

**IMPACT OF GRAMEEN BANK MICRO-CREDIT
PROGRAM TOWARDS UPLIFTING THE SOCIO-
ECONOMIC CONDITION OF RURAL WOMEN
BENEFICIARIES**

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Submitted to the Faculty of Agriculture,
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in partial fulfillment of the requirements for the degree of

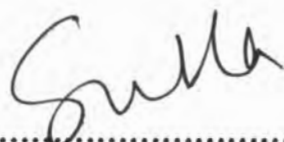
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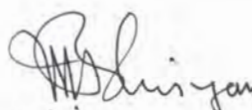
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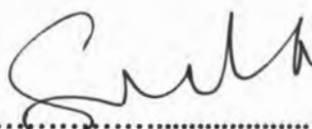
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CERTIFICATE

This is to certify that thesis entitled “**Impact of Grameen Bank Micro-credit Program towards Uplifting the Socio-economic Condition of Rural Women Beneficiaries**” submitted to the Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of **MASTER OF SCIENCE IN AGRICULTURAL EXTENSION AND INFORMATION SYSTEM**, embodies the result of a piece of *bona fide* research work carried out by **Md. Arshaduzzaman Khan**, Roll No.00399, Registration No. 25296/00399 under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

I further certify that such help or source of information, as has been availed of during the course of this investigation has duly been acknowledged.

Dated:

Dhaka, Bangladesh



.....
(Md. Shadat Ulla)

Professor

Supervisor

beloved parents

MY

dedicated to

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ABBREVIATION AND GLOSSARY

ABBREVIATION	FULL WORD
ADB	= Asian Development Bank
AGP	= Adarsha Gram Project
ASA	= Association for Social Advancement
BBS	= Bangladesh Bureau of Statistics
BRAC	= Bangladesh Rural Development Board
CARE	= Co-operative for American Relief Everywhere
<i>et al.</i>	= All Others
FAO	= Food and Agricultural Organization
GB	= Grameen Bank
GO	= Government Organization
GOB	= Government of Bangladesh
IFAD	= International Fund for Agriculture Development
INFS	= Institute of Food and Nutrition and Food Science
K. Cal.	= Kilo Calorie
MBBS	= Mohila Bittahin Samabay Samity
NGO	= Non-government Organization
PDBF	= Palli Daridra Bimochan Foundation
RDRS	= Rangpur Dinajpur Rural Service
Th.	= Thousand
Tk.	= Taka
TMSS	= Thengamara Mohila Sabuj Sangha
UNDP	= United Nations Development Program
US\$	= United States Dollar
p.	= Page

**IMPACT OF GRAMEEN BANK MICRO-CREDIT PROGRAM TOWARDS
UPLIFTING THE SOCIO-ECONOMIC CONDITION OF THE RURAL
WOMEN BENEFICIARIES**

By

MD. ARSHADUZZAMAN KHAN

ABSTRACT

The focus of the study was to determine the impact of Grameen Bank micro-credit program measured by computing change in income, change in food consumption, change in housing unit, change in toilet condition, change in drinking water source, change in family asset and change in decision-making ability of the women beneficiaries after their involvement with Grameen Bank micro-credit program. Attempts were also made to determine and describe some of the selected characteristics of the women beneficiaries and their relationships with the impact of Grameen Bank micro-credit program.

The income, food consumption increased significantly after involvement with Grameen Bank. The average yearly income of the respondent's households increased to Tk. 33.32 thousands. from Tk 27.85 thousands. The average per capita daily calorie intake increased to 2319.08 K.Cal. from 2131.25 K.Cal. Nineteen (19) per cent of the beneficiaries were found to lie below under poverty line II (food consumption up to 1805 K. Cal.), but figure became of 10 per cent 'after involvement' with Grameen Bank micro-credit program. Seventy per cent of the beneficiaries had kacha ghar with straw roof type housing before involvement but the figure reduced to 32 after involvement. Fifty three (53) per cent of the respondents used to go to open places for toilet purpose 'before involvement' but 'after involvement' this figure turned to 24. Thirty seven (37) per cent respondent's families had own tube well for drinking water 'before involvement' but 'after involvement' with Grameen Bank micro-credit program 57 per cent beneficiaries' families used their own tube well for drinking water. Fifty (50) per cent beneficiaries were found to fall under the category of low asset possession 'before involvement' and that figure has decreased to 23 'after involvement' with Grameen Bank micro-credit program. Forty six percent respondents fell into low impact category where 47% and 7% of the respondents were found to be in medium impact and high impact category respectively. Age, farm size, credit received characteristics were found to have significant relationship at 1% level of significance and attitude was significant relationship at 5% level of significance with the impact of Grameen Bank micro-credit program. Insufficient amount of credit as per demand ranked first as a problem faced by the beneficiaries.

CHAPTER 1

INTRODUCTION

1.1 General Background

It is evident that no society in the world provided or provides women equal status with men (Giriappa, 1988). By social customs, Bangladeshi women are dominated by men in all spheres of their lives. In her work on poverty in Bangladesh Lovell (1991) stated that women are particularly affected by poverty. Poor women in rural areas have the least power. Traditionally women in Bangladeshi villages have few rights, little choice about the courses of their lives and almost no suitable opportunities to change their situations. Most of them have little or no access to positions of influence, as most of them are illiterate.

Women in Bangladesh are disadvantaged in comparison to men even though they constitute almost half of our population. In Bangladesh culture family activities are classified into two such as (a) economic activities performed by men and (b) household activities including home economics performed by women. Family education, child care, health care, fooding, nutrition, homestead gardening, back-yard poultry farming, cattle and goat rearing etc. are included in household and home economic activities. Traditionally women's activities are not measured in terms of money as like as economic activities of men. Women work from dawn to dusk. It is regrettable that their contributions are never included in the GNP (Gross National Product). In fact, women forces are not unemployed in the family, the problem is that

they belong to the family but in most of the situations their contributions remain unacknowledged.

All rural families are in economic hardship. They cannot provide two square meals and education to their children. That is, cash income by men is insufficient to run a family properly. In this situation if women's homestead gardening, back-yard poultry farming, cow and goat rearing could be made commercial by giving them financial assistance then rural families could have a chance to be well off. Bangladesh is predominantly is a rural and agrarian country having a population of more than 140 million. Bangladesh is faced with the problem of poverty, which manifests itself in landless, unemployment, illiteracy, malnutrition and vulnerability to frequent natural disaster. Considering the importance of these problems, not only government organizations but also NGOs have given top most priority to poverty alleviation as well as rural developmental program.

To fight poverty NGOs in Bangladesh have taken micro-credit as a medium of poverty alleviation. During mid-seventies, NGOs began their works with relief and charity aims and they were devoted to developing integrated community development programs and activities such as agriculture, livestock, health and family planning etc. By the late seventies, most of the NGOs had given up the community level program and got involved in new approach known as 'target group' approach. This new approach emphasized on the cases of social groups, such as, landless and handicapped persons, slum dwellers, various categories of urban and rural population etc. It was possible for NGOs to play their ambitious role in developing sustainable delivery

systems with effective participation and greater employment of the poor including women in the poverty alleviation program.

Against this background, Grameen Bank along with other NGOs such as BRAC, PROSHIKA, ASA, World Vision, KARITAS, RDRS etc. and other development agencies have realized that true development cannot be achieved unless and until the women are made part of the development process. Grameen Bank is a specialized financial institution in Bangladesh which was established by government order in 1983 to provide credit to the rural poor for improving their economic condition. The word 'Grameen' means village. But, the Grameen Bank is different from the agricultural development bank and commercial bank located in villages (Hossain, 1988).

Grameen Bank has reversed conventional banking practice by removing the need for collateral and created a banking system based on mutual trust, accountability, participation and creativity. Grameen Bank provides credit to the poorest of the poor in rural Bangladesh without any collateral. At Grameen Bank, credit is a cost-effective weapon to fight poverty and it serves as a catalyst in the overall development of socio-economic conditions of the poor who have been kept outside the banking orbit on the ground that they are poor and hence not bankable. Professor Muhammad Yunus (1983) the founder of 'Grameen Bank' and its Managing Director, reasoned that if financial resources can be made available to the poor people on terms and conditions that are appropriate and reasonable, "these millions of small people with their millions of small pursuits can add up to create the biggest development wonder." The poor are not unproductive at all. In truth, they are the more productive segment of

the population. Access to credit is an important mechanism for the poor to improve and protect their food security and living of standards. In the long term, credit can enable the poor women to be able to be in the swim and can invest in productive sectors, adopt new technologies and farming methods to increase their production.

But no research work has been found that determined the impact of Grameen Bank micro-credit. Keeping the fact in mind the present researcher felt necessity to conduct a research to find out the impact of Grameen Bank micro-credit towards uplifting the socio-economic condition of rural women beneficiaries.

1.2 Statement of the Problem

Grameen Bank is an NGO that mostly deals with landless people and the disadvantaged class of the society who is forced to live in exploited condition in the rural society. They are the target group of Grameen Bank. Many activities like vegetable cultivation, poultry rearing, cattle rearing, fish cultivation, rice business, cow rearing, cloth business, small and cottage business etc are being conducted by the Grameen Bank for uplifting the socio-economic condition of the rural poor women. International Fund for Agricultural Development (IFAD) recognizes that poor women have limited access to credit not only because of being poor, but also because of several of the constraints are gender-specific (Mohiuddin, 1991). Some projects of IFAD have discovered that women's risk of failure and indebtedness would be reduced more by directing credit towards enterprises with small financial investment, short gestation period and the local market demand (Musharraf, 1991)

However, credit is rarely available to the poor at reasonable rates of interest. Commercial banks are already failed to give 'the opportunity of getting and utilizing of loans' to the poor for three main reasons. Firstly, these banks need collateral that the poor find difficult to provide. Secondly, their procedure for filling in application forms and completing other formalities for obtaining loans are too cumbersome for the illiterate poor people. Thirdly, they prefer handling large amount loans rather than the petty loans suitable for the poor (Hossain, 1988).

The purpose of the study was to evaluate the "impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of rural women beneficiaries". The study aimed to find out the answers to the following questions:

1. What are the personal characteristics of the rural poor women and who are involved with Grameen Bank micro-credit program?
2. What contributions to the target groups are made by Grameen Bank in relation to income, food consumption, housing unit etc.?
3. What are the relationships between the selected characteristics of the rural women beneficiaries and impact of Grameen Bank micro-credit program?
4. What are the problems that are faced by the rural women beneficiaries in receiving and utilizing the micro-credit?

In consideration of the above facts stated, the researcher undertook a piece of study entitled "Impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of rural women beneficiaries."

1.3 Specific Objectives of the study

The main theme of the study was to evaluate the impact of Grameen Bank micro-credit program attempting to uplift the socio-economic condition of the rural women beneficiaries. This is why, the following objectives were formulated in order to give proper direction to the study:

1. To find out the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries regarding their
 - change in income
 - change in food consumption
 - change in housing unit
 - change in toilet condition
 - change in drinking water source
 - change in family asset
 - change in decision-making ability
2. To determine and describe the selected characteristics of rural women beneficiaries of Grameen Bank micro-credit program. These characteristics are age, education, family size, farm size, credit received, cosmopolitaness, duration of the involvement with Grameen Bank micro-credit program and attitude towards Grameen Bank micro-credit program
3. To find out the relationships between the selected characteristics of Grameen Bank women beneficiaries with the impact of Grameen Bank micro-credit program
4. To identify the problems faced by the Grameen Bank women beneficiaries in receiving and utilizing the micro-credit

1.4 Justification or Rationale of the Study (Research Work)

Increased productivity, income, consumption and participation of the beneficiaries in socio-economic development activities are some of the major pre-requisites for the overall economic development of Bangladesh. Most of the NGOs are believed to be working to meet up the above requirements as the pre-requisites for socio-economic development since the independence of Bangladesh. The NGOs were welcome in Bangladesh to improve the socio-economic condition of the poorest sections of the society. As they do not have sufficient employment opportunities and income earning sources to maintain their livelihood, they are vulnerable class of the society and through their involvement with NGO activities, they are expected to uplift their personal, social and economic dimensions by increasing their access to and control over resources.

Grameen Bank plays a very important role for alleviating poverty in rural areas and it is a successful model for uplifting the socio-economic condition of the rural people, Grameen Bank mainly provides credit in various agricultural and rural development programs and continues to remain a great source of hope for a new and better life for its women beneficiaries and their families. As of may, 2006, it has 6.39 million borrowers, 96 per cent of whom are women. With 2185 branches, Grameen Bank provides services in 69,140 villages, covering more than 100 per cent of the total villages in Bangladesh (Yunus, 2006).

Access to credit is an important mechanism for the poor people both men and women to improve socio-economic condition and their standard of living. Most of the NGOs

are working to improve the socio-economic condition. Grameen Bank works at the grass root level for the poverty alleviation and employment generation.

So, there needs to conduct study to see and realize the performance of poverty alleviation programs arranged by Grameen Bank. The researcher intended to take an attempt to know how the rural women beneficiaries could uplift their socio-economic condition being in the vicinity of Grameen Bank micro-credit program. To know why and how different changes in varied aspects like change in income, change in food consumption, change in housing unit, change in family asset etc. are taken place might be an aspect of the rationality of this study. The findings of this study also might be expected to be useful to the researchers, planners and policy makers, extension workers and beneficiaries of Grameen Bank and similar NGOs and to other organizations and personnel.

1.5 Assumptions and limitations of the study

1.5.1 Assumptions of the study

An assumption is the supposition that an apparent fact or principal is true in the light of the available evidence (Carter, 1945). The researcher cherished the following assumptions in mind while undertaking the study:

- i. The respondents were capable of furnishing proper responses to the questions contained in the interview schedule.
- ii. The responses provided by the respondents were valid and reliable.
- iii. Information furnished by the beneficiaries included in the sample was the representative of the whole population of the study area.

- iv. The researcher who personally collected data was well adjusted by himself to the social environment of the study area.
- v. The data collected from the respondents were free from interviewer bias.
- vi. The selected characteristics of the respondents and the 'impact of Grameen Bank micro-credit program' of this study were normally and independently distributed with their respective means and standard deviation.

1.5.2 Limitations of the study

Considering the time, money and other resources available to the researcher, the following limitations were taken into consideration.

- i. The study was confined to one union namely 11 Number Maricha Union under Birgonj Upazila of Dinajpur District.
- ii. Characteristics of the rural women were many and varied, but only eight characteristics were selected for investigation in the study.
- iii. In a peasant-dependent economy like Bangladesh where women are mostly illiterate, it is very difficult to get accurate information with respect to their activities on production, income and the like.
- iv. There were many landless rural women in the study area, but only the rural women involved with Grameen Bank micro-credit program were considered for this study.
- v. The women always remain very busy with household works and often they were not encouraged to provide household information without consulting their husbands or guardians. So, efforts were made to incorporate that information which was within their easy reach.

- vi. For information about the study, the researcher had to depend on data as furnished by the selected rural women beneficiaries during data collection.
- vii. The researcher was a male and the respondents were females. Some initial difficulties were faced in interviewing the female respondents due to cultural barriers. However, this gender problem was subsequently overcome by creating proper rapport with the beneficiaries in association with Grameen Bank staff.

Findings of the study will be particularly applicable to the Grameen Bank women beneficiaries of one union namely 11 Number Maricha Union. However, the findings may also have relevance to other areas of same physical, socio-economic and cultural conditions in Bangladesh where similar activities are going on. Thus, the findings are expected to be useful to the researchers, planners and policy makers, extension workers and beneficiaries of Grameen Bank and similar NGOs and other organizations and personnel.

1.6 Definition of important terms

For clarity of understanding, certain frequently used terms are defined and interpreted below:

Micro-credit

The word micro-credit did not exist before the seventies. Now it has become a buzzword among the development practitioners. In the process, the word has been imputed to mean everything to everybody. No one now gets shocked if somebody uses the term micro-credit to mean agricultural credit, or rural credit, or cooperative credit, or consumer credit, credit from the savings and loan associations, or from credit unions or from money lenders. Professor Dr. M. Yunus of the Grameen Bank has initiated a system of credit delivery to the poor without collateral-popularly known as 'micro-credit'. Moreover, the system that provides small credit without collateral in group-based socio-economic development approach to the poor for creating self-employment with a view to alleviating poverty is called micro-credit.

Impact

Impact is a term that referred to sustained structural changes that have lasting effect.

Impact of micro-credit

The term referred to sustained desirable changes due to involvement in Grameen Bank micro-credit program as perceived by the involved beneficiaries. As the study was concerned with beneficiaries' involvement with selected activities, the impact was conceptualized as the after-effect of those selected activities in terms of extent of desirable changes occurred in seven dimensions.

Change

It refers to the improvement or deterioration of the respondents in various aspects of Grameen Bank women beneficiaries.

Poverty line

Poverty line I: It is defined as daily intake of 2122 K. cal. energy per person.

Poverty line II: It is defined as daily intake of 1805 K. cal. energy per person.

Poverty line *I* and *II* were used by BBS (2002). These two poverty lines also were used in this study as standard scale in terms of food consumption condition of the beneficiaries.

Problem

Problem means any difficult situation which requires some action to minimize the gap between 'what ought to be' and 'what is'.

Women beneficiaries

Grameen Bank beneficiaries are those who get benefit from Grameen Bank micro-credit program directly. Poor rural women involved in different activities under Grameen Bank micro-credit program may be termed as women beneficiaries. Women beneficiaries are also termed as respondents.

Rural women

Rural women refers to the women who live in rural areas, aged in between 18 to 50 years and engaged in Grameen Bank activities.

Education

It is defined as the development of desirable knowledge, skill and attitude in an individual through the experience of reading, writing and other related activities.

Family size

It refers to the number of individuals in the participating beneficiary's family. In a joint family, the number of family member was higher than that of single family.

Cosmopolitaness

The orientation of an individual external to her own social environment.

Attitude towards Grameen Bank micro-credit program

An attitude may be defined as pre-disposition to act towards an object in a certain manner. It is an enduring psychological system consisting of three interacting components that may be classified as:

The cognitive component– the beliefs about the objects.

The feeling component – the affect connected with the objects and

The pre-disposition or action tendency component–the pre-disposition to take action with respect to the object.

The term 'attitude towards Grameen Bank' of a respondent is, therefore, used to refer to her beliefs, feelings and action tendencies towards the various aspects of Grameen Bank activities (Rashid, 2000)

CHAPTER 2

REVIEW OF LITERATURE

The purpose of this section is to review literatures having relevance to the present study. This section deals with a brief review of previous research studies relating to the concept of poverty, causes of poverty, ways of reducing poverty and impact of micro-credit towards poverty alleviation and uplifting the socio-economic condition. The researcher took an attempt to gather information related to the concepts of the poverty, causes of poverty, poverty alleviation etc. A few of the recent studies which are relevant to this research are briefly discussed in this chapter. However, the reviews are arranged under the following sections.

2.1: Studies relating to concept of poverty, poverty alleviation, loan disbursement condition

2.1.1 Concept of poverty

Those who live in conditions of poverty lack a wide range of economic and other resources and may be described as 'poor' or 'impoverished'. Some see the term as subjective and comparative, others see it as a moral and evaluative, while others consider that it is scientifically established. Poverty is understood in many senses.

Chambers (1983) termed poverty as an interlinked and integrated concept which involves cluster of disadvantages. According to him poor people are perceived to suffer from many forms of deprivation which lead to lack of income and wealth but also social inferiority, physical weakness, disability and sickness, vulnerability,

physical and social isolation, powerlessness and humiliation. He termed all these as a deprivation trap (Fig. 2.1)

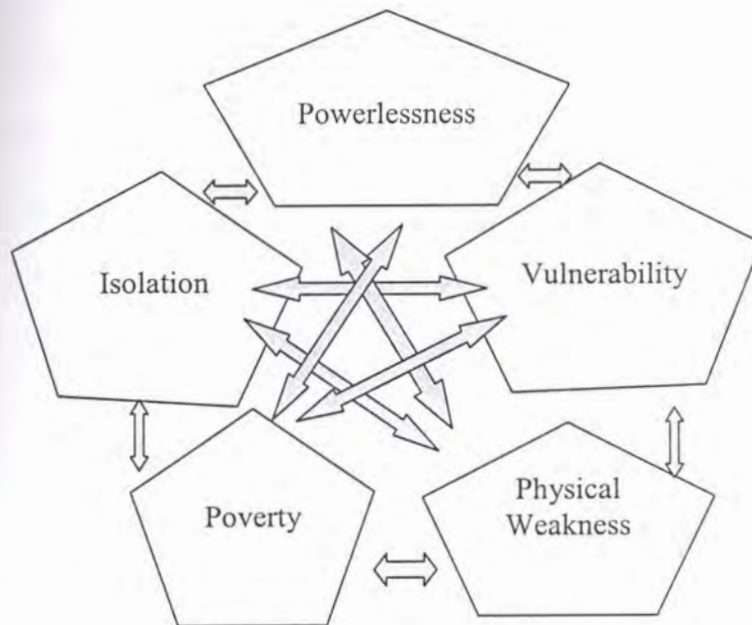


Figure 2.1 The deprivation trap
(Chambers, 1983)

The World Bank defines 'extreme poverty' as living on less than US \$1 per day, and 'moderate poverty' as less than \$2 a day. It has been estimated that in 2001, 1.1 billion people had consumption levels below \$1 a day and 2.7 billion lived on less than \$2 a day. The proportion of the developing world's population living in extreme economic poverty has fallen from 28 per cent in 1990 to 21 per cent in 2001. It is estimated that about 8 million people die each year because they are too poor to survive.

Palli Daridra Bimochan Foundation (PDBF) has given a definition of 'poor' person. PDBF is an autonomous organization under the Ministry of Local Government, Rural development and Co-operatives. According to PDBF (2001), the person whose family

income is lower than Tk.3000 per month, whose family farm size is not more than 0.50 acre and whose main source of income is physical labor, is termed as 'poor'.

BBS (2002) revealed that the number of poor people in urban areas was 52.5 per cent and in rural area, it was 42.3 per cent below absolute poverty line in 2000. At that same time the population below extremely poverty line was 25.0 per cent in urban area and 18.7 per cent in rural area in 2000, at the national level, the lower poverty line was 33.7 per cent and the upper poverty line was 49.8 per cent of 2000 estimation.

2.1.2 Concept of relative and absolute poverty

Alam (1993) said relative poverty is considered as a relative deprivation of income emerging from unequal distribution of resources.

Measure of relative poverty is almost the same as measuring inequality: if a society gets a more equal income distribution, relative poverty will fall. Following this, some argued that the term 'Relative Poverty' is itself misleading and that inequality should be used instead. They point out that if society changed in a way that hurt high earners more than low ones, then "relative poverty" would decrease but every citizen of the society would be worse off.

Absolute poverty is defined as the income level below which even minimum standards of nutrition, shelter and personal amenities cannot be maintained. A measure of absolute poverty quantifies the number of people below a poverty line, and this poverty line is thought to be independent of time and place. For the measure

to be absolute, the line must be the same in different countries. Also, it does not change when the income distribution changes.

2.1.3 Loan disbursement condition and poverty alleviation efforts

NGOs have been engaged in fighting against poverty of Bangladesh for a long time since 1972. At present 80 per cent, villages are now covered by NGOs' activities. More than one thousand NGOs are engaged in distributing micro-credit among the poor people. Until June 1999, NGOs have disbursed Tk.77352 million as credit. The number of people concerned with the NGOs is 87 lacks of which 85 per cent is female (CDF, 1999) participants. Table 2.1 shows the number of members of NGOs and the amount of credit disbursement for poverty alleviation.

Table 2.1 NGOs' disbursement of micro-credit showing the amount of credit as a part of poverty alleviation program

Organization	Active members (million)	Cumulative amount of credit disbursed (million Tk.)	Rate of realization (Percent)
BRAC	2.7	34653	98.29
PROSHIKA	1.4	9643	97.03
ASA	1.1	14429	99.93
SWANIRVAR BANGLADESHD	0.7	1736	82.95
Others	2.8	16888	84.62
Total	8.7	77352	95.11

Source: CDF, 1999

2.1.4 Recent loan disbursement situation of Bangladesh:

GOs &NGOs have been disbursing credit to the hardcore vulnerable people for the betterment of living standard.

Table 2.2 Disbursement of micro-credit by GOs and NGOs

Loan sources	Loan disbursed (percentage)
NGOs	38.47
Grameen Bank	34.90
Banking institutions	17.86
Government departments	8.77

Source: The Daily Ittefaq, 5 July, 2006

Up to December 2003, there has been a disbursement of Tk. 487009.80 million among the poor people. Grameen bank is regarded as the pioneer of the introduction of micro-credit in the country as well as in rest of the world. From the very beginning up to July 2004, the total amount of disbursed loan is Tk.20, 553.25 crore among its beneficiaries. The repayment per cent is 98. Grameen bank has been working throughout the Bangladesh through 1,267 branches in 46,279 villages among 36,98,082 beneficiaries of which 35,36,347 beneficiaries are women (The Daily Ittefaq, 5 July, 2006).

Chossudovsky (1997) argued that population groups in individual countries with per capita income in excess of US \$1 a day are arbitrarily identified as 'non-poor'. He further argued that income and social inequalities between and within nations have been increasing, whereas the World Bank through the manipulation of income statistics shows that the poor are a minority group in developing countries. The World

Bank estimates that 33 per cent of third world population is poor and 18 per cent is extremely poor.

2.2: Studies Relating To Causes of Poverty

2.2.1 Causes of poverty: Some past research findings and experts' opinions

According to the BBS (1997), among the landless in rural areas, 57.9 per cent were very poor and 69 per cent were poor. Among the marginal landless (owning less than .50 acre), 6.31 per cent were very poor and 80 per cent were poor. Among large landowners (owning 7.5 acres and more), only 2.6 per cent were very poor and 9.1 per cent were poor. In rural areas, land ownership remains the key element of living standards because land is the most important income-earning asset.

Nawaz (2000) said that the main causes of poverty in Bangladesh are scarcity of land, lack of skill, malnutrition, lack of access to the means of production and resources, with a resultant lack of scope for economic activity and employment, vulnerability to repeated natural disasters and unequal distribution of productive assets, especially land.

Halder (2001) said that the causes for becoming extreme poor includes river erosion, land redistribution and family break up, flood, bad habit of household heads and inherited poverty.

Khan (2001) said that NGOs have already chosen their alternative programs like health and family planning, non-formal primary education, credit and savings, income generation, women issues, environmental problem, disaster management, human

rights. All of the above are the causes of insufficient food or nutrition, income or education, which may be responsible for poverty.

Muzzaffar (2001) said that why there is still so much poverty in the world when we have both the knowledge and the techniques to eliminate poverty forever from the face of the earth, it is not difficult to fathom. The misallocation of resources based on priority is undoubtedly one of the major causes of absolute poverty.

2.3: Studies Relating To Reduction of Poverty and Impact of Micro-Credit

2.3.1 How to reduce poverty: Reviews relating to socio-economic development and impact of micro-credit

Paul (1996) conducted a study on the impact of livestock program of BRAC in sadar Thana of Mymensingh district. The results of the experiment revealed that a substantial positive change occurred in family income of the participants after their joining the milching cow rearing and beef-fattening program of BRAC.

Khandaker (1995) based on extensive survey data from Bangladesh observed that micro-credit programs were an effective policy instrument for reducing poverty among poor people to become self-employed. Micro-credit programs were found to be particularly important for Bangladeshi women, many of whom are restricted by social customs from seeking wage employment

Mayoux, *et al.* (1998) described that micro-finance programs for women are currently promoted not only as a strategy for alleviation of poverty but also for women's empowerment.

Khan (1999) carried out a study on micro-credit program in Bangladesh with special emphasis on underprivileged rural women. Women wage earners were found to value paid work more than they valued credit. The study thus concluded that more employment opportunities should be created for women as these would help to promote economic and social empowerment including gender and human development

Ali (2000) stated that available evidence is also suggestive of the synergies that exist among different growth projects (road, electricity, new technology, for instance) and between growth and social sector project and between growth and micro-credit. One of the latter topic, we may only add that further expansion of credit for the poor should be seen in the broader context of infrastructure development. Such a packaging (along with rural and human development will not only enhance the return to micro-credit schemes and contribute to its viability but also accelerate the rate of poverty reduction.

Khan (2001) pointed out that the credit and the savings are very effective tools of poverty alleviation. The essence of credit program in Bangladesh is the sole contribution of NGOs like Grameen Bank, BRAC, ASA, PROSHIKA, KARITAS etc. By the mid-nineties, the credit program turned as a pragmatic way. An increasing trend of credit program by mainstream NGOs has almost abandoned all other program except credit. Khan also said special credit activities of government agencies are yet to reach the majority of the rural poor. By taking the advantage of rural infrastructure,

few renowned NGOs disbursed 91 per cent of that credit in the country. He also argued that another very important input in the poverty alleviation is micro-credit.

Pallavi-Chavan, *et al.* (2002) stated that Non Governmental Organizations (NGOs)-led micro-credit as an effective and financially viable alternative to the existing methods of addressing rural poverty through the provision of credit. In India, it is also revealed that micro-credit programs have been able to bring about a marginal improvement in the beneficiaries income.

2.3.2 Studies relating to Impact of micro-credit

BBS (2002) found that after forming the groups of Grameen Bank, the income of the members increased by 70 per cent within 2 to 3 years. On an average, the income increased from Tk 5806 to Tk.9166, which was 55 per cent higher than it was before. After forming the groups, only 5 per cent of the members took loan from non-institutional sources.

Giriappa (1988), based on a study, observed that the role and status of women have been under a continuous change in recent years. In both female and male-headed households, the participation of women in decision-making was found to have increased.

Robinson (1991) dealt with the impact of NGOs in rural poverty alleviation in India. Four case studies were reported in his paper. The results of the four case studies showed that NGOs showed some successes in improving the income and the

consumption levels of the poor but encountered difficulties for a favorable local environment, especially, in economic and climatic factors.

Amin, *et al.* (1994) conducted a study on Grameen Bank and they showed that the participation in income generating projects in support of Grameen Bank micro-credit by the poor rural women has led to an increased level of contraceptive use and to a decrease level of desire for additional children.

Rahman and Khandaker (1994) carried out a study on impact of NGOs' activities in respect of employment and income especially for women. The findings indicated that credit programs of BRAC and BRDB was successful in expanding of self-employment opportunities among rural women.

Harper (1998) stated that well-managed micro-finance could be profitable for both its customers and its providers; it is a business opportunity itself for bankers, and need not depend on donor's assistance.

2.4 Studies relating to the relationship between poverty alleviation and selected characteristics of the rural women

The selected characteristics of the rural women under Grameen Bank were selected as independent variables of this study. No literature was found that determined the relationship between the selected characteristics of the beneficiaries with their impact of micro-credit. Some literatures were available those determined the relationship between the selected characteristics of the beneficiaries with their poverty alleviation. However, poverty alleviation must be a component of impact. These are

2.4.1 Age and poverty alleviation

Dickerson (1992) in his study observed that younger women were concerned almost primarily with productive activities while older women were involved more in decision-making within their households and they had to play extra domestic roles.

2.4.2 Education and poverty alleviation

Devi (1995) found that education of women had a significant positive impact on labor force participation.

Begum (1998) in her study entitled "Poverty Alleviation of the Rural Women Organized by Association for Social Advancement" observed that education of the rural women had a positive significantly relationship with their poverty alleviation owing to participation in ASA activities.

2.4.3 Family size and poverty alleviation

Basak (1997) found that the family size of the rural women under BRAC had a significant positive relationship with their impact of participation in BRAC rural development activities.

Begum (1998) observed that family size of the rural women had no significant relationship with their poverty alleviation owing to participation in ASA activities.

2.4.4 Farm size and poverty alleviation

Begum (1998) observed that the homestead area of the rural women had no significant relationship with their poverty alleviation due to participation in ASA development activities.

2.4.5 Credit received and poverty alleviation

Khandaker (1995) observed a significant negative relationship between credit availability and impact in terms of improved well-being.

2.4.6 Cosmopolitaness and poverty alleviation

No relevant study was found.

2.4.7 Duration of involvement with Grameen Bank micro-credit program

No relevant study was found.

2.4.8 Attitude towards Grameen Bank micro-credit program and poverty alleviation

No relevant study was found.

2.5 Conceptual framework of the study

In scientific research, selection and measurement of variables constitutes an important task. The hypothesis of a research while constructed properly contains at least two important elements *i.e.* a dependent variable and an independent variable. A dependent variable is that factor which appears, disappears or varies as the researcher induces, removes or varies the independent variables (Townsend, 1953). An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationships to an observed phenomenon. A simple conceptual framework for the study is shown below:

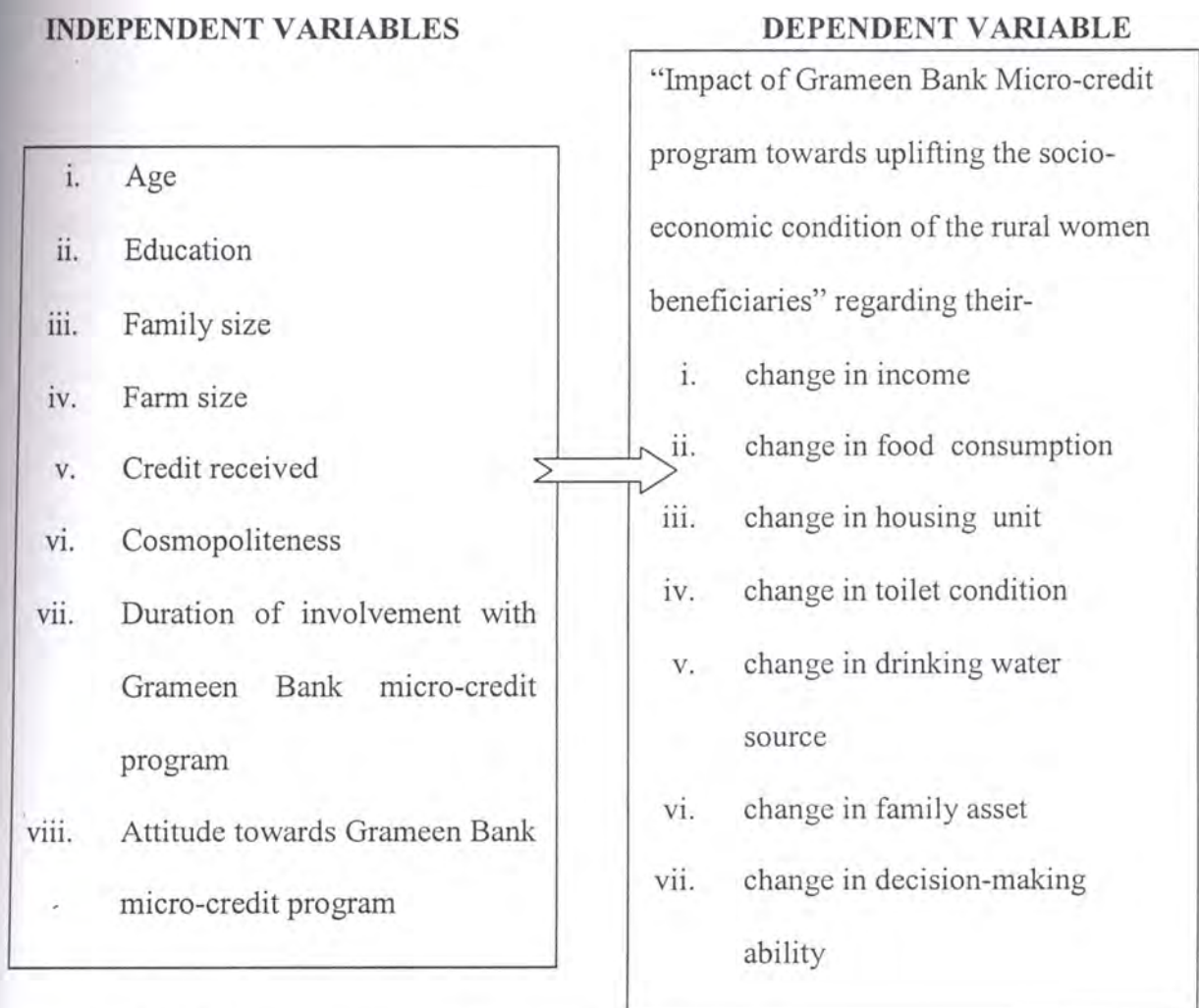


Figure 2.2 A Simple Conceptual Framework For The Study.

CHAPTER 3

METHODOLOGY

In any scientific research methodology plays an important role. To perform a research work systematically, careful consideration is a must. It should be such that it would enable the researcher to collect valid and reliable information to arrive at correct decisions. The methods and procedures followed in conducting this study have been described in this chapter.

3.1.1 Locale and population

This study was conducted at 11 Number Maricha Union of Birgonj Upazila under Dinajpur District where Grameen Bank was operating extensively. Six villages were selected as the study area because Grameen Bank activities were more concentrated in those villages in comparison to others. There were 674 women beneficiaries in those villages that constituted the population for this study. These beneficiaries were from 20 randomly selected centers spread over the said six villages. For clarity of understanding, one map of Dinajpur District and one map of Birgonj Upazila showing the study areas have been presented in figure 3.1(p.29) and figure 3.2(p.30) respectively.

Table 3.1 Distribution of population and sample of the rural women beneficiaries in the villages under 11 Number Maricha Union

Name of the union	Name of the villages	Total number of beneficiaries	Number of beneficiaries interviewed
11 Number Maricha Union	Khamar kharikadam	117	18
	Bhabanipur	115	17
	Bochapukur	112	15
	Nohail	105	16
	Satkhamar	105	16
	Maricha	120	18
Total		674	100

3.1.2 Sampling procedure

An updated list of all the women beneficiaries of Grameen Bank micro-credit program of the selected union was collected with the help of local Grameen Bank officials. The total number of union under Birgonj Upazila was 13 and the researcher selected one large union. Data for this study were collected from a sample rather than the whole population. Out of 674 beneficiaries a sample of 100 beneficiaries were selected by systematic random sampling technique using a table of random numbers by taking 15% from each of six villages. A reserve list of 10 beneficiaries was also prepared for covering the positions in case of the absence of the selected respondents during interview. The distribution of the population and the sample size are presented in table 3.1

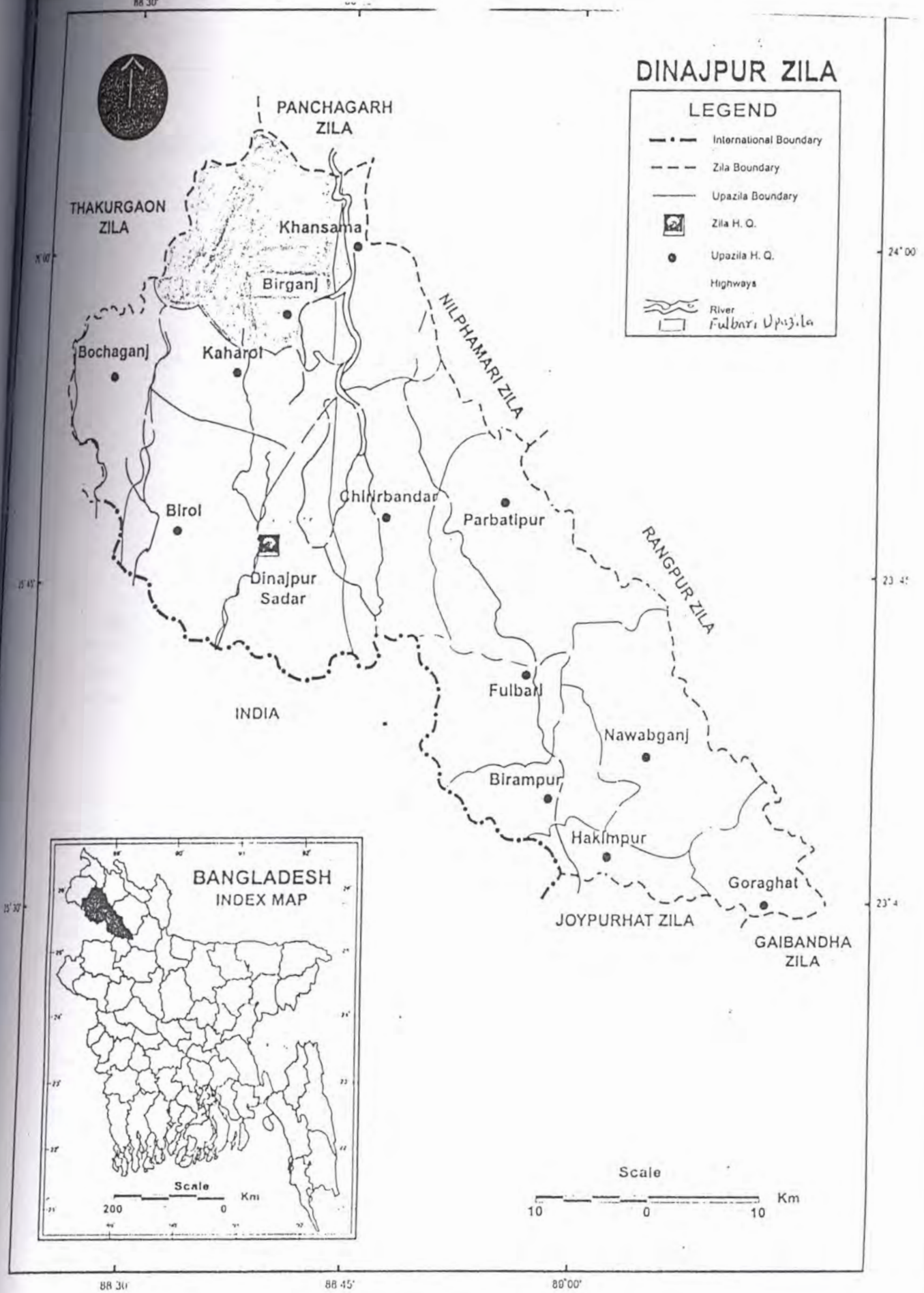


Fig. 3.1 A map of Dinajpur district showing *Birganj* upazila

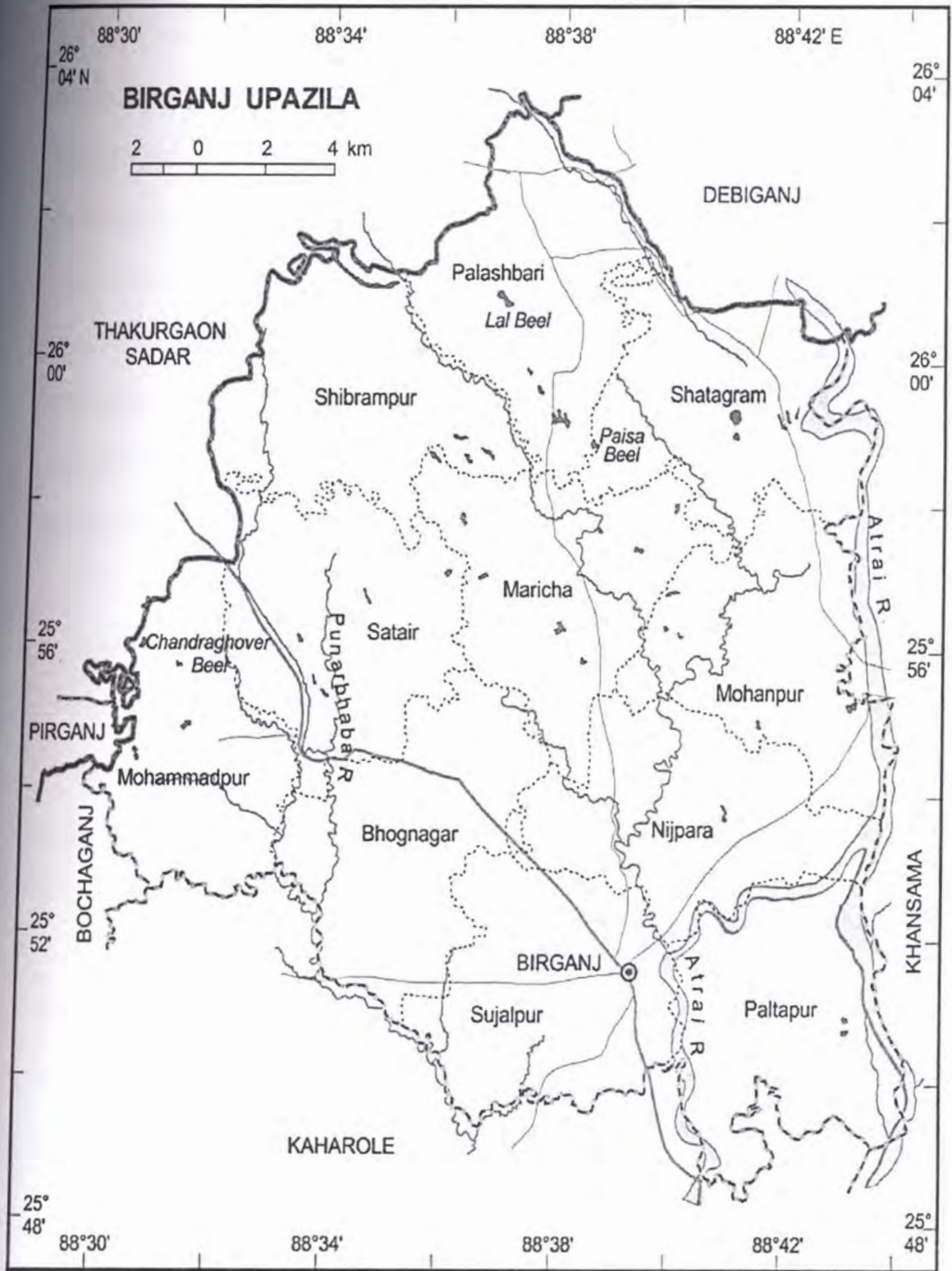


Figure 3.2 A map of Birganj Upazila showing the study area (11 Number Maricha Union)

3.1.3 Instrument for data collection

In order to collect valid and reliable information from the Grameen Bank women beneficiaries, an interview schedule (questionnaire) was carefully designed keeping the objectives in mind. Simple and direct questions and different scales were used to obtain information. Direct questions were included to collect information about age, education family size etc. Scales were used to measure the cosmopolitaness, attitude towards Grameen Bank micro-credit program etc. Open form questions were designed to obtain information relating to qualitative variable, which was finally measured by ranking score.

An English version of the interview schedule has been presented in appendix A. The interview schedule was pre-tested with 10 sample respondents from the study area during February 2006. Necessary corrections, changes and modifications were made in the interview schedule on the basis of the pre-testing information. The modified and corrected interview schedule was then printed in the form of final copy.

3.1.4 Data collection

The researcher himself collected essential data through personal interview with the individual respondent. An introductory visit to the respondents' house was made in support of Grameen Bank field workers when the aims and objectives of the study were explained to most of the sample respondents. This helped the researcher to have a friendly orientation to the group members. Before going to the respondents for interview, advanced information was taken with the help of branch manager and Grameen Bank field supervisors. Brief information regarding the nature and purpose of the study was given to the respondents before actual interview. The researcher also

established rapport with the respondents. Usually, the respondents kept records of annual or daily accounts of their data and researcher had to rely on those data and memory of the respondents as well. Questions were asked systematically and explanations were made whenever it was felt necessary. The information was dully checked in order to minimize errors. Some data were recorded in local unit. These were subsequently converted to appropriate standard units. The respondents were interviewed at their leisure time so that they could give accurate information in a cool mind. The investigator faced no serious problems. Excellent co-operation was obtained from all of the respondents. Other group members, Grameen Bank workers and local leaders also rendered co-operation during the period of data collection. The data collection took near about 30 days from 1st February to 4th March , 2006.

3.1.5 Data processing and statistical analysis

All the collected data were checked and cross-checked before transplanting to the master table sheets. The data were coded, compiled, tabulated, and analyzed to accomplish the specific objectives of the study. Qualitative data were converted into quantitative form by means of suitable scoring technique whenever applicable. Impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries was examined by drawing 'before' and 'after' comparison. Data were presented mostly in the tabular form, because it is simple in calculation, widely-used and easy to understand. Various statistical measures like number, percentage distribution, range, mean, standard deviation, etc were calculated for describing the selected characteristics of the respondents and the impact of Grameen Bank micro-credit program. To find out the relationships between

the selected characteristics of the respondents with their impact of Grameen Bank micro-credit program, correlation co-efficient was used. One and five per cent level of probability was used as the basis for rejection/acceptance of any null hypothesis.

3.1.6 Hypothesis of the study

The following research hypotheses were put forward to test the relationships between different characteristics considered. Each of eight selected characteristics (age, education, family size, farm size, credit received, cosmopolitaness, duration of involvement with Grameen Bank micro-credit program, attitude towards Grameen Bank micro-credit program) of the beneficiaries is related to impact of Grameen Bank micro-credit program 'after' involvement with it.

However, for statistical advantage, each of the above research hypotheses was converted into null form which states that 'there is no relationships between the selected eight characteristics (age, education, family size, farm size, credit received, cosmopolitaness, duration of involvement with Grameen Bank micro-credit program and attitude towards Grameen Bank micro-credit program) of the beneficiaries with the impact of micro-credit.

3.2 Measurement of variables

3.2.1 Measurement of independent variables

In this study, eight selected characteristics (independent variables) of the women beneficiaries were selected. These were age, education, family size, farm size, credit received, cosmopolitaness, duration of involvement with Grameen Bank micro-credit program and attitude towards Grameen Bank micro-credit program. The measuring procedures of the variables are presented below:

3.2.1.1 Age

Age of a respondent was measured based on time from her birth to the time of interview. A score of 1 was assigned for each year of her age.

3.2.1.2 Education

The education was measured on the basis of completed years of schooling by a respondent in the educational institutions. A score of 1 was given for each completed year of schooling. A respondent who did not know how to read and write was given the score of zero. A score of .5 was given to a respondent who only could sign her name.

3.2.1.3 Family size

Family size was measured by computing total number of members in the family. A family normally consisted of the head of household, wife, unmarried sons and other dependent relations who jointly live and eat together during interview. A score of 1 was assigned to each member of the family.

3.2.1.4 Farm size

The farm size of a respondent was measured based on total area of land on which the family carried out farming operations. The farm size of a respondent was calculated by using the following formula and was expressed in terms of hectares.

$$FS = A_1 + A_2 + 1/2 (A_3 + A_4) + A_5 + A_6$$

FS = Farm size

A₁ = Homestead area

A₂ = Cultivated area owned by a respondent

A₃ = Land given to others on Borga

A₄ = Land taken from others on Borga

A₅ = Land taken from others on lease

A₆ = Pond and others

3.2.1.5 Credit received

It refers to the amount of money received by a respondent as loan from any sources. It was expressed in Tk. The total credit was calculated by adding all the split credit together. Thus the amount was taken for credit received.

3.2.1.6 Cosmopolitaness

The term cosmopolitaness was used to refer the orientation of an individual external to her own social system. The cosmopolitaness score was computed for each respondent to determine the degree of her cosmopolitaness on the basis of her visits to each type of place. Then all the scores were added together to obtain the total cosmopolitaness score for a respondent. The cosmopolitaness score is as follows:

Table 3.2 The scoring of cosmopolitaness

Place of visit	Weighting system
1. Visit to market/relatives'/friends'/ familiar home outside her own village per week.	0 = not even once a week 1 = once a week 2 = 2-3 times a week 3 = 4-5 times a week 4 = 6 or more times a week
2. Visit to Union Parisad Office per month	0 = not even once a month 1 = once a month 2 = 2-3 times a month 3 = 4-5 times a month 4 = 6 or more times a month
3. Visit to Own Upazila Sadar per three months	0 = not even once per three months 1 = once per three months 2 = 2-3 times per three months 3 = 4-5 times per three months 4 = 6 or more times per three months
4. Visit to Other Upazila Sadar per three months	0 = not even once per three months 1 = once per three months 2 = 2-3 times per three months 3 = 4-5 times per three months 4 = 6 or more times per three months
5. Visit to Own District Sadar per six months	0 = not even once per six months 1 = once per six months 2 = 2-3 times per six months 3 = 4-5 times per six months 4 = 6 or more times per year
6. Visit to Other District Sadar per year	0 = not even once per year 1 = once per year 2 = 2-3 times per year 3 = 4-5 times per year 4 = 6 or more times per year
7. Visit to Divisional Headquarter per year	0 = not even once per year 1 = once per year 2 = 2-3 times per year 3 = 4-5 times per year 4 = 6 or more times per year
8. Visit to Capital City per year	0 = not even once per year 1 = once per year 2 = 2-3 times per year 3 = 4-5 times per year 4 = 6 or more times per year

The probable cosmopolitanism score of a respondent could range 0 to 32 where 0 indicated no cosmopolitanism and 32 indicated high cosmopolitanism.

3.2.1.7 Duration of involvement with Grameen Bank micro-credit program

It was measured considering the period of time of involvement of the respondents with Grameen Bank micro-credit program to the time of interview. It was calculated in terms of years on the basis of the respondent's responses and as verified from Grameen Bank office.

3.2.1.8 Attitude towards Grameen Bank micro-credit program

Attitude of a respondent refers to her feelings, beliefs and action tendencies towards the Grameen Bank micro-credit program. For measuring the attitude of respondents towards Grameen Bank micro-credit program a number of eight items (four positive and four negative) related to the objectives of the study were presented before the respondents. These items were called statements. The positive and the negative statements were arranged randomly in the interview schedule so that the respondent's real attitude could be reflected. A three-point scale was used to measure the attitude of the respondents towards Grameen Bank micro-credit program. A respondent was asked to express her opinion by choosing one suitable option from three alternatives namely 'agree', 'no opinion' and 'disagree'. Scores corresponding to these three options were given in the following manner.

Table 3.3 Attitude scoring of the respondents

Options	Score assigned	
	For Positive statement	For Negative statement
Agree	2	0
No opinion	1	1
Disagree	0	2

A respondents' attitude score was computed by summarizing scores of all 8 items. Hence, the attitude score of a respondent could range from 0 to 16, where 0 indicated low favorable attitude and 16 indicated high favorable attitude towards Grameen Bank micro-credit program.

3.3 Measurement of dependent variable

In this study, the dependent variable was **'the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition OF the rural women beneficiaries'**. This dependent variable was measured with the association of seven dimensions. These seven dimensions were i) change in income, ii) change in food consumption, iii) change in housing unit, iv) change in toilet condition v) change in drinking water source vi) change in family asset vii) change in decision-making ability. In each case, two situations namely 'before' and 'after' situation *i.e.* situation 'before involvement' with Grameen Bank micro-credit program and situation 'after involvement' with Grameen Bank micro-credit program were considered. The difference between two situations was determined for each case stated. How the difference was measured is stated below:

3.3.1 Change in income

A beneficiary's family income was measured in thousand Tk. On the basis of her and other family members' total yearly income from agriculture and other sources like fisheries, livestock, poultry, business, labor, cottage industry etc. The method of ascertaining income from agriculture involves two phases. Firstly, the yields of crops were noted. Secondly, all the yields were converted into cash income. Price of each agricultural item was determined based on average of maximum and minimum price given by businessmen and other five men who were informed of the prices of the agricultural commodities. Incomes from other sources (e.g. wage, service, business) by other family members were also estimated. The total income in Tk. was converted into family income score. A score of one was arranged for each one thousand Tk. The change in income was determined by subtracting the income score of 'before involvement' from 'after involvement' income score.

3.3.2 Change in food consumption

It refers to the improvement or deterioration of respondents in respect of her amount of food consumption 'after involvement' with Grameen Bank micro-credit program. In this study, eight items were considered to determine the food consumption behavior. The methods of determining food consumption involved three phases. Firstly, consumption of rice, wheat, vegetables, pulse, fish, milk, meat and egg was determined by the amount of food consumed per day by a respondent. Secondly, the daily consumption of food items per person was calculated and was expressed in gram. Finally, the amount of items was converted into energy on the basis of their energy content value shown in table 3.4. Thus, the total energy was obtained by adding the energy from all the items. The change in food consumption was

determined by subtracting 'before involvement' food consumption figure from 'after involvement' food consumption figure.

Table 3.4 Energy content of some food items

Food items (100 gm)	Energy (K. Cal)
Rice	364
Wheat	341
Vegetables	53.75
Pulse	338
Fish	89
Meat	127
Milk	61
Egg	158

Source: FAO, 1997

3.3.3 Change in housing unit

It refers to the number of housing unit of the beneficiaries both 'before' and 'after' involvement with Grameen Bank micro-credit program. There were four types of housing in the study areas *e.g.* no house, kacha ghar with straw roof, bamboo-made kacha ghar and kacha ghar with tin roof. For determining the type of housing unit, each respondent was asked to indicate the nature of housing unit of 'before' and 'after' involvement with Grameen Bank. A tick mark was given against her response against those four responses. The change in housing unit was measured on the basis of housing unit score of the respondents between the 'before' and 'after' involvement with Grameen Bank micro-credit program. Weights were assigned as follows:

Table 3.5 The scoring of housing unit

Types of dwelling	Score assigned
No house at all	0
Kacha ghar with straw roof	1
Bamboo-made Kacha ghar	2
Kacha ghar with tin roof	3

The range of housing unit score could be 0 to 3, where 0 indicated very low housing unit condition and 3 indicated very high housing unit condition.

3.3.4 Change in toilet condition

It refers to the condition of toilet of the respondents both 'before' and 'after' involvement with Grameen Bank micro-credit program. There were four types of toilet facilities found in the study area *e.g.* open place or bush, kacha toilet and half-sanitary toilet and sanitary toilet. For determining the type of toilet facilities, each respondent was asked to indicate the nature of toilet facilities. A tick mark was given against her response against those three responses. The change in toilet condition was measured on the basis of toilet condition score of the respondents between 'before' and 'after' involvement with Grameen Bank program.

Table 3.6 Scoring of toilet condition

Types of toilet	Score assigned
Open place or bush	0
Kacha toilet	1
Half-sanitary toilet	2
Sanitary toilet	3

The range of toilet condition score could be 0 to 3 where 0 indicated very low toilet condition and 3 indicated very high toilet condition.

3.3.5 Change in drinking water source

It refers to the condition of drinking water source of the beneficiaries both 'before' and 'after' involvement with Grameen Bank micro-credit program. For determining the drinking water source of the respondents households, there were three types of drinking water sources namely, pond,/kua/river, others tube and own tube well. Each respondent was asked to indicate the type of drinking water source. A tick mark was given for her response against those three responses. Change in drinking water source was measured on the basis of drinking water source score of the respondents 'before' and 'after' involvement with Grameen Bank micro-credit program. Weights assigned to the responses were determined as follows:

Table 3.7 Scoring of drinking water source

Type of drinking water source	Score assigned
Pond/ kua /river	0
Others' tube well	1
Own tube well	2

The drinking water source score ranged from 0 to 2, where 0 indicated very low drinking water source and 2 indicated very high drinking water source.

3.3.6 Change in family asset

It refers to the condition of family asset of the respondents both 'before' and 'after' involvement with Grameen Bank micro-credit program. In this study, 23 items were included to determine the asset possession of the respondents. Each respondent was asked to indicate her possession against 23 items. Unit score was assigned based on price value of the asset. All the specific items of possession were converted into family asset score of the respondents. The change in family asset was measured on the basis of family asset score of the respondents by comparing the score of 'before' and 'after' involvement with Grameen Bank micro-credit program. Score of each asset possession was determined on the basis of average price as follows:

Table 3.8 Scoring of family asset

Sl. No.	Items of assets	Unit score	No. of unit	Total score
1.	Khat	3		
2.	Chowki	2		
3.	Chair	2		
4.	Bench	2		
5.	Table	2		
6.	Showcase	4		
7.	Wooden almirah	4		
8.	Alna	2		
9.	Radio	3		
10.	Two-in-one	4		
11.	TelevisionV	5		
12.	Wrist watch	2		
13.	Wall cock	2		
14.	Fan	3		
15.	Bi-cycle	5		
16.	Rickshaw	5		
17.	Van	5		
18.	Torch	2		
19.	Sewing machine	5		
20.	Cow	3		
21.	Goat	1		
22.	Hen	1		
23.	Duck	1		

Thus, family asset score of a respondent was obtained by adding score for possession of all the items. The family asset score ranged from 1 to 68, where 1 indicated very low family asset possession and 68 indicated very high family asset possession.

3.3.7 Change in decision-making

It refers to the condition of family related-decisions which are governed by the family members of the beneficiaries' household both 'before' and 'after' involvement with Grameen Bank micro-credit program. For determining the decision-making ability of the respondents, fifteen (15) statements were placed before them. Each of the respondents was asked to put tick against those statements. Those statements were then given score. Thus, score for two situations was found. Change in decision-making ability was measured on the basis of decision-making ability score of the respondents of 'before' and 'after' involvement with Grameen Bank micro-credit program. Weights assigned to the responses were determined as follows:

Table 3.9 Scoring of change in decision-making ability

Items	Score assigned
Full decision	3
Partial decision	2
Only discussion with husband	1
No influence	0

Thus, decision-making score of a respondent was obtained by adding score for statements. The decision-making scores ranged from 0 to 45 because the respondents were given 15 statements. Here 0 indicated no decision-making ability and 45 indicated very high decision-making ability.

3.4 Measurement of score of 'impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries'

The dependent variable was determined in the light of seven different dimensions stated before. Here, change scores are concerned. The unit of each dimension (in case of change score) differed from other, as for example the unit of income difference score was in Tk. and the unit of food consumption difference score was in kilocalorie. So, to get a unit-free score by calculating change score for the purpose of measuring impact score, the researcher had to categorize the change scores and, finally, had to rank following more or less similar category (four categories). Each dimension that is change score was categorized into four categories first and then ranks of seven dimensions were added together to get a unit-free score for 'impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries'. For the convenience of calculation and description, the following model was assumed to be used for assessment of 'impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries'.

$$Y = Y_1 + Y_2 + Y_3 + Y_4 + Y_5 + Y_6 + Y_7$$

Where, Y = Score of 'Impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries'

Y_1 = Income difference score

Y_2 = Food consumption difference score

Y_3 = Housing unit change score

Y_4 = Toilet condition change score

Y_5 = Drinking water source change score

Y_6 = Family asset change score

Y_7 = Decision-making ability change score

Each of these seven dimensions *i.e.* 'change score' was categorized into four categories first like the following table.

Table 3.10 Categorizations of dimension

Dimension of impact of micro-credit	Categories	Score assigned
Change in income (Th. Tk).	No and negative difference	0
	Low difference	1
	Medium difference	2
	High difference	3

Then ranks of seven dimensions were added together to get a unit-free impact score. The score could range against the probable range of 0-21.

CHAPTER 4

FINDINGS AND DISCUSSION

The findings are presented in this chapter in four sections. In first section, eight selected characteristics of the Grameen Bank women beneficiaries are discussed. In second section, the extent of change in income, food consumption, housing unit, toilet condition, drinking water source, family asset and decision-making ability of the beneficiaries are presented. The third section deals with the relationships between the respondents' selected characteristics and impact of Grameen Bank micro-credit program. Finally, the fourth section contained the problems in receiving and utilizing the credit as perceived by the Grameen Bank women beneficiaries.

4.1. Selected characteristics of the Grameen Bank women beneficiaries

This section describes the findings of eight selected characteristics. A brief summary of the measuring unit, categories and distribution with basic statistics are presented in table 4.1(p.48)

4.1.1 Age

The age of the respondents ranged from 18 to 55 years with an average of 32.59 years and the standard deviation of 8.35. On the basis of age, respondents were classified into three categories as shown in table 4.1(p.49)

Table 4.1 A summary statement showing categories and salient features of the selected characteristics of the Grameen Bank women beneficiaries

Selected characteristics	Measuring unit	Ranges		Categories	Respondents		Mean	Standard Deviation
		Possible score	Observed score		No.	Per cent		
Age	Year	-	18-55	Young (up to 30)	41	41	32.59	8.35
				Middle-aged (31-40)	42	42		
				Old-aged (41 and above)	17	17		
Education	Year of Schooling	-	.50-10	Can sign only (.5)	47	47	2.97	2.72
				Primary level (.51-5)	37	37		
				Secondary level (6-10)	16	16		
Family size	Number	-	2-9	Small family (up to 4)	48	48	4.63	1.30
				Medium family (5-6)	45	45		
				Large family (7 and above)	7	7		
Farm size	Hectare	-	0.04-0.96	Small farm (up to .300)	61	61	.294	.244
				Medium farm (.301-.700)	30	30		
				Large farm (.701 & above)	9	9		
Credit received	Thousand Tk.	-	3-50	Small credit (up to 10.50)	57	57	12.33	8.06
				Medium credit (10.51-20.50)	33	33		
				Large credit (20.51 & above)	10	10		
Cosmopolitaness	Scale score	0-32	2-9	Low cosmopolitaness (up to 4)	28	28	5.37	1.67
				Medium cosmopolitaness (5-6)	48	48		
				High cosmopolitaness (7 & above)	24	24		
Duration of involvement	Year	-	1-12	Low length duration (up to 4)	60	60	2.16	2.98
				Medium length duration (5-8)	30	30		
				Long length duration (9& above)	10	10		
Attitude towards Grameen Bank micro-credit program	Scale score	0-16	3-12	Low favorable attitude (up to 7)	31	31	7.03	1.45
				Medium favorable attitude (8-10)	54	54		
				High favorable attitude (11& above)	16	16		

The highest proportion *i.e.* 42 per cent of the respondents was of middle-aged category and 41 per cent of them belonged to the young category (table 4.1, p.48). Only 17 per cent of the respondents belonged to the category of above 41 years *i.e.* to old-aged category. Most (83 %) respondents were of young and middle-aged category and they have potential and energy to uplift their socio-economic condition. If they were trained, motivated and guided properly, they would be able to fight against poverty. In the path of struggling poverty GO and NGOs can utilize this manpower to build a prosperous rural future.

4.1.2 Education

The level of education of the respondents ranged from 0.5 to 10. The average being 2.97 and standard deviation was 2.72. Based on their academic qualification score, the respondents were classified into three categories as shown in table 4.1(p.48)

Data presented in table 4.1(p.48) showed that 47 per cent of the respondents could sign their name only. Thirty-seven per cent (37%) respondents fell into the category of primary level education and 16 per cent of them belonged to secondary level of education. Therefore, it could be generalized that about half of the respondents did never study in any formal school or academic institution. Such type of educational state might be due to landlessness, homelessness and poorness. In similar findings by Saha (2002) stated that 32.4 percent people were educated at signing their name only. From the above table, it could also be learnt that 47 per cent of the respondents were illiterate at signing their name only. At present national adult literacy rate is 65 per cent. The adult literacy rate in research area is lower than that of national level rate.

4.1.3 Family size

The family size of the respondents ranged from 2 to 9 with an average of 4.63 and with the standard deviation of 1.30. On the basis of their family size, the respondents were classified into three categories as shown in table 4.1(p.48)

Data presented in table 4.1(p.48) revealed that the highest proportion *i.e.* 48 percent of the respondents fell under small family category. Of them 45 per cent belonged to medium family and remaining 7 per cent were of large family size category. The average family size (4.63) of the respondents was lower than that of national average 4.8 (BBS, 2002).

4.1.4 Farm size

The farm size of the respondents ranged from 0.04 to 0.96 ha. with an average of 0.245 ha. and with the standard deviation of 0.233. On the basis of their farm size, the respondents were classified into three categories as shown in table 4.1(p.48)

Data presented in table 4.1(p.48) revealed that the highest proportion *i.e.* 61 per cent of the respondents had small farm, 30 per cent had medium farm and 9 per cent had large farm. Thus, almost all the respondents *i.e.* 91 per cent of the respondents fell under the possession of small and medium farm. According to Grameen Bank policy, this credit program is only for the resource poor people not for the rich people, so major portion of the respondents were marginal farm holder.

Islam (2001) found more or less similar findings in a study and he stated that 2 per cent of the respondents were landless, 63 per cent were marginal, 32 per cent were small and 3 per cent were medium farm holders in AGP.

4.1.5 Credit received

Credit received score of the respondents ranged from Tk. 3 Thousands to Tk 50 Thousands. with an average of Tk.12.33 Thousands. and the standard deviation of 8.06. On the basis of amount of credit received, the respondents were classified into three categories as shown in table 4.1(p.48)

Analyses of data indicated that most of the respondents *i.e.* 57 per cent of the respondents were small credit recipients and 33 per cent of them were medium credit recipients and only 10 per cent of the respondents were large credit recipients. According to Grameen Bank policy amount of credit depends on savings, duration of involvement with Grameen Bank and loan repayment performance of the beneficiaries. It was found that the most of the respondents had small savings and short-length duration of involvement with Grameen Bank. Therefore, majority (57 per cent) of the respondents were small credit recipients. The standard deviation showed that the study group was highly heterogeneous in terms of credit received.

More or less similar findings by Sarker in 2002 revealed that 56.2 per cent of the respondents were small credit recipients, 38.1 per cent were medium credit recipients and 7 per cent were large credit recipient in Integrated Aqua Culture Development Project, RDRS. Chowdhury (1995) found that 79.82 per cent of the Grameen Bank

beneficiaries were found as small credit recipients, 15.60 per cent as medium amount recipients and 4.58 per cent were big amount recipients.

4.1.6 Cosmopolitaness

The observed cosmopolitaness scores of the respondents ranged from 2 to 9 against the possible range of to 0 - 32. The average cosmopolitaness score of the respondents was 5.37 and the standard deviation was 1.67. On the basis of their cosmopolitaness score, the respondents were classified into three categories as shown in table 4.1(p.48)

It can be seen from the table 4.1(p.48) that the majority (48%) of the respondents had medium cosmopolitaness, 28 per cent had low cosmopolitaness and there were 24 beneficiaries who were of high cosmopolitaness category. This indicated that the study group was highly heterogeneous in term of cosmopolitaness. Various social and economic hardships of the respondents discouraged them going outside from their own localities.

4.1.7 Duration of involvement with Grameen Bank micro-credit program

Duration of involvement with Grameen Bank ranged from 1 to 12 years with an average of 2.16 and the standard deviation of 2.98. Based on their duration of involvement with Grameen Bank the respondents were classified into three categories as shown in table 4.1(p.48)

Data presented in table 4.1(p.48) revealed that 60 per cent of the respondents had short-length duration of involvement with Grameen Bank, 30 per cent had medium length duration of involvement and 10 per cent had long-length duration of

involvement with Grameen Bank. Most of the respondents were illiterate, their expectation was not high and strict rule of repaying of loan discouraged them to continue for a longer period.

4.1.8 Attitude towards Grameen Bank micro-credit program

Attitude of the respondents towards Grameen Bank micro-credit program ranged from 3 to 12 against the possible score of 0 to 16, with an average of 7.03 and the standard deviation of 1.45. On the basis of their attitude towards Grameen Bank micro-credit program, the beneficiaries were classified into three categories as shown in table 4.1(p.48)

Data furnished in table 4.1(p.48) revealed that 31 per cent of the respondents had low favorable attitude towards Grameen Bank micro-credit program, 54 per cent had medium favorable attitude and 16 per cent of the respondents had high favorable attitude towards Grameen Bank micro-credit program. Most of the respondents were content with Grameen Bank micro-credit program. Existence of favorable attitude among larger proportion of the Grameen Bank women beneficiaries indicated a positive impact of Grameen Bank micro-credit program. The respondents gave their expression of satisfaction with the credit of Grameen Bank saying that they got benefited by using the credit for various purposes of socio-economic development

4.2 The extent of change in some dimensions

Respondents' participation in micro-credit program of Grameen Bank has been an important aspect in uplifting the socio-economic condition of the rural women beneficiaries. The socio-economic condition of the households can be assessed by comparing information about past and present situation on change in different dimensions.

4.2.1 Change in income

The findings indicated that the average yearly income of the respondents increased to Tk.33.33 Thousand. from Tk 27.86 Thousand. after involvement with Grameen Bank micro-credit program .The average yearly income after their involvement with Grameen Bank micro-credit program was higher than that of 'before involvement'. The income difference of the respondents due to involvement with Grameen Bank was measured. Distribution of the respondents according their income difference has been presented in table 4.2. The income difference of the respondents ranged from Tk.-3 Thousands. to Tk.21 Thousands. with an average of Tk.5.38 Thousands. and the standard deviation of 3.95. On the basis of their income difference the beneficiaries were classified into four categories as shown in table 4.2.

Table 4.2 Salient features on the impact of Grameen Bank micro-credit program

Dimension of impact of micro-credit	Categories	Respondents		Mean	Standard deviation
		No.	Per cent		
Change in income (Th. Tk).	No and negative income difference (-3 to 21)	4	4	5.388	3.945
	Low income difference (0.01 to 7.00)	76	76		
	Medium income difference (7.01 to 14.00)	17	17		
	High income difference (14.01 to 21)	3	3		

The table 4.2(p.54) revealed that the highest proportion *i.e.* 76 per cent of the respondents fell into the category of low-income difference, 17 per cent of the respondents fell under medium-income difference category. Only 3 per cent of the respondents belonged to the high-income difference category and 4 per cent of the respondents belonged to the low and negative income difference category. This fact indicated that the study group was highly heterogeneous in terms of income difference.

4.2.2 Change in food consumption

The findings indicated that the average per capita per day energy (calorie) intake of the respondent's households increased to 2319.08 K. Cal. from 2131.25 K.Cal after the involvement with Grameen Bank micro-credit program. The average K.Cal. intake 'after involvement' with Grameen Bank micro-credit program was higher than that of 'before involvement'. The calorie intake difference of the respondent's households due to involvement with Grameen Bank micro-credit program was measured. Distribution of the respondents according to their calorie intake difference has been presented in table 4.3.1

Table 4.3.1 Salient features on the impact of Grameen Bank micro-credit program

Dimension of impact of micro-credit	Categories	Respondents		Mean	Standard deviation
		No.	Per cent		
Change in food consumption (K.Cal.)	No or negative calorie intake difference (-202 to 0)	11	11	191.83	201.46
	Low calorie intake difference (1 to300)	70	70		
	Medium calorie intake difference (301 to 600)	13	13		
	High calorie intake difference (601 to 863)	5	5		

The calorie intake difference of the respondent's households ranged from -202 K.Cal to 863 K.Cal with an average of 191.83 K.Cal and with the standard deviation of 201.46. Based on calorie intake difference, the respondents were classified into four categories as shown in table 4.3.1. It is revealed from the table 4.3.1 that the highest proportion *i.e.* 70 per cent of the respondents belonged to low calorie intake difference, 13 per cent of the respondents belonged to medium calorie intake difference. Only 5 per cent of the respondents belonged to high calorie intake difference. Eleven per cent of the respondents belonged no and negative calorie intake difference.

Table 4.3.2 Distribution of the respondents according to their calorie intake

Categories	Before		After		Before Average (K.Cal.)	After Average (K.Cal.)	Per cent change
	No	Per cent	No.	Per cent			
Below poverty line 11 (up to 1805 K.Cal.)	19	19	10	10	2131.26	2319.08	8.81
Below poverty line 1 (up to 2122 K.Cal)	40	40	35	35			
Upper poverty line (over 2122 K.Cal.)	51	51	55	55			

The average energy intakes by the respondents 'before involvement' with Grameen Bank was 2131.26 K.Cal and 'after involvement' with Grameen Bank it was found 2319.08 K.Cal. The above data indicated that on an average the respondents were in upper poverty line in case of both 'before' and 'after' involvement. According to BBS (2002), national average per capita per day K .Cal intake of rural people is 2263 K.Cal, while of urban people it is 2150 KCal. and of Bangladeshi people it is 2240

K.Cal. The average K.Cal intake of the respondents was higher than that of the national level after their involvement with Grameen Bank.

The above table (4.3.2) showed that the rate of calorie intake increased after being a member of the Grameen Bank micro-credit program. Most of the respondents were of middle-aged group, afterwards they became interested in creating self-employment by utilizing credit, and thus they increased their income and calorie intake.

4.2.3 Change in housing unit

The housing unit change score of the respondents ranged from -2 to Tk.6 with an average of Tk.1.630 and the standard deviation of 1.508. On the basis of their income difference, the beneficiaries were classified into four categories as shown in table 4.4(p.58)

The findings of the types of housing unit of the beneficiaries 'before' and 'after' involvement with Grameen Bank micro-credit program has been shown in table 4.4(p.58) The information of table revealed that nobody was found to be homeless 'before' and 'after' involvement with Grameen Bank micro-credit program. Seventy per cent respondents had kacha ghar with straw roof and 23 per cent respondents had kacha ghar with tin roof 'before involvement' with Grameen Bank micro-credit program. After involvement with Grameen Bank micro-credit program, 32 per cent respondents now have kacha ghar with straw roof and 53 per cent of the respondents have kacha ghar with tin roof. Seven per cent (7%) respondents had bamboo-made house 'before involvement' and the figure became 10% after involving with Grameen Bank micro-credit program. This indicated that the respondents' housing type and unit

changed due to most of the respondents were middle-aged and they were found to change their housing condition.

Islam (2001) in his study found almost similar findings. He found 96.88 per cent change in case of no house at all, 100 per cent change in case of kacha ghar with straw roof in Adarsha Gram Project.

Table 4.4 A summary statement showing categories and salient features of some dimensions

Dimensions of housing environment	Categories	Number		Per centage	
		Before	After	Before	After
	Type of housing unit				
Change in housing unit	No house at all	0	0	0	0
	Kacha ghar with straw roof	70	32	70	32
	Bamboo-made kacha Ghar	7	10	7	10
	Kacha ghar with tin roof	23	53	23	53
	Type of toilet				
Change in toilet condition	Bushes or open place	53	24	53	24
	Kacha toilet	40	53	40	53
	Half-sanitary toilet	5	18	5	18
	Sanitary toilet	2	5	2	5
	Type of water source				
Change in source of drinking water	Water from river, pond or kua	5	0	5	0
	Tube well of other people	58	43	58	43
	Tube well of own	37	57	37	57
	Change in family asset				
Change in family asset (score)	Low asset possession (up to 20)	50	23	50	23
	Medium asset possession (21-50)	47	61	47	61
	High asset possession (51 & above)	3	16	3	16

4.2.4 Change in toilet condition

The findings about toilet facilities of the respondents' 'before' and 'after' involvement with Grameen Bank micro-credit program has been shown in table 4.4. The table 4.4 (58) revealed that a moderate change occurred between 'before' and 'after' type of toilet facilities. Fifty five (55) per cent of the beneficiaries families had no particular place for discharging human wastes 'before involvement' with Grameen Bank micro-credit program. However, 'after involvement' with Grameen Bank micro-credit program 26 per cent beneficiaries' families go to bushes or other open places for toilet purpose. The above table showed that 40 per cent families used to kacha toilet before getting involved with Grameen Bank. After involvement with Grameen Bank 53 per cent beneficiaries' families were using kacha toilet. On the other hand, 18 per cent beneficiaries' families were using half-sanitary toilet while before involvement 5 per cent of the beneficiaries used to use half-sanitary toilet. Two per cent beneficiaries had sanitary latrine before involvement but 5% of them had sanitary latrine after their involvement. This fact indicated that the respondents' toilet facilities increased due to increase of their income after involvement with Grameen Bank micro-credit program. Toilet facilities have increased because most of the respondents were middle-aged, and they increased income to develop their socio-economic condition.

4.2.5 Change in source of drinking water

The findings of source of drinking water of the respondents 'before' and 'after' involvement with Grameen Bank micro-credit program has been shown in table 4.4(p.58)

Table 4.4 revealed that 58 per cent of the respondents' families depended on others tube well for drinking water before being a member of Grameen Bank micro-credit program, On the other hand, after involvement with Grameen Bank micro-credit program 43 per cent beneficiaries' families now depend on others tube well for drinking water. Before involvement 37 per cent of the beneficiaries' families used to use own tube well for drinking water while after involvement with Grameen Bank micro-credit program. 57 per cent beneficiaries' families were using their own tube well for drinking water. This fact indicated that the type of sources of drinking water changed on account of contribution of micro-credit provided by Grameen Bank

Islam (2001) found in his study more or less similar findings in Adarsha Gram Project. After settlement nobody at present use river/pond for drinking water source while before involvement with the project 36.19 per cent used river/pond as drinking water source, 30.48 per cent of the respondents use others tube well for drinking water source while before involvement it was 63.81 per cent.

4.2.6 Change in family asset

The findings of family asset score of the respondents' 'before' and 'after' involvement with Grameen Bank micro-credit program has been shown in table 4.4 (p.58). Table 4.4 revealed that before involvement with Grameen Bank micro-credit program 50 per cent beneficiaries fell under the category of low asset possession and that number has decreased to 23 after involvement with Grameen Bank. Forty seven per cent beneficiaries' families fell under the category of medium asset possession 'before involvement' and 'after involvement' it reached at 61 per cent and only 16

per cent beneficiaries' families were found to have high asset possession 'after involvement' with Grameen Bank micro-credit program while it was 3 per cent before their involvement.

Islam (2001) stated that non-land household asset possession had increased due to contribution of Adarsha Gram Project towards the path of poverty alleviation effort

4.2.7 Change in decision-making ability

The decision-making change score of the respondents ranged from 0 to 7 with an average of 0.880 and the standard deviation of 1.38. On the basis of their decision-making ability change score, the beneficiaries were classified into four categories as shown in table 4.5

Table 4.5 Salient features on the impact of Grameen Bank micro-credit Program

Dimension of impact of micro-credit	Categories	Respondents		Mean	Standard deviation
		No.	Per cent		
Change in decision-making ability	No or negative change (0)	55	55	.880	1.387
	Low change (1)	38	38		
	Medium change (2)	6	6		
	High change (3)	1	1		

It is revealed from the table that most of the respondents (55%) fell under the category of no or negative change, thirty eight per cent of them was of low change category. Six per cent of the respondents belonged to the medium change category and only 1% of the respondents fell under high change category.

4.3 Impact of Grameen Bank micro-credit program

The impact score of the respondents ranged from 2 to 14 against the possible range of 0 to 21 with an average of 6.010 and the standard deviation of 2.067. On the basis of their impact score, the beneficiaries were classified into four categories as shown in table 4.6

Table 4.6 Number and percentage distribution of the respondents according to their impact

Impact of Grameen Bank micro-credit program	Categories	Respondents		Mean	Standar
		No.	Per cent		
	Low impact (2 to 5)	46	46	6.010	2.067
	Medium impact (6 to 9)	47	47		
	High impact (10 to 14)	7	7		

It is revealed from the table that 46% of the respondents fell under the category of low impact, 47% per cent of them were of medium impact. Seven per cent of the respondents belonged to the high impact category.

4.4 Relationship between the respondents' selected characteristics and the impact of Grameen Bank micro-credit program

This section deals with the relationships between the eight selected characteristics of the respondents with the impact of micro-credit of Grameen Bank. Eight characteristics of the respondents were age, education, family size, farm size, credit received, cosmopolitaness, duration of the involvement with Grameen Bank micro-credit program and attitude towards Grameen Bank micro-credit program. Pearson's Product Moment Co-efficient of Correlation was used to explore the relationship between eight selected characteristics of the respondents with the impact of Grameen Bank micro-credit program. Five per cent level of significance was used as the basis for acceptance or rejection of the hypothesis. The computed values of correlation coefficient were compared with the relevant tabulated values in order to determine if the relationships between the respondents' selected characteristics and the impact of Grameen Bank micro-credit program were significant. The summary of the results of correlation analysis is presented in table 4.7 (p.64)

Table 4.7 Co-efficient of correlation showing relationship between the respondents' selected characteristics and the impact of Grameen Bank micro- credit program

Respondents' selected characteristics(independent variable)	Dependent Variable	Co-efficient of correlation (r)
Age	Impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of rural women beneficiaries	0.258**
Education		.129 ^{NS}
Family size		.062 NS
Farm size		.393**
Credit received		.256**
Cosmopolitaness		.147 ^{NS}
Duration of involvement with Grameen Bank micro-credit program		.061 NS
Attitude towards Grameen Bank micro-credit program		.240*

NS = Not Significant

* = Significant at 0.05 level of probability

** = Significant at 0.01 level of probability

Tabulated value of r at 5% level of probability at 98 df = 0.1946

Tabulated value of r at 1% level of probability at 98 df = 0.2540

4.4.1 Relationship between age of the respondents and the impact of Grameen Bank micro-credit program

The correlation co-efficient between age of the respondents and the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition

of rural women beneficiaries was measured by testing the following null hypothesis 'there was no relationship between age of the respondents and the impact of Grameen Bank micro-credit program'. The calculated value of correlation co-efficient (r) between these two concerned variables was found to be 0.258 as shown in table 4.7(p.64). Based on the observed r -value, the following inferences were made regarding the relationship between these variables

- ✓ There existed a positive trend between these two concerned variables. *i.e.* the relationship showed a tendency in the positive direction between these two concerned variables.
- ✓ The computed value of ' r ' was found to be greater than that of tabulated value with 98 degrees of freedom at 0.01 level of probability.
- ✓ The null hypothesis was rejected.
- ✓ The correlation co-efficient between two concerned variables *i.e.* age and impact of Grameen Bank micro-credit program was significant, that is, a positive significant relationship was found between these two variables.

Based on the above findings, the researcher concluded that age of the rural women beneficiaries had significant relationship with the impact of Grameen Bank micro-credit program.

Age of the respondents is one of the most important factors which has influence in changing income. The older respondents were found to be more effective in earning more money than the younger respondents. The aged respondents were more capable of utilizing loans because they were more judicious and responsible. They were

experienced enough in mobilizing money than younger ones. As the aged ones were guardians and heads of the families, they were more concerned for the welfare of their families; therefore, they attempted to earn more for the sake of their development.

Islam (2001) found similar relationship between age of the respondents and the impact of micro-credit.

4.4.2 Relationship between education of the respondents and the impact of Grameen Bank micro-credit program

The correlation co-efficient between education of the respondents and the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries was measured by testing the null hypothesis, 'there was no relationship between education of the respondents and the impact of Grameen Bank micro-credit program'. The calculated value of correlation co-efficient (r) between these two concerned variables was found to be 0.129 as shown in table 4.7(p.64). Based on the observed r -value, the following inferences were made regarding the relationship between these variables.

- ✓ There existed a positive trend between these two concerned variables. *i.e.* the relationship showed a tendency in the positive direction between these two concerned variables.
- ✓ The computed value of r was found to be lower than that of tabulated value with 98 degrees of freedom at 0.05 level of probability.
- ✓ The null hypothesis was accepted

- ✓ The correlation co-efficient between these two concerned variables *i.e.* education and impact of Grameen Bank micro-credit program was not significant.

Based on the above findings, the researcher concluded that the education of the rural women beneficiaries had a positive and insignificant relationship with the impact of Grameen Bank micro-credit program.

The above findings indicated that education has been the most important attribute and variable for any individual. The respondents who were literate were found to be a bit conscious of selecting areas of scope for investing the credit and thereby they became able to cause development in their daily life. An educated individual sees many more things than others, develops positive outlook, knows what to do, why to do. They are more conscious of health status. Hence, educated respondents consume necessary food items and were interested to improve the housing environment.

4.4.3 Relationship between family size of the respondents and the impact of Grameen Bank micro-credit program

The correlation co-efficient between family size of the respondents and the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries was measured by testing the following null hypothesis 'there was no relationship between family size of the respondents and the impact of Grameen Bank micro-credit program'. The calculated value of correlation co-efficient (r) between these two concerned variables was found to be 0.062 as

shown in table 4.7(p.64). Based on the observed r -value, the following inferences were made regarding the relationship between these variables.

- ✓ There existed positive trend between these concerned variables. *i.e.* the relationship showed a tendency in the positive direction between these concerned variables.
- ✓ The computed value was found to be smaller than tabulated value with 98 degrees of freedom at 0.05 level of probability.
- ✓ The null hypothesis could be rejected.
- ✓ The correlation co-efficient between the concerned variables *i.e.* family size and impact of Grameen Bank micro-credit program was not significant.

Based on the above findings, the researcher concluded that the family size of the rural women had no significant relationship with the impact of Grameen Bank micro-credit program. It meant that the impact increased insignificantly as the family size increased.

Begum (1998) also found that family size of the rural women had no significant relationship with their poverty alleviation owing to participation in ASA activities.

4.4.4 Relationship between farm size of the respondents and the impact of Grameen Bank micro-credit program

The correlation co-efficient between farm size of the respondents and the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries was measured by testing the following null

hypothesis 'there was no relationship between the farm size of the respondents and the impact of Grameen Bank micro-credit program'. The calculated value of correlation co-efficient (r) between these two concerned variables was found to be 0.393 as shown in table 4.7(p.64). Based on the observed r -value, the following inferences were made regarding the relationship between these variables.

- ✓ A positive trend was observed between these two variables.
- ✓ The computed value of r was found to be greater than that of tabulated value with 98 degrees of freedom at 0.01 level of probability.
- ✓ The null hypothesis was rejected.
- ✓ The correlation co-efficient between these two concerned variables *i.e.* farm size and impact of Grameen Bank micro-credit program was significant.

Based on the above findings, the researcher concluded that the farm size of the rural women beneficiaries had significant relationship with the impact of Grameen Bank micro-credit program. It meant that the impact increased as the farm size increased.

The size of the farm of the respondents was the important factor for bringing the changes in income of the beneficiaries. Higher the farm size was, higher the possibility of high income was and it was due to the elaborate chances of using the credit in farming practices, in particular. The above findings indicated that farm size is one of the vital factors for higher annual income. Respondents having large farm size could take various income generating activities for increasing their income.

4.4.5 Relationship between credit received of the respondents and the impact of Grameen Bank micro-credit program

The correlation co-efficient between credit received of the respondents and the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women was measured by testing the following null hypothesis 'there was no relationship between the credit received of the respondents and the impact of Grameen Bank micro-credit program'. The calculated value of correlation co-efficient (r) between the concerned variables was found to be 0.256 as shown in table 4.7. (p.64). Based on the observed r -value, the following inferences were made regarding the relationship between these variables.

- ✓ A positive trend of relationship was observed between these two concerned variables.
- ✓ The computed value of r was found to be larger than tabulated value with 98 degrees of freedom at 0.01 level of probability.
- ✓ The null hypothesis *i.e.* 'there was no relationship between credit received of the respondents and the impact of Grameen Bank micro-credit program' was rejected.
- ✓ The correlation co-efficient between these concerned variables was significant at 0.01 level of probability

Based on the above findings, the researcher concluded that credit received had influence in upgrading the socio-economic condition of the rural women beneficiaries. It also indicated that women with more credit were found to earn more income than those with less credit.

4.4.6 Relationship between cosmopolitanism of the respondents and the impact of Grameen Bank micro-credit program

The correlation co-efficient between cosmopolitanism of the respondents and the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries was measured by testing the following null hypothesis 'there was no relationship between the cosmopolitanism of the respondents and the impact of Grameen Bank micro-credit program'. The calculated value of correlation co-efficient (r) between these concerned variables was found to be 0.147 as shown in table 4.7(p.64). Based on the observed r -value, the following inferences were made regarding the relationship between these variables.

- ✓ A positive trend of relationship was observed between these two concerned variables.
- ✓ The computed value of r was found to be smaller than that of tabulated value with 98 degrees of freedom at 0.05 level of probability.
- ✓ The null hypothesis *i.e.* 'there was no relationship between cosmopolitanism of the respondents and the impact of Grameen Bank micro-credit program' was rejected.
- ✓ The correlation co-efficient between these two concerned variables was insignificant at 0.05 level of probability.

Based on the above findings, the researcher concluded that cosmopolitanism of the rural women beneficiaries had no significant relationship with the impact of Grameen Bank micro-credit program.

The above findings indicated that the persons having more cosmopolitaness were found to have more opportunity to come in contact with different personnels at different level of communication. As a result, they had the opportunity to gather knowledge about different issues more than persons having less cosmopolitaness. They were also more active in doing various income generating activities, thereby, their income increased and ultimately their social status increased.

4.4.7 Relationship between duration of involvement of the respondents and the impact of Grameen Bank micro-credit program

The correlation co-efficient between duration of involvement of the respondents and the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women beneficiaries was measured by testing the following null hypothesis 'there was no relationship between duration of involvement of the respondents and the impact of Grameen Bank micro-credit program. The calculated value of correlation co-efficient (r) between these concerned variables was found to be 0.061 as shown in table 4.7(p.64). Based on the observed r -value, the following inferences were drawn regarding the relationship between these variables.

- ✓ A positive trend of relationship was observed between these two concerned variables.
- ✓ The computed value of r ($r = 0.061$) was found to be smaller than that of tabulated value with 98 degrees of freedom at 0.05 level of probability.
- ✓ The null hypothesis i.e. 'there was no relationship between duration of involvement of the respondents and the impact of Grameen Bank micro-credit program' could not be rejected.

- ✓ The correlation co-efficient between these two concerned variables was not significant at 0.05 level of probability *i.e.* this meant that duration of involvement had insignificant influence on uplifting the socio-economic condition.

Based on the above findings, the researcher concluded that the duration of involvement of the rural women had positive but insignificant relationship with the impact of Grameen Bank micro-credit program. It meant that the impact increased as the duration of involvement increased. The respondents having more involvement might have possibility to develop their social condition. The early-involved respondents were more experienced regarding the utilization of the credit than the late-involved respondents were. A respondent remaining involved with Grameen Bank micro-credit program for a longer period had opportunity to get more loans.

4.4.8 Relationship between attitude towards Grameen Bank micro-credit program of the respondents and the impact of micro-credit program

The correlation co-efficient between attitude of the respondents towards Grameen Bank and the impact of Grameen Bank micro-credit program towards uplifting the socio-economic condition of the rural women was measured by testing the following null hypothesis 'there was no relationship between the attitude of the respondents towards Grameen Bank micro-credit program and the impact of Grameen Bank micro-credit program. The calculated value of correlation co-efficient (r) between these two concerned variables was found to be 0.240 as shown in table 4.7(p.64). Based on the observed r -value, the following inferences were drawn regarding the relationship between these variables.

- ✓ A positive trend of relationship was observed between the two concerned variables.
- ✓ The computed value of r ($r = 0.240$) was found to be greater than that of tabulated value with 98 degrees of freedom at 0.05 level of probability.
- ✓ The null hypothesis was rejected *i.e.* 'there was no relationship between the attitude of the respondents towards Grameen Bank micro-credit program and the impact of Grameen Bank micro-credit program' was rejected.
- ✓ The correlation co-efficient between these two concerned variables was significant at 0.05 level of probability.

Based on the above findings, the researcher concluded that the attitude of the respondents towards Grameen Bank micro-credit program had significant and positive relationship with the impact of Grameen Bank micro-credit program.

4.5 Problems faced by the Grameen Bank women beneficiaries in receiving and utilizing the micro-credit

In this section, some common problems encountered by the beneficiaries of Grameen Bank micro-credit program in the study area are discussed and the causes and effects with the extent of these problems are presented in view of the Grameen Bank rural development activities. The women beneficiaries were asked to express their opinion against some statements focusing problems they usually faced. To determine the intensity and extent of the problems, the researcher used a scoring system which facilitated the understanding of the problems. Each respondent was asked to give her opinion. Among the six selected problems insufficient amount of credit as per demand ranked first. Problems faced by the respondents were measured by Problem Faced Index (PFI) with the following formula for each problem:

$$PFI = 3 \times f_3 + 2 \times f_2 + 1 \times f_1 + 0 \times f_0$$

Where,

PFI = Problem Faced Index

f_3 = No. of respondents faced severe problem

f_2 = No. of respondents faced moderate problem

f_1 = No. of respondents faced little problem

f_0 = No. of respondents faced no problem

Thus, the possible PFI for a particular problem could range from 0 to 300, while 0 indicating no problem and 300 indicating severe problem.

Table 4.8 Major problems encountered by the respondents in connection with Grameen Bank micro-credit program

Sl. No.	Problems confronted	Problem facing index	Rank order
1.	Insufficient amount of credit as per demand	258	1
2.	Credit is not available in the time of need	241	2
3.	High rate of interest	219	3
4.	Pay back period starts early	218	4
5.	The misuse of credit for repayment of former loan	216	5
6.	The misuse of credit for another activities	214	6

4.5.1 Insufficient amount of credit as per demand

Insufficient amount of credit as per demand was the main problem of Grameen Bank women beneficiaries and it appeared with the problem facing index of 258. The beneficiaries opined that they were not allowed to have credit as they demanded. They claimed that the credit that Grameen Bank sanction for them was absolutely insufficient to serve their intention which hampers the path of the development enterprise.

4.5.2 Credit is not available in the time of need

Credit is not available in the time of need-was found as the number second important problem .The beneficiaries usually demand for the credit as they do feel it necessary. But Grameen Bank is not prepared to deliver the credit while the respondents demand for loan. They usually remain confined to their rules and regulations of giving loan.

4.5.3 High rate of interest

High rate of interest was found to be the third important problem in order of rank with the Problem Facing Index (PFI) of 219. It was a common problem of all the NGOs' beneficiaries. The Grameen Bank women beneficiaries receive credit from Grameen Bank comparatively at a high rate of interest. But how the rate of interest is high-most of them were unknown to the reasons. This fact might be a reason for slow progress of Grameen Bank women beneficiaries' standard of living. The beneficiaries felt that they were encountered with this problem but there were no alternative path open to them but taking credit from Grameen Bank. For meeting their needs they resorted to Grameen Bank.

4.5.4 Pay back period starts early

Pay back period starts early-was considered as the fourth important problem in their point of view. They felt that they had to pay their loan soon after taking it .They did not get enough time within which they could produce crops or rear animals to make benefit. This problem suffers them a lot.

4.5.5 The misuse of credit for repayment of former loan

The misuse of credit for repayment of former loan-was the fifth felt important problem in order to rank. The beneficiaries take their loan for investing in a number of productive sectors and for which they need time. But, Grameen Bank has very short time within which they try to get back. So, finding no other ways they had to pay the part of repaying money from their picked money.

4.5.6 The misuse of credit for other activities

The misuse of credit for other activities' was felt as the last important problem. The beneficiaries were very poor and hardcore. They felt want almost all the time. To meet up their need they used plucked money for their daily purposes. Their husband alone could not manage themselves to run their family with their small income. So, they were found to be dependent of the income by their wives.

CHAPTER 5

SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

Summary of the findings

A developed union namely 11 number Maricha of Birgonj upazila under Dinajpur district was the locale of the study. A sample of 100 respondents was drawn from a population of 674. Data were collected from 1st February to 4th March, using a pre-tested interview schedule. However, the major findings of the study are summarized below.

5.1 Selected characteristics (independent variables) of the respondents

5.1.1 Age

The age of the respondents ranged from 18 to 55 years with an average of 32.59 years and with the standard deviation of 8.35. The highest proportion *i.e.* 42 per cent of the beneficiaries was middle-aged and 41 per cent of them belonged to the young category (table 4.1, p.48). Only 17 per cent of the respondents belonged to the category of above 44 years.

5.1.2 Education

The level of education of the respondents ranged from .5 to 10. The average being 2.80 and standard deviation was 2.61. Data presented in (table 4.1, p.48) showed that 47 per cent of them could sign name only. About 37 per cent of the respondents fell

under the category of primary level of education and 16 per cent of them fell under the category of secondary level of education.

5.1.3 Family size

The family size of the respondents ranged from 2 to 9 with an average of 4.63 with the standard deviation of 1.30. The highest proportion *i.e.* 48 per cent of the respondents fell under small family category compared to 45 per cent medium family category and remaining 7 per cent were of large family size category.

5.1.4 Farm size

The farm size of the respondents ranged from 0.04 to 0.96 ha. with an average of 0.294 ha. and with the standard deviation of 0.244. The highest proportion *i.e.* 61 per cent of the respondents was found to have small farm in comparison to 30 per cent medium farm and 9 per cent of the respondents were of large farm category.

5.1.5 Credit received

Credit received score of the respondents ranged from Tk.3 Thousands to Tk 50. Thousands. with an average of Tk.12.33 Thousands. and with the standard deviation of 8.06. Analyses of data indicated that most of the respondents *i.e.* 57 per cent of respondents were small credit recipients and 33 per cent of them were medium credit recipients.

5.1.6 Cosmopolitanness

The observed cosmopolitanness score of the respondents ranged from 2 to 9. The average cosmopolitanness score of the respondents was 5.37 and the standard deviation

was 1.67. The majority of the respondents about 48 per cent of the respondents belonged to medium cosmopolitaness category compared to 28 per cent of the respondents medium of low cosmopolitaness category and there were 24 per cent of the beneficiaries who were of high cosmopolitaness category.

5.1.7 Duration of involvement with Grameen Bank micro-credit program

Duration of involvement with Grameen Bank micro-credit program ranged from 1 to 12 years with an average of 2.16 years and with the standard deviation of 2.98. twenty four per cent of the respondents fell under the category of short-length duration of involvement with Grameen Bank micro-credit program, 85 per cent of the respondents were of medium-length duration of involvement and 10 per cent belonged to long-length duration of involvement category.

5.1.8 Attitude towards Grameen Bank micro-credit program

Attitude of the respondents towards Grameen Bank micro-credit program ranged from 0 to 16 with an average of and the standard deviation of 1.45. Sixteen per cent of the respondent fell under high favorable attitude towards Grameen Bank micro-credit program, 54 per cent of the respondents were of medium favorable attitude towards Grameen Bank micro-credit program and 31 per cent of the respondents belonged to low favorable attitude towards Grameen Bank micro-credit program.

5.2 Selected characteristics (dependent variables) of the respondents

Participation in Grameen Bank micro-credit program by the respondents has played some significant roles in changing the socio-economic condition of the beneficiaries' family in particular. For measuring the impact of micro-credit, the socio-economic

conditions of the participants 'before' joining the program was compared with their 'present' condition.

5.2.1 Change in income

The average yearly income of the respondents increased to Tk. 33.33 thousands. from Tk 27.86 thousands. after the families were enrolled as the member of Grameen Bank micro-credit program. The income difference of the respondents ranged from Tk. -3 to 21 thousands. with an average of Tk.5.38 thousands and the standard deviation of 3.95. The highest proportion *i.e.* 76 per cent of the respondents was of low-income difference, 17 per cent of respondents were of medium-income difference. Only 3 per cent of the respondents belonged high-income difference. and the rest 4% were of no or negative difference category.

5.2.2 Change in food consumption

The findings indicated that the average per capita per day calorie intake of the respondents' households increased to 2319.08 K.Cal. from 2131.26 K.Cal. after the families were enrolled as the member of Grameen Bank micro-credit program. The calorie intake difference of the respondents' households ranged from -202 K.Cal. to 863 K.Cal. with an average of 191.83 K.Cal. and with the standard deviation of 201.46. It is revealed from the table 4.3.1(p.55) that the highest proportion *i.e.* 70 per cent of the respondents belonged to low calorie intake difference category, 13 per cent of the respondents were of medium calorie intake difference category and only 5 per cent of the respondents were of high calorie intake difference category and the rest 11% were of no or negative difference category.

5.2.3 Change in housing unit

The findings of the types of housing unit of the beneficiaries 'before' and 'after' involvement with Grameen Bank micro-credit program has been shown in table 4.4(p.58) The information of table revealed that nobody was found to be homeless 'before' and 'after' involvement with Grameen Bank micro-credit program. Seventy per cent respondents had kacha ghar with straw roof and 23 per cent respondents had kacha ghar with tin roof 'before involvement' with Grameen Bank micro-credit program. After involvement with Grameen Bank micro-credit program, 32 per cent respondents now have kacha ghar with straw roof and 53 per cent of the respondents have kacha ghar with tin roof.

Seven per cent (7%) respondents had bamboo-made house 'before involvement' and the figure became 10% after involving with Grameen Bank micro-credit program. This indicated that the respondents' housing type and unit changed due to most of the respondents were middle-aged and they were found to change their housing condition.

5.2.4 Change in toilet condition

A moderate change has been occurred between before and after type of toilet facilities used by the beneficiaries' families of the Grameen Bank. About 53 per cent beneficiaries' families had no particular place for discharging human wastes before involvement with Grameen Bank micro-credit program. However, after involvement with Grameen Bank micro-credit program 24 per cent beneficiaries' families go to bushes or other open places for toilet purpose. The above table 4.4 (p.58) showed that 40 per cent families did use kacha toilet before membership. After membership still

53 per cent beneficiaries families were using kacha toilet. On the other hand, 18 per cent beneficiaries' families were using half-sanitary toilet while 'before' involvement 5 per cent of the beneficiaries used to use half-sanitary toilet. Two per cent beneficiaries had sanitary latrine before involvement but 5% of them had sanitary latrine after their involvement.

5.2.5 Change in source in drinking water

Fifty eight per cent of the respondents families depended on others tube well for drinking water before being a member of Grameen Bank micro-credit program, On the other hand, after involvement with Grameen Bank micro-credit program 43 per cent beneficiaries' families now depend on others tube well for drinking water. Before involvement 37 per cent of the beneficiaries' families used to use own tube well for drinking water while after involvement with Grameen Bank micro-credit program. fifty seven per cent beneficiaries' families were using their own tube well for drinking water. This fact indicated that the type of sources of drinking water change due to the contribution of Grameen Bank micro-credit.

5.2.6 Change in family asset

Before involvement with Grameen Bank micro-credit program 50 per cent beneficiaries had low asset possession and that number has decreased to 23 'after involvement' with Grameen Bank. Forty seven per cent beneficiaries families had medium asset possession 'before involvement' and 'after involvement' it appeared with 61 per cent and only 16 per cent beneficiaries families have high asset possession 'after involvement' with Grameen Bank micro-credit program while it was 3 per cent before their involvement.

5.2.7 Change in decision-making ability

The decision-making change score of the respondents ranged from 0 to 7 with an average of 0.880 and the standard deviation of 1.38. On the basis of their decision-making ability change score, the beneficiaries were classified into four categories as shown in table

Most of the respondents (55%) fell under the category of no or negative change, thirty eight per cent of them was of low change category. Six per cent of the respondents belonged to the medium change category and only 1% of the respondents fell under high change category.

5.3 Impact of Grameen Bank micro-credit program

The impact score of the respondents ranged from 2 to 14 against the possible range of 0 to 21 with an average of 6.010 and the standard deviation of 2.067. On the basis of their impact score, the beneficiaries were classified into four categories as shown in table 4.6(p.62)

It is revealed from the table that 46% of the respondents fell under the category of low impact, 47% per cent of them were of medium impact. Seven per cent of the respondents belonged to the high impact category.

5.4 Summary of the hypothesis testing

Age, farm size, credit received and attitude towards Grameen Bank micro-credit program had positive significant relationship with impact of Grameen Bank micro-credit program. But education, family size, cosmopolitaness & duration of the involvement with Grameen Bank micro-credit program had insignificant but positive relationship with impact of Grameen Bank micro-credit program.

5.5 Relationship between the respondents selected characteristics and the impact of Grameen Bank micro-credit program

The correlation between age, farm size, credit received, and attitude towards Grameen Bank micro-credit program and impact of Grameen Bank micro-credit program was found to be positively related at 5% level of probability. The correlation between education, family size, cosmopolitaness & duration of the involvement with Grameen Bank micro-credit program was not significant.

5.6 Problem faced by the Grameen Bank women beneficiaries in receiving the micro credit

Six problems were faced and perceived by the respondents. Among those problems 'Insufficient amount of credit as per demand' ranked first. 'Credit is not available in the time of need' ranked second. 'High rate of interest' was the third ranking problem. 'The misuse of credit for another activities' was the least stated problem among the six problems.

5.7 Conclusions

On the basis of the findings of the study and the logical interpretation of their meaning in the light of other relevant facts enabled the researcher to draw the following conclusions:

- i. Most of the respondents (83%) were young to middle aged and 17 per cent were old, while age of the respondents had significant relationship with the impact of Grameen Bank micro-credit program. Findings indicated that the micro-credit program was running with a satisfactory achievement in changing income and housing unit etc from different income generating activities. Therefore, it may be concluded that special attention needs to be given on particular age group. As large proportion of the respondents are young to middle-aged, therefore, it may be necessary to put especial emphasis on young to middle-aged respondents.

- ii. Majority (47 %) of the respondents was illiterate and can sign only their name. Education of the respondents showed a positive relationship with their impact of micro-credit towards uplifting their socio-economic condition. Education makes an individual more responsible and more accountable. Consequently; the educated loanees become more cautious to utilize their loan properly. Hence, it may be concluded that a literacy program would be very effective for the illiterate loanees.
- iii. The findings indicated that the respondents having larger farm size were more likely to have higher impact of Grameen Bank micro-credit program. It may, therefore, be concluded that earning ability of rural women may be increased, those who have larger farm size.
- iv. Majority (90%) of the respondents were small to medium credit recipient. Credit received of the respondents showed a positively significant relationship with the impact of Grameen Bank micro-credit program. Credit received has a great influence on socio-economic development of the beneficiaries. As there is an existence of small to medium credit received by the higher proportion of the respondents there is a scope to increase impact of micro-credit towards uplifting the socio-economic conditions by increasing number of credit recipient.
- v. Involvement with micro-credit has a great influence on socio-economic development of the respondents; sixty per cent of the respondents had

involvement of not more than 4 years. So it is likely that impact on women will be highlighted in the course of time.

- vi. The respondents having favorable attitude towards Grameen Bank were more likely to have higher impact of micro-credit. It may, therefore, be concluded that motivational works and various training programs may increase favorable attitude towards Grameen Bank micro-credit program.

5.7 Recommendations:

5.7.1 Recommendations for policy implication

On the basis of conclusions and on the present and past experience, the following recommendations are formulated below:

- i. Credit is an important input, which supports other inputs for higher production, and raises income of the women. It is, therefore, recommended to supply sufficient amount of micro-credit which must be provided timely to the beneficiaries at low interest rate, with simple terms and conditions.
- ii. The beneficiaries should be allowed more time to return their money after adoption. Otherwise, they will still have the tendency to borrow money from village moneylenders and return the Grameen Bank's loan as per schedule.

- iii. Special care should be taken by Grameen Bank's authorities and concerned others so that participation of the women in micro-credit program could be further enhanced.
- iv. Grameen bank needs to take steps for wider literacy program in order to accelerate different activities of the women.
- v. As cited by the respondents, there were six problems in receiving and utilizing the micro-credit .All these problems deserve to be addressed by the Grameen Bank personnel. It is, therefore, recommended that the Grameen Bank authorities should give attention to the solution of those problems as far as possible in order to make their program successful.

5.7.2 Recommendations for further study

- i. Impact of micro-credit in alleviating poverty of the Grameen Bank women beneficiaries was conducted in Birgonj Upazila of Dinajpur District. Findings of the study may be verified and compared by similar study in other upazila in Bangladesh.
- ii. This research examined the effect of eight characteristics of the respondents on their impact of micro-credit towards uplifting the socio-economic condition. Therefore it is recommended that further research may be

- undertaken involving other characteristics of the respondents and the impact of micro-credit in this regard.
- iii. To assess the impact of micro-credit in uplifting the socio-economic condition seven dimensions like change in income, change in food consumption, change in housing unit, change in toilet condition, change in drinking water source, change in family asset and change in decision -making have been considered. Further study may be undertaken involving other dimensions like change in social status, change in purchasing power, and change in confidence of the beneficiaries.
 - iv. Similar study may be conducted taken other leading NGOs of the country such as CARE, BRAC , ASA, PROSHIKA etc. in order of gain more meaningful insights.
 - v. A study on problems by the participating members of Grameen Bank in different dimensions of micro-credit program can also be undertaken.

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APPENDICES

APPENDIX-A

An English Version of the Interview Schedule
Department of Agricultural Extension and Information System
Sher-e-Bangla Agricultural University

An interview schedule for a research study entitled '**Impact of Grameen Bank Micro-credit Program Towards Uplifting the Socio-economic Condition of the Rural Women Beneficiaries**'

Sample No. :.....
Name of the respondent :.....
Husband's or father's name :

Village :.....
Union :.....
District :.....

(Please answer the following questions, put tick wherever necessary)

1. **Age:** How old are you?..... years.

2. **Educational qualification:** Please mention your educational qualifications.

- a. I cannot read or write ()
- b. I can sign only ()
- c. I have studied up to class.....

3. **Family size:** What is the number of your family member?

- a. Male.....
- b. Female
- c. Total.....

4. Farm size: Please indicate the homestead area and other land area under your possession

		Local unit	acre	hectare
1.	Homestead area			
2.	Land under own cultivation			
3.	Land given to others on Borga			
4.	Land taken from others on Borga			
5.	Land taken from others on lease			
6.	Own pond			
7.	Own gardens and vegetables and others)			

5. Credit Received: Have you received any loan from any organizations?

Yes.....

Not.....

If yes, from which sources you have received loan? Please mention.

Sl. No.	Sources of credit received	Amount of credit received (Tk.)
1.	Grameen Bank	
2.	Bank or NGOS	
3.	Village money lender	
4.	Friends or relatives	
5.	Neighbors	
6.	Other sources	

6. Cosmopolitaness: Please indicate the places you visit within the specified period.

Sl. No.	Place of visit	Nature of visit	
		Time duration	Frequency
1.	Visit to market or relatives or friends or familiar home outside village	Per week	
2.	Visit to union parisad office	Per month	
3.	Own upazila sadar	Per three months	
4.	Other upazila sadar	Per six months	
5.	Own district sadar	Per six months	
6.	Other district sadar	Per year	
7.	Divisional head quarter	Per year	
8.	Capital city	Per year	

7. Duration of involvement with Grameen Bank: How many years ago you got involved with Grameen Bank micro-credit program?

..... years ago.

8. Attitude towards Grameen Bank: Please express your attitude towards Grameen Bank micro-credit program in the following aspects.

Sl. No.	Statements	Extent of agreement		
		Agree	No Opinion	Disagree
+ 1.	I am happy because I have received loan from Grameen Bank			
- 2.	My social prestige has been hampered by adoption of loan.			
+ 3.	Grameen Bank micro-credit program is very important in uplifting socio-economic status of the rural women.			
- 4.	High rate of interest than other organizational rate of interest			
+ 5.	Grameen Bank micro-credit program is better than any other poverty alleviation program.			
- 6.	The amount of credit is not			

	sufficient as per demand.			
+ 7.	Changes have been occurred due to adoption of loan.			
- 8.	Some beneficiaries have left micro- credit program due to mis management.			

9. Annual income: Please furnish the annual family income from different sources 'after' and 'before' involvement with Grameen Bank

Sources of income	Before involvement with Grameen Bank (Tk./Year.)	After involvement with Grameen Bank(Tk./Year)
Agriculture		
Rice and other cereal crops		
Vegetables		
Fruits		
Cattle rearing		
Goat rearing		
Poultry rearing		
Fisheries		
Nursery		
Seed production		
Sericulture		
Silk rearing		
Others		
Non-agriculture		
Small business		
Service		
Day laboring		
Cottage industries		
Grameen phone program		
Grocery		
Tailoring		
Others		
Total		

10. Change in food consumption: Please mention the quantity of the following food items you used to uptake before involvement with Grameen Bank and uptake at present.

Sl. No.	Food items	Intake before involvement with Grameen Bank(gm)	Intake after involvement with Grameen Bank (gm)
1.	Rice (daily)		
2.	Bread (daily)		
3.	Vegetable (daily)		
4.	Pulse (daily)		
5.	Fish (weekly)		
6.	Meat (monthly)		
7.	Milk (monthly)		
8.	Egg (monthly)		

11. Change in housing unit:

Please, give information relating to type of your dwelling house before and after receiving credit.

Sl. No.	Type of housing unit	Before involvement with Grameen Bank	After involvement with Grameen Bank
1.	No house at all		
2.	Kacha ghar with straw roof		
3.	Bamboo-made kacha ghar		
4.	Kacha ghar with tin roof		

12. Change in toilet condition:

Please mention the type of latrine used by your family.

Sl. No.	Type of latrine	Before involvement with Grameen Bank	After involvement with Grameen Bank
1.	Bushes or open places		
2.	Kacha latrine		
3.	Half-sanitary latrine		
4.	Sanitary latrine		

13. Change in source of drinking water:

Please tell about the sources of drinking water for your family.

Sl. No.	Type of sources of drinking water	Before involvement with Grameen Bank	After involvement with Grameen Bank
1	Water from river or pond		

2.	Tube well of your own		
3.	Tube well of other people		

14. Change in family asset:

Please give the information relating to following items.

Sl. No.	Items of assets	Unit score	Before involvement with Grameen Bank			After involvement with Grameen Bank		
			No.	Score	Total	No.	Score	Total
1.	Khat							
2.	Chowki							
3.	Chair							
4.	Table							
5.	Bench							
6.	Showcase							
7.	Wooden almirah							
8.	Alna							
9.	Radio							
10.	Two-in-one							
11.	Black and white or color TV							
12.	Wrist watch							
13.	Wall cock							
14.	Fan							
15.	Bi-cycle							
16.	Rickshaw							
17.	Van							
18.	Torch							
19.	Sewing machine							
20.	Cow							
21.	Goat							
22.	Hen							
23.	Duck							

15(a) Decision-making ability before receiving the credit

Sl.No.	Items	Level of decision-making			
		Full decision	Partial decision	Only discussion with husband	No influence
1.	Utilization of credit				
2.	Purchase, sale or mortgage of land				
3.	Education of children				
4.	Making and purchasing of furniture				
5.	Family health care and treatment				
6.	Casting vote				
7.	Observe of social solemnity				
8.	Marriage of sons or daughter				
9.	Family planning				
10.	Crop production				
11.	Vegetable cultivation in homestead area				
12.	Lending and borrowing of money				
13.	Increase in family income				
14.	Making new house				
15.	Daily expenditure				

15(b) Decision-making ability after receiving the credit

Sl.No.	Items	Level of decision making			
		Full decision	Partial decision	Only discussion with husband	No influence
1.	Utilization of credit				
2.	Purchase, sale or mortgage of land				
3.	Education of children				
4.	Making and purchasing of furniture				
5.	Family health care and treatment				
6.	Casting vote				
7.	Observe of social				

	solemnity				
8.	Marriage of sons or daughter				
9.	Family planning				
10.	Crop production				
11.	Vegetable cultivation in homestead area				
12.	Lending and borrowing of money				
13.	Increase in family income				
14.	Making new house				
15.	Daily expenditure				

16. Problems confrontation:

What problems do you face in receiving and utilizing the micro-credit?

Please mention.

Sl. No.	Nature of problems	Extent of problem confrontation			
		Severe	Moderate	Little	No
1.	Insufficient amount of credit as per demand.				
2.	Pay back period starts early.				
3.	Credit is not available in the time of need.				
4.	The misuse of credit for repayment of former loan				
5.	The misuse of credit for other activities.				
6.	High rate of interest				

Thank you for collaborating me by spending your priceless time.

Date:

.....

(Signature of interviewer)

APPENDIX-B

A GLIMPSE OF GRAMEEN BANK

The Grameen Bank is a specialized financial institution in Bangladesh that was established by government order in 1983 to provide credit to the rural poor for the purpose of improving economic condition. The word Grameen means village, but the Grameen Bank is different from the agricultural development bank (Bangladesh Krishi Bank and commercial banks), branches located in village (Hossain, 1988).

Origin of the Bank

The Grameen Bank was initiated in 1976 as an action research project in a village near Chittagong University by Dr. M. Yunus a professor of economics, who is currently the bank's managing director. The project aimed to test the hypothesis that if financial resources are made available to the poor at the reasonable terms and conditions, they can generate productive self-employment without external assistance. After an experimental period of three years, the project was replicated in five districts of Bangladesh Rangpur, Tangail, Dhaka, Pautakhali and Chittagong during 1979-82, in collaboration with rural branches of commercial bank and BKB, and with financial assistance from the Bangladesh bank, and the International Fund for Agricultural Development (IFAD). The project was transformed into a specialized credit institution by a government ordinance in September, 1983.

The objectives of the Grameen Bank project:

The Grameen Bank was initiated with the following objectives in mind (Yunus, 1982)

- To extend the banking facilities to the poor men and women
- To eliminate the exploitation of the moneylenders

- To create opportunity for self-employment for the vast utilized and underutilized manpower resources
- To bring the disadvantaged people within the folds of some organizational format which they can understand and operate, and can find socio-political and economic strength in it through mutual support
- To reserve the age-old vicious circle of low income, low savings, low investment, low income into an expanding system of low income credit investment more income more credit more investment more income.

Mode of operation

The Grameen Bank now follows standard operational procedures that evolved throughout the 1976-83 period in a process of continuous interaction with the poor. A Grameen Bank branch normally covers an area of about 15 to 20 villages located in a union, at most two unions, in the vicinity of branch. The branch is headed by a branch manager and includes six bank workers, an accountant, and one or two bank assistants. Because of the fact that most members of the target group are illiterate and are shy about coming to banks, the banking services are brought to the doorsteps. The size of the branch and the area covered is determined by the workers' daily travel to maintain contact with the target group.

When the Grameen Bank decides to open a branch, the first task of the branch is to prepare a socio-economic report covering the geography, economy, demography, and transport and communication infrastructure of the area to be covered by the branch. The branch manager thus becomes acquainted with the locality and people before starting the operation. When the report is approved by the head office, the manager arranges a general public information meeting inviting all classes of people in the locality. At the meeting, the manager introduces bank officials and explains the Grameen bank's purposes, rules and programs.

The Group and the Centre

Interested persons are asked to form groups consisting of five like-minded having similar economic standing who enjoy mutual trust and confidence. The bank has settled on a group of five through trial and error. Initially loans are given to individuals.

Only one person from household can be a member and relatives must not be in the same group. Each group elects a chairperson and a secretary, and this position rotates among members on a yearly basis so that all members have the learning experience that accompanies the responsibilities of these positions. The chairperson is responsible for maintaining discipline in the group and the supervision of loan utilization by the members. A number of groups from the same village are federated into a centre and the weekly meetings are held at the centre level. The group chairpersons elect a centre chief and deputy centre chief, who hold office for one year only. Centre chief ensures attendance at the weekly meetings, payment of loan installments, and overall discipline, and conduct the programs of the meetings. The bank workers attend the centre meetings.

Income generating activities matched with credit program

Major income generating activities

includes:

- Bamboo basket
- Rickshaw purchase
- Cloth business
- Umbrella repairing etc
- Tree plantation
- Vegetable cultivation
- Poultry rearing
- Cattle rearing
- Fish cultivation
- Family planning
- Sewing with the help of sewing machine
- Rice business
- Laundry business
- Fruit business
- Rickshaw business
- Agricultural equipments

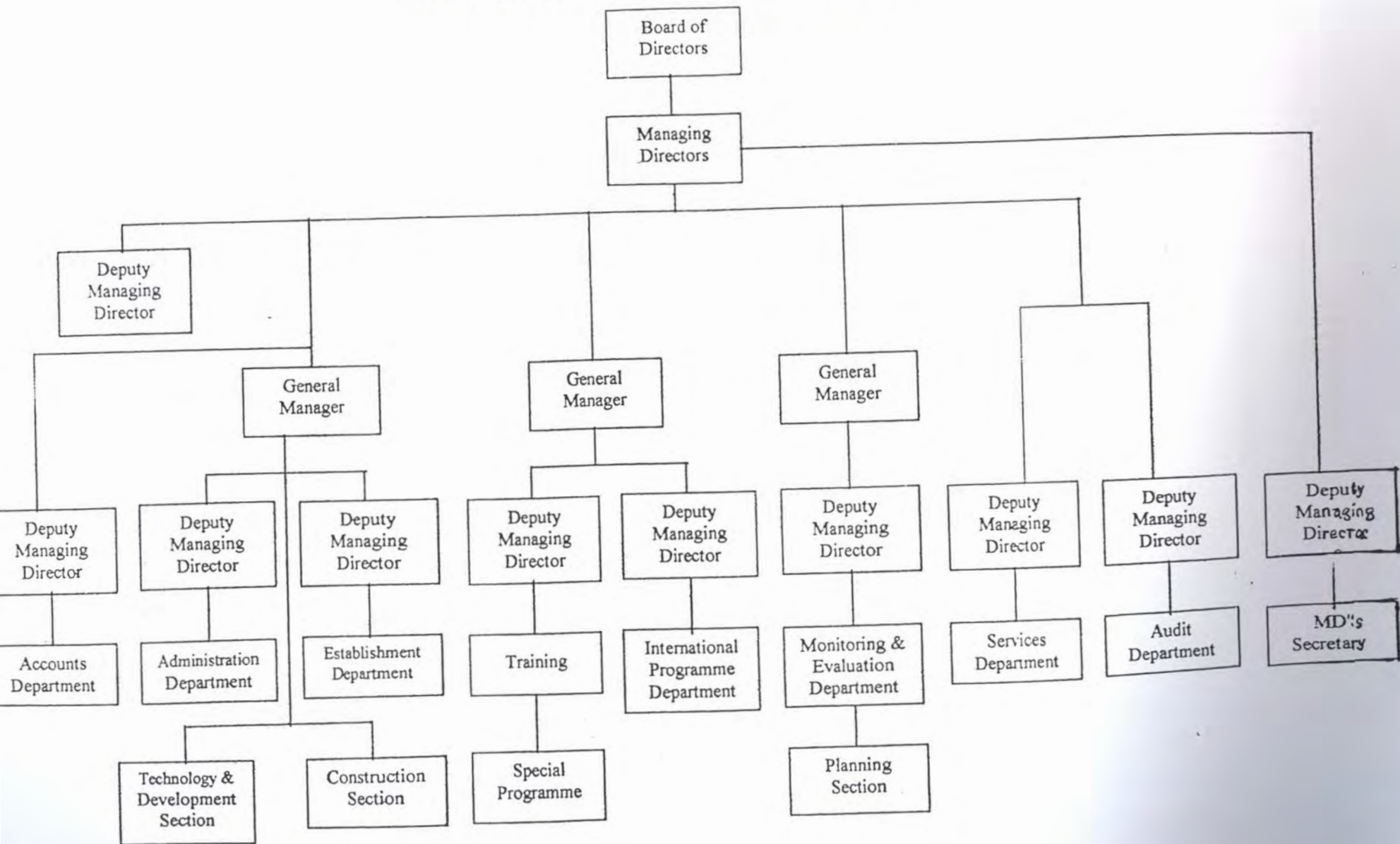
Organizational structure

The managing director is the chief executive of the bank. The organizational chart of the bank may be seen at the next page. Grameen Bank ordinance, 1983 stipulates a board of directors composed of the chairman, the managing director, and nine other members-five persons appointed by the government and four persons appointed by the borrower-shareholders. The 1986 amendment of the ordinance provides for 13 members of the board of which 9 are to be selected from the borrower-shareholders. The board approves the policies of the bank and serves as the officers. It is also responsible for supervising the training of bank staff and for research and development activities.

Most of the functions of the head office were assigned to zone office when they were established. The zone offices delegated to area offices the power of account, supervision and loan approval. Social development programs were initially located at the head office, but authority for these was soon transferred to zone offices. The zone offices are now planning to transfer responsibility for these programs to area offices.

Formulation and change of policies are arrived at by a consensual approach through meetings of the managing directors with the heads of various departments located in the head office and with zone managers. The managing directors meet with the zone manager twice a year to exchange experiences and discuss issues for further development of the bank.

ORGANIZATIONAL CHART OF THE GRAMEEN BANK



Source : Annual Report 1999 of Grameen Bank

APPENDIX-C

CORRELATIONS

Correlation matrix showing inter-correlations among all of the variables

	V ₁	V ₂	V ₃	V ₄	V ₅	V ₆	V ₇	V ₈	V ₉
V ₁	1.000	-.152	.310**	.152	.369**	.024	.134	.069	.258**
V ₂	-.152	1.000	.012	.156	.134	.060	-.113	.032	.129 ^{NS}
V ₃	.310**	.012	1.000	.226*	.047	-.113	.188	-.056	.062 ^{NS}
V ₄	.152	.156	.226*	1.000	.246*	.130	.073	-.043	.393**
V ₅	.369**	.134	.047	.246*	1.000	-.061	.542**	-.077	.256**
V ₆	.024	.060	-.113	.130	-.061	1.000	-.076	.074	.147 ^{NS}
V ₇	.134	-.113	.188	.073	.542**	-.076	1.000	.111	.061 ^{NS}
V ₈	.069	.032	-.056	-.043	-.077	.074	.111	1.000	.240*
V ₉	.258**	.129 ^{NS}	.062 ^{NS}	.393**	.256**	.147 ^{NS}	.061 ^{NS}	.240*	1.000

(Done in association with SPSS 10 program)

Where,

V₁ = Age

V₂ = Education

V₃ = Family size

V₄ = Farm size

V₅ = Credit received

V₆ = Cosmopolitaness

V₇ = Duration of involvement with Grameen Bank micro-credit program

V₈ = Attitude towards Grameen Bank micro-credit program

V₉ = Impact of Grameen Bank micro-credit program

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).