households. So it is very clear that the impact of GB loan on the amount of livestock of the borrower households is negative.

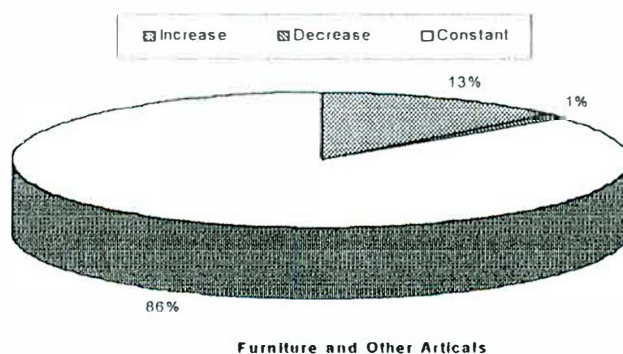
**Chart-6.5: Changes in the Amount of Livestock**





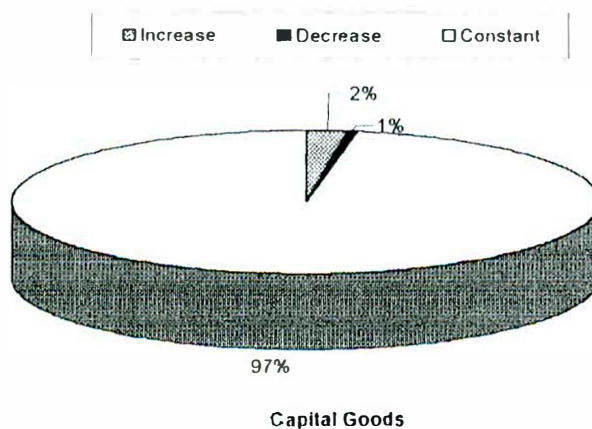
**6.2.5 Changes in the Amount of Furniture and Household Articles:** The amount of furniture and household articles of the borrower households has increased insignificantly i.e, in case of 13% of the sample households which is shown in chart 6.6

**Chart-6.6: Changes in the Amount of Furniture and Household Articles**



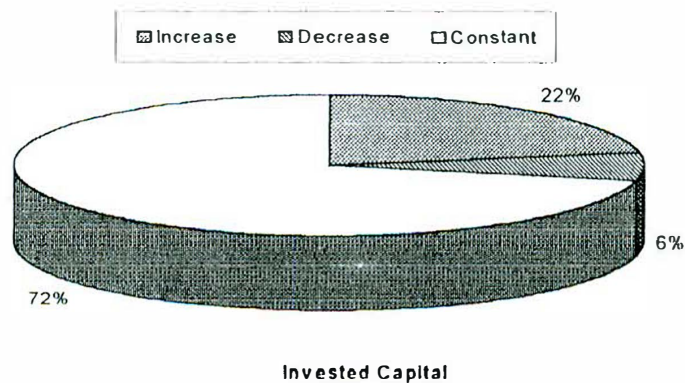
**6.2.6 Changes in the Amount of Capital Goods:** It is seen from chart 6.7 that the amount of capital goods of the sample households has not significantly increased after joining the GB.

**Chart-6.7: Changes in the Amount of Capital Goods**



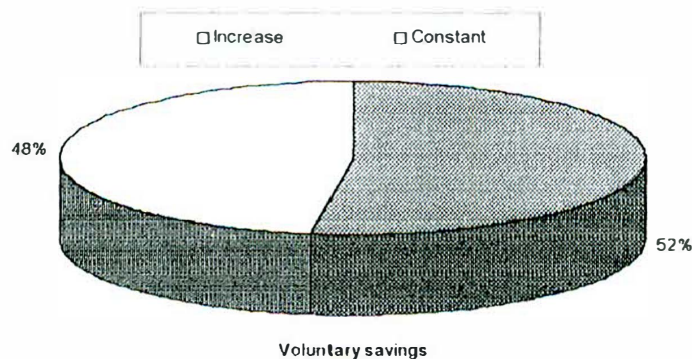
**6.2.7 Changes in the Amount of Investment:** The amount of investment of the sample households both in farm and non-farm activities are considered here. It is seen from the chart 6.8 that the amount of investment has decreased in case of 06%, increased in case of 22% and remains constant in case of 72% of the households under study.

**Chart- 6.8 Changes in the Amount of Investment**



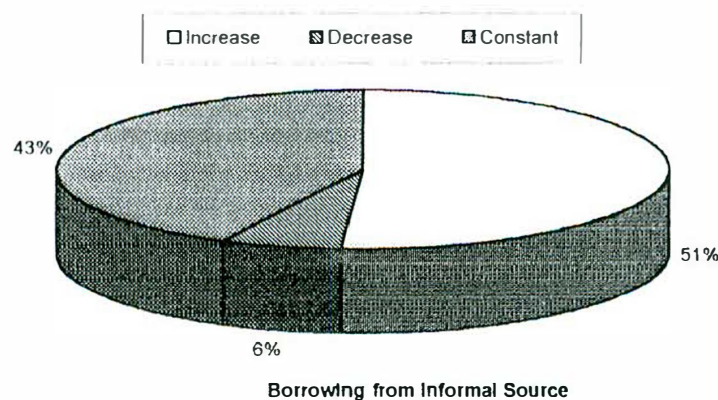
**6.2.8 Changes in the Amount of Voluntary Savings:** From chart 6.9 it is seen that the impact of GB loan on the amount of voluntary savings of the sample households is significantly negative.

**Chart-6.9: Changes in the Amount of Voluntary Savings**



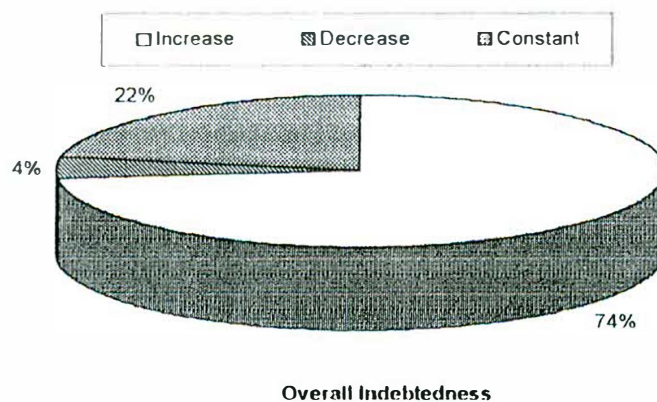
**6.2.9 Changes in the Amount of Informal Borrowing on Interest:** it is seen from chart 6.10 that the amount of informal borrowing on interest has increased among the sample households after their enrollment in the GB.

**Chart-6.10: Changes in the Amount of Informal Borrowing**



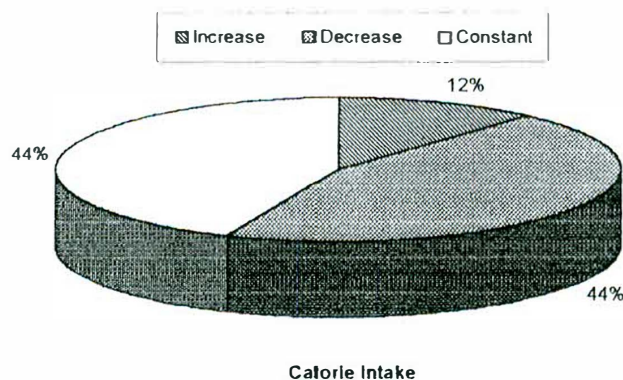
**6.2.10 Changes in Overall Indebtedness (excluding GB loan):** Overall indebtedness has increased in case of 22%, decreased in case of 04% and remains constant in case of 74% of the respondent households, which is shown in the following chart.

**Chart-6.11: Changes in Overall Indebtedness**



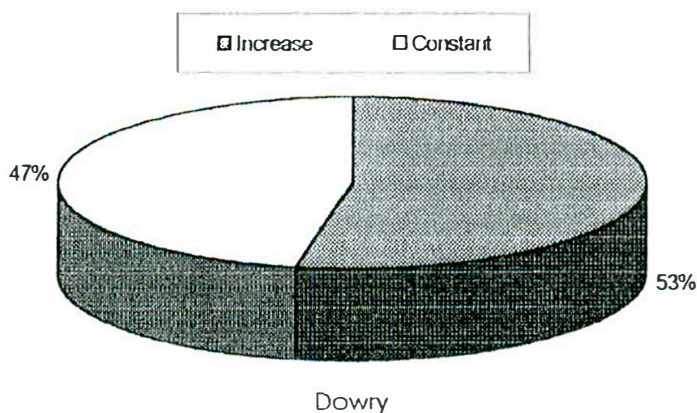
**6.2.11 Changes in Per Capita Calorie Intake:** The impact of GB loan on the borrower households in terms of calorie intake is found to be significantly negative. From the chart 6.12 it is seen that the it has increased in case of 12%, decreased in case of 44% and remained constant in case of 44% of the respondent households.

**Chart-6.12: Changes in Per Capita Calorie Intake**



**6.2.12 Changes in Dowry:** It is seen from the chart 6.13 that the dowry has significantly increased among the respondent households after their joining the GB.

**Chart-6.13: Changes in Dowry**



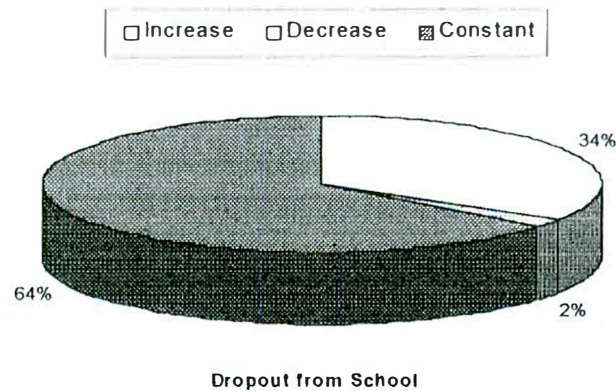


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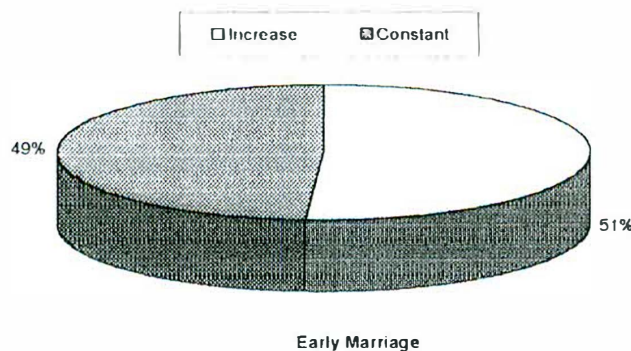
**6.2.13 Changes in Children Dropout from School:** Chart-6.14 shows that children dropout from school has increased in case of 34%, decreased in case of only 02% and remains constant in case of 64% of the respondents households. So the impact of GB loan on children education is found to be significantly negative in the sample area.

**Chart-6.14: Changes in Children Dropout from School**



**6.2.14 Changes in the trend of Early Marriage (Before 18 Years Age) :** The trend of early marriage of the children of the borrower households has been found to have increased among the sample households which contradicts GB claim of women empowerment.

**Chart-6.15: Changes in the trend of Early Marriage**



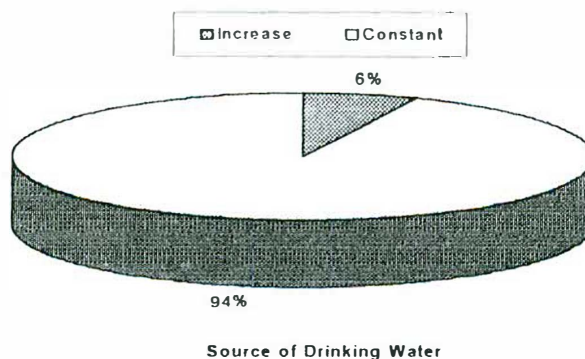


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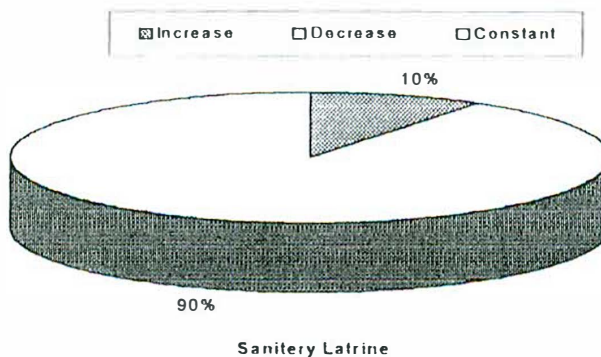
**6.2.15 Changes in Sources of Pure Water:** From the chart 6.16 it is seen that the sources of drinking water has increased marginally in case of 6% of the respondent households.

**Chart-6.16: Changes in Sources of Pure Water**



**2.16 Changes in the Condition of Sanitary Latrine:** The condition of sanitary latrine has improved in case of 10% sample households, which is shown in the following chart.

**Chart-6.17: Condition of Sanitary Latrine**

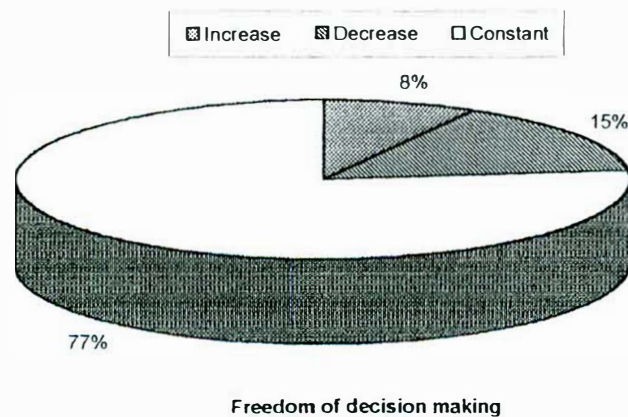


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**6.17 Changes in Freedom of Decision making in Socio-political Activities:**

Chart 6.18 Shows that the impact of GB credit on the status of freedom of decision making in socio-political activities is not significant.

**Chart-6.18: Freedom of Decision making in Socio-political Activities**



### 6.3 The Contribution of GB Credit in Total Income Generated by the Borrower Households: A Quantitative Estimation

#### 6.3.1 Model Selection

It is seen in the field survey that total income of the households of poor borrowers is generated mainly by four factors, which are labour, property, credit and grants. An attempt has been made here to disentangle the contribution of GB credit from the contribution of other factors of income of the borrower households. The income, which is generated by labour, property and grants without any influence of GB credit is compared with the income, generated by GB credit so to assess the actual contribution of GB in the total income generated by the borrower households. The function of income of the sample households is  $Y = f(X_1, X_2, X_3, X_4)$

where,  $Y$  = income,  $X_1$  = credit,  $X_2$  = labour,  $X_3$  = grants and  $X_4$  = property.

The stepwise regression model of Kathleen care has been taken as the technique for solution. Least squares techniques, auto correlation, multi co-linearity are also studied here.

#### 6.3.2 Estimation procedure

**6.3.2.1 The Kathleen Carey model:** The model follows as

$$e^y = f(x_i, \beta_i) \cdot e^\epsilon \quad \forall \quad i = 1, 2, 3, 4 \quad \dots\dots\dots (6.1)$$

Where,  $f(x_i; \beta_i) = C X_1^{\beta_1} X_2^{\beta_2} X_3^{\beta_3} X_4^{\beta_4}$  and  $\epsilon$  is an error term which is assumed to be normally distributed with mean zero and variance  $\sigma^2$ ;  $\beta_i$  are some unknown constants, which are estimated by the method of least squares techniques and  $C$  is a constant.

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**6.3.2.2 Estimation of Unknown parameters  $\beta_i$  ( $i = 1, 2, 3, 4$ ) :** The model (6.1) can also be written as

$$Y = k + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \epsilon$$

Where,  $x_i = \ln X_i$  and  $k = \log C$

By least square techniques

$$\frac{d(\epsilon' \epsilon)}{d\beta_1} = 0 \text{ gives}$$

$$\hat{\beta} = (X' X)^{-1} X' Y \text{ with least variance } \sigma^2 (X' X)^{-1} \text{ and } \hat{k} = \bar{y} - \hat{\beta}_1 \bar{x}_1 - \hat{\beta}_2 \bar{x}_2 - \hat{\beta}_3 \bar{x}_3 - \hat{\beta}_4 \bar{x}_4$$

The estimated model is

$$e^Y = C x_1^{1.033} x_2^{0.610} x_3^{-0.101} x_4^{-0.108} \cdot e^\epsilon \dots\dots\dots (6.2)$$

The regression equation is

$$Y = k + 0.320 x_1 + 0.610 x_2 - 0.101 x_3 - 0.108 x_4 + \epsilon \dots\dots\dots (6.3)$$

Since it is assumed that the income of the sample households depends mainly on the explanatory factors  $x_1, x_2, x_3$  and  $x_4$ , it is necessary to conduct Analysis of Variance (ANOVA) techniques to verify the significant variation in  $Y$  due to the variations in  $X_i$ .

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**Table – 6.4: Analysis of Variance ( General)**

Source of variation (SV)	Degrees of freedom (df)	Sum of squares (SS)	Mean sum of squares (MSS)	F-ratio
Due to $X_1, X_2, X_3, X_4$	4	569961.76	142490.44	13714.17
Residual	183	1901.37	10.39	
Total	187	571863.14		

The calculated value of F is 13714.17 and the tabulated value of F with (4,183) degrees of freedom (df) at 5% level of significance is 2.37. Since the calculated value of F is greater than the tabulated value, so the value is significant 5% level.

In order to analyze the individual and combined effects of the explanatory factors, the contribution of each factor is estimated here by using the regression techniques. Let

$\beta_i$  = Coefficient of  $X_i$  in the simple regression of Y on  $X_i$

The explained sum of squares due to  $X_i$  alone is  $\beta_i \sum YX_i$ . From these quantities the following ANOVA tables are set up.



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**Table – 6.5: Analysis of Variance- Due to  $X_1$  alone**

Source of variation (SV)	Degrees of freedom (df)	Sum of squares (SS)	Mean sum of squares (MSS)	F- ratio
Due to $X_1$ alone	1	373743.25	373743.25	2875.13
Addition of $X_2, X_3, X_4$	3	503295.18	251647.59	1935.88
Due to $X_1, X_2, X_3, X_4$	4	377307.16	125769.05	
Residual	183	23918.45	129.99	
Total	187	401225.61		

The significance of  $X_1$  alone can be tested by computing the residual sum of squares giving  $F=2875.13$  with (1, 183) df, which is found significant at 5% level. Similarly the additional effect due to  $X_2, X_3, X_4$  is tested by  $F= 1935.88$  with (3, 183) df, which is also significant at 5% level.

**Table –6.6: Analysis of Variance- Due to  $X_2$  alone**

Source of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-ratio
Due to $X_2$ alone	1	436185.59	436185.59	41981.29
Addition of $X_1, X_3, X_4$	3	503797.46	167932.49	16162.90
Due to $X_1, X_2, X_3, X_4$	4	569961.76	142490.44	
Residual	183	1901.37	10.39	
Total	187	571863.14		

The significance of  $X_2$  alone can be tested by computing the residual sum of squares giving  $F=41981.29$  with (1, 183) df, which is found significant at 5% level. Similarly the additional effect due to  $X_1, X_3, X_4$  is tested by  $F= 16162.9$  with (3, 183) df, which is also significant at 5% level.

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**Table –6.7: Analysis of Variance - Due to  $X_3$  alone**

Source of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-ratio
Due to $X_3$ alone	1	2520.77	2520.77	242.615
Addition of $X_1, X_2, X_4$	3	564268.65	188089.55	18102.94
Due to $X_1, X_2, X_3, X_4$	4	569961.76	142490.44	
Residual	183	1901.37	10.39	
Total	187	571863.14		

For testing the significance of  $X_3$  alone, the calculated value of F is 242.615 with (1, 183) df, and is found highly significant at 5% level. Similarly the additional effect due to  $X_1, X_2, X_4$  is tested by  $F = 18102.94$  with (3, 183) df, which is also significant at 5% level.

**Table – 6.8: Analysis of Variance- Due to  $X_4$  alone**

Source of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-ratio
Due to $X_4$ alone	1	373743.25	373743.25	2875.13
Addition of $X_1, X_2, X_3$	3	503295.18	251647.59	1935.88
Due to $X_1, X_2, X_3, X_4$	4	377307.16	125769.05	
Residual	183	23918.45	129.99	
Total	187	401225.61		

For testing the significance of  $x_4$  alone, the calculated value of F is 2875.13 with (1, 183) df, and is found highly significant at 5% level.

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For testing the additional effect due to  $X_1, X_2, X_3$  the calculated value of F is 1935.88 with (3, 183) df, which is verified significant at 5% level.

The results obtained from above discussion are assumed up and shown in the following table.

**Table- 6.9: Percentage Contribution of Factors**

Factors	$X_1$	$X_2$	$X_3$	$X_4$	Total
% contribution	03.86	86.09	01.33	09.79	100.00

In the model (6.1), the net effects of the factors  $X_i$  ( $i = 1,2,3,4$ ) are also tested with the help of t-test, after framing the suitable null hypothesis

$$H_0 : \beta_i = 0 ; \forall i = 1,2,3,4.$$

The test statistic is

$$t = \frac{\hat{\beta}_i - \beta_i (NH)}{\sqrt{\sum_{i=1}^{12} e_i^2 / (n - k) a_{ii}}} \dots\dots\dots (6.4)$$

Where  $a_{ii}$  is the appropriate diagonal element in  $(X'X)^{-1}$  matrix and

$$\hat{e}_i = Y_i - k - 1.003 X_1 - 0.989 X_2 + 0.928 X_3 + 1.002 X_4$$

Below are the values of standard errors and corresponding test statistics of the estimators  $\beta_i$

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**Table- 6.10: Standard Error and T-value of the Coefficient**

Coefficient	$\hat{\beta}_1 = 1.003$	$\hat{\beta}_2 = 0.989$	$\hat{\beta}_3 = 0.928$	$\hat{\beta}_4 = 1.002$
SE( $\hat{\beta}_i$ )	0.064	0.013	0.112	0.021
t-values	15.74	78.13	8.28	47.48

### 6.3.2.3 The Regression Line based on 6.3

From the model (6.3), the least-squares estimates of the coefficient  $\beta_i$  are calculated by using the formula.

$$\hat{\beta}_i = (X'X)^{-1} X' Y \text{ and}$$

$$\hat{e}_i = y_i - \hat{y}_i = y_i - \hat{\beta}_1 x_{1i} - \hat{\beta}_2 x_{2i} - \hat{\beta}_3 x_{3i} - \hat{\beta}_4 x_{4i} \text{ denote residual} \text{ ----- (6.5)}$$

According to least square line, we have

$$y_i = \hat{y}_i + \hat{e}_i$$

$$\sum y_i^2 = \sum \hat{y}_i^2 + \sum \hat{e}_i^2 \text{ since, } \sum \hat{y}_i \hat{e}_i = 0$$

In other words, the total variation of y values about their sample mean is split into two parts. The first is the variation of the y values about their mean. This is often referred to as the sum of squares "due to" or "explained by" the linear influence of  $X_i$ . The second component is the residual or unexplained variation of y values about the least – squares line.

### 6.3.2.4 The coefficient of Multiple Correlation

In the four variables (Y: X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>), the coefficient of multiple correlation in terms of residual variation about the regression plane based on (1.3) is

$$R^2 = 1 - \frac{\sum e_i^2}{\sum y_i^2} = 0.9967$$

Adjusted multiple correlation coefficient,  $\bar{R}^2 = [1 - (1 - R^2)(n - 1)/(n - k)] = 0.9966$  and both are verified 'significant'.

### 6.3.2.5 Auto-correlation study

To examine the relationship between the successive values of different explanatory variables and test the statistical validity of the estimation the auto-correlation is also studied as follows.

Hence,  $\text{Cov}(\epsilon_i, \epsilon_j) = E[\epsilon_i - E(\epsilon_i)][\epsilon_j - E(\epsilon_j)]$

$$= E(\epsilon_i - \epsilon_j) = 0 \quad \text{for } i \neq j$$

$$= \sigma^2 I \quad \text{for } i = j.$$

A simple case of linear relationship between any two successive values of  $\epsilon$  is

$$\epsilon_t = \rho \epsilon_{t-1} + v_t \quad \dots\dots\dots (6.7)$$

Where,  $E(v_t) = 0$ ;  $E[v_t, v_t] = \sigma^2 I$

The formula of auto-correlation coefficient ( $\rho$ ) is



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$$\rho = \frac{\sum_{t=2}^n e_t e_{t-1}}{\sum_{t=2}^n e_{t-1}^2} \dots \dots \dots (6.8)$$

To test the significance of auto-correlation coefficient, the Durbin -Watson – test statistics is

$$d = \frac{\sum_{t=2}^n (e_t e_{t-1})^2}{\sum_{t=2}^n e_t^2} \dots \dots \dots (6.9)$$

Here the null hypothesis  $H_0: \rho = 0$ . The approximate relation between  $d$  and  $\rho$  is  $d = 2(1-\rho)$ .

From this expression it is obvious that the value  $d$  lies between 0 and 4.

Firstly, if there is no auto-correlation i.e,  $\rho = 0$  then  $d = 2$  and if  $\rho = +1$ , Then  $d = 0$ . From this it is inferred that there is perfect positive auto-correlation. If  $\rho = -1$ , then  $d = 4$ ; and it is concluded that there is perfect negative auto-correlation.

Secondly, based on the range of  $d$  statistic, Durbin-Watson have calculated upper ( $d_U$ ) and lower ( $d_L$ ) value of  $d$ .

When  $d < d_L$ , the null hypothesis will be rejected.

$d > d_U$ , the null hypothesis will be accepted.

and as long as  $d_L < d < d_U$ , the test is inconclusive.

So, from the result of the above test it is clear that our estimation is unbiased and valid.

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### 6.3.2.6 A study based on multi-collinearity

A crucial condition for the application of Least Squares to obtain estimators of the model (1.1) is that the explanatory variables are not perfectly linearly related. i.e.  $\rho(X_i, X_j) \neq 1$ . The term multi co-linearity is used to denote the presence of linear relationship among explanatory variables. If the explanatory variables are perfectly linearly related, the parameters become indeterminate and it is impossible to obtain exact numerical values for each parameter separately and the method of least-squares breakdown. Multi co-linearity is not a condition that either exists or does not exist in economic functions but rather a phenomenon inherent in most relationships due to the nature of economic magnitude. There is no conclusive evidence concerning the degree of co-linearity, which, if present, will affect seriously the estimates. Further the standard errors of the estimates become infinitely large.

In order to verify the presence of multi-co-linearity and the extent of its influence on the estimators, a simple correlation matrix based on the variables (Y:  $X_1, X_2, X_3, X_4$ ) is calculated and the values obtained are presented in Table 6.11

**Table-6.11: A Correlation Matrix based on the Determinants (Y;  $X_i$ )**

	Y	$X_1$	$X_2$	$X_3$	$X_4$
Y					
$X_1$	0.654**				
$X_2$	0.879**	0.368**			
$X_3$	-0.062	-0.120	-0.092		
$X_4$	0.810**	0.627**	0.457**	-0.127*	

\*\* Correlation is significant at the 0.01 level and \* Correlation is significant at the 0.05 level

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From the above table it is clear that the explanatory variables  $(Y, X_2)$ ,  $(Y, X_4)$  and  $(Y, X_1)$  are highly multi-collinear since  $r(Y, X_2) = 0.879$ ,  $r(Y, X_4) = 0.810$  and  $r(Y, X_1) = 0.654$ .

### 6.3.2.7 Reliability of Estimators

By a 'perfectly reliable' measurement means that it is completely accurate, free from error or no bias. But in practical survey work, it is very difficult to obtain a total reliable data and hence the estimates or conclusions expected from the collected data may lead to some errors. There are several operational conceptions of reliability of estimates, depending upon how it is estimated from collected data. The total variance  $(\sigma_y^2)$  can be written as

$$\sigma_y^2 = \sigma_{\hat{y}}^2 + \sigma_e^2 ; \quad \dots\dots\dots (6.9)$$

Hence  $\sigma_{\hat{y}}^2$  denote the true variance and  $\sigma_e^2$  denote the error variance.

Thus the measurements as having two components, a true measurement  $(\hat{y})$  and Error term (e) satisfy an equation

$$y = \hat{y} + e$$

Reliability was defined as the proportion of the total variance to the true variance.

Dividing (1) by  $\sigma_y^2$ , we have

$$\frac{\sigma_{\hat{y}}^2}{\sigma_y^2} + \frac{\sigma_e^2}{\sigma_y^2} = 1$$

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The reliability of these measurements is given by the ratio

$$\sigma_{\hat{y}}^2 / \sigma_y^2 \text{ or in other term } 1 - \sigma_e^2 / \sigma_y^2$$

Letting  $r_{ii}$  stand for the coefficient or reliability, we have two alternative equations as

$$r_{ii} = \sigma_{\hat{y}}^2 / \sigma_y^2 \quad \text{OR} \quad r_{ii} = 1 - \sigma_e^2 / \sigma_y^2$$

The summary of results from the above study is presented in the following table.

**Table-6.12: Summary of Estimators, Corresponding Test Statistics for Model 6.1.**

Least Square Estimates	$\hat{\beta}_1 = 1.003$	$\hat{\beta}_2 = 0.989$	$\hat{\beta}_3 = 0.928$	$\hat{\beta}_4 = 1.002$
$SE(\hat{\beta}_i)$	0.064	0.013	0.112	0.021
t – value	15.74	78.13	8.28	47.48
F-value	24079.47	41981.29	242.615	35971.44
Multiple correlation coefficient	$R^2 = 0.9967$			
Adjusted Multiple correlation coefficient	$\overline{R}^2 = 0.9966$			
Auto correlation coefficient & d-statistics	$\hat{\rho} = 0.436$	$d = 1.128$		
Coefficient of reliability	$r_{11} = 0.856$			

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### The Socio-economic Changes of the Borrower Households after joining GB and the Contribution of GB Credit in the Total Income Generated By the Households

From the above estimation the following conclusions can be drawn.

1. The coefficient of multiple determination in the group ( $y: x_1, x_2, x_3, x_4$ ) is 0.9967. This implies that 99.67% of the total income of the respondents' households is being generated from combined participation of the mentioned four factors.
2. A high multicollinearity between credit income ( $X_1$ ) and property income ( $X_4$ ); labour income ( $X_2$ ) and property income ( $X_4$ ) is seen.
3. The autocorrelation coefficient is least and insignificant.
4. Among four explanatory variables considered in this study, it is observed that contribution of the variable  $x_3$ , i.e. grant income towards income generation is least significant.

#### 6.3.2.8 Stepwise Regression: Stage- I

Excluding the variable  $x_3$  i.e. the grant income, whose contribution towards income generation is insignificant, the Kathleen Carey model is used considering the other three variables viz.  $X_1$ ,  $X_2$  and  $X_4$ .

$$e^Y = C X_1^{1.007} X_2^{0.985} X_3^{0.987} \cdot e^\epsilon \dots\dots\dots (6.10).$$

In order to analyze the significant contribution of these explanatory variables, the ANOVA techniques are applied for the group ( $Y: X_1, X_2, X_4$ ).



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**Table – 6.13: Analysis of Variance Based on (Y:  $X_1$ ,  $X_2$ ,  $X_4$ )**

Source of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-ratio
Due to $X_1$ , $X_2$ , $X_4$	3	397307.16	132435.72	140.11
Residual	184	173918.45	945.21	
Total	187	571225.61		

The calculated value of F is 140.11 for (3, 184) df and is verified significant at 5% level.

The individual and combined effects of each explanatory variables in the group (Y:  $X_1$ ,  $X_2$ ,  $X_4$ ) are analyzed with the help of appropriate ANOVA and regression techniques.

**Table – 6.14: Analysis of Variance- Due to  $X_1$  alone**

Source of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-ratio
Due to $X_1$ alone	1	250185.72	250185.72	264.69
Addition of $X_2$ , $X_4$	2	374511.40	187255.70	198.11
Due to $X_1$ , $X_2$ , $X_4$	3	397307.16	132435.72	
Residual	184	173918.45	945.21	
Total	187	571225.61		

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**The Socio-economic Changes of the Borrower Households after joining GB and the Contribution of GB Credit in the Total Income Generated By the Households**

For testing the significance of  $X_1$  alone, the calculated value of F is 264.69 for (1, 184) df and is significant at 5% level. In testing of the additional effect due to  $X_2$  and  $X_4$  in the group (Y:  $X_2, X_4$ ), the calculated value of F is 198.11 for (2,184) df which is also significant at 5% level.

**Table – 6.15: Analysis of Variance - Due to  $X_2$  alone**

Source of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-ratio
Due to $X_2$ alone	1	436185.59	436185.59	461.47
Addition of $X_1, X_4$	2	396550.34	198275.17	209.77
Due to $X_1, X_2, X_4$	3	397307.16	132435.72	
Residual	184	173918.45	945.21	
Total	187	571225.61		

The calculated value of F, in testing of the significance of  $x_2$  alone is 461.47 for (1, 184) df which is evidently significant at 5% level. Similarly the calculated value of F for testing the additional effect due to  $X_1$  and  $X_4$  in the group (Y:  $X_1, X_2, X_4$ ) is 209.77 for (2, 184) which is significant at 5% level.

**Table- 6.16: Analysis of Variance- Due to  $X_4$  alone**

Source of variation (SV)	Degrees of freedom (df)	Sum of squares (SS)	Mean sum of squares (MSS)	F-ratio
Due to $X_4$ alone	1	373743.25	373743.25	2875.13
Addition of $X_1, X_2$	2	503295.18	251647.59	1935.88
Due to $X_1, X_2, X_4$	3	547307.2	182435.72	
Residual	184	23918.45	129.99	
Total	187	571225.61		

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For testing the significance of  $X_4$  alone, the calculated value of F is 395.41 for (1, 184) df which is highly significant at 5% level of significance and testing the additional effect due to  $X_1$  and  $X_4$  in the group (Y:  $X_1, X_2, X_4$ ), the calculated value of F is 266.23 for (2, 184) df which is verified insignificant at 5% level.

**Table- 6.17: Percentage Contribution of Factors**

Factors	$X_1$	$X_2$	$X_4$	Total
% contribution	04.11	88.67	08.22	100.00

After omitting the variable  $x_1$  i.e. credit income, which is found highly insignificant, the share of each of the given explanatory variables  $X_1, X_2$  and  $X_4$  in the total contribution towards income generation of my study area is estimated as 4.11 percent ( $X_1$ ), 88.67 percent ( $X_2$ ) and 8.22 percent ( $X_4$ ). Even among these three,  $X_2$  has been found more significant than the other two variables.

In the model (6.10), the effects of the factors  $X_1, X_2$  and  $X_4$  are also tested with the help of student t-test statistic, by framing the following null hypothesis i.e.,  $H_0 : \beta_i = 0, \forall i = 1, 2, 4$  and results are presented in the following table.

**Table- 6.18: Standard Error and T-value of the Coefficient**

Coefficient	$\hat{\beta}_1 = 1.007$	$\hat{\beta}_2 = 0.985$	$\hat{\beta}_4 = 0.987$
$SE(\hat{\beta}_i)$	0.075	0.015	0.025
t-values	13.520	66.602	40.158

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**Table-6. 19: Summary of Estimators, Corresponding Test Statistics for Model 6.2**

Least Square Estimates	$\hat{\beta}_1 = 1.007$	$\hat{\beta}_2 = 0.985$	$\hat{\beta}_4 = 0.987$
$SE(\hat{\beta}_i)$	0.075	0.015	0.025
t – value	13.520	66.602	40.158
F-value	264.69	461.47	395.41
Multiple correlation coefficient	$R^2 = 0.958$		
Adjusted Multiple correlation coefficient	$\bar{R}^2 = 0.957$		
Auto correlation coefficient & d-statistics	$\hat{\rho} = 0.5085$	$d = 0.983$	
Coefficient of reliability	$r_{tt} = 0.702$		

From the above statistics, the following inferences are drawn.

1. The coefficient of multiple determination in the group  $((Y: X_1, X_2, X_4))$  is 0.958  
This implies that the three factors jointly influence 96% of income generation of the sample.
2. The autocorrelation coefficient is negative and is insignificant.
3. Among these three variables considered for the study, it is observed that the factor  $X_1$  -the credit income is observed to be least significant. Though

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variables such as  $X_1$ ,  $X_2$  and  $X_4$  combinedly influence the income,  $X_3$  the grant income is found insignificant and are excluded in the following analysis.

### 6.3.2.9 Stepwise Regression Techniques: Stage II

Excluding the insignificant contribution of  $x_3$ , the income determinant model stands as

$$e^Y = C X_2^{1.018} X_4^{1.168} e^\epsilon$$

$$e^Y = C X_2^{1.018} X_4^{1.168} e^\epsilon \dots\dots\dots (6.11)$$

To analyze the significant contribution of these two explanatory factors, the following ANOVA tables are formed.

**Table –6.20: Analysis of Variance based on (Y:  $X_2$ ,  $X_4$ )**

Source of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-ratio
Due to $X_2$ , $X_4$	2	557356.97	278678.49	3717.42
Residual	185	13868.64	74.97	
Total	187	571225.61		

The calculated value of F is 3717.42 for (2, 185) df, which is significant at 5% level. The individual and combined effects of each explanatory variable viz.  $X_2$  and  $X_4$  are tested with the help of the following ANOVA table.



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**Table – 6.21: Analysis of Variance- Due to  $X_2$  alone**

Source of variation (SV)	Degrees of freedom (df)	Sum of squares (SS)	Mean sum of squares (MSS)	F-ratio
Due to $X_2$ alone	1	436185.60	436185.60	11.83
Addition of $X_4$	1	373743.25	373743.25	10.14
Due to $X_2, X_4$	2	534357.00	267178.50	
Residual	185	36868.60	199.30	
Total	187	571225.60		

It is observed from the Table 6.21 that excepting the additional effect due  $X_2$  and  $X_4$ , all other cases prevalent in course of preceding analysis are significant.

The following table provides details regarding the percentage contribution of each explanatory variable  $X_2$  and  $X_4$  with the help of  $R^2$  in the group ( $Y: X_2, X_4$ ).

**Table-6.22: Percentage Contribution of Factors**

Factors	$X_2$	$X_4$	Total
% contribution	89.21	10.79	100.00

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**Table-6.23: Standard Error and T-Values of the Coefficients**

Coefficient	$\hat{\beta}_2 = 1.018$	$\hat{\beta}_4 = 1.168$
$SE(\hat{\beta}_i)$	0.021	0.029
t-values	49.490	40.204

**Table-6.24: Summary of Estimators; Corresponding Test Statistics for Model 6.3.**

Least Square Estimates	$\hat{\beta}_2 = 1.018$	$\hat{\beta}_4 = 1.168$
$SE(\hat{\beta}_i)$	0.021	0.029
t – value	49.490	40.204
F-value	5818.14	4985.24
Multiple correlation coefficient	$R^2 = 0.9355$	
Adjusted Multiple correlation coefficient	$\bar{R}^2 = 0.9348$	
Auto correlation coefficient & d-statistics	$\hat{\rho} = 0.3585$	d= 1.283
Coefficient of reliability	$r_{tt} = 0.978$	

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The coefficient of multiple determination in the group  $((Y: X_2, X_4)$  is 0.9343. This implies that the two explanatory factors jointly influence 93% of income generation of the sample households. So, it can be concluded from the above discussion that income primarily depends on labour and next depends on property. So the impact of the loan of the GB on income generation of the households of sample borrowers is not significant.

#### **6.4 Brief Summary of the Analysis**

In this chapter the changes undergone by the borrower households with GB credit in terms of different socio-economic indicators has been estimated by using both qualitative and quantitative techniques. From the qualitative analysis it is seen that except a few improvements in the condition of housing, there has occurred remarkable reduction in the amount of cultivable land, livestock, poultry and voluntary savings. The amount of other assets of the sample households has not changed significantly. The significant influence of GB has not been found in other socio-economic indicators. From the quantitative analysis regarding the contribution of GB credit in the total income generation of the sample household it is seen that the contribution of GB credit in total income is very insignificant.

## CHAPTER-7

### THE IMPACT OF GB LOAN ON WOMEN EMPOWERMENT

## CHAPTER-7

# The Impact of Grameen Bank on Women Empowerment

### 7.1 Introduction

One of the main objectives of the Grameen Bank is to remove the adverse socio-economic position of the rural women and thereby to empower them. This chapter estimates the effect of the programs of Grameen Bank on various indicators as to women empowerment in rural Bangladesh. The estimates show hardly any significant relationship between the Grameen Bank operations and a strong position of the rural women in question. The details of the impact-analysis of the Grameen Bank programs in this sphere are discussed below by using qualitative and quantitative tools.

#### 7.2.1 Qualitative Analysis

This section shows in pie-charts representing respective tables in appendix (A-7 pages 224-226) the estimated results of GB operation on rural women in the realm of self-employment, literacy status and vocational knowledge status. Moreover GB role in freedom of decision making in household, social, political affairs as well as raising the level of child-education, health, nutrition and contraceptive use are presented. The influence of GB operation in ameliorating mental and physical oppression, divorce, separation, early marriage of the children, dowry and polygamy are also examined.

##### 7.2.1.a Self-employment Creation

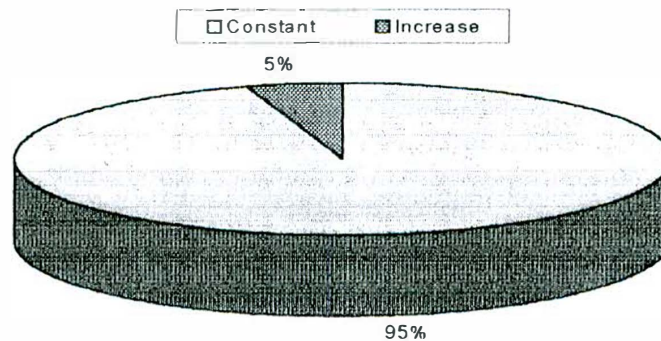
It is seen from pie-chart 7.1 that only 4.8% of the total borrowers could create self-employment opportunity after their enrollment in GB. On the other hand 94.8% of the total respondents could not start any kind of economic activities for their own employment.



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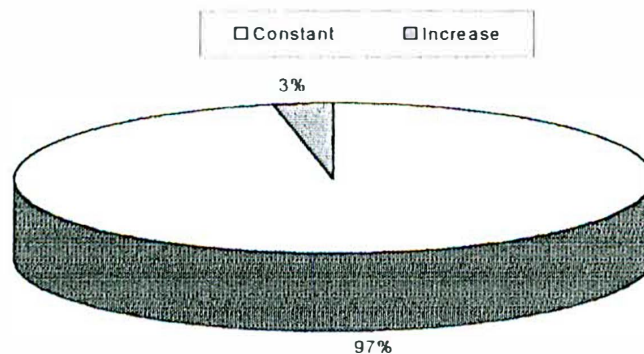
### The Impact of GB on Women Empowerment

**Chart-7.1: Self-employment Creation**



**7.2.1.b Literacy Status:** From pie-chart 7.2 it is seen that the literacy status of the female borrowers remains almost constant. It has improved in case of only 3.2% of the total respondents after joining the GB.

**Chart-7.2: Literacy Status**

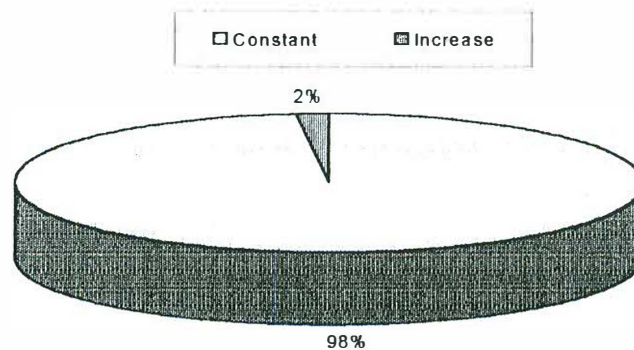


**7.2.1.c Vocational Knowledge Status:** From pie-chart 7.3 it is seen that GB's credit program could not help the borrowers to secure any kinds of vocational knowledge to make their earning sources easier.

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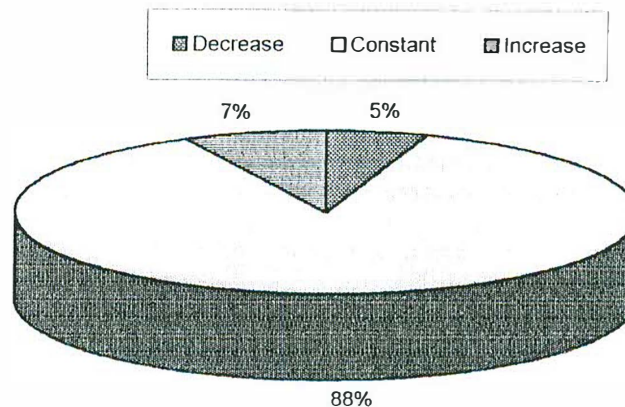
### The Impact of GB on Women Empowerment

**Chart-7.3: Vocational Knowledge**



**7.2.1.d Freedom in Household Decision Making:** From pie-chart 7.4 it is seen that freedom in household decision making has increased in case of only 7.4%, decreased in case of 5.3% and remained constant in case of 87.2% of the selected borrowers after joining the GB.

**Chart-7.4: Freedom in Household Decision Making**

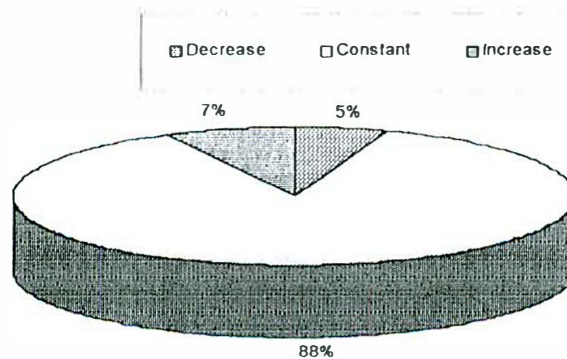


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### The Impact of GB on Women Empowerment

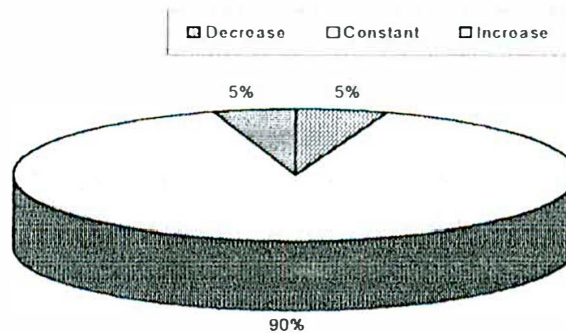
**7.2.1.e Freedom in Social Decision Making:** The pie-chart 7.5 reveals that the impact of the GB on the creation of social freedom for the borrowers is not significant.

**Chart-7.5: Freedom in Social Decision Making**



**7.2.1.f Freedom in Political Choice:** The freedom in political decisions of the women before and after their joining in the GB is shown in pie-chart mentioned below. It is seen that indicator remains almost the same before and after their joining in the GB.

**Chart-7.6: Freedom in Political Choice**

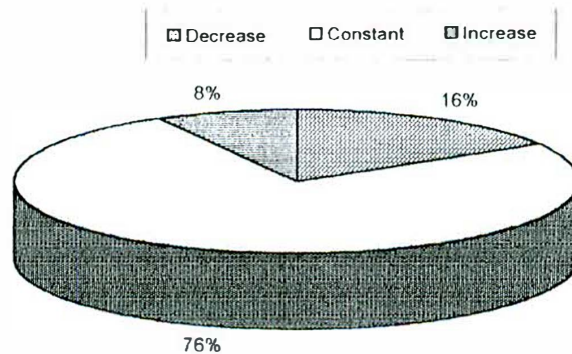


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### The Impact of GB on Women Empowerment

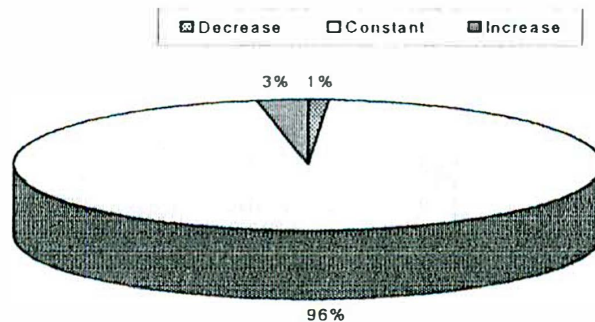
**7.2.1.g Freedom in Decision Making regarding Children's Education:** The following pie-chart reveals that the freedom of the female borrowers to educate the children has increased in case of 8% respondents whereas, it has decreased in case of 16.5% respondents after their joining the GB.

**Chart-7.7: Freedom regarding Decisions about Children's Education**



**7.2.1.h The Status of Legal Rights:** It is seen from the pie-chart 7.8 that the impact of the programs of the GB on the legal rights of the female borrowers is not significant.

**Chart-7.8: Respondents' Status of Legal Rights**

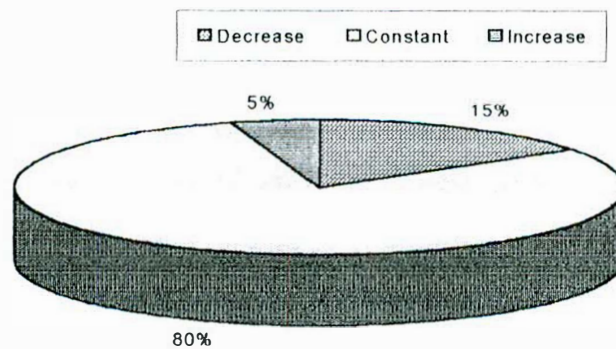


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### The Impact of GB on Women Empowerment

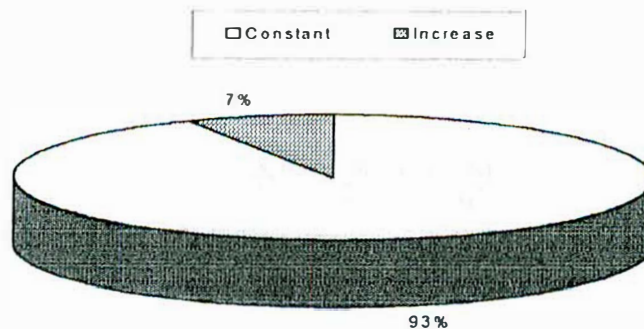
**7.2.1.i Health and Nutritional Conditions:** The pie-chart 7.9 shows that the health and nutritional conditions have deteriorated in case of 15.4% borrowers improved in case of 4.8% borrowers, which implies that the impact of the credit of the GB is not significant among the female borrowers.

**Chart-7.9: Health and Nutritional Conditions**



**7.2.1.j Level of Contraceptive Use:** From the pie-chart 7.10 below, it is seen that the use of contraceptives among the borrowers has not significantly increased after their joining the GB.

**Chart-7.10: Level of Contraceptive Use**



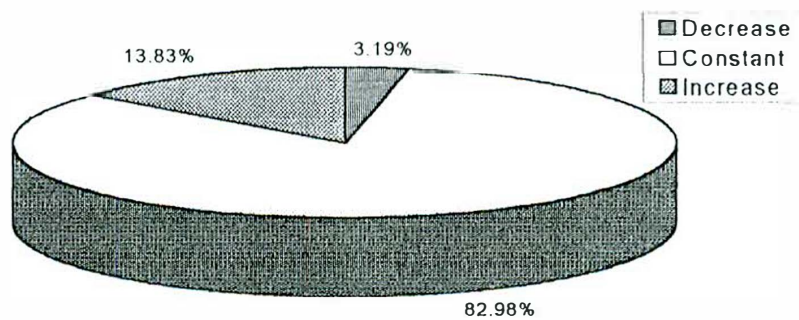


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### The Impact of GB on Women Empowerment

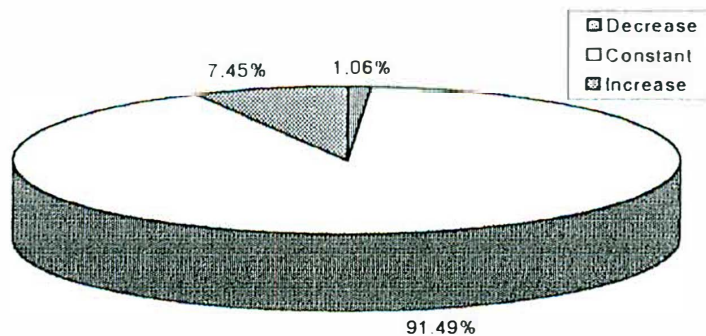
**7.2.1.k Changes in Mental Oppressions:** It is seen from pie-chart 7.11 that mental oppressions of female borrowers have increased after their joining the GB.

**Chart-7.11: Changes in Mental Oppressions**



**7.2.1.l Changes in Physical Oppressions:** The following pie-chart shows that the physical oppressions of female borrowers have increased after their joining the GB.

**Chart-7.12: Changes in Physical Oppressions**

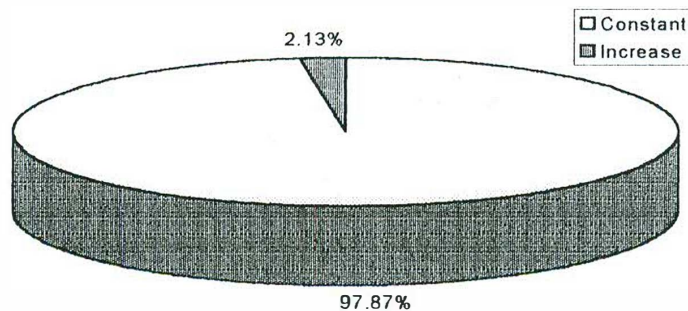


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### The Impact of GB on Women Empowerment

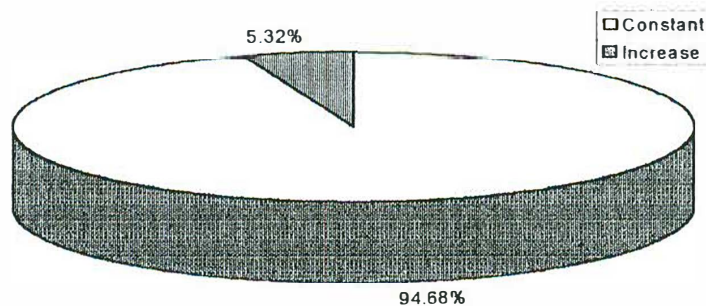
**7.2.1.m Divorce Cases:** It is seen from the pie-chart 7.13 that divorce cases have been increased in case of 2.10% female borrowers after their joining the GB.

**Chart-7.13: Divorce Cases among the Female Borrowers**



**7.2.1.n Separation Cases:** From the chart 7.14 it is seen that the situation of separation between husband and wife has increased after the borrowers joining the GB.

**Chart-7.14: Separation Cases**

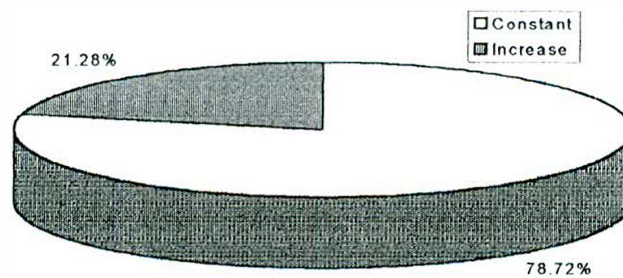


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### The Impact of GB on Women Empowerment

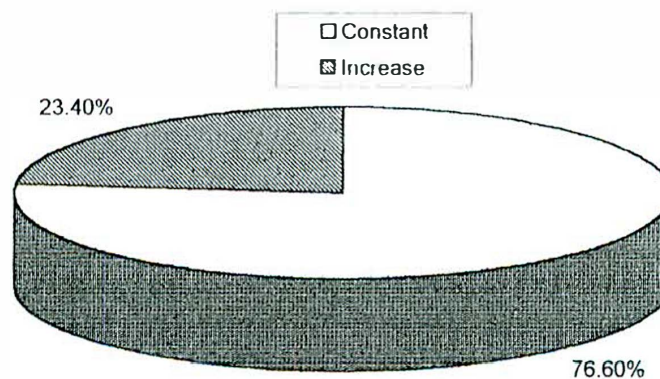
**7.2.1.o Level of Early Marriage of Female Children:** Pie-chart 7.15 shows that early marriage of female children of the respondents households has increased after joining the GB.

**Chart-7.15: Level of Early Marriage of Female Children**



**7.2.1.p Changes of Dowry:** It is seen from the pie-chart 7.16 that the dowry has increased among 23.4% of the respondents households after their joining the GB programs.

**Chart-7.16: Changes of Dowry**

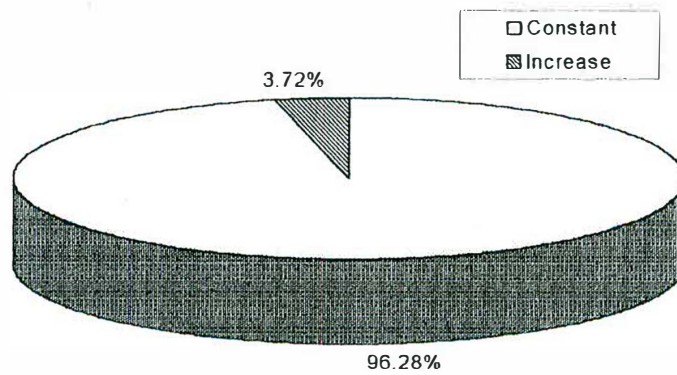


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### The Impact of GB on Women Empowerment

**7.2.1.q Husband's Polygamy:** It is seen from the pie-chart 7.17 that polygamy among the husbands of the female borrowers has increased after their joining the GB.

**Chart-7.17: Husbands' Polygamy**



### 7.3 Quantitative Analysis of the Impacts of GB Programs on Women Empowerment

Two types of statistical techniques have been used which are: Z-test and Correlation estimation, to show the impacts of GB on women empowerment on the basis of primary survey data.

**7.3.1 Z-Test:** To test the significance of the changes of different indicators of empowerment of the women of respondents households by GB credit, the hypothesis is

$$H_0 : P = 0$$

$$H_1 : H_0 \text{ is not true}$$

The test statistic is,

$$Z = \frac{P - \hat{P}}{\sqrt{\frac{\hat{P} \hat{Q}}{N}}} \sim N(0, 1)$$

Here,  $\hat{P} = \frac{n}{N}$  and  $\hat{Q} = 1 - \hat{P}$

Where

N = Number of total respondents

n = Number of respondents, whose socio-economic status has changed by GB credit.



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### The Impact of GB on Women Empowerment

**Table-7.1: Estimated Value of Z-a**

Status	Self – employment	Literacy status	Vocational knowledge status	Freedom in household level	Freedom in social level	Freedom in political level	Freedom in children's education	Health and nutrition	Contraceptive using
Increase	0.048	0.032	0.016	0.074	0.074	0.048	0.080	0.048	0.074
Constant	0.952	0.968	0.984	0.872	0.872	0.899	0.755	0.798	0.926
Decrease	0.000	0.000	0.000	0.053	0.053	0.053	0.165	0.154	0.000
Value of Z	0.154ns	0.194ns	0.282ns	0.074ns	0.118ns	0.118ns	0.113ns	0.154ns	0.118ns

\*Z= 1.96, Significant at 5% Level

**Table-7.2: Estimated Value of Z-b**

Status	Mental oppression	Physical oppression	Divorce	Separation	Early marriage	Dowry	Husbands multi-marriage
Decrease	0.032	0.011	0.000	0.000	0.000	0.000	0.000
Constant	0.830	0.915	0.979	0.947	0.787	0.766	0.963
Increase	0.138	0.074	0.021	0.053	0.213	0.234	0.037
Value of Z	0.076 ns	0.118 ns	-0.242 ns	-0.145 ns	-0.051 ns	-0.046 ns	-0.178 ns

\*Z= 1.96, Significant at 5% Level

From Z-values, which are shown in table 7.1 and 7.2 it is seen that the impacts of the credit of GB is not significant in terms of different socio-economic indices of women empowerment.

### 7.3.2 Correlation Analysis

In this section, correlation between the GB credit and various indicators of women are estimated in the following form.

$$r = \frac{\text{COV}(X, Y)}{\sqrt{V(X)V(Y)}}$$

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### The Impact of GB on Women Empowerment

And the test statistic is,

$$t = \frac{r\sqrt{n-2}}{\sqrt{(1-r^2)}} \sim t_{n-2}$$

**Table-7.3: Correlation between GB credit and the indicators, which are positively related to empowerment**

Status	SE	L	VK	FH	FS	FP	FCE	LR	HN	CU
Credit	0.054	0.114	0.065	-0.017	-0.057	-0.019	-0.014	0.007	-0.046	0.093
Sig.	0.230	0.090	0.189	0.216	0.162	0.211	0.212	0.460	0.123	0.102

**\* Correlation is significant at 0.05 level.**

Note: SE = Self employment; L = Literacy status; VK = Vocational knowledge status; FH = Freedom in household level; FS = Freedom in social level; FP= Freedom in political level; FCE = Freedom in children's education; LR = Legal rights; HN = Health and nutrition; CU = Contraceptive use

**Table-7.4: Correlation between GB credit and the indicators, whose negative change enhance women empowerment**

Status	MO	PO	DI	SE	EM	DO	HM
Credit	0.301*	0.221*	0.215	0.027	0.227*	0.029	0.135
Sig.	0.040	0.053	0.092	0.162	0.051	0.151	0.212

**\* Correlation is significant at 0.05**

Note: MO = Mental oppression; PO = Physical oppression; DI = Divorce; SE = Separation; EM = Early marriage; DO = Dowry; HM = Husbands, polygamy.

## **Chapter-7**

### **The Impact of GB on Women Empowerment**

From the table 7.3 and 7.4 it is seen that the correlation between GB credit and different socio-economic indicators which are defined in the methodology as the measure of women empowerment is not significant.

#### **7.4 Brief Summary**

Women empowerment is shown as one of the vital objectives of GB and 100% GB borrowers of the sample area are women. In the present chapter, the changes of women empowerment in terms of various socio-economic and socio-political indices have been examined by using both the qualitative and quantitative techniques. From the estimated results it is seen that the impacts of GB on the goal of women empowerment is not significantly positive. Moreover position of women has deteriorated in some cases after their joining the GB.

## CHAPTER-8

### THE SOCIO-ECONOMIC CONDITION OF THE DROPOUT BORROWERS

## CHAPTER-8

### THE SOCIO-ECONOMIC CONDITION OF THE DROPOUT BORROWERS

#### 8.1 Introduction

During field survey it is seen that a huge number of borrowers have been dropped-out from GB. In the present chapter attempts have been made to examine the nature and causes of dropout. The length of membership in the GB and the socio-economic changes of the sample dropout households during the period of using GB credit have also been analyzed here.

**8.2.1 Age Structure of the Respondents:** The age structure of the dropout members is shown in table 8.1

**Table-8.1: The Age Structure of the Dropout Borrowers**

Age in years	At the time of leaving GB		At the time of joining GB	
	No. of Respondents	Percentage	No. of Respondents	Percentage
Up to 30	00	00.00	01	03.33
31-40	12	40.00	17	56.67
41-50	17	56.67	12	40.00
51 and above	01	03.33	00	00.00
Total	30	100.00	30	100.00

**Source: Field Survey**

From the above table it is seen that majority of the dropout borrowers were over aged during joining and using GB loan.



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### The Socio-economic Condition of the Dropout Borrowers

**8.2.2 Marital Status of the Respondents:** The Marital status of the dropout borrowers is shown in the following table.

**Table-8.2: Marital Status Respondents**

Marital Status	At the time of leaving GB		At the time of joining GB	
	No. of Respondents	Percentage	No. of Respondents	Percentage
Unmarried	00	00.00	00	00.00
Married	19	63.33	26	86.67
Separated / Deserted	03	10.00	01	03.33
Widow	04	13.33	03	10.00
Divorcee	04	13.33	00	00.00
Total	30	100.00	30	100.00

**Source: Field Survey**

Table 8.2 reveals that divorce and separation has increased among the dropout borrowers after their enrollment in the GB, which indicates that the status of the dropout women were degraded after their joining the GB.

**8.2.3 Occupation of the Respondents:** The occupation of the respondents is shown in the table 8.3

**Table-8.3: Occupation of the Respondents**

Occupations of the dropout borrowers	At the time of dropping		At the time of joining	
	Number of respondents	Percentage	Number of respondents	Percentage
Only Housewife	24	80.00	28	93.93
Housewife and Housemaid	04	13.33	01	03.33
Daily labourer	02	06.67	00	03.33
Total	30	100.00	30	100.00

**Source: Field Survey**

## Chapter-8

### The Socio-economic Condition of the Dropout Borrowers

It is seen from the above table that most of the respondents were only housewives at the time of joining and leaving the GB. Although a very few of the total respondents were found to be employed after joining the GB, the field of these employment is independent of GB loan.

**8.2.4 Amount of Cultivable Land Owned by the Respondent Households:** The amount of cultivable land owned by the households of the dropout borrower is shown in the following table.

**Table-8.4: Amount of Cultivable Land Owned by the Respondent Households**

Amount of land owned by the respondents households	At the time of dropping		At the time of joining	
	No. of respondents	Percentage	Number of respondents	Percentage
Below 50 decimals	24	80.00	22	73.33
51-100 decimals	06	20.00	08	26.67
Total	30	100.00	30	100.00

**Source: Field Survey**

Table 8.4 shows that 73.33% and 80% of the sample households were functionally landless at the time of joining and leaving the GB respectively.

**8.2.5 Occupations of Households of the Dropout Borrowers:** The Occupation of the dropout borrowers at the time of joining and leaving the GB respectively, is shown in the following table.

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### The Socio-economic Condition of the Dropout Borrowers

**Table-8.5: Occupations of Respondent Households**

Occupation of the respondents households	At the time of leaving GB	At the time of joining GB
Only Agriculture	01 (03.33)	02 (06.67)
Agriculture and daily laboring	19 (63.33)	21 (70.00)
Petty business	03 (10.00)	02 (06.67)
Rickshaw and Van pulling	06 (2.00)	05 (16.67)
Total	30 (100.00)	30 (100.00)

**Source: Field Survey**

- **Figure in parenthesis shows the percentages**

From the above table it is seen that the occupation of the households of the respondents remained almost constant at the time of joining and leaving the GB respectively.

**8.2.6 Duration of Using GB Loan:** The period for which the borrowers could continue the membership in GB is shown in table 8.6

**Table-8.6: Duration of Using GB Loan**

Years	Number of Respondents	Percentage
Below 5 years	01	03.33
5-6 years	14	46.67
6-7 years	09	30.00
8years or more	06	20.00
Total	30	100.00

**Source: Field Survey**

Table-8.6 shows that major part of the dropout borrowers could continue the membership of the GB for a period below five years.

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### The Socio-economic Condition of the Dropout Borrowers

**8.2.7 Nature of Dropout:** The nature of dropout of the selected borrowers is shown in the following table.

**Table-8.7: Nature of Dropout**

Nature of dropout	Number of Respondents	Percentage
Willingly stopped borrowing	01	03.33
Expelled by GB	29	96.67
Total	30	100.00

**Source: Field Survey**

Table-8.7 shows that 96.67% of the respondents were expelled by GB, and the rest 3.33% respondents stopped GB borrowing willingly.

**8.2.8 Causes of Expulsion:** The causes of expulsion the respondents by GB are shown in table 8.8

**Table-8.8: Causes of Expulsion**

Causes of expulsion	Number of Respondents N=28	Percentage
Inability to repay weekly installments	28	100.00
Violation of other discipline	00	00.00
Others	00	00.00
Total	28	100.00

**Source: Field Survey**

Table-8.8 reveals that all of the respective borrowers were expelled by the GB due to inability to repay the weekly installments in time.

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### The Socio-economic Condition of the Dropout Borrowers

**8.2.9 The Number of Installments Failure before Expelled from GB:** The number of weekly installment failures for which the borrowers were expelled from GB is shown in the following table.

**Table-8.9: The Number of Installments Failed to Repay Before Expelled from the GB**

Number of Installments	Number of Respondents	Percentage
01	27	90.00
02	02	06.67
03 or more	01	03.33
Total	30	100.00

**Source: Field Survey**

It is seen from table 8.9 that among the dropout borrowers, 90% were expelled by the GB due to the failure of only one weekly installment.

**8.2.10 Number of Respondents, who got Notice before Expulsion from GB:** The number of respondents who got notice before expulsion from GB is shown in the following table.

**Table-8.10: Number of Respondents, who got Notice before Expulsion**

Information	Number of Respondents	Percentage
Got notice	29	96.67
Did not get notice	01	03.33
Total	30	100.00

**Source: Field Survey**

From the above table, it is seen that majority of the expelled members did not get any previous notice regarding their dismissal from GB.



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### The Socio-economic Condition of the Dropout Borrowers

**8.2.11 Information Regarding Share and Dividends:** It is seen during field survey that no dropout borrowers got share certificates or dividends against their membership in GB. Even GB does not maintain any relation with these dropout borrowers.

**8.2.12 Amount of Unpaid Loan:** The amount of unpaid loan, for which the respondents were expelled from GB is shown in the following table.

**Table-8.11: Amount of Unpaid Loan**

Amount in TK.	Number of Respondents	Percentage
Up to 1000	02	06.67
1001-2000	15	50.00
2001-3000	07	23.33
3001-4000	04	13.33
More than 4000	02	06.67
Total	30	100.00

**Source: Field Survey**

Table 8.11 shows the amount of unpaid loan of the expelled respondents at the time of their leaving the GB. It is seen that the amount of unpaid loan was upto TK. 1000, TK. 1001-2000, TK. 2001-3000, TK. 3000-4000 and more than TK. 4000 for 6.67%, 50%, 23.33%, 13.33% and 06.67% of the respective borrowers.

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### The Socio-economic Condition of the Dropout Borrowers

**8.2.13 Sources of Repayment of the Unpaid Loan:** The sources of repayment of unpaid GB loan by the dropout borrowers are shown in the following table.

**Table-8.12: Sources of Repayment of the Unpaid Loan**

Sources of repayment	Number of Respondents	Percentage
Adjustment with the obligatory savings, that was deposited in GB	20	86.67
Selling assets	04	03.33
Did not repay	00	00.00
Borrowing from other sources	06	10.00
Total	30	100.00

**Source: Field Survey**

Table 8.12 reveals that GB recovered the unpaid loan by adjusting it with the obligatory savings that were deposited by the respondents in GB fund.

**8.2.14 Amount of Obligatory Savings:** The amount of obligatory savings deposited by the respondents to GB till losing the membership is shown in the following table.

**Table-8.13: Amount of Obligatory Savings**

Level of obligatory savings	Number of Respondents	Percentage
Up to 1000	02	6.67
1001-2000	10	33.33
2001-3000	14	46.67
3001-4000	04	13.33
Total	30	100.00

**Source: Field Survey**

## Chapter-8

### The Socio-economic Condition of the Dropout Borrowers

Table 8.13 shows that the amount of obligatory savings deposited by the respondents till their dropout from GB were more than Taka 2000 in most of the cases.

**8.2.15 Amount of Loan used from GB:** the amount of loan used by the respondents until their dropout from GB is shown in the following table.

**Table-8.14: The Amount of Loan used from GB**

Amount of borrowing in TK.	Number of Respondents	Percentage
Up to 20000	06	20.00
20001-30000	08	26.67
30001-40000	16	53.33
Total	30	100.00

**Source: Field Survey**

It is seen from the table 8.14 that most of the dropout borrowers used more than Taka 30000 GB loan before their dropout from GB .

**8.16 Information Regarding Borrowing on Interest:** The use of non-institutional loan on interest by expelled borrower households before and after joining the GB is shown in the following table.

**Table-8: 15 Information Regarding the Borrowing on Interest**

Information regarding borrowing on interest	Before Joining the GB		After Joining the GB	
	Number of Respondents	Percentage	Number of Respondents	Percentage
Did not Borrow on interest	29	96.67	16	53.33
Used to Borrow on interest	01	03.33	14	46.67
Total	30	100.00	30	100.00

**Source: Field Survey**

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### The Socio-economic Condition of the Dropout Borrowers

From the table 8.15 is seen that the use of non-institutional loan on interest has increased among the borrowers after their joining GB.

**8.3 Changes in the Amount of Assets of the Households of Dropout Borrowers:** The changes that occurred in the level of assets of the households of the expelled borrower during the use of GB loan is shown in the following table.

**Table-8.16: Changes in the Level of Assets**

Type of assets	Increase	Decrease	Constant
Cultivable land	00	05 (16.67)	25(83.33)
Homestead	00	02 (06.67)	28 (91.33)
Dwellings	00	01 (03.33)	29 (96.67)
Livestock	00	06 (20)	24 (80)
Poultry	00	25 (83.33)	05 (16.67)
Furniture and home articles	00	12 (40)	18(60)
Capital goods	00	02 (06.67)	28(91.33)
Investment in business	00	08 (26.67)	22(73.33)

**Source: Field Survey**

It is seen from the table 8.16 that the amount of assets reduced among the expelled borrower households while using GB loan.

## **8.4 Brief Summary**

From the foregoing analysis, it is seen that GB expelled all of the dropout borrowers due to their inability to repay the weekly installments of loan. Like the active borrowers, all of these expelled borrowers were found to be female and majority of them were over aged. Majority households of these dropout borrowers were functionally landless. Most of these respondents had used GB loan for a period of more than five years before leaving GB. No positive impact of GB loan was found on the borrowers and their dependents in terms of self-

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### **The Socio-economic Condition of the Dropout Borrowers**

employment and income generation. The amount of all other assets has found to be reduced among the most households of these dropout borrowers during the use of GB loan.



CHAPTER-9

SUMMARY AND RECOMMENDATIONS

## CHAPTER-9

### SUMMARY AND RECOMMENDATIONS

#### **9.1 Summary of the Findings**

As the economy of Bangladesh is characterized by agricultural activities and majority of the people are rural dwellers, all developmental efforts of the GOB, NGOs and others, in the last three decades, have been pivoted mainly around agrarian sector. Lack of financial facility is the main constraints of rural poor to create self-employment and income-generating activities. Although the government initiated some specialized credit institutions viz, BKB, RAKUB, BRDB, BASIC, BSBL, BSS, KSS, MBSS, SACP, VGDP etc, alongwith nationalized commercial banks to meet the financial problem of the rural poor, these institutions could not provide adequate credit facility to match the expanding demand of rural people. On the other hand, after the war of independence, a host of MF-NGOs emerged and started operating credit programs among the rural poor; their main emphasis being on the non-farm economic activities to eradicate massive rural poverty. Grameen Bank is the leading one, which emerged as miracle in 1976 with a great promise to uplift the socio-economic condition of the rural poor through providing them soft loan and developmental supports simultaneously. Now, Grameen Bank and other MF-NGOs, as various statistics shows, have covered in the meantime the majority of the poor households all over the country. And all of them claim a tremendous success of their credit programs in the areas of self-employment creation, income generation as well as reducing the dependency of rural poor on informal moneylenders. But neither statistics, nor visible qualitative and quantitative changes in rural socio-economic condition vindicate their claims. Although GB shows more than 500 activities, most of which are agrarian non-farm activities to be performed with their credit, the contribution of agriculture and small manufacturing sector in GDP is declining over time. No significant and sustainable improvement of rural poverty and unemployment situation has been

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### **Summary and Recommendations**

seen in the last two decades. Country's human development index has also been found to be declining over time.

To justify the claims of the proponents regarding the miraculous success of GB-model of credit programs, the present study was undertaken to examine the performance of GB's credit program both from the borrower and lender sides. To achieve a desired goal, the features, management system, expansion and coverage, interest earnings, velocity of credit creation and external advantages received by GB are examined here to appraise viability of lending side. On the other hand the cost of credit, utilization of credit in terms of the creation and sustainability of income earning activities, dependence on informal moneylenders, human development and other socio-economic position including women empowerment have been taken into account to evaluate borrowers viability. Estimation of the effective cost of GB credit, GB's pattern of capital formation and return from lending, the performance of the borrower and their dependants with GB credit in terms of different socio-economic indicators of empowerment, separation of the contribution of GB credit from other factors of income generation and the nature, extent and present condition of dropout borrowers were the major objectives of the study.

In Chapter Two, the main literatures regarding GB credit programs were reviewed. It is seen that the most of the early studies showed huge activities (more than 500 activities) to be done by GB credit and showed tremendous success of GB in the realm of self-employment, education and human development, savings generation, women empowerment etc. Some optimists showed that GB borrower needs five and eight years on an average to cross over the poverty line and to achieve economic solvency respectively. On the other hand some renowned economists and academics showed doubt about the long-run impacts of GB-model of MC on the economy. Inadequate loan size, High cost of borrowing, slower progress of rural non-farm sectors, low level of per capita calorie intake among the borrower households in comparison with non-borrower poor households etc, were mentioned as the causes of their

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### **Summary and Recommendations**

apprehensions. However, some important issues were omitted or not examined in depth in the previous studies, which are: the actual cost borne by borrower, GB's return from lending, whether or not GB could reach actual target groups, the activities of GB members in groups and centers, GB's contract with the members regarding shares and dividends, the influences of autonomous and non-credit factors in total income generated by the borrower households, whether or not the GB loan is utilized in the fields which is shown by GB to be done by loan, whether or not these GB borrowers borrowed before from informal sources on interest, nature and extent of dropout, overlapping situation and the actual contribution of GB regarding social capital formation for future generation. These gaps of the previous researches justified the need of the present study.

In Chapter Three, the methodology that is adopted for the present study has been explained. Some indicators have been defined to measure the socio-economic success of borrower households. As to the choice of the study area, five GB branches under Rajshahi Zone is purposefully selected, because this area is one of the most successful operational area of GB and relatively more convenient for the borrowers to perform better with GB loan. Both primary and secondary sources of data have been used in the study. The active GB borrowers, dropout GB borrowers and GB officers were taken as the primary data sources, which are the main inputs of the study. Three sets of questionnaire: set-1 for active borrowers, set-2 for the dropout borrowers and set-3 for GB officers were prepared through which the particular respondents have been interviewed in a cordial atmosphere. For the collection of primary data, 188 active and 30 dropout GB borrowers were selected randomly from five branches under Rajshahi Zone. 10 GB officers including the managers of the respective branches were also interviewed. A continuous observation over the respondents was maintained during survey time. Secondary data were collected from various publications and reports of the Grameen Bank, government, non-government



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and international organizations through library work. Statistical and econometric tools were used to estimate and show the result of the study.

From the detailed analysis of Chapter Four it is seen that GB has established a wide-ranging network of group-based micro-credit program in rural Bangladesh. Till September 2000, GB disbursed a total of TK. 1,26790 million among 3.37 million borrowers, of whom almost 95% are female. The average rate of loan recovery is 93%, which, in the sample area has been found to be 98%. Apart from hill-tracts, all rural areas of Bangladesh have been covered by GB in the meantime. Although some organizations like BRDB, BRAC etc started micro-credit programs in the rural areas before the inception of the GB, GB introduced a very special type of credit program which is characterized by some features as: group liability, weekly repayment of loan with interest and an obligation to deposit savings to institution and so on. From the analysis of capital formation pattern it is seen that GB is vastly advantaged in terms of grants and concessional loan from domestic and international sources in the early stage. The weekly recovery and obligatory savings deposits of the borrowers to GB together with the external advantages mentioned above have played vital role behind GB's rapid expansion.

The obligations of weekly repayment and savings deposits to GB make the borrower's scope limited to use the full amount of loan for a reasonable period to generate sustainable self-employment and income by the borrowers and their dependants. On the other hand it enhanced GBs gross profit earning by creating higher velocity of credit creation. From the rapid expansion of GB's credit program, it can be assumed that there is no problem in demand side. If the demand for GB loan is perfectly elastic, then the velocity of GB's credit creation stands at 353% (Appendix, P-222). The rate of effective cost of credit borne by the borrowers is 33% (Appendix, P- 220) and the gross rate of return of the GB from lending is 253% (Appendix, p-222). So, the interest rate of micro-credit of GB-Model is not low and GB is seen as a viable profit making institution.



## **Chapter-9**

### **Summary and Recommendations**

It is seen that inspired by the tremendous success shown by GB a huge number of governmental, Government supported and non-governmental organizations have started micro-credit programs. Till December 1999 a total of TK. 92436 million has been disbursed by only 533 large NGOs among 9.44 million borrowers of whom almost 95% are female and the government, government supported organizations including the commercial banks have disbursed a total of TK. 89408.7 million among the rural poor. It is seen that except the governmental and government supported organizations including CBs, almost all other MFIs are following GBs method regarding loan disbursement and recovery. So like GB, all of these micro-credit institutions enjoy higher rate of return from their money lending. //

Although the borrowers are mentioned as the owner of GB, no certificates of shares or dividend against shares have been found to be given to the member borrowers in the sample branches. A huge number of members are dropping out every time from the credit course of GB, which has been found @ 44% on an average among the sample branches. GB does not maintain any relationship with this dropout borrowers, even the sample branches have not been found to maintain any records regarding these dropout borrowers properly.

GB gives only 8.5% interest on various savings deposits of the borrowers including the share values paid by the borrowers, which is calculated on the average balance of savings deposits by borrowers. No certificate of shares or dividend against share value has found to be distributed among the member borrowers by GB. So, it is a deep irony to show the member borrowers as the owner of GB. Virtually, the borrowers have no relation with the ownership of GB. It is to be mentioned here that except GB, no other MFIs are showing their borrowers as the owner of shares and dividends.

## **Chapter-9**

### **Summary and Recommendations**

In Chapter Five, the primary data regarding the entire delineation of the borrower and their households have been analyzed in details. From the individual profiles it is seen that GB does not select the most potential group of people in terms of age, gender, education, marital status, vocational knowledge etc. It is seen that 69% of the borrowers have been found to be over-aged. No male members and unmarried or divorcee youth women have been found to be chosen by GB as borrower. Moreover, most of the borrowers still remain illiterate and unskilled as before. Self-employment and income earning of the borrowers have not been found to have changed with the credit of GB within an average period of seven years. So the impact of the GB programs is not insignificant on the borrowers personal profiles.

Maximum number of borrower households have been found to be nuclear types and headed by male members. Only 38% borrower households were landless during enrollment in the GB, which at present stands at 43%. The status of the borrower households regarding education, vocational knowledge and self-employment in entrepreneurial and business activities have been seen to have remained almost unchanged after joining the GB. The amount of cultivable land owned by the borrower households has been seen to have decreased after their joining the GB. Amount of cultivable land used by the borrower households in terms of lease-in and sharecropping remain almost constant which indicates that the sample households could not extend the field of agricultural production by GB loan. The number of male daily labourers has increased significantly among the sample households. It is seen that although a few of the total households have created small size business as the secondary occupation along with the primary ones, the principal occupation remained almost constant in most cases. The amount of household assets like poultry, livestock, voluntary savings etc, has decreased in most of the cases after the borrower's enrollment in the GB. The condition of houses of a few borrowers has improved after their joining the GB.

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### **Summary and Recommendations**

It is seen that major part of the borrowers did not utilize the credit in productive purpose i.e, only 9.57% and 7.45% borrowers have been found to have used full amount of GB loan on the purposes which were shown to GB during loan sanction in the very first year and the survey year respectively. On

the other hand, a total of 45.22% and 60.10% borrower households did not use GB loan at all on productive purpose in the respective years. The proportion of GB loan used in productive purpose has also been seen to have reduced with the length of borrowing.

The trend of borrowers overlapping between different micro-credit institutions has been found to be rampant. Almost 52.13% households of the borrower have been found to borrow simultaneously from more than one source. Whereas most of the borrower households did not take loan from any sources on interest before joining the GB.

The repayments of GB loan by the borrower households are made mainly from other sources, because their profit earning from the activity run by GB loan is insignificant. Some of the borrower households have been found to repay loan installments from the ready cash taken from GB and by selling assets in the first and last quarter of the season respectively.

The size of loan has been found to be inadequate in order to meet borrowers' demand. From the nature of borrowers interaction in group, it is seen that group members are helping the GB about loan recovery, rather than helping each other for socio-economic progress. So, GB loan is not collateral free actually as a group of people takes responsibility for GB's loan recovery, which is more powerful than material collateral. No effective non-credit development supports were found to have been received by the respondents and the development slogans of GB including 16-decisions have not been found to induce the borrower households significantly.

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### **Summary and Recommendations**

In Chapter Six, the socioeconomic changes among the borrower households after the use of GB loan for a period of 7 years on an average, have been measured. Both the quantitative and qualitative techniques have been applied to estimate and reveal the findings. The amount of annual income has increased in case of 59% of the borrower households, it has remained constant and decreased in case of 28% and 13% households respectively.

The contribution of credit in total income generated by the borrower households, which has been separated from other factors by using step-wise regression model is seen to be insignificant. The income generation of borrower households primarily depends on labour income and thereafter on property, which are independent to GB credit. From qualitative estimation it is also seen that the impact of GB loan on the different socio-economic indices of households empowerment is insignificant. An increasing trend has been found in early marriage of female children, dropout of the children from school and dowry exchange. The amount of per capita calorie intake is also found to have reduced among the borrower households during the use of GB credit.

In Chapter Seven, the impacts of GB programs on the female members of borrower households in terms of various socio-economic indicators of empowerment have been estimated by using both the qualitative and quantitative techniques. The results of Z-test and correlation analysis do not imply any significant and positive impacts of GB credit on women empowerment. Moreover, from the qualitative results, which is shown in pie-charts, it is seen that the women status in respect to mental and physical oppressions, dowry, early marriage etc have deteriorated after the borrowers' enrollment in the GB.- A very few of the female borrowers were found to handle the credit on their own. Almost in all cases the borrowers transfer the loan to male members immediately after receiving it. Even in most cases the female borrower could not even apply their opinion regarding the use of credit. As a result the opportunity of



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### **Summary and Recommendations**

self-employment has not been created for the female members including the borrowers among the sample households after their joining the GB.

From the field survey it is seen that on an average 43% of the total member borrowers of the sample branches were dropped-out till the survey time. And the branch level data indicate that the number of borrowers is decreasing with the length of time. In Chapter Eight, the causes and extents of dropout and the present socio-economic conditions of dropout borrowers are analyzed. From the analysis, it is seen that 94% of the dropout borrowers were expelled by the GB due to the incapability to repay the weekly installments. It is seen that most of the dropout borrowers belonged to landless and assetless households before joining GB. No positive and significant improvement has been found among the households of the dropout borrowers during their use of GB loan. Moreover, the amounts of assets of those dropout households decreased remarkably in the period of the use of GB loan and the overall indebtedness has also increased. The trend of separation and divorce has increased in the households of those dropout borrowers after their joining the GB, which indicate that the impact of GB credit on the empowerment of dropout borrowers is also insignificant.



## **9.2 Conclusions**

From the findings of the study following conclusions can be drawn.

- ♦ *GB has established in the rural areas a strong parallel money market, which is actually usurious type in nature.*
- ♦ *GB could not reduce the dependence of the rural poor on informal moneylenders.*
- ♦ *It has not been able to select the targeted landless and assetless rural people.*
- ♦ *The extent of self-employment creation by the borrowers and their dependants with GB loan is insignificant in comparison with the extension of the credit programs.*
- ♦ *There is no relationship between GB and its borrowers regarding ownership of GB.*
- ♦ *The weekly recovery of GB loan is not significantly generated from the return of GB credit.*
- ♦ *The contribution of GB credit in the total income generated by the borrower households is negligible.*
- ♦ *GB credit has no significant impact on traditional rural power structure.*
- ♦ *GB credit is not actually collateral free; group responsibility becomes collateral against the loan.*
- ♦ *Female borrowers have no significant control over the use of loan.*
- ♦ *The trend of dropout increases in branch level with the age of branch.*
- ♦ *The impact of developmental slogans of GB on the borrower households is insignificant.*
- ♦ *The credit program of GB is hardly related to education and human development.*
- ♦ *GB faces a competition from other MFIs and majority GB borrowers are also using loan from similar institutions simultaneously.*
- ♦ *MC of GB-model increased rural indebtedness.*

### **9.3 Recommendations**

To make GB programs effective, some policy prescriptions are suggested here.

1. GB should start recovering the loan after six month from disbursement and installments should be monthly, so that the borrowers can have a reasonable time to generate some income before starting to repay.
2. GB should lower the interest rate on lending and interest rate should be calculated according to reducing balance method.
3. Size of loan must be raised initially to at least Tk. 15000 in order to fulfill the demand of the borrowers.
4. GB should provide loan in terms of capital goods and basic vocational training in the initial stage rather than giving loan in cash.
5. To ensure the ownership of the member borrowers in GB, the certificate of shares must be distributed among the member borrowers and dividends of share should be calculated against shares in every year. The ownership of the dropout borrowers should also be preserved.
6. To avoid undesirable situation of overlapping, the operational areas of different MCIs should be strictly separated.
7. Instead of opening new branches, GB should focus on the existing ones and work intensively in order to eliminate poverty drastically.
8. To achieve the objectives of education and human development, borrower households should be given interest-free education loan from the obligatory savings deposit fund of the borrowers in GB.
9. One technical expert must be appointed in each of the branches to provide vocational knowledge among borrower households and supervise the activities run by GB loan.

<p style="text-align: center;"><b>Chapter-9</b> <b>Summary and Recommendations</b></p>
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10. Both male and female youth, literate and potential persons of poor households must be undertaken into credit program to make the loan more effective.
11. The correct statistics regarding dropout must be maintained and published in every annual report of GB.
12. GB needs to make a comprehensive effort with the agents of local government to identify the actual poorest borrowers and avoid overlapping in different MCIs.
13. Government should monitor entire flow of GB funds including the fields of its sister organizations.
14. A certain percentage of the total employees of GB and its sister organizations must be selected from the borrower households.
15. The overall impacts of NGO activities in micro-credit programs on national economy need to be studied.

## BIBLIOGRAPHY

## BIBLIOGRAPY

- Abdullah, A. eld. (2001), *Bangladesh Economy 2000: Selected Issues*, Bangladesh Institute of Development Studies, Dhaka.
- Ahmed, M. U. (1984), "Financing Rural Industries in Bangladesh", Institute of Development Studies, Dhaka, Vol. 12, No.1&2, P. 59-79
- Ahamed, R. (1983), *Financing the Rural Poor: Obstacles and Realities*, University Press Limited, Dhaka.
- Ahamed, S. (1993), "A Comparative Analysis of Rural Formal and Informal Credit Market in Some Selected Areas of Bangladesh", Journal of Business Studies, Dhaka. Vol. 14, No-1. P. 35-47.
- Ahamed, Z. (1987), "Supervision of Rural Credit", Bank Parikrama, Dhaka, BIBM, Vol.12, No. 3&4. P. 21-39
- Ahhmed, Q.K. (1987), *Employment Creation in Rural Bangladesh: Policies and Programme*, Dhaka, BIDS.
- Ahmad, R.S. (1983), *Financing the Rural Poor: Obstacles and Realities*, University Press Limited, Dhaka.
- Ahmed I. U. (1991), *Crises of Credit Management*, Ruprekha Publishers, Dhaka.
- Ahmed, Z. U. (1986), Effective Cost of Rural Loans in Bangladesh, Economics and Sociology- Occasional Paper No.1315, Dhaka.
- Akler, S. (1996), " Rural Women in Micro Credit Programmes for Poverty Alleviation in Bangladesh: Participation and Constraints to their Activities", Dhaka, BIBM, Vol. 21, No. 3&4, P. 78-102.
- Ali, A., I. S. Faizul and Kuddus, R. eld. (1996), *Development Issues of Bangladesh*, et al, UPL, Dhaka.
- Amin, R., M. Kabir and Chowdhury, J. (1995), " Impact of Poor Women's Participation in Credit-based Self- Employment on their Empowerment, Fertility, Contraceptive use and Fertility Desire in Rural Bangladesh", Pakistan Development Review, Vol. 34, No. 2. P. 52-67.



## BIBLIOGRAPHY

- Amin, R. (1997), *Development Strategies and Socio-Demographic Impact of Non-Governmental Organizations: Evidence from Rural Bangladesh*, UPL, Dhaka.
- ASA, 1997-1999, Annual Reports, ASA, Mohammadpur, Dhaka.
- Baker, M. A. (1996), "Experiences of Some Special Credit Programmes in Bangladesh Targeting Women", *Bank Parikrama*, BIBM, Dhaka, Vol. 21, No. 3&4. P. 61-64.
- Bakht, Zahir (1948), "Entrepreneurship in Bangladesh", *BIDS*, Vol. 12, No-1&2, P. 25-57
- Bangladesh Bank (1999), *Annual Report, 1998-'99*, Bangladesh Bank, Dhaka.
- Bangladesh Bureau of Statistics ((1991c), *Report on the Household Expenditure Survey (August 1991)*, Government of Bangladesh, BBS, Dhaka.
- Bangladesh Bureau of Statistics (1996), *Report on the Household Expenditure Survey, 1995-'96*, Government of Bangladesh, BBS, Dhaka.
- Bangladesh Bureau of Statistics (1996), *Rural Poverty Monitoring Survey*, Government of Bangladesh, BBS, Dhaka.
- Bangladesh Bureau of Statistics (1984-1999), *Various Issues, Statistical Yearbook*, Government of Bangladesh, BBS, Dhaka.
- Bangladesh Bureau of Statistics (1985), *Agriculture Census*, Government of Bangladesh, BBS, Dhaka.
- Basher, A. (2000), "Enchantment and Disenchantment: The Case of Micro-credit in Poverty Alleviation in Bangladesh", Conference Program and Summary of Papers, 13<sup>th</sup> Biennial Conference; August, 10-12, Bangladesh Economic Association, Dhaka.
- Bell, C. (1990), " Interactions between Institutional and Informal Credit Agencies in Rural India", *The World Economic Review*, Vol. 4, No.1.
- Bergmann, B.R.and J. Abedin (1973), "The Economic Role of Women", *American Economic Review*, Vol. 63, P. 509-514.

## BIBLIOGRAPHY

Bhuiyan Z. R., Rahman, H. and N. Islam (1996), *Population and family Planning Research in Bangladesh: An Annotated Bibliography*, Dhaka, NIPORT.

BRAC, Annual Reports, 1997-1999, BRAC, Bangladesh, Dhaka.

CARITAS, Annual Reports 1997- 1999, Bangladesh, Dhaka.

CDF, (2000) "Microfinance of NGO's and Other MFI's", CDF, Bangladesh, Dhaka, 2000, Vol. 9.

CDF Statistics, 1998-1999, Credit and Development Forum, Bangladesh, Dhaka, 1999, Vol. 7&8.

CDF, Annual Report, 1998-'99, Credit and Development Forum, Dhaka.

CDF, Microfinance Newsletter, Credit and Development Forum, Dhaka, 1999-2000, Issues Nos. 1-7, Dhaka.

Chowdhury, A. H. M., Chowdhury, N.I. T.A. and Roy M. K. (1996), "Inter-linkage Between Banks, NGO's and Informal Credit Sectors for Rural Development in Bangladesh", Bank Parikrama, BIBM Vol. 21, No. 1 & 2, Dhaka.

CIRDAP, (1997), *CIRDAP Approach to Rural Development*, CIRDAP, Bangladesh, Dhaka, October 1997.

CIDAP, (1996), *Report on Rural Development in CIRDAP Member Countries 1994-1995*, CIRDAP Study Series, CIRDAP, Dhaka, No. 171.

Conroy, J.D., Taylor, K.W. and Thapa, G.B. ed. (1994), *Best Practice of Banking with the Poor*, The foundation for Development Cooperation, Australia, Brisbane.

CIRDAP, (1998), "Towards Gender Equality-Poverty, Rights and Participation", Report of the Regional Workshop 15-18 Feb, CIRDAP, Bangladesh, Dhaka.

FBCCI, (1998), *The Role of Women Entrepreneurs in the National Economy*, Jobs Program/ USAID, Dhaka.

Garabaghi, N. F. (1983), "A New Approach to Women's Participation in the Economy", International Social science Journal, Vol. 35, No. 4, P-676.

## BIBLIOGRAPHY

- Gai, D. (1985), "An Evaluation of the Grameen Bank Project", Grameen Bank Occasional Paper, No. 29, Grameen Bank, Dhaka.
- Government of Bangladesh (1991), Fourth Five Year Plan, 1990-1995, Planning Commission, Ministry of Planning, Dhaka.
- Government of Bangladesh (1998), Fifth Five Year Plan, 1997-'2002, Planning Commission, Ministry of Planning, Dhaka.
- Government of Bangladesh, Bangladesh Economic Review, 1997 to 2000, Economic Advisory Wings, Finance Division, Ministry of Finance, Dhaka.
- Grameen Bank Annual Reports, 1989--'99,2000, Head Office, Mirpur, Dhaka.
- Gujarali, D. N. (1995), *Basic Econometrics*, third Edition, McGraw-Hill, Inc.
- Greaney V. and Khandker, S.R.(1998), "Bangladesh-Assessing Basic Learning Skills",Bangladesh Development Series, The World Bank, UPL, Dhaka, March, 1998.
- Hamid, M. A. (1988), *Palli Unnayan Bangladesh-e*, Muhammad Brothers, Bangladesh, Dhaka.
- Hamid, M. A. (1996), " Converling Many Non-Believers into Firm Believers", Bank Parikrama, Vol. 21, No. 3&4, BIBM, Dhaka, P.69- 78.
- Haq, M. (1997), *Human Development in South Asia*, HDC,Pakistan.
- Haq, M. (1991), *Near Miracle in Bangladesh*, UPL, Dhaka.
- Haque, T. (1989), *Women and Rural Informal Credit Market in Bangladesh*, BIDS, Dhaka.
- Hashemi, S. M. (1996), "Rural Credit Programs and Women's Empowerment in Bangladesh", World Development, Vol. 24 No. 4.
- Hoff, K. and Joseph, E. S. (1990), " Introduction: Imperfect Information and Rural Credit Market- Puzzles and Policy Perspectives", The World Bank, Economic Review, Vol. 4, No. 3, P. 235-351.

## BIBLIOGRAPHY

- Holt, S. L. and Helena, R. (1991), *Developing Financial Institutions for the Poor and Reducing Barriers to Access for Women*, World Bank, Discussion Paper-117, Washington DC.
- Hossain, M. (1987), *Credit Programme for Landless -The Experience of Grameen Bank*, Grameen Bank, Dhaka.
- Hossain, M. (1984), *Palli Daridra Niroshonae Grameen Bank Eaar Proyash*, Grameen Bank, Dhaka, April, 1984 .
- Hossain, M. (1986), *The Impact of Grameen Bank on Women's Involvement in Productive Activities*, Grameen Bank, Dhaka September 1986.
- Hossain, M. (1988), "Credit for Alleviation of Rural Poverty: The Grameen Bank in Bangladesh", Research report no-65, International Food Policy Research Institute, Washington, D. C.
- Hossain, A. M.M. (1996), *Unnayan Bichitra*, Rajshahi, Sagata Prokashani, (in Bengoli), P. 59-70.
- Hossain, T. and Imam. M. H. edf. (1994), *Bangladesh-er Graam*, Dhaka, Social Science Development Centre, P. 81-108.
- Hossain, M. A. (1987), "Informal Credit Market in a Traditional Society: A case Study of a Village in Bangladesh", M. Phil. Dissertation (unpublished), Rajshahi University, IBS.
- Hossain, M.A. (1987), "Problems of Supervision in Rural Credit Operation and their Problem Solution", Bank Parikrama, BIBM, Vol.12, No. 3&4, Dhaka.
- Hossain, Mosharaff (1991), *Agriculture in Bangladesh: Performance, Problems and Prospects*, Dhaka, University Press Limited.
- ILO, (1995), *Gender, Poverty and Empowerment: Turning Capabilities into Entitlements*, International Labour Office, Geneva.
- ILO, (1994), *Female Employment: The Window of Opportunity for Poverty alleviation in Bangladesh*, ILO, Regional Office for Asia and the Pacific, Bangkok.
- Imam S. S. (1987), " Supervision of Rural Credit in Bangladesh-A Few Observations", Bank, Dhaka, Parikrama, BIBM, Vol.12, No. 3&4.



## BIBLIOGRAPHY

- Islam, M. S. Chakma, P.B & Karmakar, S.S. (1995), "Managerial Performance of Grameen Bank: A Critical Review", Dhaka, Journal of Business Studies, Vol. 16.
- Khandker, S. R., Khalily M.A.B, and Zahid, H. K. etd. (1996), *Credit Programs for the Poor: Household and Intrahousehold Impacts and Program Sustainability*, Vol. I, The Bangladesh Institute of Development Studies and the World Bank, Dhaka.
- Islam, N., Huda, N., Narayan, F.B. and Rana, P.B. et al. (1997), *Addressing the Urban Poverty, Agenda in Bangladesh: Critical Issues and the 1995 Survey Findings*, Dhaka, University Press Limited.
- Islam, Rizwanul, etd. (1985), *Strategies for Alleviating Poverty in Rural Asia*, A Special Publication, BIDS, Dhaka.
- ISSIS International (1996), Women in Action, Fair Trading Women: Using Profit for Social Change, Manila, ISSIS, No. 2.
- Jahan, Kuurshed and Mosharaff, H. (1998), "Nature And Extent of Malnutrition in Bangladesh- Bangladesh National Nutrition Survey, 1995-1996", Part-I&2, Dhaka, Institute of Nutrition and Food Science.
- Jain, P.S. (1996), "Managing Credit for the Rural Poor: Lessons from the Grameen Bank", World Development, Vol. 24, No.1.
- Khan, M. R., Ahamed, S.M., Bhuiyan, A. and Chowdhury, M. (1998), "Domestic Violence Against Women: Does Development Intervention Matter"? Working Paper No. 28 BRAC-ICDDR, Joint Research Project, Dhaka.
- Khan, A. R. (1976), Poverty and Inequality in Rural Bangladesh, World Bank Working Paper, Washington, D.C.
- Khan, M. Harun-or-Rashid (1979), "Informal Credit and Interest Rates in an Underdeveloped Rural Economy: A Case Study of Bangladesh, (Dissertation), Boston University.
- Khan, M.M. and Hakim, A. (1994), "Underlying Force Leading to Inadequate Participation in a Rural Credit Project", Journal of Business Studies, DU, Vol. 15, No. 1.



## BIBLIOGRAPHY

- Latif, M.A. Khandker, S. R. and Zahid, H. K. etd. (1996), *Credit Programs for the Poor: Household and Intrahousehold Impacts and Program Sustainability*, Vol. II. The Bangladesh Institute of Development Studies and the World Bank, Dhaka.
- Lisa, Y. Larance (1998), " Banking on Social Capital: What We Have to Learn from Grameen Bank Member's", The Journal of Social Studies, No. 82, Dhaka university, Dhaka.
- Lovell, Catherine H. (1992), *Breaking the Cycle of Poverty: The BRAC Strategy*, UPL, Dhaka.
- Madda, G. S. (1987), "Limited Dependent Variable Models using Panel Data", Journal of Human Resources, Vol. 22, P. 307-338.
- Mahmud, S., Razzaque, A. and Nahar, L. (2001), Women's Empowerment and Reproductive Change in Rural Bangladesh' Dhaka, BIDS, Research Report, No. 168.
- Maloney, C. and A.B.S. Ahamed (1998), *Rural Savings and Credit in Bangladesh*, UPL, Dhaka.
- Maloney, C. and Ahamed, A.B.S. (1988), *Rural Savings and Credit in Bangladesh*, University Press Limited, Dhaka.
- Matin, I. (1998), " Mis-Targeting by the Grameen Bank: A Possible Explanation", IDS Bulletin, Vol. 29, No. 4.
- Matin, R. and Rab, H. (1998), "How the Rural Poor Repay Their Loans", Microfinance Newsletter, No. 4, 1998, CDF, Dhaka.
- McKee, K. (1989), " Micro Level Strategies for Supporting Livelihoods, Employment and Income Generation of Poor Women in the Third world: The Challenge of Significance", World Development, Vol. 19, No. 7.
- McCracken, and Jennifer, R. etd. (1996), *Participation in Practice: The Experience of the World Bank and Other Stakeholders*, World Bank Discussion Paper, No. 333, The World Bank, Washington, D.C.
- Ministry of Finance (1999), Activities of Banks and Financial Institutions, 1998-99, Finance Division, Ministry of Finance, Dhaka.

## BIBLIOGRAPHY

- Ministry of Finance, Bangladesh Economic Review, Various Years, Economic Advisory Wing, Finance Division, Ministry of Finance, Government of Bangladesh, Dhaka.
- Ministry of Women and Children Affairs, (1997), *Sex Disaggregated Statistics on Key Social Development Indicators*, MOWCA, Bangladesh, Dhaka.
- Mukherjee, K. S. (1987), "Impact of Grameen Bank Finance on Income and Employment among the Destitute Class in Rural Bangladesh- A Case Study of Rangpur Zone", *The Rajshahi University Studies*, Part. A, Vol. 15, Rajshahi Bangladesh, P. 73-90.
- Nakibullah, .A. and Rahman, A. (1996), "Poverty-Led Higher Population Growth in Bangladesh", Dhaka, BIDS, Vol. 1&2, P. 151-164.
- Nath, Narayan C. (1996), *State and Determinants of Poverty: An Empirical Analysis at Household Level*, BIDS, Dhaka, July 1996.
- Osmani, S. R. (1989), "Limits to the Alleviation of Poverty through Non-farm Credit", BIDS, Dhaka, Vol. 17, No.1, P.1-19.
- Osmani, S. R. (1990), "Notes on Some Recent Estimates of Rural Poverty in Bangladesh", BIDS, Dhaka, Vol. 18, No.4.
- Osmani, S. R. and Dev N.C. (1984), *Demand for Industrial Products in Bangladesh*, BIDS, Dhaka.
- Osmani, S. R. (1993), *Reassessment of Poverty Record: A Rejoinder*, BIDS, Dhaka.
- PKSF, Annual Reports, 1997-'98 to 1999-'2000, Dhaka.
- PROSHIKA, Activity Reports, 1996-'97, 1997-'98, 1998-'99, Mirpur, Dhaka.
- Quanine, J. (1989), "Woman and Nutrition: The Grameen Bank Experience", *Food and Nutrition Bulletin*, Dhaka Vol.11.
- Quasim, M.A. (1982), "Grameen Bank Project: A Blessing for our Rural Poor", *BIBM*, Dhaka, Vol.7 No.1& 2.
- Quibra, M.G. (1997), *The Bangladesh Economics in Transaction*, UPL, Dhaka.

## BIBLIOGRAPHY

- Rahman A. and Hossain, S.M. (1986), "Impact of Grameen Bank on the Income and Expenditure Pattern of Rural Poor", Evaluation project working paper GB, Dhaka.
- Rahman A., Mahmud S. and Haque, T. (1990), "A Critical Review of the Poverty Situation in Bangladesh in the Eighties", BIDS, Dhaka, Vol. 1&2.
- Rahman, A. (1986), *Demand and Marketing Aspects of Grameen Bank: A Closer look*, UPL, Dhaka.
- Rahman, A. (1987), *Impact of Grameen Bank Intervention on the Rural power Structure*, BIDS, Dhaka.
- Rahman, A. (1989), *Impact of Grameen Bank on the Nutritional Status of the Rural Poor*, BIDS, Dhaka.
- Rahman, A. (1994), "Rural Development from Below: Lesson Learned from Grameen Bank Experience in Bangladesh", Grass Root, Dhaka, Vol. 3, No.12.
- Rahman, A. and Dilip. K. R. (1990), Rural Employment Generation in Bangladesh: A *Regional Perspective*, BIDS, Dhaka, December 1990.
- Rahman, A. H. M.H. (1995), "Bank Credit for Women Entrepreneurship Development in Bangladesh", Bank Parikrama, Vol. 20, P. 67-79.
- Rahman, H. Z. (1995), *Rethinking Rural Poverty*, UPL, Dhaka.
- Rahman, H.Z. and Hossain, M. etd. (1995), *Rethinking Rural Poverty: Bangladesh as a Case Study*, UPL, Dhaka.
- Rahman, M. A. (1994), *Peoples Self- development: Perspective on Participatory Action Research*, UPL, Dhaka.
- Rahman. M. H. (1995), "NGO Approach to Women's Development: Impact of an RDRS Training Project on Income Generation" RDRS Monograph No.1.
- Rahman, R. I. (1996), *Impact of Credit for Rural Poor: An Evaluation of Palli Karma-Sahayak Foundation's Credit Programme*, BIDS, Dhaka.

## BIBLIOGRAPHY

- Rahman, R. I. (1998), Rural Households Attitude Towards Savings and Demand for Savings Services, Save the Children, USA.
- Rahman, R.I. (1986), Impact of Grameen Bank on the Situation of Poor Rural Woman, Working Paper No.1, Grameen Bank Evaluation Project, BIDS, Dhaka.
- Rahman, R.I. ed (1997), *Daridra-O- Unnayan Preekhapoot*, BIDS, Dhaka.
- Rahman, Rushidan, Islam (2000), *Poverty Alleviation and Empowerment Through Microfinance: Two Decades of Experience in Bangladesh*, Research Monograph: 20, BIDS, Dhaka.
- Rahman, S. and Hossain S.M. (1988), "Demand Constraints and the Future Viability of Grameen Bank Credit Programme: An Econometric Study on the Expenditure Pattern in Rural Households", The Bangladesh Development Studies Vol.6 No. 2.
- Rahman, T. (1993), *The Rural Homeless in Bangladesh*, Dhaka, UNICEF.
- Rahman, R.I. (2000), "Microfinance in Bangladesh: Sustained Progress or Emerging Problems?", Conference Program and Summary of Papers; 13<sup>th</sup> Biennial Conference; August 10-12, Bangladesh Economic Association, Dhaka.
- Raquib, A. (1991), "Credit for Self-Employment in Rural Bangladesh: Some Experiences of Rural Credit Projects and Grameen Bank", Bank Parikrama, BIBM, Dhaka, Vol. 15 & 16, P.1-20.
- Roy, Jayanta K. (1987), *To chase a miracle: A study of Grameen Bank of Bangladesh*, UPL, Dhaka.
- Saha, Bandana and Habib S. M. A. (1998), Commercial Bank's Involvement In Micro Finance: Experience Of Bangladesh And Other 78 Asian countries A Paper Presented at a Seminar on 'Micro Finance Program of Commercial Banks' Organized by BIBM, Dhaka.
- Shafiq, M. (1990), *Grameen Bank: Daridra Nirasonaar Uddugh*, Youth Development Directorate, Dhaka.
- Seers, Dudley, (1979), "The Meaning of Development", Development Theory Four Critical Studies, Edited by David Lehman, London, Frank Cass.
- Sen, A. K. (1999), *Development as Freedom*, New York: Knopf.



## BIBLIOGRAPHY

- Sen, A. K. (1992), *Inequality Reexamined*, Harvard University Press, Cambridge.
- Sobhan, Rahman, etd. (1993), *From Aid Dependence to Self- reliance: Development Options for Bangladesh*, Special Publications, BIDS, Dhaka.
- Task Force (1991a), *Report on Bangladesh Development Strategies for the 1990's: Volume One, Policies for Development*, University Press Limited, Dhaka.
- Task Force (1991b), *Report on Bangladesh Development Strategies for the 1990's: Volume Two, Managing the Development Process*, University Press Limited, Dhaka.
- Task Force (1991c), *Report on Bangladesh Development Strategies for the 1990's: Volume Three, Developing the Infrastructure*, University Press Limited, Dhaka.
- The World Bank (1996), *Bangladesh: Pursuing Common Goals-Strengthening Relations Between Government and Development NGO's*, UPL, Dhaka.
- Third Year Plan (1985-'90), Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka
- Uddin, J. M. (1999), Overlapping- A Crucial Issue of Micro-credit, The Micro-credit Review, Occasional Papers, PKSF, Dhaka, Vol. 2, No.1.
- UNDP, (1998), Follow-up to United Nations Global Conference: Bangladesh, Dhaka, Bangladesh.
- UNDP, (1994), Human Development Report in Bangladesh-Empowerment of Women, Dhaka, Bangladesh.
- UNDP, (1998), Human Development Report, Oxford University Press, 1998.
- United Nations (1989), *World Population Prospects*, 1988, United Nations, Department of International and Social Affairs, New York.
- UNDP, (1998), Human Development Report, Oxford University Press, 1998.
- UNO, (1997), *Bangladesh and the United Nations: Partnership in Progress*, Dhaka, Bangladesh.



## BIBLIOGRAPHY

- Varian, H. R. (1990), "Monitoring Agents with Other Agents", *Journal of Institutional and Theoretical Economics*, Vol. 146, P. 153-174.
- Wood Geoffrey and S. I. eds. (1997), *Who Needs Credit? -Poverty and Finance in Bangladesh*, UPL, Dhaka.
- World Bank (1995), *Micro-credit for Poverty Alleviation – Report of the WB Task Force on Poverty; Micro-finance program*, Washington, D.C.
- World Bank (1996), *Unnayaneer Jowtha Proyas- Bangladeshea Bishaw Bank Eaar Sohailyata*, (Translated in Bengali), Washington, D.C.
- World Bank (1996), *Global Economic Prospects and the Developing Countries*, The World Bank, Washington, D.C.
- World Bank (1996b), *Bangladesh: Poverty Alleviation Microfinance Project*, Report No. 1543-BD, August 14, Washington, D.C.
- World Bank (1997), *Bangladesh Non-Farm Sector in a Diversifying Rural Economy*, Report No. 1640-BD.
- World Bank (1998), *Bangladesh: From Counting the Poor to Making the Poor Count, Poverty Reduction and Economic Management Network*, South Asian Region, Washington, D.C.
- World Bank Atlas (1999), *From the World Development Indicators*, W.B. Washington, D.C.
- World Bank (2001), *Contents of World Development Report 2000/2001: Attacking Poverty – Overview*, World Bank, Washington, D.C.
- World Bank, Oct. (1997), *Bangladesh: Annual Economic Update 1997- Economic Performance, Policy Issues and Priority Reforms*, South Asian Region, Washington, D.C.
- World Food Program (1997), *Successful Micro-Entrepreneurs: Case Study Of Ex-VGD Women*, Bangladesh, Dhaka.
- Yaron, J. (1992), "Successful Rural Finance Institutions", WB, Discussion Paper-150, Washing, D.C.
- Yunus M.(1989), "Strategy for the Decade of Nineties", G. B. Dhaka.

## BIBLIOGRAPHY

- Yunus, M. (1984), "The Impact of Grameen Bank on Women's Involvement in Productive Activities", Dhaka, Grameen Bank.
- Yunus, M. (1981), "Rural / Agriculture Credit Operation in Bangladesh", G.B. Dhaka.
- Yunus, M. (1985), "Grameen Bank: The Main Enemy of Professional Bankers and Moneylenders", The Weekly Bichattra, No.31, January 11, P. 21-27.
- Yunus, M. (1986), "Grameen Bank: A Bank for the Poor", Dhaka, Grameen Bank.
- Yunus, M. (1987), "Credit for Self Employment: A Fundamental Human Rights", G.B. Dhaka.
- Yunus, M. (1993), "Hunger, Poverty and the World Bank", Speech to W.B. Conference on Overcoming Global Hunger, G.B. Dhaka.
- Yunus, M. (1997), "Towards Creating A Poverty Free World", – D.T. Lakdawala Memorial Lecture Delivered at the Institute of Social Sciences, New Delhi, India.
- Yunus, M. etd., (1984), *JORIMON of Beltoil Village and Others: In Search of a Future*, GB, Dhaka.
- Yunus, M. (1982), "Grameen Bank Project in Bangladesh: A Poverty Focused Rural Development Programme", G. B. Dhaka.
- Yunus, M. (1983), "Group Based Savings and Credit for the Rural Poor", G.B.Dhaka.
- Yunus, M. (1987), *Grameen Bank Prakarpan: Prodhaam Dashak (1976-1986)*, G.B. Dhaka.
- Yunus, M. (1988), "Credit for Self- Employment of the Poor", G.B. Dhaka.
- Yunus, M. (1991), "Grameen Bank: Experiences and Reflections" A Paper Presented at the Consultation on the Economic Advancement of Rural Women in Asia and the Pacific, Malaysia.

## BIBLIOGRAPHY

Yunus, M. (1999), "The Grameen Bank—A small experiment begun in Bangladesh has turned into a major new concept in eradicating poverty", *Scientific American*, P. 114-119, USA.

Zaman, H. Z. Chowdhury and N. Chowdhry (1994), *Current Accounts for the Rural Poor: A Study of BRAC's Pilot Savings Scheme*, BRAC, Dhaka.

Zohir, S. (1989), *Rural Credit Market in Noakhali District, Bangladesh*, BIDS, Dhaka.

Zohir, S. (1990), *Swanirvar Bangladesh and Rural Poverty Alleviation*, BIDS (Mimeo), Dhaka.

## APPENDIX

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# APPENDIX

## Appendix-4

The methods of calculation of interest earning of the GB from a single borrower, the actual cost of borrowing borne by the borrowers, the velocity of credit creation of GB and the gross return of credit in GB model are analyzed here. The estimations have been done by assuming a loan size of TK.5000.

Against a sanctioned loan of TK. 5000, GB gives TK. 4750 to the borrower after an obligatory deduction of 5%. In 46 weeks GB recovers a total of TK. 5750 through weekly installments and pays back to the borrower TK. 511.03 (TK. 250 obligatory deduction + TK. 21.25 its interest, + Tk. 230 weekly savings + TK. 9.78 its interest). Adjusting the recovery and refundable amount, the extra recovery stands at TK. 489 in 46 weeks, which stands TK. 552.78 after 52 weeks. This extra is repaid by the borrower on the average balance of loan.

**A-4.1 Interest Earning of GB from Single Borrower:** It is estimated by using three different formulas below.

**A-4.1.a Rate of Interest on Average Balance of Loan:** First balance of loan is 4750 and last balance of the borrower is -552.78(extra payment to GB), so the average balance of loan is,

$$ABL = \frac{FB + LB}{2} \quad \text{Hence, } ABL = \frac{4750 + (-552.78)}{2} = TK.2098.61.$$

$$IRAB = \frac{TAI}{ABL} \times 100, \quad \therefore IRAB = \frac{552.78}{2098.61} \times 100 = 26.34\%$$

Where, ABL= Average balance of loan, FB= First balance, LB= Last balance, IRAB= Interest Rate on average balance of loan TAI= total amount of interest payment.

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It is seen from the above estimation that GB earns 26.34% interest from its money lending.

**A-4.1.b Interest Rate according to Effective Rate formula:** The working formula of this method is,

$$ERI = \frac{2PC}{A(N+1)} \times 100.$$

Where, ERI= Effective rate of interest, P= Number of installment payments, C= Amount of interest payments, A= Amount of loan received and N= Number of installment in a year.

$$\text{Hence, } ERI = \frac{2 \times 52 \times 552.78}{4750 \times 53} \times 100 = 22.83\%$$

So, Effective rate of interest is 22.83%.

**A-4.1.c Interest Rate according to Flat Rate Formula:** The working formula is,

$$RI = \frac{TAI}{TAL} \times 100$$

Where, RI= Rate of interest, TAI= Total interest payments, TAL= Total Amount of loan received.

So the nominal rate of interest is,

$$RI = \frac{500}{5000} \times 100 = 10\%, \text{ So in flat rate method, the interest rate of GB}$$

is 10%.

\* Note: GB adds TK. 100 on TK.1000 loan at the time of fixing the installments.

It is seen from the analysis that the rate of interest of GB loan varies with different methods of estimation. From the field data regarding the loan disbursement and recovery it is seen that GB earns 26.34% interest against loan

## Appendix

calculated by average balance method. It is to be mentioned here that 52 weeks have been considered for estimation, because GB has been found to have charged additional amount in same rate for the delayed installments.

**A-4.2 Effective Cost of Borrowing:** The effective cost of borrowing is interest payments plus transaction cost. Transaction cost is shown in the following table.

**Table-A-4.1: Transaction Cost for a Loan of TK. 5000**

Items of cost	Amount of cost (in TK.)
Conveyance	45
Stationary cost (Pass book, Pencil )	10
Cost of lost working days ( opportunity cost)	80
Center fee and Revenue stamp	09
Total	144

Source: Average Estimation of the Field Survey data.

### Note

- \* Borrowers took loans at the branch office of GB.
- \* Here the average cost of conveyance is considered as it varies with the distance between the GB branch office and the houses of the borrowers.
- \* The cost of lost working days of the husbands or any one of the male members of the borrower households is considered here since the accompaniment of a male member with female borrowers is a must at the time of receiving the loan.
- \* Total cost incurred by the borrower is estimated on the average balance of loan.

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**Table-A-4. 2: Total Cost Borne by the Borrower for a Loan of TK. 5000**

Items of cost	Amount of cost (in TK.)
Transaction cost (TC)	144.00
Total Interest payment ( Extra payment to GB)	552.78
Total	696.78

- $TC = TRC + TI$ ,
- $TRC$  = Total transaction cost,  $TI$  = Total interest payment

$$\text{So, } RECC = \frac{TC}{TL} \times 100$$

$$\text{Hence, } RECC = \frac{696.78}{2098.61} \times 100 = 33.21\%$$

Where,  $RECC$  = Rate of effective cost of credit,  $TC$  = Total cost of credit,  
 $TL$  = Total loan received.

So,  $RECC = 33.21\%$ .

**A-4.3 GB's Velocity of Credit Creation:** If there is no problem from demand side, GB can disburse loan among the new borrowers from the weekly recovery. From the rapid expansion and receiving loan from other sources it can be assumed that the elasticity of demand of GB credit is perfectly elastic. Assuming the elasticity of demand for GB loan perfectly elastic, the velocity of GB's credit creation is estimated here, which is 352.99%. The estimation is shown below,

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**Table: A-4.3: GB's Velocity of Credit Creation**

No. of week	IC= TK.5000	$\sum_{i=0}^{51} X_i$ Weekly credit creation $X_0 + X_1 + X_2 + \dots + X_{51}$	Addition in weekly recovery from newly disbursed credit	No. of week	IC= TK.5000	$\sum_{i=0}^{51} X_i$ Weekly credit creation $X_0 + X_1 + X_2 + \dots + X_{51}$	Addition in weekly recovery from newly disbursed credit
0(Initial)		262.50 (X0)	00	27		233.99(X27)	5.62
1		126.30 (x1)	3.03	28		239.61(X28)	5.75
2		129.33 (x2)	3.10	29		245.36(X29)	5.89
3		132.44 (x3)	3.18	30		251.25(X30)	6.03
4		135.61 (x4)	3.25	31		257.28 (X31)	6.17
5		138.87 (x5)	3.33	32		263.45(X32)	6.32
6		142.20 (x6)	3.41	33		269.78(X33)	6.47
7		145.61 (x7)	3.49	34		276.25(X34)	6.63
8		149.11 (x8)	3.58	35		282.88(X35)	6.79
9		152.69 (x9)	3.66	36		289.67(X36)	6.95
10		156.35 (x10)	3.75	37		296.62(X37)	7.12
11		160.10 (x11)	3.84	38		303.74(X38)	7.29
12		163.95 (x12)	3.93	39		311.03(X39)	7.46
13		167.88 (x13)	4.03	40		318.49(X40)	7.64
14		171.91 (x14)	4.13	41		326.14(X41)	7.83
15		176.04 (x15)	4.22	42		333.97(X42)	8.02
16		180.26 (x16)	4.33	43		341.98(X43)	8.21
17		184.59 (x17)	4.43	44		350.19(X44)	8.40
18		189.02 (x18)	4.54	45		358.59(X45)	8.61
19		193.55 (x19)	4.65	46		367.20(X46)	8.81
20		198.20 (x20)	4.76	47		376.01(X47)	9.02
21		202.96 (x21)	4.87	48		385.04(X48)	9.24
22		207.83 (x22)	4.99	49		394.28(X49)	9.46
23		212.82 (x23)	5.11	50		403.74(X50)	9.69
24		217.92 (x24)	5.23	51		413.43(X51)	9.92
25		223.15 (x25)	5.36			<b>Total = tk. 12649.57</b>	
26		228.51 (x26)	5.48				

### Note

\* GB deducts 5% as obligatory savings from the sanctioned loan. So in case of initial credit TK. 5000, in the initial week (X0), GB's additional fund creation stands at TK. 250 ( 5% deduction from 5000) + TK.12.5 (5% deduction from TK. 250) = TK. 262.50.



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\* GB recovers TK. 125 weekly from a single borrower for a loan of TK. 5000 (TK. 22 per thousand as initial +TK. 02 per thousand as interest and TK. 05 as weekly savings.) If there is no problem from demand side of GB loan, GB can disburse loan among new borrowers immediately after the installment recovery. The above table shows the trend of the creation of new loan by GB in a year ( from 0 (X0) to 51 (X51) weeks).

$$\sum_{i=0}^{51} Xi = 12649.57$$

Hence GB's additional fund creation in a year is TK. 12649.57.

$$\text{So, } V = \frac{IC + \sum_{i=0}^{51} Xi}{IC} \times 100,$$

Where, V= velocity of credit creation, IC= Initial credit, Xi = Amount of credit created from 0 to 51 weeks.

$$\therefore V = \frac{5000.00 + 12649.57}{5000} \times 100 = 352.99\%$$

So, GB's velocity of credit creation is 352.99%.

**A-4.4 Gross Rate of Return of GB Loan:** The working formula is,

$$\text{GRR} = \frac{TR - IC}{IC} \times 100$$

Where, GRR= Gross rate of return, TR= Total return and IC= Initial credit

$$\therefore \text{GRR} = \frac{12649.57}{5000} \times 100 = 252.99\%.$$

So, if the demand for loan is perfectly elastic, GB's annual Gross rate of return stands 252.99%.

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### Appendix-6

**A-6 The Changes that Have Taken Place in Different Socio-economic Indicators of the Respondent Households:** The changes in different socio-economic indicators of the respondent households are shown in table A-6.

**Table-A-6: The Changes in Different Socio-economic Indicators of the Respondent Households**

Sl. No.	Indicators	Increase	Decrease	Remained unchanged	Total Respondents
1	Cultivable land	05 (03)	36 (19)	147 (78)	188 (100)
2	Dwellings	44 (23)	04 (02)	140 (75)	188 (100)
3	Poultry	05 (03)	96 (51)	87 (46)	188 (100)
4	Livestock	04 (02)	22 (12)	162 (86)	188 (100)
5	Furniture and household articles	24 (13)	02 (01)	162 (86)	188 (100)
6	Capital goods	03 (02)	02 (01)	183 (97)	188 (100)
7	Amount of investment	41 (22)	11 (06)	136 (72)	188 (100)
8	Voluntary Savings	00 (00)	98 (52)	90 (48)	188 (100)
9	Borrowing from informal source on interest	96 (51)	11 (06)	81 (43)	188 (100)
10	Overall indebtedness	139 (74)	08 (04)	41 (22)	188 (100)
11	Calorie intake	22 (12)	83 (44)	83 (44)	188 (100)
12	Dowry	100 (53)	00 (00)	88 (47)	188 (100)
13	Drop-out from school	64 (34)	04 (02)	120 (64)	188 (100)
14	Early Marriage	96 (51)	00 (00)	92 (49)	188 (100)
15	*14 Source of drinking Water	11 (06)	00 (00)	177 (94)	188 (100)
16	Sanitary Latrine	19 (10)	00 (00)	170 (169)	188 (100)
17	Freedom of decision making in socio-political activities	15 (08)	28 (15)	145 (77)	188 (100)

**Source: Field Survey**

**\* Figure in parenthesis shows the percentage.**

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### Appendix-7

**A-7 The Impacts of GB Loan on Women Empowerment:** The impacts of GB loan on women empowerment is shown in the following tables. These tables are based of the primary survey data.

**Table-A-7.1: Self-employment Status**

Situation	No. of respondents	Percentage
Constant	179	95.2
Increase	9	4.8
Total	188	100.00

**Table-A-7.2: Literacy Status**

Situation	No. of respondents	Percentage
Constant	182	96.8
Increase	6	3.2
Total	188	100.00

**Table-A-7.3 : Vocational knowledge status**

Situation	No. of respondents	Percentage
Constant	185	98.40
Increase	03	01.60
Total	188	100.00

**Table A-7.4: Freedom in household decision making**

Situation	No. of respondents	Percentage
Constant	164	87.23
Increase	14	07.45
Decrease	10	05.32
Total	188	100.00

**Table-A-7.5 : Freedom in social decision making**

Situation	No. of respondents	Percentage
Constant	164	87.23
Increase	14	07.45
Decrease	10	05.32
Total	188	100.00

**Table-A-7.6 : Freedom in political choice**

Situation	No. of respondents	Percentage
Constant	169	89.89
Increase	09	04.79
Decrease	10	05.32
Total	188	100.00

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**Table-A-7.7 : Freedom in decision making regarding children's education**

Situation	No. of respondents	Percentage
Constant	142	75.53
Increase	15	07.98
Decrease	31	16.49
Total	188	100.00

**Table-A-7.8 : The status of legal rights**

Situation	No. of respondents	Percentage
Constant	181	96.8
Increase	05	3.2
Decrease	02	1.06
Total	188	100.00

**Table-A-7.9 : Health and nutritional conditions**

Situation	No. of respondents	Percentage
Constant	150	79.79
Increase	9	04.79
Decrease	29	15.43
Total	188	100.00

**Table-A-7.10 : Level of contraceptive use**

Situation	No. of respondents	Percentage
Constant	182	96.8
Increase	6	3.2
Decrease	-----	
Total	188	100.00

**Table-A-7.11 : Changes in mental oppressions**

Situation	No. of respondents	Percentage
Constant	156	82.98
Increase	26	13.83
Decrease	06	03.19
Total	188	100.00

**Table-A-7.12 : Changes in physical oppressions**

Situation	No. of respondents	Percentage
Constant	172	91.50
Increase	14	07.40
Decrease	02	01.10
Total	188	100.00

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**Table-A-7.13 : Divorce cases among the female borrowers**

Situation	No. of respondents	Percentage
Constant	184	97.90
Increase	04	02.10
Total	188	100.00

**Table-A-7.14 : Separation cases among the female borrowers**

Situation	No. of respondents	Percentage
Constant	178	94.7
Increase	10	5.3
Total	188	100.00

**Table-A-7.15 : Level of early marriage of female children**

Situation	No. of respondents	Percentage
Constant	148	78.72
Increase	40	21.28
Decrease	---	---
Total	188	100.00

**Table-A-7.16 : Changes of dowry**

Situation	No. of respondents	Percentage
Constant	144	76.6
Increase	44	23.4
Decrease	---	---
Total	188	100.00

**Table-A-7.17 : Husband's polygamy**

Situation	Number of respondents	Percentage
Constant	181	96.28
Increase	07	3.72
Total	188	100.00



## Appendix

### Appendix-Q: Questionnaires

#### A- Q.1: Questionnaire set-1, Prepared for Active Borrowers of GB

##### *Section- A: Personal Information of the Borrowers*

- 01 Name:-----
- 02 Father's/Husband's name:-----
- 03 Gender: ☐ Male ☐ Female
- 04 Age: -----
- 05 Marital status: ☐ Married ☐ Unmarried ☐ Widow/Widower ☐ Deserted  
☐ Separated ☐ Divorcee
- 06 Number of children at present: ☐ Male----- ☐ Female----- ☐ Total-----
- 07 Number of children before enrollment in the G.B.: ☐ Male----- ☐ Female-----  
☐ Total -----
- 08 Education: ☐ Illiterate ☐ Can put signature only ☐ Class five ☐ Class eight  
☐ S.S.C and above
- 09 Vocational knowledge status: ☐ ----- ☐ -----
- 10 Address: ☐ Village----- ☐ Union----- ☐ Thana ----- ☐ District-----
- 11 ☐ Branch of G.B ----- ☐ Area office----- ☐ Zonal office-----
- 12 Occupation: ☐ At present----- ☐ Before Joining the GB -----
- 13 Number of wives of the husbands of female borrowers ☐ At present -----  
☐ Before joining the GB -----
- 14 Monthly Income: ☐ At present ----- ☐ Before joining the GB-----

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### *Section-B: Household Information of the Borrowers*

1. Type of family: ☐ Nuclear ☐ Extended
2. Head of the household at present: ☐ Husband ☐ Father ☐ Brother ☐ Self
3. Head of the household before enrollment in the GB: ☐ Husband ☐ Father  
☐ Brother ☐ self
4. Familial occupations at present: ☐ Main-----Subsidiary-----
5. Familial occupations before joining the GB: ☐ Main-----☐ Subsidiary-----
6. General information of family members of the respondents at present:

No.	Gender	Age	Education	Vocational Knowledge	Relation with Borrower	Occupations (main)	Occupations (subsidiary)	Monthly income

7. Total family members at present: ☐ Male ----- ☐ Female -----
8. Total family members before Joining the GB: ☐ Male----- ☐ Female-----
9. Total laborers in earning process at present: ☐ Male ---- ☐ Female-----
10. Total laborers in earning process before joining GB: ☐ Male-- ☐ Female ----
11. Main employment time in a year: ☐ Month -----
12. Total Annual income of the households: ☐ Before joining GB -----  
☐ At present -----
13. Economic category/ poverty category of the households:  
☐ Before enrollment ----- ☐ At present -----

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### *Section-C: Information about the Permanent and Temporary Assets of Respondent Households*

No	Before enrollment in GB	At present	Causes of difference
1.	Cultivable land (in decimals)----- Homestead (in decimals) -----	Cultivable land (in decimals)----- Homestead(in decimals) -----	
2	Land lease-in----- (decimals) Land lease-out----- (decimals)	Land lease-in----- (decimals) Land lease-out----- (decimals)	
3.	Land under Sharecropping: taken ----- (in dec.) Land under Sharecropping given ----- (in Dec.)	Land under Sharecropping: taken ----- (in dec.) Land under Sharecropping: given ----- (in Dec.)	
4.	Number of large livestock ----- Number of small livestock -----	Number of large livestock ----- Number of small livestock -----	
5.	Number of poultry ----- Number of birds -----	Number of poultry ----- Number of birds -----	
7.	Number of labor employed ----- Amount of labor income -----	Number of labor employed ----- Amount of labor income -----	
8.	Amount of investment in business (in Tk.) ----- Income (in Tk.) -----	Amount of investment in business (in Tk.) ----- Income (in Tk.) -----	
9.	Number of houses ----- Types of houses -----	Number of houses ----- Types of houses -----	
10.	Amount of capital goods -----	Amount of capital goods -----	
11	Number of VGF/ FFE card- -----	Number of VGF/ FFE card- -----	
12.	Amount and types of furniture----- Approximate price of furniture-----	Amount and types of furniture----- Approximate price of furniture-----	
13.	Sources of borrowing: ----- Amount of borrowing (in Tk.) ----- Rate of interest -----	Sources of borrowing: ----- Amount of borrowing (in Tk.) ----- Rate of interest -----	
14.	Literate member ----- Family members with vocational knowledge-----	Literate member ----- Family members with vocational knowledge-----	
15.	Other sources of income -----	Other sources of income -----	
16	Amount of land owned by father- in- law ----- -(decimals)	Amount of land owned by father- in- law ----- -(decimals)	
17	Amount of land owned by father or brother (in decimals)	Amount of land owned by father or brother (in decimals)	

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### *Section- D: Information about Annual Consumption Expenditure of Respondent Households*

Sl. No.	At present		Before enrollment		Comments
	Items of expenditure	Amount of expenditure (in Tk.)	Items of expenditure	Amount of expenditure (in Tk.)	
01	Food grains		Food grains		
02	Clothing		Clothing		
03	Medicine		Medicine		
04	Education		Education		
05	Entertainment		Entertainment		
06	Festivals		Festivals		
07	Furniture and articles		Furniture and articles		
08	Gift and grants		Gift and grants		
09	Others		Others		
10	Total		Total		

### *Section- E: Information about Annual Investment Expenditure*

Sl. No.	At present			Before enrollment			Comments
	Area of expenditure	Amount of expenditure (in Tk.)	Return (in Tk.)	Area of expenditure	Amount of expenditure (in Tk.)	Return (in Tk.)	
01							
02							
03							
04							
	Total			Total			

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### *Section- F: Information about Sources of Micro-credit in the Locality of the Borrower Households*

1. Mention the institutional sources of MC in your locality.

- ☐ Grameen Bank    ☐ BRAC    ☐ ASA    ☐ PROSHIKA    ☐ BRDB  
☐ CARITAS    ☐ RKUB    ☐ Commercial Banks    ☐ Co-operatives    ☐ TMSS  
☐ Other NGO    ☐ Others: -----

2. Mention the informal sources of MC in your locality.

- ☐ Businessman    ☐ Friends/Relatives    ☐ Usurers    ☐ Others: -----

3. Did you / your family borrow money from informal sources before your enrollment in GB? ☐ Yes.    ☐ No.

4. If yes; Mention the sources, rate of interest & other terms and conditions

No.	Name of sources	Amount of borrowing	Terms & condition	Year	Duration	Rate of interest	Comments

5. Do you / your family borrow money from informal sources at present?

- ☐ Yes    ☐ No

6. If yes, mention the sources, rate of interest & other terms and conditions:

No	Name of sources	Amount of borrowing (in Tk.)	Terms & condition	Year	Duration	Rate of interest	Comments



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7. Mention the institutional sources, rate of interest & other terms and condition of credit used by your family at present:

No.	Name of institutions	Amount of borrowing (in Tk.)	Terms & condition	Year	Duration	Rate of interest	Comments

8. Mention the total number of borrowers of your family: -----

9. Which source is more advantageous or least conditional?-----

10. In which source has the lower interest rate?-----

11. Which source shows more cruelty for the recovery of loan? ✓

### *Section- G: Information about Grameen Bank loan*

1. When has Grameen Bank started credit programs in your locality? ☐ -----

2. Mention the source of inspiration of your joining the GB ☐-----

3. When did you join the GB? ☐ -----

4. Mention the amount of money you deposited in GB before getting loan.

☐ -----Tk

5. From where did you collect that money? ☐ -----

6. Did any member of your family borrow from GB before you? ☐ Yes ☐ No

7. How many members of your family borrow from GB at present ☐-----

8. Mention the purpose of your borrowing from GB: ☐ Present year-----

☐ Initial year-----

9. Did you spend / invest GB loan according to the purpose shown by you?

a. Present year: ☐ Not at all ☐ Partly ☐ Wholly b. Initial year: ☐ Not at all

☐ Partly ☐ Wholly

10. Did you get adequate amount of loan from GB in the Initial year? ☐ Yes

☐ No

11. Have you got adequate amount of loan from GB in the present year? ☐ Yes

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☐ No

12. Mention the amount of your demand for loan and amount of loan sanctioned by GB in the first year: ☐ Demand in Taka ----- ☐ Sanction in Taka -----

13. Mention the amount of your demand for loan and sanction by GB in the present year: ☐ Demand in Taka ----- ☐ Sanction in Taka-----

14. How did GB officials behave with borrower in case of failure to repay the weekly installments in time ☐ -----

15. Did you borrow from any other sources within the period of GB membership?  
☐ yes ☐ no

16. If yes, mention sources ☐ ----- ☐ ----- ☐ -----

17. Mention the reasons for using other sources ☐ ----- ☐ -----

18. Where did you spend / invest that money? ☐ -----

19. Who selects the field of investment of GB loan ? ☐ Yourself ☐ Head of the family ☐ Other male members of family ☐ GB workers ☐ Others

20. Do you think that the size of loan of GB is sufficient? ☐ Yes ☐ No

21. If not, what should the size of loan? ☐ -----

22. Mention the total amount, types of loan and field of investment/ expenditure and income earned out of your borrowing from GB till present:

Time / year	Types of loan	Amount of loan (in Tk.)	Interest rate	Field of investment	Weekly repayment (in Tk.)	GF	Return from investment (in Tk.)	Profit (in Tk.)
1 <sup>st</sup>								
2 <sup>nd</sup>								
3 <sup>rd</sup>								
4 <sup>th</sup>								
5 <sup>th</sup>								
6 <sup>th</sup>								
7 <sup>th</sup>								
8 <sup>th</sup>								
9 <sup>th</sup>								
10 <sup>th</sup>								
11 <sup>th</sup>								

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23. Give your opinion about the rate of interest: ☐ high ☐ low ☐ No comment
24. Do you think that the number of installment is excessive? ☐ Yes ☐ No ☐ Don't know
25. Do you think that the credit of GB is actually collateral free? ☐ Yes ☐ No ☐ Don't know
26. If not, what types of collateral is suitable. ☐ -----  
☐ ----- ☐ ----- ☐ ----- ☐ -----
27. What advice and conditions have been given by GB at the time of giving credit? ☐ ----- ☐ ----- ☐ ----- ☐ -----
28. Do you hold cash in hand from GB borrowing to repay installment? ☐ Yes ☐ No
29. If yes, mention the amount & number of installment for which you hold cash: ☐ Amount----- ☐ Installments ----- /
30. By whom you get reminder to repay weekly installments of loan? ☐ GB worker ☐ Group members ☐ leader of group and center ☐ Others -----
31. Who create more pressure for weekly recovery? ☐ Members of group and center ☐ GB worker ☐ Others-----
32. Could you make profit by GB loan in the period between borrowing & repayment of the first installment? ☐ Yes ☐ No
33. If yes, mention the amount of profit ☐ -----
34. If not, why? ☐ -----
35. From where do you collect the money to repay weekly installments of GB loan?  
☐ ----- ☐ ----- ☐ ----- ☐ -----
36. Have you ever paid extra charges to GB due to failure to repay the scheduled installments? ☐ Yes ☐ No
37. If yes, explain the causes and amount of extra payments: ☐ Causes -----  
☐ Amount of Taka -----
38. Do you face any problem for four times presence in center meeting of

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GB? ☐ Yes ☐ No

39. If yes, mention the problems and solution of problems. Problems ☐ -----

☐ ----- Solutions ☐ ----- ☐ -----

40. Did you face any constraints at the time of joining the GB? ☐ Yes ☐ No

41. If yes, mention the problem you faced: ☐ ----- ☐ -----

42. Mention the nature of cruelties shown by GB worker, other members of group and center for the recovery of weekly installments in case of delay of repayment.

☐ ----- ☐ ----- ☐ -----

43. Do you think that loan should be given directly instead of group formation?

☐ Yes ☐ No. If yes, explain the causes: ☐ ----- ☐ -----

44. Mention the main fields where you used GB loan. ☐ New business or manufacturing activities ☐ Increase of the capital of old business and manufacturing activities ☐ Housing ☐ Consumption ☐ Marriage ceremony of children ☐ Health and medicine ☐ Repayment of loans ☐ Others

45. Do you lend money from the borrowed money of GB? ☐ Yes ☐ No

46. How many times do GB workers visit your house in a year? ☐ -----

47. Mention the purpose of the visit of GB worker. ☐ To supervise the field of investment run by GB loan ☐ To collect the installments of credit.

48. Mention the amount of profit which you earn from GB loan: ☐ First year---- ☐

Second year---- ☐ Third year--- ☐ fourth year----- ☐ Fifth year----- ☐ Sixth year--- ☐ Seventh Year ----- ☐ Eighth year----- ☐ Ninth year-----

Tenth year----- ☐ Last year.

49. Do you face any problems in marketing your product? ☐ Yes ☐ No

50. If yes, mention the problems ☐ ----- ☐ -----

51. How can the problems be solved? ☐ -----

52. Is there any risk involved with GB loan? ☐ Yes ☐ No

53. If yes, mention the type of risks: ☐ ----- ☐ ----- ☐ -----

54. Do you think that, it would be better if GB give loan to male members of your family instead of you? ☐ Yes ☐ No

55. Mention the amount of cost incurred by you for GB loan in addition to

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interest payment in a year. ☐----- ☐-----

56. Mention the number of working days, which you lost for getting GB loan in a year. ☐-----

### *Section-H: Information related to the Changes of Women Status and Empowerment by GB loan*

1. Did you face mental & physical oppression by your husband or any other male members before joining the GB? ☐ Yes ☐ No
2. If yes, mention the nature of oppressions: ☐ ----- ☐ ----- ☐ -----  
-----☐ -----☐ -----
3. What changes have taken place in this matter after your enrollment in the GB? ☐ Oppressions Decreased ☐ Increased ☐ Remained unchanged
4. If not, do you face oppressions at present? ☐ Yes ☐ No
5. If yes, is it related to GB credit? ☐ Yes ☐ No
6. Did your Husband demand dowry before your joining GB? ☐ Yes ☐ No
7. If yes, what changes have taken place after your joining GB? -----
8. Did you enjoy freedom of movement outside of home before joining GB?  
☐ Yes ☐ No
9. If yes, can you move freely at present? ☐ Yes ☐ No.
10. Did you use contraceptives willingly before joining the GB? ☐ Yes ☐ No
11. If not, what changes have taken place after your joining GB? ☐ Be able to use now ☐ Unchanged
12. What change has taken place in your mind in the belief of 'women are helpless by birth' after joining GB? ☐ Decrease ☐ Increase  
☐ Remained unchanged
13. Are you involved in investment and supervision of GB loan directly?  
☐ Yes ☐ No
14. If not, mention the persons who are doing these ☐ -----



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15. Does your husband or head of the family take your opinion at the time of decision making in familial socio-economic affairs? ☐ Yes ☐ No ☐ You yourself are decision taker.
16. How many marriage ceremonies took place in your family before joining GB?  
☐ -----
17. How many marriage ceremonies have taken place in your family after your joining GB?
18. Mention your relation with those whose marriage ceremonies have taken place after your joining GB. ☐ ----- ☐ ----- ☐ ----- ✓
19. Did you take dowry at the marriage of your sons after you joined GB?  
☐ Yes ☐ No
20. If yes, mention the amount: ☐ -----
21. Did you give dowry at the marriage of your daughters after joining GB?  
☐ Yes ☐ No
22. If yes, mention the amount: ☐ -----
23. If not, Why? ☐ -----
24. Mention the ages of your daughters married before and after your joining the GB: ☐ Before joining ----- ☐ After joining -----
25. Could you apply voting rights freely before joining GB? ☐ Yes ☐ No
26. If not, can you apply voting rights freely now? ☐ Yes ☐ No
27. Mention the number of wives of your husband: ☐ Before your enrollment in GB----- ☐ At present -----
28. Why and when did you start living separately from your husband (only for separated women)? ☐ Causes ----- ☐ Time -----
29. When and why did your husband divorce you (only for divorcee) ☐ Before enrollment ☐ After enrollment ☐ Cause -----
30. Was your husband addicted to drug before your joining the GB?  
☐ Yes ☐ No

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31. What change regarding husbands' addiction has taken place after your joining the GB? ☐ Increased ☐ Decreased ☐ Remained constant ☐ Started taking drug ☐ Stopped taking drug.
32. Did your husband gamble before your enrollment in the GB?  
☐ Yes ☐ No ☐ No comment
33. If yes, What change has come regarding husbands, gambling after you enrollment in the GB? ☐ Increased ☐ Decreased ☐ Started ☐ Stopped
34. Were you forced by your husband to stay in your parent's house before joining GB? ☐ Yes ☐ No
35. If yes, what happened after your enrollment in the GB? ☐-----
36. Could you give emphasis on children's education before joining the GB?  
☐ Yes ☐ No
37. If not, can you do it at present: ☐ Yes ☐ No
38. Did you take meals after all family members, before joining GB?  
☐ Yes ☐ No
39. If yes, does you can take meals along with other members of family at present? ☐ Yes ☐ No
40. Can you cite of any marital relationship between two families of GB members without dowry? ☐ Yes ☐ No ☐ Not possible
41. Did GB help you to remove the oppressions created by male members?  
☐ Yes ☐ No
42. Mention the change of your own income through GB loan.  
☐ Increased ☐ Decreased ☐ Constant
43. Mention your position in case of decision making in all household affairs after joining GB? ☐ Increased ☐ Decreased ☐ Remained unchanged.
44. Mention the impact of GB loan on the situation of child marriage:  
☐ Increased ☐ Decreased ☐ Remained unchanged
45. Could you create self-employment by GB loan? ☐ Yes ☐ No

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46. Could you obtain any vocational knowledge by GB program?
47. Mention the impact of GB loan on the situation of dowry:  
☐ Increased ☐ Decreased ☐ Remained unchanged.
48. Mention the impacts of GB loan on the creation of self-employment for women ☐ Increased ☐ Decreased ☐ Remained unchanged
49. Do You think that GB model of micro-credit is preferable to informal credit ? ☐ Yes ☐ No
50. If yes, mention the causes: ☐ -----
51. If not, why? ☐ -----
52. Give some suggestions for making GB program more effective. ☐ -----  
☐ ----- ☐ ----- ☐ -----

### *Section-I: Information relating to Changes of the Socioeconomic Conditions of the Borrower Households*

1. What change has taken place in your family income after your enrollment in GB? ☐ Increased ☐ Decreased ☐ Remained unchanged
2. If increased, mention the causes: ☐ ----- ☐ ----- ☐ -----
3. If decreased, mention the causes: ☐ ----- ☐ ----- ☐ -----
4. What change has taken place in the economic category of your family after your enrollment in GB? ☐ Promoted ☐ Degraded ☐ Unchanged
5. If promoted, mention the causes. ☐ ----- ☐ ----- ☐ -----
6. If degraded, mention the causes. ☐ ----- ☐ ----- ☐ -----
7. What change has taken place in the level of employment for your family members after your joining the GB?  
☐ Increased ☐ Decreased ☐ Remained unchanged
8. If increased, mention the field of employment: ☐ ----- ☐ ----- ☐ -----
9. Is the new employment related to GB credit? ☐ Yes ☐ No
10. What change has taken place in permanent & temporary assets of your family after your joining the GB? ☐ Increased ☐ Decreased ☐ Remained unchanged
11. If increased, mention the causes: ☐ ----- ☐ ----- ☐ -----

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12. If decreased, mention the causes: ☐----- ☐----- ☐-----
13. What change has taken place in the opportunity of education of your children after your enrollment in GB?  
☐ Increased ☐ Decreased ☐ Remained unchanged
14. If increased, mention the causes: ☐----- ☐----- ☐-----
15. If decreased, mention the causes: ☐----- ☐----- ☐-----
16. What change has taken place in social status & empowerment of your family after your enrollment in GB? ☐ Increased ☐ Decreased ☐ Remained unchanged
17. If increased, mention the causes: ☐----- ☐----- ☐-----
18. If decreased, mention the causes: ☐----- ☐----- ☐-----
19. What change did take place in per capita calorie intake of your family members after joining the GB? ☐ Increased ☐ Decreased ☐ Remained unchanged
20. If increased, mention the causes: ☐----- ☐----- ☐-----
21. If decreased, mention the causes ☐----- ☐----- ☐-----
22. Changes in item-wise per capita calorie intake of the borrower households

( Put ✓ )

Sl. no.	Item of food	Increase ( Put ✓ )	Decrease ( Put ✓ )	Constant ( Put ✓ )
1	Cereal			
2	Roots and Tubers			
3	Vegetables			
4	Pulses			
5	Fish			
6	Fruits			
7	Sugar/ Molasses			
8	Eggs			
9	Fats and oils			
10	Milk & milk product			
11	Meat			
12	Others			

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### 23. Changes in various socio-economic indicators of the borrower households after joining the GB

Sl. no.	Indicators	Increase ( Put ✓ )	Decrease ( Put ✓ )	Constant ( Put ✓ )
01	Voluntary savings			
02	Permanent income			
03	Transitory income			
04	Housing			
05	Furniture & articles			
06	Permanent assets			
07	Social status			
08	Opportunity to make the children literate			
09	Availability of pure water			
10	Availability of lighting			
11	Availability of sanitary latrine			
12	Availability of food			
13	Civic sense			
14	Chance of leadership			
	Voting rights			
15	Opportunity of self-employment			
16	Overall indebtedness			
17	Others			

### *Section-J: Respondents' Evaluation about Grameen Bank*

1. Do you think that you are one of the owners of GB? ☐ Yes ☐ No
2. If yes, mention why do you think so? ☐ ----- ☐ -----
3. If no, mention why not? ☐ ----- ☐ ----- ☐ -----
4. Do you think poorest families are able to remove their poverty by using the GB model of micro-credit? ☐ Yes ☐ No
5. If yes, mention the period after which a family could be poverty free by using GB credit: ☐ -----
6. If not, mention the causes. ☐ -----



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7. Do you think that GB could rescue the rural poor from informal moneylenders? ☐ Yes ☐ No
  8. If yes, mention the causes ☐ ----- ☐ ----- ☐ -----
  9. If no, mention why not? ☐ ----- ☐ ----- ☐ -----
  10. Do you think that GB is welfare oriented organization rather than a profit seeking institution? ☐ Yes ☐ No
  11. If yes, mention why do you think so? ☐ ----- ☐ -----
  12. If no, mention why not? ☐ ----- ☐ ----- ☐ -----
  13. Do you think that micro-finance programs like GB should cover the whole rural area of Bangladesh? ☐ Yes ☐ No
  14. If yes, mention why do you think so? ☐ ----- ☐ -----
  15. If no, mention why not? ☐ ----- ☐ -----
  16. Do you feel the necessity of government interference in the GB and its borrower relation? ☐ Yes ☐ No
  17. If yes, mention why do you think so? ☐ -----
  18. If not, mention why? ☐ -----
  19. Do you wish to continue your GB membership for a long period?  
☐ Yes ☐ No
  20. If yes, mention why? ☐ ----- ☐ ----- ☐ -----
  21. If not, mention why not? ☐ ----- ☐ ----- ☐ -----
- Other information which may be related to the study but omitted in the interview schedule:

☐ -----  
-----  
-----

I am very grateful to you for your kind co-operation and giving the answers to the questions patiently by sacrificing valuable time. All of the above information is related to my research work and shall be kept secret to avoid your embarrassment.

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### A-Q.2: Questionnaire Set –2, Prepared for Dropout Borrowers

- 01 Name:-----
- 02 Father's/Husband's name:-----
- 03 Gender: ☐ Male ☐ Female
- 04 Age: -----
- 05 Marital status: ☐ Married ☐ Unmarried ☐ Widow/Widower ☐ Deserted  
☐ Separated ☐ Divorcee
- 06 Address: ☐ Village----- ☐ Union----- ☐ Police Station----- ☐ District-----
- 07 Branch of GB, from where you are dropped-out: ☐ ----- ☐ Area office----- ☐ Zonal office-----
- 08 Occupation: ☐ At present----- ☐ Before joining the GB----- ☐ During the use of GB loan-----
- 09 Number of wives of your husband: ☐ At present ----- ☐ During the period of GB loan----- ☐ Before joining the GB -----
- 10 Income: ☐ At present----- ☐ Before joining the GB----- ☐ During the use of GB loan-----
- 11 When and why did you join GB? ☐ Year ----- ☐ Purpose -----
12. How many years could you continue membership in the GB? ☐ Years
13. Mention the types and total size of loan you received from the GB.

Year	General loans (in Tk.)	Seasonal loans (in Tk.)	Housing loans (in Tk.)	Leasing loans (in Tk.)	Other loans (in Tk.)	Total loans (in Tk.)	Field of utilization

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14. Did you earn profit from the use of the loan? ☐ Yes ☐ No
15. If yes, mentioned the activities and amount of profit ☐ Activities -----  
☐ Amount of profit--
16. Did you get adequate amount of GB loan according to your need in any season? ☐ Yes ☐ No
17. When did you give-up/ lose your membership of GB? ☐ Month----- ☐ Year -----
18. Mention the nature of dropout ☐ Willingly ☐ Expelled by GB
19. Why did GB expel you? Causes ☐ -----
20. How many installments of loan did you fail to repay before leaving GB?  
☐ -----
21. Why did you fail to repay the installment in time? ☐-----
22. Did the GB give notice before canceling your membership? ☐ Yes ☐ No
23. If yes, mention the time and nature of notices: ☐ Time --- ☐ Nature-----
24. Did you borrow from informal moneylenders before joining GB? ☐ Yes ☐ No
25. If yes, mention the rate of interest of that borrowing: ☐ -----
26. Did you borrow from other institutional sources during the period of GB membership? ☐ Yes ☐ No
27. If yes, mention the sources and rate of interest: ☐ Sources -----  
☐ Rate of interest -----
28. Do you borrow from informal sources at present? ☐ Yes ☐ No
29. If yes, state the name of sources and interest rates ☐ Sources -----  
☐ Interest rate ☐ -----
30. Do you borrow from institutional sources like the GB at present?  
☐ Yes ☐ No
31. If yes, mention the sources and interest rates: ☐ Sources -----  
☐ Interest rates -----

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32. Mention the Changes, which have taken place in the Amount of Assets of your Households during the Use of GB loan (Put  $\checkmark$ )

Type of assets	Increase	Decrease	Constant	Comments
Dwelling houses				
Homestead				
Cultivable land				
Amount of poultry				
Amount of Livestock				
Furniture and other home articles				
Number of laborer				
Capital goods				
Invested capital				
Other assets				

33. If the amount of any assets mentioned above had increased, mention the causes: ☐ Through the utilization of the GB loan ☐ Other ways-----

34. If it decreased, mention the causes of decrease. ☐ Due to the payments of the installments of the GB loan ☐ Others -----

35. Did you try to get the membership of the GB again? ☐ Yes ☐ No

36. Do you feel free after quitting from the credit program of GB?  
☐ Yes ☐ No

37. How did the GB personnel behave with you before canceling your membership? ☐ -----

38. Do you think that, it would be better if GB give loan to male members of your family instead of you? ☐ Yes ☐ No

39. How did the other members of the centre behave with you for the recovery of the GB loan? ☐ -----

**\*\*Mention your experience about the MC programs of GB-model: ☐ -----**

Thank you so much for the cordial cooperation.

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### A-Q.3: Questionnaire Set-3, Prepared for GB Personnel

#### *A: Particulars of GB Officers*

- 1) Name: ----- 2) Designation: -----  
 3) Educational qualifications:----- 4) Professional training: -----  
 5) Previous experiences:----- 6) Length of service in GB: -----

#### *B: General Information of Branches*

1. Name of branch: ☐ -----  
 2. Status of branch office building: ☐ Under the ownership of GB ☐ Rented  
 3. Date of inauguration: ☐ -----  
 4. Active members: ☐ -----  
 5. Total loan disbursement: ☐-----  
 6. Number of officers in the branch: ☐ -----  
 7. Number of workers in the branch office: ☐ -----  
 8. Number of centres under the branch : ☐ -----  
 9. Number of groups: ☐ -----  
 10. Total villages covered: ☐ -----  
 11. Total active members: ☐----- ☐ Male: -----☐ Female: -----  
 12. Mention total types and amount if disbursement till today:

Types of credit	Total amount disbursed (in TK.)	Comments
General-1		
General-2		
Seasonal		
Housing		
Educational		
Tube-well		
Sanitary		
Others		
Grand total		



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13. Period of obtaining maximum member: ----- Number -----
14. Period of obtaining maximum male member: ---- Number ----
15. Total number of shares under the branches: -----
16. Number of share handed over to the members: -----
17. Total savings accumulated -----
18. Total number of drop-out members -----
19. Total amount of savings returned/withdrawn -----
20. Period of highest recovery -----
21. Period of lowest rate of recovery -----

### *C: Other Particulars*

1. What are the criteria to be fulfilled by the borrowers at the time of loan sanction?
2. Do you receive any kind documents at the time of loan sanction ?  
☐ Yes ☐ No
3. If yes, mention the documents : ☐ ----- ☐ ----- ☐ -----
4. What are the criteria by which you measure the success of the borrowers? ☐ Recovery performance ☐ ----- ☐ ----- ☐ -----
5. How do you investigate the certainty of utilization of the credit on the specific fields? : ☐ -----
6. Have you ever given any non-credit assistance to the borrowers without monetary return? ☐ Yes ☐ No
7. If yes, mention these non-credit assistance ☐ -----
8. Explain the methods of recovery followed by you: ☐ ----- ☐ -----
9. How do you calculate the rate of interest?
- 10 How do you fix the weekly installments?
11. Have you faced any difficulties to recover the installments? ☐ Yes ☐ No
12. If yes, how has the problem been solved? ☐ ----- ☐ ----- ☐ -----

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- 13 Please, mention the number of defaulted borrowers & amount of defaulted credit in your branch ☐ -----
14. How many weeks do you wait for the defaulter before expelling them? ☐ ----
15. What kind of measures are taken by you to control overlapping of micro-credit from other sources? ☐ -----
16. Mention the number of dropout members under your branch till today: ☐ ----
17. State your opinion about the causes of drop-out and suggestions for remedy:  
☐ Causes: ----- ☐ ----- ☐ Suggestions:-----
18. Do you face any problem in rendering your duties? ☐ Yes ☐ No.
19. If yes, mention the problems ☐.----- ☐. -----
20. How could the problems be solved? ☐. ----- ☐. -----
21. Do the remaining members of group help you to recover the default loan?
22. If yes, mention their supports: ☐----- ☐-----
23. How do you maintain the borrower ownership in GB? ☐ In case of active borrowers ----- ☐ In case of dropout borrowers -----
24. Did you distribute any dividend among the borrowers? ☐ Yes ☐ No
25. How do you calculate and distribute the interest of the borrowers savings deposits to GB? ☐ -----
26. Explain your achievement of the last ---- years in the case of poverty alleviation under your branch: ☐-----
27. What do you know about the Grameen Trust and other sister organizations of the GB? ☐-----
28. What are your suggestions for better performance and achievement of the GB? ☐-----
- 29: Mention the number of borrowers of your branch year-wise, from starting to present year: ☐---- ☐ ---- ☐ ---- ☐ ---- ☐ ---- ☐ ---- ☐ ---- ☐ ---- ☐ ---- ☐ ----  
☐ ---- ☐ ---- ☐ ----
30. In which year was the number of borrowers highest in this branch? ☐ -----
31. Do you have any official relationship with the dropout borrowers?  
☐ Yes ☐ No

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32. If yes, mention the process of maintaining the relationship: ☐-----

33. Why don't you give loan to the male members of the poor households? ☐-----

*I express my deepest indebtedness and gratitude to you for kind co-operation. The information provided by you shall be kept secret and would be used in the purpose of research only.*

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