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AN EMPIRICAL ANALYSIS OF THE RELATIONSHIP BETWEEN  
GRAMEEN BANK PARTICIPATION AND WOMEN'S EMPOWERMENT

presented by

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**AN EMPIRICAL ANALYSIS OF THE RELATIONSHIP BETWEEN  
GRAMEEN BANK PARTICIPATION AND WOMEN'S EMPOWERMENT**

**By**

**Ruba Rahman**

**A DISSERTATION**

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## **ABSTRACT**

### **AN EMPIRICAL ANALYSIS OF THE RELATIONSHIP BETWEEN GRAMEEN BANK PARTICIPATION AND WOMEN'S EMPOWERMENT**

By

Ruba Rahman

The effectiveness of Grameen Bank (GB) programs in promoting empowerment, as indicated by several variables, among its women participants was studied. The variables included income generation, decision-making concerning the use and distribution of household resources, participation in family planning practices, food consumption indicators, literacy skills, and socio-political awareness. The study included a survey of participants from two branches of the GB located in two Bangladeshi villages. The survey respondents included women who were members of the GB for 5 and 10 years, new GB applicants, and a control group of villagers who were eligible to be members of GB but did not apply. The researcher then analyzed the data by cross-tabulations using the chi-square test. The analyses were done in three sets; cross-tabulations between 5-year, 10-year and non-loanee groups, between the control and new applicant groups, and between the 5-year and 10-year loanee groups.

For the first set of analyses, the data and analyses show, for the variables tested, that the 5-year loanee and 10-year loanees had higher levels of economic and social empowerment than did non-loanee respondents. In the second set of analyses, the data show that new GB applicants had higher levels of empowerment than women who were potential GB

applicants but had not applied for membership. This finding could account, at least partially, for the results obtained in the first set of analyses; namely, that GB loanees had higher levels of empowerment than non-loanees. This second finding also may suggest that GB is not accessible to the poorest of the poor. The third set of analyses revealed that the 10-year loanee group did not have significantly higher levels of empowerment than the 5-year loanee group. Thus the study could not establish the fact that longer participation in GB increased the level of empowerment for the GB loanees.

From these analyses, it can be concluded that while GB participation is associated with higher levels of social and economic empowerment, there is still much improvement that is needed in order to overcome the historic, economic, and cultural forces that have impeded the empowerment of Bangladeshi women. This suggests that empowerment of rural Bangladeshi women may require that participation in programs such as GB continue for two or more generations. Also, the findings indicate that there is still a need for empowerment efforts that are accessible to the poorest of the poor rural Bangladeshi women. Whether targeting these poorest women would be best achieved by expanding access to GB programs, or instead through a different program remains an open question.

**To my parents, for their moral support, encouragement, and love.**

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## LIST OF ABBREVIATIONS AND NOMENCLATURE

### Abbreviations:

*BARI*: Bangladesh Agricultural Research Institute  
*BIDS*: Bangladesh Institute of Development Studies  
*CASID*: Center for Advance Studies in Development  
*GB*: Grameen Bank  
*GDP*: Gross Domestic Product  
*HH*: Household  
*IFPRI*: International Food Policy Research Institute

### Nomenclature:

*Azan*: call for prayer in mosque  
*Burma*: a garment worn by women covering head to toe  
*Hadith*: sayings of Prophet Muhammed  
*Kendro*: Grameen Bank centers  
*Madrasha*: religious schools  
*Pakhi*: a common measure used for land in Bangladesh (1 pakhi = 56 decimals)  
*Purdah*: a system that covers a broad range of conduct which varies from modesty to strict seclusion  
*Quran*: the scripture of Islam  
*Shariat*: personal law  
*Taka*: the currency used in Bangladesh (1 US\$=40 taka approximately)

## **CHAPTER I**

### **INTRODUCTION AND BACKGROUND INFORMATION**

The Grameen Bank (GB) is a community development organization in Bangladesh which provides financial and other services, primarily to women, through group-based lending schemes and community discussion fora. This study examines the relationship between: (1) participation in the GB and variables reflecting women's empowerment; and (2) women's empowerment and community development. The empowerment variables to be studied include: women's income generation; women's decision-making concerning the use and distribution of household resources; family planning practices; food consumption indicators; literacy skills; and socio-political awareness.

Specifically, through surveys of three categories of women — (1) those who have been GB loanees for several years; (2) those who are about to receive their first GB loans; and (3) those who have never been GB loanees — the research tests the following hypotheses:

**(i) Hypothesis I:**

Among Bangladeshi women who meet GB eligibility requirements, the level of participation in the GB is associated with higher levels of economic and social

empowerment as indicated by measures of income generation, decision-making power, family planning practices, food consumption, and literacy skills.

**(ii) Hypothesis II:**

Respondents in the 'new applicant' category will have higher levels of empowerment than women who meet GB eligibility criteria but have not applied.

**(iii) Hypothesis III:**

The 10-year GB loanees will exhibit more empowerment characteristics than the 5-year GB loanees.

In addition, this dissertation will discuss how women's economic and social empowerment are key factors in promoting community development in rural Bangladesh.

In order to understand the process of how income generation can affect Bangladeshi women's empowerment, it is important to consider issues concerning the status of women in general in the Bangladeshi society. Understanding status issues, problems and disadvantages facing women in Bangladesh provides a clear context for the issues this research aims to address; in particular, how access to credit can affect women's income-generation and empowerment. Therefore, this introduction will attempt to describe the position of rural women in Bangladesh, how credit can play a role in addressing women's economic and social problems, and what the role of GB has been and can be as a provider

of credit. In addition, background information on Bangladesh is provided to give an overall context of problems in the country. The research problem will be developed from this discussion.

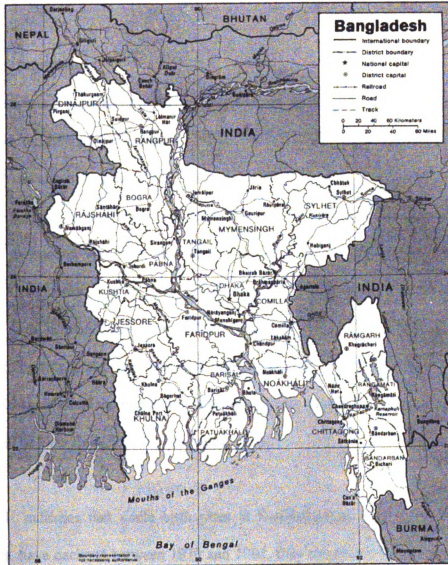
This chapter is divided into four sections: (A) background information on Bangladesh including the geography, population, religion, literacy rates, and economy; (B) women's social and economic status in Bangladesh; (C) the inception of and development of the GB; and (D) the research problem to be addressed.

#### **LA. An Overview of Bangladesh**

This section provides an overall context of the situation and problems facing Bangladesh. It covers five areas: geography, population, literacy, religion and culture, and economy. These areas have been covered because they provide an overall picture of the socioeconomic situation in the country.

##### **LA.1. Geography**

Bangladesh is a country in South Asia, bordered on the west, north and east by India, on the southeast by Myanmar (formerly Burma), and on the south by the Bay of Bengal. The country has an area of 55,598 square miles. The land is mostly deltaic with three major river tributaries emptying into the Bay of Bengal. The country is tropical with dry and monsoon seasons leading to droughts and floods throughout the year (Abdullah and Zeidenstein, 1982). Monsoon rains, heat, and humidity bring a surge of lush growth of



**Figure I.1. Map of Bangladesh**

vegetation into the land that includes fields of paddy and other crops (Ahmad, 1976). Ninety percent of the total land in Bangladesh is made up of lowlands. Only in the east and southeast regions does the presence of hills break the monotony of the alluvial plains of the rest of the country (Johnson, 1975).

#### **I.A.2. Population**

Bangladesh has a population of 107 million with an average population density of 2,000 people per square mile (World Bank, 1992). More than 60 percent of the population are landless (Auwal and Singhal, 1992). A study in 1980 found that more than 90 percent of Bangladeshis lived in rural areas, and 80 percent are below the poverty line, as determined by their consuming less than the requirement of 2122 calories per day (Bangladesh Planning Commission, 1980). The annual population growth rate in Bangladesh is 2.9 percent (Abdullah and Zeidenstein, 1982). The fertility rate is one of the highest in Asia. The mortality rate is also high among all ages, but especially among infants and children (Balk, 1994). Half of the population is below age 15, and the average life expectancy is 50 years (The New Encyclopedia Britannica, 1995).

Table I.1. indicates that while birth rates in Bangladesh as well as its South Asian neighbors, have declined between 1970 and 1993, they remain much higher than rates in developed countries such as the US, the UK, and Japan, as well as the overall global rate (World Development Report, 1995).



**Table L1. Birth Rates of Selected Countries**

<b>Country</b>	<b>Crude Birth Rate (per 1,000 population)</b>
<b>Bangladesh</b>	48
<b>India</b>	39
<b>Pakistan</b>	48
<b>Nepal</b>	45
<b>US</b>	17
<b>UK</b>	16
<b>Japan</b>	19
<b>Global</b>	32

Most Bangladeshis live in absolute poverty. The landless and those without any assets make up 10 million families out of 18.5 million families, and women make up a large portion of the poorest and landless. A large number of the labor force are either unemployed, underemployed, or without regular sources of income (Huq and Sultan, 1991). According to Holcombe (1995), about 25-30 percent of the population is not productively employed. Holcombe points out that this results from limited opportunities. A World Bank Report in 1988 assessed per capita income at US \$170, with an average yearly growth rate of 0.4 percent between 1965 and 1988 (Holcombe, 1995).

### **LA.3. Literacy**

Estimates of literacy rates in Bangladesh have varied in different studies, but all agree that the majority of Bangladeshis are highly illiterate, and that the literacy rate for women is

less than half of that for men. According to Bangladesh census data, the male literacy rate was 29.3 percent in 1961 and rose to 32.9 percent in 1974. Also according to these census data the female literacy rate was 9.6 percent in 1961 and 14.8 percent in 1974. In the 13 years between the two censuses, only a slight improvement occurred in the difference between male and female literacy rates (Chaudhury and Ahmed, 1980). Abdullah and Zeidenstein (1982) found that the literacy rate in rural Bangladesh is 18.5 percent overall, with 25 percent for males and 10.9 percent for females. Similarly, Auwal and Singhal (1992) found that 74 percent of the total population is illiterate. A more recent study (Central Intelligence World Wide Publication, 1995) found that the literacy rate is 35 percent in the total population, with 47 percent for males and 22 percent for females. Thus, while female literacy has improved at a faster pace than male literacy in the past 34 years, the female literacy rate was still less than half that of the male literacy rate in 1995.

#### **I.A.4. Religion and Culture**

Eighty-six percent of the population is Muslim, eight percent Hindu, four percent Christian, one percent Buddhist, and one percent is other (Central Intelligence Agency World-Wide Publication, 1995). Bangladesh is the third largest Muslim country, after Indonesia and Nigeria. Even though Bangladesh is a Muslim nation socially, the political orientation has not been shaped by Islam. Bangladesh's political environment has been mostly liberal and secular (Novak, 1993). To some degree, Muslims in Bangladesh

conform to a wider Bengali cultural nationalism that surpasses the religious differences between Hindus and Muslims (Johnson, 1975).

Bengali is the language spoken in Bangladesh. Bengali literature and music are considered akin to a Bengali folk religion, reflecting both humanism and secularism, that transcends the teachings of any single faith by creating a fusion of the concept of oneness of God and the equality of people (Novak, 1993).

#### **LA.5. Economy**

The country's economy is mainly agricultural. Fifty-five percent of the gross domestic product (GDP) is produced from agriculture which employs 70 percent of the labor force (Abdullah and Zeidenstein, 1982). More than half of the country's households own less than 0.5 acre of cultivable land, and most live in a state of abject poverty. The landless or near-landless segment of the population are basically non-farmers (Kamal et al., 1992). Though the people having less than 0.5 acre of land are not literally defined as landless, they can be regarded as landless from a functional perspective (Wahid, 1993).

Rice is the major crop produced in Bangladesh and is grown on about 80 percent of cropped acreage. The country has not been self-sufficient in rice production and therefore imports large amounts of food grains. Jute is the major cash crop of the country and is grown on 8 percent of the total cropped acreage. Sugar-cane and oil-seed are the other cash crops (Abdullah and Zeidenstein, 1982).

Because of the lack of mineral resources, the economic management done by the government and private investors is geared towards agricultural development. In the 1980s, the economic growth averaged 4 percent per year which was not adequate to generate development and to deal with the problem of poverty (Lovell, 1992).

#### **LB. Social and Economic Status of Women in Rural Bangladesh**

Life for most women in rural Bangladesh is difficult. Women engage in agricultural and household work for long hours everyday. In addition to raising children, washing, and cooking, women are also responsible for processing and preparing rice (including drying, soaking, parboiling, redrying, husking, polishing, and storing the rice), as well as fruit and vegetable gardening. Also, in the traditional Muslim society of Bangladesh, women have had to experience social pressures that lead to national problems such as early marriage, having to bear too many children, illiteracy, unemployment, and social seclusion.

Preference for males, and discrimination against women begins at birth and continues through adulthood for most rural Bangladeshi women. Ahmad (1991), for example, provides evidence of "discriminatory treatment" of daughters regarding their health, education and food consumption. Likewise, Chen et al. (1984) report that malnutrition among girls is significantly higher than that among boys. And a World Bank report (1990) also reveals that food intake for females is 30 percent less than that for males by the time

they reach adulthood. Other examples of this gender discrimination are provided in later sections of this paper.

This section of the introduction discusses various aspects of the economic and social disadvantages facing rural Bangladeshi women. In particular, this section addresses the relationship between women's status and (1) religious practices; (2) labor restrictions; and (3) empowerment issues.

#### **L.B.1. Religious Practices and Rural Women in Bangladesh**

Religious practices in Bangladesh (whether Islam, Hinduism, Christianity or Buddhism) are all characterized to some extent by social seclusion and inferior status of women. In particular, three features of Islam, the predominant religion in Bangladesh, that have a direct impact as tools of patriarchal control are inheritance laws, seclusion of women through *purdah* practices, and divorce laws.

According to Islamic inheritance laws, a daughter can inherit only one-half of the share inherited by a son. However, in reality, under the law women often get even less than this share. For instance, a man farms his wife's land, if she inherits it, as though it were his own land. Women also tend to renounce their share of inheritance to their brother(s) as an act of goodwill and acquiring favor (Cain et al., 1979).

*Purdah* (literally meaning a screen or curtain) is a system that covers a broad range of conduct that varies from modesty to rigid seclusion (Shehabuddin, 1992). According to Cain (1979), in Bangladesh *purdah* signifies strict restrictions on women's mobility outside their homestead. *Purdah* can also mean a standard of apparel that "hides" a woman's "face and form". *Purdah* is a complex institution that involves more than just restriction on women's movement and apparel. *Purdah* also entails a denial to access to opportunities for women and simultaneously accords them with a status of protection. Therefore *purdah*, in a way, seems to give rise to a contradiction: it hurts women by restricting their access to opportunities but supposedly benefits women by rendering them protection.

According to Abdullah and Zeidenstein (1982) Bangladeshi villagers view a family practicing rigorous *purdah* as belonging to a high social, economic, and/or religious status. At a social level, the practice of *purdah* contributes to a male's honor which depends on the conduct of his family's women and his ability to protect and provide for them. From the perspective of economic status, a family may also indicate economic superiority to others by observing *purdah*. And from a religious point of view, *purdah* is considered "good behavior"; therefore, it compels respect. Generally, only a small number of households in a village can support such rigorous *purdah*. But it is important to note, as Abdullah and Zeidenstein (1982) put it, that the villagers view these households as prestigious and respectable and consider this lifestyle for women as highly desirable.

*Purdah* restricts mobility for rural women in Bangladesh. Even though some rural women may go outside the homestead to bring water from a well or a tube well, wash clothes in a pond, collect vegetables in a vegetable garden, or collect fire wood, they seldom go to the market place (Alamgir, 1977). The observance of *purdah*, a strongly valued behavior by society, restricts women's access to the outside world except through go-betweens such as husbands, fathers, brothers and adult sons. Women do not go to the market place where economic, socio-political activities take place. Women do not go to mosques where religious and social activities occur. Women generally do not go to the fields where agricultural activities take place. Women lack direct access to products of their labor or access to labor at their own free will. Women generally do not go to places where medical and contraceptive services are available (Abdullah and Zeidenstein, 1982).

A more recent study by Balk (1994) indicates that women's mobility is rising somewhat and *purdah* restrictions are being relaxed a little for many women, but not for others. Balk (1994) found that 89.8 percent of her female respondents traveled frequently outside the homestead and 12.2 percent traveled often outside the village. She also found that only 15.6 percent of the female respondents observed *purdah* by wearing a *burka* (a piece of overgarment covering women from head to toe) when traveling outside. However, only 6.7 percent women reported that they went out unaccompanied, with 47.3 percent traveling with either their husband or a male relative.

Religious laws regarding divorce also work against women's empowerment. Presently, in Bangladesh, the right to divorce is very complicated and restrictive. *Shariat* law (one of the Islamic laws) does not allow women the right to seek divorce in a court of law no matter what offence is committed by the husband (Noman, 1983).

### **LB.2. Labor Restrictions and Rural Women in Bangladesh**

Although rural Bangladeshi women labor for many hours each day, the value of their work is generally not appreciated and often they are unpaid. A 1983/84 Labor Force Survey of Bangladesh revealed that only 8 percent of the women of working age were in the formal labor force, while 75 percent were engaged in household work. Although these hours of "household work" are unpaid and not counted as part of wage work (Khan; Hossain, 1989), women do make a large contribution to family production and they work many hours. Westergaard (1983) says that women's productive hours of work range 10 to 14 hours, as compared to 10 to 11 hours for men.

A study by Ahooja-Patel (1986) found that, in the urban areas of Asia, generally low education and skill level of women, as well as discrimination, prevents their access to formal employment and draws them into the informal sector which often means "occasional work" and hides unemployment or underemployment.



Because the socio-economic conditions in the country are worsening, rural women in Bangladesh are being forced to join the labor force. As a result of this, cheap sources of labor are increasingly available in some areas, causing lowering of wage rates and increasing competitiveness among rural laborers (McCarthy and Feldman, 1985).

Previously, rural women played a role only in post-harvest processing of field-crops. However, the number of women working as agricultural wage laborers is increasing even though the total number of employed women in agriculture, the dominant sector of the economy, is still small — only 1.2 percent of total agricultural workers (World Bank, 1990).

### **LB.3. Empowerment Issues and Rural Bangladeshi Women**

This research is primarily interested in issues relating to the empowerment of women. Empowerment here is defined as the ability and freedom to make and act on decisions that improve the quality of their lives (Further discussion of definitions of empowerment discussed in the literature is provided in Chapter II).

Even though women contribute greatly to family production, they have little control in household decision-making. Traditionally, women often do not make the basic decisions in their lives. Because women do not participate in decisions concerning their lives as individuals, as wives, as mothers, as workers, and as citizens, their status remains

subordinate to men (Farman-Farmaian, 1976). This lack of decision-making power prevents them from enjoying a better position in Bangladeshi society, both in the rural and urban communities. The inferior social status rendered to women in the traditional society of Bangladesh and their limited access to resources, makes them vulnerable to poverty (Huq; Sultan, 1991).

Related to their lack of empowerment is the lack of opportunities for income generation that are available to women. The economic and social empowerment of women in a community could be improved through the provision of better financial or social services to them. Improving women's access to credit, therefore, can be an important means for improving the economic empowerment of women in Bangladesh, and with economic empowerment, social empowerment can follow. Credit can be a means for providing low-income women with much needed capital to start microenterprises or to purchase inputs for productive activities.

However, in rural Bangladesh, credit is not easily accessible, especially for women. In the formal financial sector banks require collateral for credit, and in the informal sector high interest rates make credit unaffordable to the poor. This lack of access to credit restricts women's opportunities for income generation, thereby reinforcing their having little say in household decision-making, and rendering them powerless. Therefore, access to credit

could be, as speculated by a number of scholars, an essential element in empowering women (Schuller and Hashemi, 1994; Rahman, 1986).

### **L.C. The Inception and Development of the Grameen Bank**

As previously stated, the GB is a community development organization in Bangladesh which provides financial and other services, primarily to women, through group-based lending arrangements and community discussion fora. GB's philosophy follows the United Nations' Universal Declaration of Human Rights which proclaims that every human being has the right to a standard of living for herself and her family that provides adequate food, clothing, housing, medical care, and other services (Auwal and Singhal, 1992). The underlying philosophy of GB, then, is that the poor should have access to credit.

Founded in 1978 by an economist, Dr. Mohammed Yunus, the GB has been trying to empower disadvantaged women in Bangladesh by extending credit to help them participate in income generating activities of their choice (Hossain, 1986). In addition to providing credit, the GB also provides instructional and motivational seminars on health and hygiene, nutrition, family planning, etc. By seeking to empower women, the GB is also aimed at promoting community development.

The GB started very simply when Dr. Yunus provided loans from his own resources to a small group of women in the village of Chittagong where he was working as a professor.

From this humble beginning, after fifteen years of providing credit without collateral, today GB operates in 34,243 villages and, by May 1994, had 1,915,000 borrowers (Holcombe, 1995). These rural low-income women, who were otherwise without access to credit, would perhaps have had little hope of acquiring the economic means for improving their quality of life.

Unlike most poverty-oriented development programs in Bangladesh, which are geared toward men, the GB targets its services towards women; 91 percent of GB's loanees are women (CASID, 1993). The GB believes that if women, about 50 percent of the total population, can be reached, they can play a key role in improving their communities economically and socially. Economically, women can inject more income into a community by starting their own small enterprises. Socially, women can improve the quality of their and their families' lives through better awareness of nutrition, health, family planning, literacy, etc.

The high rate of female participation in GB may be attributed to factors such as extreme pressures of poverty and population, hopelessness and helplessness of women who are faced with a large number of dependent children or have been made destitute due to natural calamities, high divorce rates among low-income couples, and most importantly, recent changes in society's attitude toward women's involvement in activities outside their homes.

The Bangladesh government has been giving high priority to the GB and has provided it with assistance, and some international aid donors have also been attracted to it. To an increasing number of development scholars and practitioners, the GB has provided a "hope-model" for breaking the vicious circle of poverty in the developing countries like Bangladesh, with minimal social confrontation and upheavals (Siddiqui, 1984).

A more detailed description of how the GB operates (including the process of group formation, the types of loans provided, and the organizational structure of the bank) and assessments of its impacts is provided in the literature review section of this study.

#### **I.D. Research Problem to be Addressed**

The purpose of this study is to examine the effectiveness of GB programs in promoting women's empowerment. Specifically, this study will attempt to examine the relationships between participation in the GB and variables reflecting women's empowerment. The empowerment variables to be studied include: (1) women's income generation; (2) women's decision-making concerning the use and distribution of household resources; (3) participation in family planning practices; (4) food consumption indicators; (5) literacy skills and (6) socio-political awareness.

Previous studies have suggested that GB has been successful in helping women to generate income and improve their standard of living (Rahman, 1986; Hossain, 1988;

Auwal & Singh, 1992; Shehabuddin, 1992; Mizan, 1993; Schuler & Hashemi, 1994; and Wahid, 1994). However, these studies on the GB have been inadequate in at least two ways. One, previous studies have been only cross-sectional and had little longitudinal perspective. Thus they are methodologically inadequate. Two, a substantial shortcoming of the research has been that the relationship between GB participation and women's empowerment and influence on household decision-making has not been well studied.

A problem with cross-sectional studies is that it is difficult to infer causality because the studies do not compare the status of women before they joined GB and after they joined GB. For example, one might ask, did the GB make women better off? Or, did better-off women join the GB? The question that arises is whether there is a relationship between women's empowerment variables and their decision to participate in GB in the first place. If this is the case, it suggests that a sample selection bias may have been present in previous cross-sectional empirical studies comparing empowerment variables between loanee and non-loanee women.

Prior studies often assume that by increasing incomes GB empowers rural women. However, this may not necessarily follow because the husbands or other male family members may still control the income. In some cases GB female members may even get loans from the bank and hand the money to their husbands who actually make use of it, perhaps with no appreciable benefit for women's empowerment or quality of life.

Therefore, while effect on income is important, the present research will focus on how increased access to credit affects women's roles in household decision-making regarding resource use and distribution, family planning practices, food consumption levels, and literacy skills among women who have begun participating in the GB.

This study addresses these questions by tracking how measures of empowerment variables may have changed over time for GB women loanees and by comparing these traits among GB and non-GB women. The research will also test whether differences in empowerment characteristics exist between women who are currently seeking to participate in GB and those who are eligible but are not seeking to participate. Thus, through a survey of three categories of women — those who have been GB loanees for several years, those who are about to receive their first GB loans, and those who have never been GB loanees — this research will try to improve upon the methodological weaknesses of previous GB studies, as well as examine more thoroughly the relationship between GB participation and women's empowerment.

## **CHAPTER II**

### **LITERATURE REVIEW**

The literature review is divided into five sections: (A) women's social and economic issues in Bangladesh; (B) concepts of empowerment and empowerment issues facing rural Bangladeshi women; (C) the GB program operations; (D) potential linkages among GB services, women's empowerment, and community development; and (E) empirical evidence of GB impacts in the literature.

Section A summarizes previous research that has been done on rural women's issues in Bangladesh including: (1) background on women's status which includes social, economic, and legal aspects; and (2) women's quality of life including fertility and family planning practices, food consumption and health status, and education and literacy levels.

Section B is divided into four sections: (1) concepts and definitions of empowerment; (2) empowerment variables used in the literature; (3) women's input into household decision-making; and (4) the relationship between poverty and women's empowerment.



Section C gives background information on the operational activities of the GB, both its financial services and its social programs. Section D discusses theoretical links: (1) between GB's services and women's empowerment; and (2) between GB services and community development in rural Bangladesh. Finally, Section E will discuss evidence of GB impacts found in the literature, including some shortcomings of other research done on the GB.

## **II.A. Background on Women's Social and Economic Issues in Bangladesh**

This section reviews literature pertaining to problems and issues affecting women in rural Bangladesh. The section is divided into: (1) status of rural women in Bangladesh; and (2) women's quality of life including fertility and family planning practices, food consumption and health status, and educational and literacy levels. This information will provide a backdrop for the study and lay out the processes that shape the lives of the millions of rural Bangladeshi women.

### **II.A.1. Status of Rural Women in Bangladesh**

Rural Bangladeshi women generally have limited access to resources and are allotted a position in society in which they lack the freedom and ability to make changes to improve their lives. Regardless of whether these women are Muslims, Hindus, Christians or Buddhists, they live in a male dominated society, and are restricted by social, economic,

and legal limitations. This section summarizes information in the literature regarding women's social, economic, and legal status in Bangladesh.

#### **II.A.1.a. Social Status**

The social exclusion and inferior status of women are reinforced by religious practices in Bangladesh, whether Islam, Hinduism, Christianity or Buddhism (discussed in detail in section I.B.1). Some of these practices, for example purdah in Islam, have a direct impact as tools of patriarchal control. Regardless of religious beliefs, most Bangladeshi women are subjected to a highly patriarchal system. Women's dependence on men occurs ostensibly as a means of protection for women in the patriarchal system. According to a World Bank report (1990), a Bangladeshi woman's life is molded by the patriarchal, patrilineal, and patrilocal character of the society. A woman throughout her life is protected by either her father or husband and, in their absence, her son or a male relative. A woman moves to her husband's household after marriage and her family identity changes from her father's to her husband's.

The inferior status of women is emphasized from early on in a child's life. This idea of women being inferior to men is sustained through behavioral roles assigned to girls and women. When a girl is born in a village, there is seldom any celebration observed by parents and relatives unless the girl is born after several surviving brothers. When a boy is born in the rural areas, usually *azan* (call for prayer) is rendered in the local mosque. Such

is not the case when a girl is born. Only the birth of a son can bring a sense of security to a woman in her husband's household (Chaudhury and Ahmed, 1980). With the birth of more sons, her security is reinforced, as sons provide social and economic security in her old age when she becomes incapable of looking after herself (Alamgir, 1978).

According to Jorgensen's study in 1983, more than 52 percent of women were married at or before the age of 15. About 4.1 percent married as early as 10 or before. Ten years later, Olofsson (1993) found that the average marriage age for women had increased to 16. Jorgensen (1983) states that in Bangladesh the legal age of marriage for women is 16 and 18 for men. However, men usually marry when they are more than 20 years old.

Chaudhury and Ahmed (1980) mention that in the rural areas marriages are invariably arranged, and the father, older brother or some male relatives perform an important role in the marriage deal. Dowry is part of a marriage deal and quite commonly practiced in the rural as well as urban areas of Bangladesh. According to Jorgensen (1983), dowry can include money, jewelry, and other material goods such as a bicycle or a radio. Families of the bride must generate economic resources to pay for the dowry demanded by the groom and his family. The woman's family may have to borrow at high interest rates or even sell land to be able to meet the demands.

Wallace et al. (1987) state that rural Bangladeshi women perceive themselves physically and morally tied to their husbands and their in-laws. When a woman arrives in her father-in-law's household after marriage, she has little status of her own. Her life is bound by the "laws" of the males of the household, her husband and his father, and also by the "demands" of her mother-in-law. In general, in the relationship between mother-in-law and daughter-in-law in Bangladesh, the daughter-in-law holds an inferior position (Chaudhury and Ahmed, 1980; Wallace et al., 1987). A general belief in Bangladesh indicates that a mother-in-law exerts power, for the first time in her life, when the first daughter-in-law arrives in the household. Often the mother-in-law misuses the power by mistreating and overworking her daughter-in-law. However, the authors point out that it is more likely that the abusive behavior on the women is wielded by their husbands than by their mother-in-laws. In terms of the inferior status of rural Bangladeshi women, Westergaard (1983) confirms it by pointing out that rural women in Bangladesh are considered to have inferior positions in both the household and society at large. Olofsson (1993) adds that a woman in Bangladesh is commonly "neglected" and considered a "possession" of her husband.

In the rural areas, especially among the poor, divorce and remarriage are quite prevalent. However, divorce tends to be less frequent among families of higher status as it is perceived as bringing dishonor to the family, which may become an impediment to get suitable partners for other daughters (Chaudhury and Ahmed, 1980). Alamgir (1977)

emphasizes divorce, widowhood and separation are, or can be, a threat to the financial and social well-being of the poor rural woman. The status of women diminishes with the death of her husband, even though she may have family to depend on economically.

Jorgensen (1983) stresses that men in rural Bangladesh use the threat of divorce as an effective way of suppressing women. The most common grounds for divorce are childlessness where the woman is held responsible, a conflict between the wife and the husband's mother, or the wife's inability to meet her husband's sexual demands. Also, says McCarthy (1978), if a woman cannot perform her domestic duties and responsibilities because of ailing health she runs the risk of being divorced. Jorgensen specifies that upon remarriage, the woman's predicament may become worse than in her first marriage. If she becomes a man's second wife she may have a lower status than the first wife.

According to Alamgir (1977), in rural Bangladesh, only marriage brings women status in society. For this reason women who are widowed or divorced usually get remarried. For women, remarriage after the age of 34 decreases and becomes rare after the age of 49. However, remarriage for men is common at all ages. Chaudhury and Ahmed (1980) mention that the dependency status of a woman remains unchanged even after she has become widowed. The dependency shifts from her husband to her son or to some other male relative after the death of her husband. Only a few women take up the role of the head of the household. Women usually only take up the role of the head of the household

if they have no sons or other male relatives to look after them. Alamgir (1977) denotes that if a poor woman does not have a son, in old age or in time of illness, she lacks support.

#### **II.A.1.b. Economic Status**

In the peasant society of Bangladesh, a sharp gender division of labor in agricultural production results in a hierarchy with women in inferior economic positions. The division of labor distinguishes between operations that are performed outside the home (the men's domain) and those that are performed inside the home (the women's domain). Men work in the fields plowing, sowing, transplanting, harvesting and transporting the harvest home. Women, on the other hand, conduct operations that are usually done at home; for example, post-harvest operations which include threshing, drying of grains, winnowing, parboiling, husking and storage. Women also tend the animals, grow vegetables, look after fruits and do household work. Household work includes cooking, cleaning and taking care of children (Khan, 1988; Westergaard, 1983; McCarthy, 1978). The women are also responsible for potable water, fuel and primary health care. Yet, in Bangladesh and many other developing countries, their work is often categorized merely as "household labor" with little value attributed by development planners, and its importance is not well-recognized in national development plans (Riker, 1983).

Post-harvest processing of food grains, as detailed above, is an important part of the agricultural food production. Even though women actively participate in the processing of food grain, mostly undertaken at home, their role in agriculture is still widely unappreciated and under-rewarded (Wilber, 1978). The 1974 Bangladesh Census showed 96.15 percent of the agricultural labor force as male and 3.84 percent as female (Chaudhury and Ahmed, 1980). And ten years later, in 1984-85, 8 percent of the agricultural labor force was categorized as female. These statistical data on women's participation in agricultural labor force can be misleading since a study done in Bangladesh on women's role in agriculture showed that 43 percent of the women who responded, besides doing household work, also had agriculture as their primary occupation and an additional 15 percent considered agriculture as a secondary occupation (World Bank Report, 1990).

While previously the only women working outside the household were old, widowed or divorced women forced to fend for themselves, recent trends in Bangladesh reveal a different picture. The main reason for the change is the transition from a subsistence to a wage-based agricultural system, coupled with the shortage of cultivable land and high prices. Thus, far larger numbers of women, as well as children, are seeking work outside the household (McCarthy et al., 1978). Because of the increasing poverty, many families cannot afford to stop women from working outside the home any longer (Olofsson, 1993). Because of deteriorating socio-economic conditions in the rural economy, an increasing

number of men are migrating in search of wage income. As a result women are taking responsibility for field crop production of family land holdings and working on family farms, in addition to their traditional roles in homestead agriculture and post-harvest crop processing (World Bank Report, 1990).

Wage rates for women in Bangladesh, both agricultural and non-agricultural, are substantially lower than those for men (Berger, 1987; Huq and Sultan, 1991). In the agricultural area, the daily wage rate for women is half of men's daily wage rate. Chaudhury and Ahmed (1980) maintain that economic dominance by men is supported by Islam. The sexual division of labor is specifically defined by the religion and sanctifies male dominance. Islam believes that man is the earner and woman is the server of man (Cain et al., 1979).

Non-farm employment is often sought by poor migrant women as it is often less demanding than farm work. A majority of these women work as domestic help on wealthy farmsteads, or as labor in cottage industry and small industries. The Bangladesh Manpower Survey of 1980 found that about 48 percent of women workers were engaged in non-farm activities compared to 30 percent of men. Women also work in another area of non-farm employment — the "specialized family-trade" including pottery, weaving, and clothes-washing. The women play a role equal to the men in these trades, but are not paid for their labor (Khan 1988).



### **II.A.1.c. Legal Status**

According to Huda (1986), the laws in Bangladesh pertaining to women are "comprehensive" and "adequate". However, these laws are there only in theory. To the majority of the 80 percent of Bangladeshi illiterate and poor, these laws do not mean much as they remain oppressed and exploited by the powerful. Bangladesh has criminal and civil codes similar to most western countries; however, the country's social features such as marriage, divorce and inheritance are governed by personal law. Personal laws are founded on social values and religious belief systems (Alamgir, 1977). Personal laws entail marriage, divorce, custody of children (Khan, 1988) and are essentially based on an individual's religious background (Bhuyian, 1986). In the case of Muslims, personal law, called "Sharia", is founded on the *Quran* and *Hadiith* (the sayings of Prophet Muhammed). Even though civil laws are also used on some of the issues associated with the areas of personal laws, it is difficult to understand the logic behind the jurisdiction granted to each area. For instance, the purchase or sale of property is covered by civil laws while the inheritance of property is covered by personal laws (Khan, 1988). Under Muslim inheritance law, women receive only half of the inheritance of their brothers. Most often, women do not claim their share, opting instead for future support from their brothers in exchange for their inheritance (Olofsson, 1993). Therefore, the practice of personal laws prevents the establishment of a single collection of laws that may represent the legal status of all Bangladeshi women (Alamgir, 1977).

The Constitution ensures equality. However, by making special provisions for women, it recognizes that women are unequal, or inferior, to men. While being concerned about women's vulnerability in society, the various laws also limit the opportunities for women to be treated as equals in society (Khan, 1988; Noman, 1983).

Bhuiyan (1986) states that even though the constitution grants equal rights to women, discriminatory conditions are present in legislation regarding marriage and divorce. Notable changes have ensued from the Muslim Family Laws Ordinance of 1961 and the Muslim Family Laws Ordinance of 1982 amendments. Yet, a Muslim wife does not have the "unilateral" right to divorce as her husband does. These ordinances have also introduced restrictions on the practice of polygamy. Men who desire to take additional wives are required to inform the chairperson of the Arbitration Council under the Muslim Family Laws Ordinance of 1961. However, few men obey the law even though violators are subject to punishment. Even if complaints are lodged by wives, due to legal and socioeconomic obstructions, seldom do they obtain justice (Bhuiyan, 1986).

The law is also limited in its scope for protecting women from violence, especially concerning incidents related to dowry. Disputes over dowry often result in violence and even murder. For instance, in one highly publicized case, a woman's throat was slashed by her brother-in-law and other family members because of non-payment of her dowry. Because of such dowry-related violence, the Dowry Protection Act of 1980 was enacted.

However, it has been very difficult to prosecute successfully a case under this act and, therefore, the act had little effect (Bhuiyan, 1986).

## **II.A.2. Women's Quality of Life in Rural Bangladesh**

This section reviews literature pertaining to important factors affecting women's quality of life, including: (a) fertility and family planning practices; (b) food consumption and health status; and (c) education and literacy levels.

### **II.A.2.a. Women's Fertility and Family Planning Practices**

A population explosion in Bangladesh has focused attention on the issue of women's roles in family planning. In addition to causing population growth, early, frequent and closely-spaced child births are a major cause of female malnutrition (Kabeer, 1991). The issue of why rural Bangladeshi women have so many children, and how this can be discouraged, has become important (Young, 1993).

Many factors are suggested as causes for the high fertility rates in Bangladesh. Among them is the lack of empowerment of women. For instance, Jorgensen (1983) indicates that it is husbands who determine to limit the number of children, and usually only do so for economic reasons. Women do not even question such decisions as the concept of motherhood is deeply rooted in them. Chaudhury and Ahmed (1980) also suggest that

women's subordinate role and a lack of communication between husbands and wives are factors contributing to high fertility and low diffusion rates of family planning.

It is important to understand the cultural and other factors that affect the psyche of the rural Bangladeshis, especially their attitudes towards having many children. Noman (1983) believes that in rural Bangladesh the customs and traditions foster attitudes that are negative towards childlessness and celibacy but are not negative towards large family sizes. For example, Noman observes that a poor man may gather sympathy from others for not being able to sustain a large number of children, but may not be censured for having had so many children in the first place.

High child mortality rates contribute to attitudes favoring large family sizes. Noman (1983) found that child and maternal malnutrition, mortality, and children's diseases play a role in the decision-making process regarding women's fertility behavior. She notes that many rural women have eleven to twelve pregnancies just to ensure that some of the children will survive. As one or two of these pregnancies are likely to end in miscarriages, and two to three of these infants may die, women tend to value having more children.

Cain's work (1983) as referenced in Ahmed (1991), stresses the correlation between the value of children to women and the resulting high fertility. Having sons can mean better social and economic security in old age (Alamgir, 1977; Chaudhury and Ahmed, 1980;

Jorgensen, 1983; Ahmad, 1991). Ahmad (1991) specifies one reason for women to seek male children for security is that women stay socially secluded and economically dependent in the Bangladeshi society. Ahmad adds that this attitude develops partly because daughters cannot contribute economically to their parents' households as they are married off at an early age. Male children, thus, represent longer term economic security.

Studies reveal that there is a correlation between age of marriage and fertility, although these studies are not in complete agreement. The 1975 Bangladesh Fertility Survey indicated that the average age of marriage for women was 13 in the rural areas as compared to 14 in the urban areas of Bangladesh (Chaudhury and Ahmed, 1980; Noman, 1983). Ten years later, Olofsson (1993) found that the average marriage age for women had increased to 16. In addition, Noman (1983) reports that the marriage age level is higher among women belonging to non-agricultural families than to agricultural families. Marriage at such early ages increase the likelihood of high fertility rates. As Ahmad (1991) points out, early marriage lengthens the reproductive phase of a woman and thereby raises the likelihood of conception. Furthermore, an increase in marriage age may help women to have more decision-making power in reproductive decisions as the women will be more mature. However, Ahmad adds that the difference of age between wife and husband can have a negative impact on fertility. Early age marriage may also lead to higher fertility if it results in a large age gap between husband and wife. Ahmad (1991) says that a large age gap between a couple can reduce their level of communication and

become an obstacle in a woman's ability to limit her fertility, even after the desired number and sex of children is secured. Noman (1983) points out that the age difference between a wife and a husband usually ranges from 7 to 12 years.

Chaudhury and Ahmed (1980), and Noman (1983) also found a strong correlation between education and fertility. The Bangladesh Fertility Survey, as cited in Chaudhury and Ahmed (1980) says that the use of "efficient" methods of contraception increases with the increase in educational level. They find that the use of contraceptives increases with education level from 15 percent for women with no education to 47 percent for women with education between 1-9 years; to 71 percent for those with a master's degree. Chaudhury and Ahmed also find that fertility declines from 3.92 children for women with no education to 3.36 children for women with 1-5 years of education, to 2.44 children for women with 6-9 years of education, and to only 1.96 children for those women with 10 or more years of education.

Noman (1983) observes that higher education and occupation status is associated with a higher age level at first marriage, which in turn is related to lower fertility rates. Noman (1983) also mentions that a survey conducted among Dhaka University students found that these students desire to have fewer children, with 39 percent regarding a two-child family to be ideal, and 43 percent desiring a three-child family. These numbers differed for

male and female students, however, as female students, on average, wanted 2.45 children, whereas male students, on average, wanted 2.80 children.

Strong associations have also been found between employment and fertility. Noman finds that in Bangladesh, the employed women have a lower fertility rate than non-employed women. Chaudhury and Ahmed (1980) assert that it is not simply a matter of whether a woman works that influences her fertility rate, but also the sector of the economy in which she works, her education, skills, occupation, income, work commitment, duration of employment, and whether the employment is part-time or full-time. However, the cause and effect relationship may not always be easy to determine: it may be that women who have a small number of children or no children tend to employ themselves outside of the home, or it may be that women who work outside the home tend to control their fertility and to have fewer children (Chaudhury and Ahmed, 1980; and Noman, 1983).

Noman (1983) also found correlations between the legal status of women and fertility. According to Noman, women's legal rights (i.e., rights to marry at an older age, to divorce, to have an abortion, to receive inheritance of property, etc.) are closely related to women's fertility. For instance, Noman observes that having legal rights to property could give women a feeling of security, which might otherwise be pursued through having more children. Inequitable rights to inherit property for women, especially those without education, provide them with incentives to produce more children. The more children

they have, the more likely it is they will have more male children who can inherit a greater share of property and provide women with status in the family.

Several factors are found to be effective for fertility decline. A couple of them are directed towards women: (a) the improvement of education and employment opportunities for women; and (b) increasing women's participation in the public sector and in decision-making process (Young, 1993). Schuler & Hashemi (1994) also indicate that women's mobility (i.e., women's ability to travel outside their homestead) is an important factor in their family planning decision-making. Studies show that fertility rate is more strongly correlated to the educational level of women than to that of men. This indicates that investment in women's education would have a greater effect on fertility control (Berger and Greeley, 1987; Noman, 1983). In addition, it is found that investments in elementary education bring higher returns than investments in secondary education (Berger and Greeley, 1987).

A study conducted in a village of Bangladesh in the 1970s indicated that 86 percent of the women had heard of family planning (Sattar, 1974). The study also revealed that 50 percent of the respondents believed in spacing children by two or three years. However, another study found that while women had an interest in birth control, they considered getting an opportunity to earn money to be a more important primary goal than practicing family planning (Wilber, 1978). Furthermore, according to Tinker et al. (1982)



Bangladesh statistics indicate, contrary to popular belief, that the slightly better-off are more likely to practice family planning than their poorer neighbors. Both these findings (Wilber, 1978; Tinker et al., 1982) suggest that increasing income-earning opportunities for women may be a key step, along with fertility information and education, toward attaining the goal of increased adoption of family planning practices.

#### **II.A.2.b. Food Consumption and Health Status**

Malnutrition is widespread in Bangladesh. According to a survey in rural Bangladesh in 1982, about 76 percent of all rural households were calorie-deficient and about 48 percent were protein deficient (Quanine, 1989). Another study indicates that only 5 percent of the population eats an adequate quantity and quality of food, while 58 percent of the rural population suffer from malnutrition (Kabeer, 1991).

Malnutrition appears to be most pronounced among low-income groups, and within households, among women and children. Nutrition deficiency among women is reflected through anaemia, acute diarrhea, low learning and working ability, low resistance to disease and stress, and a lack of overall physical and mental growth (Noman, 1983; Quanine, 1989). The average weight of a Bangladeshi woman is approximately 40.90 kilogram, which is less than the average weight of women in most developing countries (Khan, 1988). Noman (1988) indicates that in Bangladesh, on the average, men in the age group of 20-39 consume 1047 grams of food daily while women in the same age group,

on the average, consume only 874 grams of food daily, even if they are pregnant or lactating. This could be because, in Bangladesh, women are smaller in build as compared to men. However, nutritional deficiency among women is more pronounced. Among children, 19 percent of girls suffer from severe malnutrition as compared to 13 percent of boys (Noman, 1988).

Iron and protein deficiency is common among approximately 85 percent of women. One of the major causes of mortality among women is complication during pregnancy and childbirth (Khan, 1988). A study by Kabeer (1989) shows that one of the major causes of malnutrition among Bangladeshi women is early, frequent and closely-spaced pregnancies which affect the already high level of malnutrition among women.

Gender and economic factors both play a role in causing female malnutrition. Inequitable practices in the gender distribution of food within families involves serving males first and giving the choicest and the largest proportion of food specifically to adult males (Chen et al. 1981; Kabeer, 1989). A study by Chen et al. (1981) reveals that this occurs despite the fact that the women, not the men, and frequently the mother herself, who distributes food during meals in the family.

The study by Chen et al. (1981) reveals that malnutrition is significantly higher among female children than among male children. They assert that this may result, in large part,

from substantial differences in the quality of food distributed among the children of different gender within the family. The study concluded that there is a "consistent" and "systematic" pattern of bias found against females of all age groups when it applies to food consumption decisions. The factors attributed, in the study, to such gender-biased health and nutrition behavior are the subordinate status, role, and labor opportunities of Bangladeshi women. Adult sons, not adult daughters, are perceived as possible income earners and therefore contributors to the net family income. Security for parents in old age can also be a possible explanation. For long-term family security and well-being, investing in girls does not seem to make sense as daughters will leave home after marriage, thus shifting the human resource outside the immediate family (Chen et al., 1981).

A study by Rahman (1986) found that food consumption is correlated with family income and also who earns it, who influences the expenditure pattern, and how much control the women have on their "basic well-being". Rahman mentioned that increased income accorded women with "special status" within the household, leading other members to become "more conscious" of their "comfort" and "well being".

Health services are not easily available for the rural population of Bangladesh, and are especially difficult to access for women. Germain and Ordway (1989) indicate that for approximately 40 million Bangladeshi rural girls and women, health services are not readily available. Because of the demands of their daily struggles to survive, and often

because of the opposition of their husbands, in-laws or community leaders, their ability to travel to clinics or other service providers is limited.

The Bangladesh government's national health policy has been mainly urban focused. The poor health condition of Bangladeshi women has been attributed largely to malnutrition, poor environmental sanitation, and shortages of medical services (Khan, 1988). A general attitude of neglect, at the society and at the family level, contributes toward lower female health status in Bangladesh.

#### **II.A.2.c. Literacy and Education**

According to a study in 1977, the literacy rate of women in Bangladesh was 13.7 percent compared to 29.9 percent among men (Islam, 1977). Another study conducted in 1987 reveals that the rate of literacy was 18 percent for women compared to 40 percent among men (Berger, 1987). These studies, if comparable, would suggest that male and female literacy rates were increasing at about the same rate. But in both studies the female literacy rate remains less than half of the male literacy rate.

The school enrollment rate among girls in Bangladesh is low, especially in the rural areas, as compared to boys. A study by Chaudhury and Ahmed (1980) indicates that although the enrollment of girls in Bangladesh has increased four and a half times at the elementary level and 16 times at the secondary level since 1947, enrollment figures for girls remain

low as compared to boys. Out of the total enrollment in elementary schools in 1974-75, 34 percent were girls. And at the secondary level, 23.4 percent of total enrollment were girls. Among rural schools, out of the total enrollment, 62 percent were boys and 38 percent were girls, whereas in the urban areas 56 percent were boys and 44 percent were girls. Also, according to Chaudhury and Ahmed, a national sample survey in 1978 shows that 50 percent of the elementary level population (ages 5-9) were girls, and the rate of attendance among girls was significantly lower than that of boys.

In another study by Alamgir (1977), which compared urban and rural female literacy based on 1974 Bangladesh census data, reported that the urban female literacy rate was 27.9 percent while the rural female literacy rate was 10.9 percent. The 1974 census estimated that approximately 30 million women were illiterate despite the fact that there are no legal prohibitions or restrictions for women to pursue formal education. The reasons for the low rate of rural female literacy were: (1) social constraints; (2) inadequate numbers of elementary schools; (3) lack of resources for paying costs of books, school, supplies, clothes, etc.; (4) a shortage of adequate transport; and (5) an inadequate supply of female elementary school teachers and girl's schools (as segregated schools are preferred for girls) (Alamgir, 1977).

A study demonstrates that segregation of sexes in rural schools, enforced by the *purdah* system, becomes a hinderance for girls to continue studies at puberty. Just as attracting

girls to elementary schools is a problem, retaining them over the period of five years is also a problem. Social motivation for girls to continue participation in education is low (Noman, 1983). Chaudhury and Ahmed's study (1980) indicates that most parents in the rural areas do not see any economic value in sending their daughters to school. Most rural parents hope their sons will provide them with economic support and shelter in their old age, therefore it is more economically profitable for boys to get education. Because daughters will get married and leave their parental home, there is no economic gain for parents to send their daughters to school. Chaudhury and Ahmed substantiate this argument by drawing from a study which reveals that male respondents considered sons as economic assets and did not think the same of daughters. The same study also found that fathers preferred their sons to get secondary education but preferred their daughters to get only primary education.

However, a study by McCarthy et al. (1978) claims there is a growing interest among rural Bangladeshis to educate their daughters. The daughters are more marriageable if they are educated. The education of girls gives the guardians of those girls a better bargaining power to negotiate "strongly" with the families of "prospective" spouses than the guardians of uneducated girls. The study also points out that the presence of educated females brings status to a family as the percent of educated women is so small.

Alamgir (1977) reports that for the bulk of Bangladeshi women their education consists of learning traditional skills at home. It is thought that the academically-oriented curriculum offered at schools does not sufficiently prepare girls who attend school to perform either their household work or to attain qualifications that would render them employable outside their homes. Chaudhury and Ahmed (1980) reveal that in rural Bangladesh girls are considered valuable in household work. Girls begin to do household work (e.g., washing dishes and clothes, cleaning the house, gathering firewood, carrying water, cooking and serving food, tending poultry, and taking care of younger siblings.) from as early as five to six years of age. Parents consider these household activities as a training ground for their daughters to become "good wives and mothers" in the future. According to Chaudhury and Ahmed (1980) this argument is consistent with the belief in Bangladesh that "motherhood is the most desirable role of a woman."

A major reason for the low percentage of female literacy could be attributed to the fact that the government of Bangladesh does not give much priority to education. Lovell (1992) indicates the country invests only 2.2 percent of its GNP on education, about half of the 4.4 percent in the South Asian region as a whole. Seventy percent of the Bangladesh government's education budget is spent on the urban population (mostly on higher education catering to an elite minority) despite 84 percent of the population's being rural.

## **II.B. Empowerment Concepts and Issues Facing Women**

This section of the paper addresses the concepts and different issues pertaining to empowerment. The section is divided into several sections that include: (1) concepts and definitions of empowerment; (2) empowerment variables in the literature; (3) women's empowerment and household decision-making; and (4) the relationship between poverty and women's empowerment.

### **II.B.1. Concepts and Definitions of Empowerment**

Before discussing women's empowerment issues, the term "empowerment" needs to be defined. Empowerment is defined by Holcombe (1995) as sharing control, and the entitlement and ability to participate in influencing decisions regarding the allocation of resources. According to Schuler and Hashemi (1994), empowerment is reflected in a woman's relative physical mobility, economic security, ability to buy things on her own, freedom from domination and violence within her family, and political and legal awareness. Mehra et al. (1994) define empowerment as a very broad concept. On one level, the concept includes factors that help women to have control over their lives through self-confidence, autonomy, decision-making capabilities. On another level, empowerment can be seen as changing society's perception of women so that they become capable of applying more control over their lives.



Batliwala (1994) says that the implication of women's empowerment for macro and micro-level strategies needs to be clarified. For example, on the issue of women's reproductive rights, many of today's approaches to contraception and women's reproductive health affect the practical needs of women — reduced birth rates or improved physical health. What needs to be addressed are strategies that address issues of women's "position" — issues such as male domination in sexual relation, and women's lack of control over their sexuality (Batliwala, 1994).

Hall (1992) proposed an identity empowerment theory to explain clinical and social processes essential for the empowerment of women. The theory suggests that adult development is an expression of the perceived and behavioral environment in which people live. Everyday social interactions between people are supposed to be negotiations of values. And these values and beliefs treasured by people influence them as to who they are and what they do. Ten sociological concepts have been defined as "ever-expanding views of self within society". The breadth of the concepts ranges from the personal sphere to society's larger social structures and institutions. These ten concepts include self, dyad, triad, family, religion, definition of the situation, reference group, class, culture, and society. Using the Identity empowerment theory for understanding their strengths and weaknesses, women will be able to focus on long-term goals (Hall, 1992).

For the purpose of this paper, women's empowerment will be defined as the ability and freedom of women to make and act on decisions that affect the quality of their lives. Variables which may indicate women's levels of empowerment include: (1) amount of income; (2) participation in decision-making concerning the use and distribution of household resources; (3) family planning practices; (4) food consumption indicators; (5) literacy skills; and (6) socio-political awareness.

### **II.B.2. Empowerment Variables Used in the Literature**

Several variables have been used in studies to measure women's empowerment. Rahman's study (1986) builds a list of variables of women's empowerment based on indicators that include: (i) income; (ii) employment status; (iii) consumption of basic necessities; (iv) number and type of food items consumed by the husband and wife; (v) expenditure on clothing; (vi) adoption of family planning; (vii) total birth rate and fertility rate; (viii) importance of women in decision-making; (ix) whether women know the method of preparing oral saline; (x) women who had cast votes in the last local election; (xi) women who aspire for various levels of education for sons and daughters; (xii) preferred age of marriage for daughters; (xiii) preferred occupation for sons; and (xiv) source of drinking water.

The study by Schuler and Hashemi (1994) explores the effects of women's participation in rural credit programs on contraceptive use and on variables related to women's status or

"empowerment". The variables used for the study were: (i) women's relative physical mobility; (ii) economic security; (iii) ability to make purchases on her own; (iv) freedom from domination and violence within her family; (v) political and legal awareness, and (vi) participation in public protests and political campaigning.

Westergaard (1983) used several variables on empowerment including (i) inheritance, (ii) possession of jewelry, (iii) decision-making in labor process, and (iv) decision-making in family affairs.

### **II.B.3. Women's Empowerment and Household Decision-Making**

A significant variable used to measure women's empowerment, as mentioned in the previous section, is the importance of women in decision-making in the household. In a study by Westergaard (1983), it was found that in Bangladesh, as in South Asia in general, almost all the rural women studied were found to plan their own working day or decide what to cook on a daily basis. However, they had little control in an important household decision — how to spend their household's cash income. Furthermore, in business matters like production processes, hiring female labor, sending rice to mill for husking, and deciding how much rice to sell or keep for family consumption, the majority of the women left the decision-making to men. The study also found that even though decisions regarding hiring female labor and whether or not to send rice to mill for husking involves female labor processes, these decisions were made mainly by men.

This lack of decision-making power is exacerbated by women's lack of economic opportunities. And because women do not participate in the decisions concerning their lives as individuals, as wives, as mothers, as workers, as citizens, their status remains subordinate to men (Farman-Farmaian, 1976; Noman, 1983).

There are an increasing number of rural women joining the agricultural labor force as wage-earners, because of deteriorating socio-economic conditions. Additionally, cash-loaning programs, such as those conducted by GB, have increased the role of rural women in generating income for their families. Concomitant with the wife's economic contribution to the family welfare, there seems to be an increase in her influence in household decision-making (Mizan, 1993). However, this decision-making power of rural women is dependent on various factors, socio-economic, cultural, and demographic. The higher the earnings and level of education of women, the greater their power in household decision-making (Ahmed, 1991; Mizan, 1993). Rural working women who are associated with higher development areas (such as towns) have more decision-making power than those from lower developmental areas (Mizan, 1993).

Religion plays an important part in the household decision-making power of rural women. In general, Hindu women, having higher rates of physical mobility and work participation outside the home without being restricted by *purdah*, have a greater decision-making power than Muslim rural women (Mizan, 1993). However, the role of women in decision-

making in areas outside the household has not increased substantially (Ahmed, 1991; McCarthy, 1978). The rural male has a significant and vital part in agricultural production, especially in the pre-harvest strategic planning, family planning, and property matters (Ahmed, 1991, McCarthy, 1978).

#### **ILB.4. Relationship Between Poverty and Women's Empowerment**

Poverty and lack of empowerment are closely linked and are mutually reinforcing. Poverty reduces a woman's opportunities to empower herself, and a lack of empowerment makes it more difficult to overcome poverty.

Poverty can be defined as a condition in which individuals or families are not able to have the minimum goods and services required to maintain an adequate<sup>1</sup> level of living. Chambers (1988) indicates that poverty correlates with the state of deprivation in a population. He says that poverty can be defined at different levels. At the basic level it refers to physiological survival. At a slightly higher level it may encompass physical well-being such as shelter, clothing, and sanitation. At a broader level, explains Chambers, the concept of poverty can imply deprivation of intangibles such as powerlessness, dependence, isolation, and self-esteem. By focusing on empowerment, this research seeks

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<sup>1</sup> It is recognized that "adequate" is a somewhat subjective term and what constitutes "an adequate level of living" is not universally agreed upon and is subject to debate.

to discover whether GB participation is associated not only with physical poverty factors but also with these broader level poverty factors.

Yunus (1984) stresses that poverty is a condition in which poor people have to function on a lean resource base, with little room to maneuver. Yunus gives an example of a poor woman in Bangladesh who receives a pound of rice and a meal of leftovers in exchange for a long hard day's work if hired by a farmer's family. Causes of such poverty, as suggested by Chickering et al. (1991), are technical deficiencies such as lack of skills and the lack of opportunities. One of the basic problems is the lack of employment. Chickering et al. explain that this is related to economic policies that slow down the export sector, thereby reducing job opportunities and pushing people to seek work in the informal sector. Empowering women by investing in them can help reduce poverty, according to a World Bank study conducted in 1994. Encouraging women to participate in income generating activities and promoting self-employment and empowerment among them is proving to be a sound strategy for poverty reduction in some poor countries like Bangladesh and India.

The increasing poverty in Bangladesh is forcing women to participate in different types of work outside the home; for instance, agricultural activities, earthwork, vending, and factory work. Huq and Sultan (1991) observe that in the traditional society of

Bangladesh, women's social status is considered inferior. Limited access to any type of resources, primarily financial resources, makes women especially poor.

Women also suffer more because poverty leads to an increase in rates of divorce, remarriage and the desertion of families by male heads of households. Two Bangladeshi censuses — one in 1961 and one in 1974 — showed that the divorce rate for women aged 15-19 years had increased during this period from 1.43 to 2.80. The statistics, however, do not reveal the cause of the increase in divorces — i.e., whether the increased divorce rate was the result of women's increasing awareness of their right to divorce, or whether the women were left behind by their husbands due to economic distress (Chaudhury and Ahmed, 1980).

Therefore, it is quite evident from published studies that poverty and empowerment of women are very closely linked to each other. In the following section (Section II.C), information on GB has been provided as a background to further studies on potential linkages among GB services, women's empowerment, and community development, which is presented in section II.D.

### **II.C. Background Information on GB**

GB began operating in 1978 in Chittagong, a district of Bangladesh. GB is a development bank which is not only involved in micro-lending but is also interested in promoting a

social agenda (Hubbard, 1994). This section briefly describes both the bank's financial and social programs.

### **ILC.1. Financial Programs**

GB operates in 34,243 villages in Bangladesh (Holcombe, 1995). The bank provides credit for individual and collective business loans, as well as housing loans averaging \$300 per dwelling, designed especially by and for GB clients. The bank also provides group funds and emergency funds. Women make up about 91 percent of the total membership (CASID, 1993). The bank strives to encourage group savings where each group must start a Group Fund and every member of the group saves one Taka every week (Olofsson, 1993).<sup>2</sup> The bank has a repayment rate of 98 percent (UN Document, 1991). This section describes the process of group formation, the types of loans provided, and the organizational structure of the bank.

**Group Formation:** The bank's operating methods call for bank workers to go to villages and tell people informally about the procedures of the bank. Only members of families owning less than 0.5 acres of cultivable land are eligible to apply to be members of the bank. To obtain a loan, the person must form a group with four others who have a similar economic and social condition. Each group then elects its own chairperson and a secretary. Initially, only one person from a family can be a member. Gradually other

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<sup>2</sup> The official exchange rate is 40 Taka to one US dollar.



members of the family can become members of the bank (Olofsson, 1993). However, close relatives or male and female members cannot be members of the same group (Kamal et al., 1992).

Each group is responsible for holding weekly meetings. Several groups from the same village hold a weekly meeting at a convenient day and time. Up to eight groups, or forty members, form into a *kendro* or a center — a meeting place in the village constructed by the members. The members elect a center chief and an assistant chief to serve for a year (Kamal et al., 1992).

The method of lending employed by GB depends on peer pressure, and specific rigid, rigorous procedures for providing loans to the poor without collateral (Sherman, 1989). Loans are provided to individuals or to the center as a collective loan. Individual loanees are responsible for her/his loan. However, if any member of a group defaults, no one in the group gets a second loan (Olofsson, 1993; Kamal et al., 1992). The GB practices rigorous discipline. Punctuality and attendance at weekly meetings is mandatory. The bank trains members and explains its rules and regulations to the groups of members. After a month-long training period, two members get loans. Two more members get their loans a month later. Finally the last person gets the loan, usually the chairperson of the group.

The loan is repaid in weekly installments of two percent of the loan at the weekly meetings at the center. The installments are collected by GB workers at these centers. Instead of having members visit the bank branch, the bank workers visit the members to explain the procedures, disburse money, and collect repayments. According to Olofsson (1993), the bank workers visit the members as most of the loanees are reluctant to go to the bank.

**Types of Loans and Funds:** Clients of the bank may receive three categories of loans — individual, collective, and housing loans; and two categories of funds — group and emergency funds .

The **individual loans** are taken over a year and must be repaid in 50 weekly installments. The interest must be paid two weeks after the last installment. The interest rate was 20 percent as of 1993, which was raised from 16 percent in 1991<sup>3</sup>. On the average, about 2,000 to 3,000 taka is given as an individual loan, the limit being 10,000 taka. It is up to the member to decide how much she will borrow and how she will invest. However, the income generating activity in which the credit will be invested has to be approved by the bank, as the bank wants to make certain that the principal is invested and not consumed (Olofsson, 1993).

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<sup>3</sup> Upon being asked by the researcher why the interest rate was so high, a GB official replied that this was to cover the high operation costs of the bank. The interest rate charged by GB, however, was still lower than the exorbitant interest rates charged by moneylenders.

The members of GB can borrow for joint enterprises. The **collective loans** are loans for joint enterprises given to centers that have existed for three to four years, and are generally between 20,000 and 100,000 taka, but they can be as high as 500,000 taka. The interest rate on them is the same as individual loans. The collective loans also have to be repaid in weekly installments. Collective loans are approved at the zonal office (Olofsson, 1993).

GB also gives **house loans** to its members for up to 18,000 taka. The house loans provide members with capital to build a standard tin roof house. These loans are very popular with the members. By February 1992, 123,515 houses were constructed with such house loans (Olofsson, 1993). The interest rate for the house loans is 8 percent. The house loans must also be paid back in weekly installments over a period of not more than ten years. Table II.1 below summarizes relevant data concerning individual, collective and house loans.

**Table II.1. Types of GB loans**

Loan Type	Average Loan (in Taka)	Maximum Loan (in Taka)	Repayment Time	Interest Rate
Individual	2,000-3,000	10,000	1 year	20%
Collective	20,000-100,000	500,000	1 year	20%
House	10,000	18,000	10 years	8%

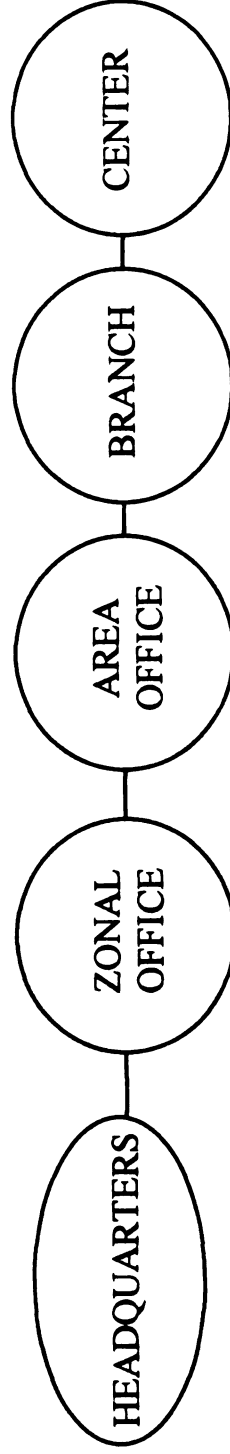
The **Group Fund** works as a savings account where each member has to deposit one taka every week. The group manages the account. A five percent mandatory deduction is made when a member receives a loan. This is called a "group tax". This is a payment made by a member for receiving all the services provided by the bank, as well as for building a reserve for the group. Individual members do not have claim to the group fund as it belongs to all members. In the case of a medical emergency, to avoid starvation, or to meet a social obligation, etc, the group members can withdraw from the fund with the consent of others. This basically serves as a "mini bank" when cash is needed on short notice. The availability of this fund guards them from having to go to moneylenders (Siddiqui, 1984). The group fund deposits earn an interest rate of 8.5 percent annually. When the saving of the group fund reaches 600 taka, the group is required to buy five shares in the bank for 100 taka each. The members own 90 percent of the bank shares. According to Olofsson (1993) GB is not only a bank for the poor but it is also a bank owned by the poor.

GB provides another fund besides the Group Fund which is the **Emergency Fund**. The Emergency Fund is fundamentally an insurance coverage in case of default, death, disability or other accidents. Each loanee is charged 25 percent of the interest on her loan. The Emergency Fund also provides coverage against loss or damage to livestock or crops. The Emergency Fund has disbursed relatively few funds to date. Presently it is accumulating capital (Fugelsang and Chandler, 1993).

**Organizational Structure:** The bank begins at the grassroots level with the centers in the villages (see Figure II.1). About 50 to 60 centers are supervised by a branch which is comprised of a branch manager, one senior assistant and seven bank workers. Each center is within walking distance from the branch. Above the branch level is an area office. Usually ten branches constitute an area. The area manager is a senior officer who has been a branch manager before. The other staff of the area office includes program officers and personnel who oversee the statistics and accounts that are forwarded to the zonal office. A zonal level lies above the area level. There were ten GB zonal offices in Bangladesh as of 1993, each located in a district capital. The zonal level corresponds with Bangladesh's district level offices. The zonal office has a staff of about 20, including trainee officers and program assistants. Finally, there is the headquarters of the bank located in Dhaka, the capital of the country. The bank is a decentralized organization.

### **II.C.2. Social Development Programs**

GB offers social programs that are administered through workshops held at the national and local levels. Approximately 100 workshops are held annually in each of GB's nine zones. These workshops are attended by selected members and the length of the workshops may vary from a day to a week. During the workshops, the participants discuss different issues such as family planning or livestock raising. The diffusion of knowledge takes place when the participant members go back to their centers and share it with their fellow members (Olofsson, 1993).



**Figure II.1 Organization of the various management units of GrameenBank**

In its social programs, GB has developed a guide for loanee behaviors which is called the "Sixteen Decisions". The "Sixteen Decisions" is the basis for the GB's social welfare constitution which it requires its members to agree to and follow (Auwal & Singhal, 1992). The first decision contain four principles; discipline, unity, courage, and hard work. Another edict includes the promise that people help each other. Another prescribes to grow backyard vegetables year round. Another to eat plenty of vegetables and sell off any surplus (Jeffs, 1993, Addis Tribune, 1995). Yet another promotes keeping families small and educating children (Olofsson, 1993). GB's social development programs are based on an overall approach which is educative, qualitative, and responsive (Fuglesang and Chandler, 1986).

#### **II.D. Potential Linkages Among Grameen Bank Services, Women's Empowerment, and Community Development**

This section reviews literature discussing the potential linkages between GB services and (1) women's empowerment; and (2) community development.

##### **II.D.1. Potential Links Between GB Services and Women's Empowerment**

As discussed earlier, a majority of women in Bangladesh suffer from the lack empowerment, as reflected by their limited physical mobility, economic security, ability to buy things on their own, freedom from domination and violence within their families, and political and legal awareness. In the traditional Muslim society of Bangladesh, women

have had no decision-making power to improve their status and their situation is negatively influenced by social pressures supporting early marriage, over child-bearing, illiteracy, and unemployment. However, as Hubbard (1994) noted, access to credit and sensible use of credit may have the capacity to provide empowerment and improved economic situations for low-income women. The findings of Schuler and Hashemi (1994) support Hubbard's assertion. Their study determined that credit, in association with solidarity groups and awareness raising, is believed to empower women by allowing them to earn an income through different types of self-employment activities. It has been assumed that women's ability to increase their contribution to family income can reinforce their bargaining position in their household. This enables them to make independent decisions and also participate in a more influential way in joint decisions. In their study it was found that participation in GB programs is positively associated with women's level of empowerment, as seen from higher levels of contraceptive use by GB members. Kabeer (1994), for instance, finds that GB participation empowers women by raising women's control over economic resources obtained through credit. Thus, by providing credit to women who might otherwise have no access to credit, an organization such as GB can be an important tool for empowering women. However, even though women may earn money and own it, in the male-dominated society of Bangladesh they may not be able to have complete control of finances. Given the societal context, it may take time to bring change for women to have financial control.



### **II.D.2. Potential Links Between GB Services and Community Development**

The GB, it appears, is doing something more than merely enabling poor women to take an active role in their families and neighborhoods. Indeed, the GB is engaged in community development. Community development, according to Bennet (1973), is the conscious effort by community people to work side by side to direct the future of their communities, and the development of a parallel group of methods for aiding community people in such a process. The basic aim of community development is to help people improve their social and economic situation (Christenson et al., 1989). Dunbar (1972) adds that a succession of community improvement occurs over time as a result of common endeavors of different sets of people. The successive improvements made by this process is a "discrete unit of community development". These improvements meet human wants or needs. Fredrickson (1975) indicates also that the process includes finding effective methods of helping and teaching people to adapt new methods and to learn new skills.

The goals of GB's social development agenda and micro-lending programs coincide with these definitions of community development (i.e., GB aims at helping rural Bangladeshi communities, particularly women in these communities, improve their social and economic situation). Therefore, by empowering women through its financial and social programs, the GB can potentially play an important role in promoting community development in rural Bangladesh. The members of the bank make an effort to work together in guiding the future of their communities. The improvements they make through the process can

help them to meet their wants and needs. Also GB's attempt to help and teach women members to adapt new methods of savings and learn the skills of financial management fits the definition described above of "the development of a parallel group of methods for aiding community people in such a process."

A *community* involves several components: (1) people (2) within a geographically bounded area (3) involved in social interaction and (4) with one or more physiological ties with each other and with the place they live. (Christenson and Robinson, Jr., 1980). The fundamental building block of community is people coming together in a geographical setting with a common interest to improve their lot. The GB is thus a community-building organization, as it is designed to bring together women living within a common geographical area (i.e. the same village) and involve them in social interaction together (both through their financial interaction and participation in meetings) to engage in an activity which benefits their common interest.

#### **II.E. Discussion of Empirical Evidence of GB Impacts in the Literature**

Several studies (Rahman, 1986; Hossain, 1988; Auwal & Singh (1992); Shehabuddin, 1992; Mizan, 1993; Schuler & Hashemi, 1994; and Wahid, 1994) have been conducted to measure the effect of loans taken from GB on women's empowerment in terms of income generation, decision-making in the household, food consumption and education. These studies have generally reported positive effects. For instance, a World Bank study (1994)

reports that a recent evaluation of GB's credit shows that it had a substantial economic impact among its women participants, with their income increasing more than that of the non-participants.

Another study conducted by Hossain (1988) on GB borrowers' perceptions of changes in their economic condition found that 91 percent of borrowers thought that the bank had a positive effect on their standard of living. Only 1.9 percent said that their economic condition worsened after joining the bank, and 5.7 percent reported that it did not make any difference in their living conditions (Hossain, 1988).

In addition, Wahid (1994) found empirical evidence suggesting "that the bank's credit program has significantly improved the socioeconomic conditions of its borrowers." Wahid concluded that the GB is "one of the most successful attempts to involve women in economic activities.... (and) has brought an extraordinary opportunity of women's emancipation in Bangladesh." Even though GB helped increase income, there is not enough evidence to show that GB has influenced women to have complete control of the finances generated by them.

Rahman (1986), in her study on GB women, indicates that women's income generation activity has a positive influence on their lives and attitudes. She stressed that as women begin to earn income and organize economic activities, they tend to have an increasing

influence in family decision-making regarding income expenditure. Also, Rahman reports that increased income accorded women with "special status" within the household, leading other members to become "more conscious" of the "comfort" and "well being" of the female loanees. She notes though that in the household, the husband and wife may have different key roles to play.

Rahman (1986), gathered data to understand women's role in the household decision-making with respect to: (1) daily food purchases; (2) purchase of clothing; (3) type of treatment used in diseases; (4) travel to relatives; and (5) marriage of sons or daughters. The study classified the responses into two groups. Group 1 included wives who were considered important decision-makers as indicated by decisions being made either: (1) mainly by the wife; or (2) with equal cooperation between wife and husband. Group 2 included wives who were not decision-makers, as indicated by decisions being made: (1) entirely by the husband; or (2) mainly by the husband. The study revealed that the women loanees were more in control of decision-making than the wives of the men loanees. Another study done in Bangladesh on GB (Mizan, 1993) supported this finding. It showed that a wife's work, income, and duration of work has an impact on a woman's decision-making power.

Rahman (1986) in her study explained that school education, as expected, was not high among the women loanees of GB — 25 percent of the women had an education of

elementary or slightly higher level. Only 0.2 percent (i.e. one woman out of a sample of 534) had Secondary School Certificate (equivalent to the High School Graduate level) education. Rahman's study did not measure whether GB involvement increased the level of literacy among the women clientele over time. However, most women loanees were found to be able to sign their names. This was primarily because members of the GB are expected to learn to sign their names when they join the bank.

An analysis of the impact of GB activities on the nutritional status of women loanees found that GB female participants in most cases have higher food intakes than the members of the control group. However, while female loanees have higher food intake than non-loanee females, the gap between the intakes of male and female members of GB households is higher than the male/female gap for non-GB households (Rahman, 1989). The indicators used in the study to measure food consumption were the numbers and types of food items consumed by the husband and wife during the last day and during the last week (which included the number of days they had one, two or three meals). The types of food indicated the variety of food they consumed. The assumptions were that a higher number of meals, and/or a greater variety of foods in the diet, indicate a better standard of food intake and nutritional status. The number of meals taken the day before was higher among the female loanees. Also, the types of food consumed by the female loanees improved slightly but not at the cost of the male members of the household.

Regarding family planning, Rahman (1986) found that the practice of family planning was higher among GB participating households than among non-participants. However, the percentage of family planning adopters was higher in households with male loanees than in those with female loanees. Rahman used as determinants of fertility: age of marriage, breast feeding, abortion, and contraceptive use. Rahman found that the GB effectively influenced its members only in terms of contraceptive use. She said that the other three determinants are deeply rooted in the socio-cultural belief system.

Auwal & Singh (1992) also found the rate of family planning practice among the GB female loanees to be significantly higher than the national average. Likewise, Wahid (1994) also points out that female participants tend to want to have fewer children than non-participants.

Auwal and Singh (1992) show that GB women are more serious about the credit program and save more and default less than men. On the social level, participation in GB programs aimed at raising women loanees' awareness regarding social, health, family planning and literacy issues is having a positive effect on women. Women are found to be treated with more respect at home and outside now. For example, women's mobility outside has increased significantly and cases of wife-beating among members were less. The study further details that more GB female participants can get their daughters married without dowry. These women now travel to other villages to work. Thus, Auwal and

Singh conclude that the involvement of women participants in the GB's credit program has made an initial step toward helping rural Bangladeshi women acquire empowerment.

Huq & Sultan (1991) in their study list several "lasting changes" in the lives of the women participating in GB. The authors discuss the effects in the economic and social spheres. In the economic area, some of the effects include: (1) women doing transactions with a formal institution on their own without having to depend on their male family members; (2) women generating savings through the mandatory weekly savings requirement with access to their savings by them only; and (3) group membership providing an opportunity for the women to interact with other women and to learn about banking and investment. The social impacts include: (1) increase in physical mobility of the women; (2) as a result of greater mobility, improved confidence of women which has led to increased participation in household decision-making; (3) through groups, centers and workshops, access by women to more information, knowledge, organizational skills and increased social interaction; and (4) interaction with other women sharing the same lifestyle as theirs making women aware that they belong to a larger community and helping develop a sense of community and solidarity with other female members.

While the results in the literature are positive with respect to the impacts of the GB, there have been inadequacies in these studies. A common problem of these studies has been that they have not measured these variables for the loanees of GB before taking the loans.

For instance, studies comparing incomes between loanees and non-loaneees (the control group) have not compared current income levels with those prior to the loanees joining the bank. The question that arises is whether there is a relationship between women's empowerment variables and their decision to participate in GB in the first place. If this is the case, it suggests that a sample selection bias could have been present in previous cross-sectional empirical studies comparing empowerment variables between loanee and non-loanee women.

As a result, in these cross-sectional studies, it is difficult to infer causality because of the possibility of sample selection bias. In other words, researchers are not able to answer whether the GB made women better off, or whether better-off women joined the GB? An example can be seen in Wahid (1994). Wahid reports that "while an average person consumed 706 grams of food per day in 1981-82, a non-GB member consumed 789 grams of food per day in 1986, and a GB member consumed, on average, 857 grams per day in 1986." This superficial attempt at incorporating a longitudinal perspective is inadequate. Because the 1981 group was not divided into members and non-members, researchers still cannot determine whether or not those who became GB members were already better off at the outset, and thus have not solved the sample selection bias problem.

Schuler and Hashemi (1994) recognized the inherent problems of selection bias. They point out, for example, that some women are not permitted by their families to join



programs such as GB. This would suggest that the relatively more empowered women would be more likely to join. Also they point out that the GB personnel "may recruit a slightly better-off section of the very poor."

## **CHAPTER III**

### **RESEARCH PLAN**

This section describes the methods for conducting the research. It will discuss: (A) the research approach; (B) design of the questionnaire; (C) selection of the research sites; (D) selection of the sample; (E) data collection; (F) data entry; and (G) the research time table; (H) hypotheses to be tested; and (I) variables to be considered.

#### **III.A. Research Approach**

Ideally, one would like to test hypotheses regarding the impacts of the GB on women by using a panel data set comparing changes in empowerment variables among the three categories of women — those who have been GB loanees for several years, those who are about to receive their first GB loans, and those who have never been GB loanees. Such a panel data approach could address problems of causality, such as deciding whether changes in measures of empowerment variables associated with GB participation result from the GB program, or instead from initial differences in characteristics between GB loanees and control groups. This research originally intended that such a panel data approach could have been done by following up on an extensive household data set collected by the Bangladesh Institute of Development Studies (BIDS) in collaboration

with International Food Policy Research Institute (IFPRI). Unfortunately this data set, which would have made such an analysis possible, was apparently completely erased along with the original questionnaires and household sample lists.

Therefore, this study has to attempt "next best" methods for addressing the research hypotheses. This approach will be based on surveys of women in GB villages (some who are GB participants and some who are not). The respondents are asked about household income generation, women's decision-making initiative concerning the use and distribution of household resources, family planning practices, household food consumption, literacy, education, and socio-political awareness. The respondents are grouped into four categories: (i) GB members for ten years; (ii) GB members for five years; (iii) GB applicants; and (iv) a control group of villagers who satisfy the conditions for GB participation but who have not applied. Though this approach does not meet the preferred standards of a panel data approach, combining cross-sectional and longitudinal aspects is an improvement over simpler cross-sectional approaches.

Both qualitative and quantitative analysis will be used for the study. Descriptive statistics will be given on percentages, means, and frequencies, and cross-tabulations will be done comparing data for different variables among the different sample groups. Results compare: (1) current loanees to current non-loanees; (2) current loanees having different

lengths of participation; (3) changes in variables among loanees from the time of their initial participation; and (4) current applicants for GB loans to eligible non-applicants.

### **III.B. Questionnaire Design**

The researcher developed the entire questionnaire in Bangladesh. With contributions from research scientists in the Bangladesh Agricultural Research Institute (BARI), the BIDS, and the GB, initial drafts of the questionnaire were developed. A pilot test was then conducted prior to carrying out the actual survey. The pilot test helped eliminate certain questions deemed unnecessary, as well as add questions not included earlier. For current GB loanees, questions were asked about both their current situation as well as their situation at the time of their initial participation. The questionnaire includes some questions which correspond to questions asked on the initial application forms filled out by GB participants in addition to many other questions. The questionnaire was written in Bengali, the native language spoken throughout Bangladesh.

### **III.C. Site Selection**

Two village sites were chosen in which GB branches were located. The two villages where the research was conducted, Borongail and Elashin, are located in Manikganj and Tangail districts respectively, and are each approximately 100 miles outside of the capital city, Dhaka. Two reasons for selecting these sites were: (i) the research required a group of subjects to be GB members for ten years and the two branches were selected from a list

of GB branches that had members for at least ten years; and (ii) limited time and availability of transportation and housing necessitated selecting sites relatively close to the capital city. It is important to note here that not many of the GB Branches have been operating for more than ten years in the vicinity of Dhaka.

### **III.D. Sample Selection**

A survey was conducted on a sample of 120 women (See questionnaire in Appendix A). As described earlier, the respondents were divided into four groups — those who have been GB loanees for ten years, those who have been GB loanees for five years, those who are about to receive their first GB loans, and those who have never been GB loanees.

A list of bank members who have been taking credit for five and ten years was collected from the village branch offices. Fifteen members from each category were selected randomly in both the branches. The process of random selection involved picking out any number from one to ten. The number eight was the randomly chosen number. Therefore, every eighth person on the list of members of ten and five years was picked until fifteen members for each category were selected.

The applicant group and the control group were, of course, selected differently. For the applicant group, a list of applicants from each branch was compiled by the branch office

and given to the researcher. Each list contained approximately thirty applicants and the first fifteen applicants were selected from each of the lists.

Identifying a group of fifteen women to be a control group in the locality of each village was the most difficult group to select. The difficulty arose because the definition of the control group required that women, or their families, own less than one *pakhi* of land in order that they represent those women who satisfy GB's eligibility criterion.<sup>4</sup> As it turned out, most women eligible for the control group were either already members or had applied for membership in the GB. The women who did not fall under either of the categories, generally, had more than one *pakhi* of land which made them in-eligible to join GB. Because of their limited number, the first fifteen women who were identified with the help of GB officials and other community members as qualified to be in the control group were selected.

### **III.E. Data Collection**

Two women enumerators, residents of the villages in which the branches were located, were hired to assist in conducting the survey. The women enumerators were well versed with the local dialects and had fairly good interviewing skills. Both of the enumerators

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<sup>4</sup> A *pakhi* is the common measure used for land in Bangladesh. One *pakhi* is equal to approximately 56 decimals of land.

had a Bachelors degree. The enumerators were selected out of a number of prospective candidates. Both enumerators were given short intensive training on the procedures for interviewing. Initially, the researcher monitored the enumerators closely so as to check their accuracy in interviewing as well as progress made. Once the researcher became confident of the enumerators' performance, they conducted the interviews by themselves.

With the sample list, the enumerators and the researcher went to the homes of the women to interview them. Often the women would be interviewed on the bank premises if the women happened to be there to collect their loans. Occasionally a number of the sampled women from the same neighborhood would be requested to be present in the village bank centers in a group, where they would then be interviewed separately.<sup>5</sup>

The enumerators, speaking the local dialect of Bengali, were able to make the questions easily comprehensible to the women interviewed. The questions that the respondents had difficulty understanding were repeatedly explained to them until clearly understood. Measures were taken to minimize outside influence on and interference with the responses of the women surveyed. For instance, the respondent was taken into an isolated part of the house, either in a room or in a corner of the yard away from other adult members of

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<sup>5</sup> Centers are places where the regular meetings and the weekly loan distributions by the bank are held.

the household. Only small children were allowed to be present with the respondents. It was made certain that the spouses of the respondents were not present during the interview.

### **III.F. Data Entry and Analysis**

The data were entered on computer using the SPSS/PC statistical package. The mean and standard deviation of the different variables were calculated across the four groups of women surveyed: (i) ten-year loanees; (ii) five-year loanees; (iii) new applicants; and (iv) the control group. From these results, cross-tabulations using chi-square analyses were done to find the mean values of the relevant variables for each of the four groups of respondents. The specific cross-tabulations are discussed in the Results Section. No sophisticated statistical tests like regressions were done because the data of this study are not 'continuous'. Given that the data of this study are nominal, the use of cross-tabulations were sufficient to show the significance levels of the variables.

### **III.G. Time Table**

The field research was conducted over a period of approximately three and a half months. About three weeks was spent getting acquainted with the GB operation, becoming familiarized with past and current GB records, and identifying subject villages. The next month and a half was spent developing the questionnaire as well as visiting the research sites. The following two weeks were spent hiring and orienting the women enumerators,



and pre-testing and modifying the questionnaire. The next month was used for the interviews. The researcher transcribed, entered, and analyzed the data at Michigan State University (MSU), after returning from Bangladesh.

### **III.H. Hypotheses**

This study tests the following hypotheses:<sup>6</sup>

**(1) Hypothesis I.**

Among Bangladeshi women who meet GB eligibility requirements, the level of participation in the GB is associated with higher levels of economic and social empowerment as indicated by measures of income generation, decision-making power, family planning practices, food consumption, and literacy skills.

**(ii) Hypothesis II.**

Respondents in the 'new applicant' category will have higher levels of empowerment than women who meet GB eligibility criteria but have not applied.

**(iii) Hypothesis III.**

The 10-year GB loanees will exhibit more empowerment characteristics than the 5-year GB loanees.

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<sup>6</sup> The hypotheses use the term "higher". What is meant by this normative term differs for different research variables. For example, more education will be considered "higher" empowerment level than less education. On the other hand, less expectation of dowry will be considered "higher" empowerment level than more expectation of dowry. These variables are discussed in more detail in the next section.

### **III.I. Variables to be Considered**

This section discusses the variables that will be used in the study. The variables discussed include definitions at the conceptual as well operational levels. The variables are: (1) income generation; (2) household decision-making initiative; (3) family planning; (4) food consumption; and (5) literacy.

#### **III.I.1. Income Generation**

**Conceptual Definition:** Income generation consists of two categories: (1) money income; and (2) non-money income. Money income helps one acquire the goods and services one needs or wants through several sources, e.g., wages and salary, returns on investments (rent, dividends), pensions, loans, etc. Non-money income helps one to acquire the goods and services one needs or wants through fringe benefits, home production (activities one would do by oneself instead of hiring another person), bartered goods and services, etc.

**Operational Definition:** The operational definition in this study is the total income reported by women from wages, sales of goods and services, and production of food for home consumption, and the availability and use of investment capital. To gain a perspective of changes over time, loanee women were asked questions regarding their income at the time of their initial GB participation. Translated English questions,

originally asked in Bengali, include: (1) are you dependent on highest-interest money lenders?; (2) how much business capital do you have?; (3) are you participating in income generating activities?; (4) if so, what type of activities and how much do you earn from these activities?; (5) are you engaged in poultry growing?; (6) are you engaged in fruit and vegetable growing and how much do you earn from selling them?; and (7) are you investing the GB loan in agriculture?

### **III.L.2. Household Decision-Making Initiative**

**Conceptual Definition:** This variable of decision-making is defined as the influence women have in the use and allocation of household resources. The decision-making process for the use and distribution of household resources has, in general, been the domain of men in Bangladesh (Westergaard, 1983). A research question is whether women, as they increasingly participate in income generating activities, have greater influence in deciding how household resources are used and distributed.

**Operational Definition:** Operationally, decision-making initiatives are measured by responses to questions, such as: (1) who decides on daily purchases of food?; (2) who decides on purchase of clothes?; (3) who decides on how much income to save?; (4) who decides on allocation of income for important purchases like land or a house?; (5) who goes to the bank to withdraw and deposit money earned by the women through their GB

income generating activities?; and (6) are some household expenditures oriented towards satisfying personal needs or personal wants of the women?

### **III.L.3. Family Planning**

**Conceptual Definition:** The percentage of men and women practicing family planning is very low in Bangladesh. According to Westergaard (1983) even though the majority of the women are aware of family planning, only a small percentage of the women practice it. In many cases this is because of the husband's preferences, rather than the wife's. Wilber (1978) has demonstrated a linkage, among low-income Bangladeshi women, between acceptance of family planning and an increase in income. She found that the husband's desire to continue receiving added income leads to the decision to allow the wife to continue producing income. This, in turn, leads to the decision to avoid pregnancy to allow the woman to work and hence, the acceptance of family planning. This research will test whether this linkage is evident for GB female participants.

**Operational Definition:** The decision-making influence on family planning is defined as: (1) whether women have any say in adopting birth control methods; (2) whether birth control methods are used, what types are used, and by whom; and (3) the time between child births.

#### **III.L.4. Food Consumption**

**Conceptual Definition:** Because of a lack of a daily balanced diet, a large proportion of the women in Bangladesh are malnourished. A balanced diet should include adequate daily supplies of protein, carbohydrates, fat, vitamins and minerals (Rahman, 1989). In the daily diet of poor women in Bangladesh, most of these nutrients are not consumed in adequate amounts. Their limited choices force them to eat whatever is available. The inadequate supply of nutrients in the diet leads to anaemia, low learning and working capacity, low resistance to disease and stress, and a lack of proper mental and physical development (Quanine, 1989).

In addition to the physiological causes, malnutrition can also be attributed to social causes. In Bangladesh women are the last to eat at meals. Women, in general, make sure that the men and children of the household are fed first. Often, only the leftovers are there for women to eat (Rahman, 1989). The nutritional level of the poor women is thus inadequate. In addition, much evidence shows that women are more likely than men to spend household income on food for the family (Yunus, 1992). This research tests the relationship between participation in GB and women's food consumption.

**Operational Definition:** This variable of household decision-making is defined as: (1) what types of food are cooked daily?; (2) how many meals eaten daily?; (3) has the quality of food intake improved since joining GB?; and (4) are adequate amounts of food

available for consumption every day by the women after feeding the rest of the household members? Only categories (2) and (3) were tested in this study.

### **III.L.5. Literacy/Education**

**Conceptual Definition:** The majority of Bangladeshi women are illiterate. Poor women are the least educated. Most women, if they can sign their names and read a little, are considered somewhat literate. The women who are aware of the importance of education in life and are willing to learn at the adult education centers would be considered potential learners. Also women who view education as important and would like their daughters to have a better life through education are the women who feel their daughters might need to support themselves (Westergaard, 1983). This research will explore how GB participation is related to women's literacy and education level.

**Operational Definition:** Women's levels of literacy and education will be indicated by: (1) actual ability to read and write; (2) ability to sign their names; (3) number of years of schooling; (4) ability to calculate; (5) who keeps accounts in the household?; (6) how are accounts kept in the household?; (7) desire to send children to school; (8) number of years of sons/daughters education; and (9) are tutors hired for children?

### **III.L.6. Health Awareness**

**Conceptual Definition:** The poor health condition of Bangladeshi women has been attributed largely to malnutrition, poor environmental sanitation, and shortages of medical services (Khan, 1988). For approximately 40 million rural girls and women, health services are not readily available (Germain and Ordway, 1989).

**Operational Definition:** The variable of health awareness is defined using several categories: (1) level of awareness on basic health related information; (2) how many health practices are followed; (3) major source of drinking water; (4) major source of cooking water; (5) boiling drinking water; (6) garbage disposal; (7) immunization of children; (8) type of toilet used; and (9) where does the family go for treatment?.

### **III.L.7. Socio-political Awareness**

**Conceptual Definition:** One of the levels of empowerment for the rural woman is defined as the function of socio-political awareness. This function measures her ability to interact effectively in the public sphere (Schuler and Hashemi, 1994), including areas concerning both social (e.g., a son's or daughter's marriage, and inheritance) and political (e.g., membership in official groups) situations.

**Operational Definition:** The study includes several variables that are used in defining the socio-political awareness among the poor rural women. In the area of social awareness,

the variables are: (1) attitude regarding children's marriage; (2) expectation of dowry at son's wedding; and (3) attitudes regarding inheritance. In the area of political awareness, the variables used are: (1) membership in the Union Committee; (2) membership in an arbitrary committee; (3) assistance sought from political/administrative/village leader for help to resolve problems; and (4) visit to a political leader for assistance.

### **III.L.8. Empowerment**

**Conceptual Definition:** Holcombe (1995) defines empowerment as sharing control, and the entitlement and ability to participate in influencing decisions regarding the allocation of resources. Empowerment has also been defined as a woman's ability to move around physically, economic security, ability to purchase things on her own, freedom from domination and violence within her family, and political and legal awareness (Schuler and Hashemi, 1994).

**Operational Definition:** Empowerment is a composite variable incorporating measures of: (1) decision-making power regarding varied issues; (2) mobility; (3) satisfaction of personal needs; (4) income generation; (5) literacy/education; (6) health awareness; and (7) social, political and legal awareness. Empowerment regarding family planning practices has been compiled under 'decision-making power regarding varied issues'. The survey questions used in this study to measure these variables are as follows:



**(1) Decision-making:****— Decision-making in the household (HH)**

- who decides on purchase of daily groceries?
- who decides on buying/selling valuable objects in the HH?
- who decides on the purchase of family clothing?
- if disagreement occurs in the HH, who makes decisions?
- who makes decisions regarding HH savings?
- who makes decisions regarding HH expenses?

**— Decision-making on family planning**

- who decides whether to use contraceptives?
- who decides what contraceptive methods to use?

**— Decision-making on mobility**

- who makes the decisions about when to visit the woman's parents?

**— Decision-making regarding children's weddings**

- who makes decisions on your daughter's wedding?

**(2) Mobility:****— Mobility outside of the homestead**

- do you go outside of your homestead?
- if you do go outside, where do you go?
- how often do you go outside of the homestead?

**(3) Satisfaction of Personal Material Needs/Desire:**

— Expenditures on personal material needs and desire

- are some of your HH expenditures oriented toward satisfying your personal material needs?
- are some of your HH expenditures oriented toward satisfying your personal non-essential material desire?

**(4) Income-generation:**

— Assets and income-generation

- do you own/rent any land?
- what is your annual family income?
- what are your total expenditures?
- what are your total savings?
- what amount of capital invested at present?
- do you own livestock/poultry?
- if yes, how many?
- do you grow vegetables/fruits?
- how loans from GB have helped you in this?
- do you plan to increase the number of cattle in the future?
- do you plan to take more loans from GB in the future?

**(5) Literacy/Education:**

— Woman's literacy/numeracy level

- can you calculate?
- who keeps accounts in the HH?
- how do you keep accounts of the HH?
- can you sign your name?
- how many years of schooling?

— Interest in children's education

- are you interested in sending your children to school?
- how many years have your sons/daughters studied in school?
- do you hire tutors for your children's education?

**(6) Health Awareness:**

— Awareness of basic health practices

- what is the level of awareness on basic health related information?
- how many health practices are followed?
- what is the major source of your drinking water?
- what is the major source of your cooking water?
- do you boil water before drinking?
- where do you throw your garbage?
- what kind of toilet do you use?
- are your children immunized?
- when family members get ill, where do you go for treatment?

**(7) Social, Political and Legal Awareness:****— Attitudes regarding children's marriage**

- at what age did sons/daughters get married?
- If children not married yet, at what age would you like them to be married?
- do you expect any dowry at your son's wedding?

**— Attitudes regarding political rights**

- are you a member of the arbitration committee?
- are you a member of the union committee?
- do you seek assistance of political leader/administrative/village leader?
- what kind of issues do you take to political leaders?

**— Attitudes regarding inheritance**

- have you received any family inheritance
- if yes, then with whose consultancy did you receive it?
- do you think women have a right to get parents' property

## **CHAPTER IV**

### **ANALYSIS OF DATA**

In this chapter the data collected through a survey in the two villages in Bangladesh are analyzed and discussed in detail. The statistical analyses show how the data relate to the hypotheses of this study. The statistical analyses used as tools to test the hypotheses are cross tabulations using chi-squares. Each hypothesis was analyzed and discussed using the statistical tests. In addition, mean values of the welfare indicators and the demographic data are also reported. The central hypotheses are:

#### **(i) Hypothesis I.**

Participation of Bangladeshi women in GB is associated with higher levels of economic and social empowerment as indicated by measures of income generation, decision-making power, family planning practices, food consumption, literacy skills, and socio-political awareness.

#### **(ii) Hypothesis II.**

Respondents in the 'new applicant' category will have higher levels of empowerment than women who meet GB eligibility criteria but have not applied.

**(iii) Hypothesis III.**

The 10-year GB loanees will exhibit more empowerment characteristics than the 5-year GB loanees.

Before the hypotheses are analyzed in details, the mean values on welfare indicators and the mean values on the demographic data are provided as background information. The chapter is arranged into three sections: (A) the mean values on welfare indicators; (B) mean values on the demographic data; and (C) analyses of data.

**IV.A. Mean Values on Welfare Indicators**

Mean values for each of the four groups were calculated for income and welfare indicators. These indicators are (1) annual income, (2) food/household expenses, (3) value of livestock, (4) agricultural land, (5) total land, and (6) years of education.

Regarding income and welfare indicators, cross tabulations using mean values were run for the four sample groups against the following variables; annual income, annual household expense on food, value of livestock, agricultural land owned, and total land owned that includes homestead as well as agricultural land. These results are shown in Table IV.A.1.

From the results of these cross tabulations, it is apparent that annual income is positively correlated with participation in GB. The average annual income of 10-year loanees is considerably higher than the 5-year loanees, and the 5-year loanees have a higher average income than the new applicants. The control group's income, however, is half of the annual income of the new applicants. This would appear to indicate that those who are slightly better off financially are more likely to apply to GB in the first place. Respondents in the control groups, as reported in Table IV.A.1, have an average annual income of 8,800 *taka* (US\$220). Thus, GB may not be targeting the poorest of the poor. Those who are relatively better off are more likely to be selected by the members as applicants to GB. The basic criterion for eligibility for membership in GB is the ownership of not more than 1 *pakhi* (56 *decimals*) of land. However, it is important to note that GB members,

**Table IV.A.1. Mean Values of Income\* and Welfare Indicators by Group**

	Control Group	New Applicants	5-Year Loanees	10-Year Loanees
Annual Income	8,800	16,800	24,700	38,800
Food/HH Expenses	8,700	16,000	12,400	18,500
Value of Livestock	900	2,600	7,900	8,200
Agricultural Land**	0.0	31.5	31.3	28.6
Total Land**	8.6	44.1	48.8	49.3
Years of Education	0.2	1.2	1.0	1.8

\* Income shown here is in Taka. 40 *taka* = US \$1.

\*\* Land shown here is in *decimals*.

and not GB itself, select new applicants. Because GB will not issue further loans to groups that fail to repay a loan in time, there is constant pressure among members to repay loans through regular installments. Therefore, when the opportunity arises to select new applicants, the members are most likely to nominate only those women whom they believe can pay back installments. Those women whom the members believe will not be able to pay back installments regularly, here the very poor women, do not get picked to become members of GB.

A similar pattern, as in annual income, is observed in the case of value of livestock. Ten-year loanee group reported having a higher value of livestock than the 5-year loanees and the latter in turn have a higher value of livestock than the new applicants.

In terms of total land, which includes agricultural as well as homestead land, the 10-year and 5-year loanee groups reported having about the same amount of land, and the amount of total land owned by the new applicants is slightly less. However the control group owned only about one-fifth as much total land. The control group respondents reported no ownership of agricultural land. These data suggest that the new applicant group are generally better off than the control group, because they own agricultural land.

Owning agricultural land would also mean having some means of generating income, as in Bangladesh a majority of the income generated is through agriculture (Abdullah and



Zeidenstein, 1982). The data also reveal that the amount of agricultural land owned by the 5-year and 10-year loanee groups is not significantly different from that owned by the new applicants. This would imply that, even though the 5-year and 10-year loanee groups have significantly higher income levels (compared to the new applicant group), they do not invest in more agricultural land. The reason for this is not known. Table IV.A.1 also implies that the control group, whose average income (8,800 taka) reflects their poverty, do not get served by GB.

On the average, the 10-year loanee respondents reported having an average of about 2 years of formal schooling while those in the 5-year loanee group reported an average of one year's of education. The new applicants reported a level of education similar to that of the 5-year loanee group. The control group level of education was minimal.

#### **IV.B. Demographic Data**

The demographic data of the study covers age, marital status, head of households, and number of children by sex. The data on income and education have already been discussed in the previous section (Table IV.A.1).

**IV.B.1. Age.** The mean age does not vary greatly among the respondents except in the case of the 10-year loanee group. The mean age of the control group is 35 years, while the new applicant and the 5-year loanee respondents' mean age is 32 years. The mean age

of the 10-year loanee group, however, is 40 years. On the average, the 10-year loanee group is 8 years older than the 5-year loanee group. This is to be expected as the 10-year loanee have been members of GB for a longer time.

**Table IV.B.1. Mean Values of Age by Group**

	Control Group	New Applicants	5-Year Loanees	10-Year Loanees
Age	35.2	31.6	32.3	39.8

**IV.B.2. Marital Status.** Among the 5-year and 10-year loanee respondents, 90 percent were married. However, among the control and the new applicant groups, a smaller number of respondents were married; 79 and 83 percent, respectively. Only the control group had respondents who were either divorced or abandoned by their husbands;

**Table IV.B.2. Marital Status**

Marital Status	Control Group	New Applicants	5-Year Loanees	10-year Loanees
Married	78.6%	82.8%	90.0%	89.7%
Divorced	3.5%	0.0%	0.0%	0.0%
Widowed	10.6%	13.8%	10.0%	10.3%
Single	3.6%	3.4%	0.0%	0.0%
Abandoned by husband	3.6%	0.0%	0.0%	0.0%

4 percent in each case. Between 3 and 4 percent of the respondents in the control and new applicants groups were single; no single women were found in the other two groups. Fourteen percent of the women in the new applicant group were found to be widowed; this number is slightly larger than those found in the other three groups (11%, 10%, and 10% for the control, 5-year loanee, and 10-year loanee groups, respectively).

**IV.B.3. Head of Household.** The 'head of household' variable has three categories, including self, husband, and other male members of the family. For the 5-year and 10-year loanee respondents, very similar percentages were observed for these categories as compared to the new applicant group (10%). The new applicant group had a higher percentage of its households headed by the husband (77%); the control group had 57 percent of its households headed by the husband.

**Table IV.B.3. Head of Household**

Head of Household	Control Group	New Applicants	5-Year Loanees	10-year Loanees
Self	30.0%	10.0%	3.3%	3.3%
Husband	56.7%	76.7%	86.7%	83.3%
Other Male	13.3%	13.3%	10.0%	13.3%

**IV.B.4. Number of sons.** A larger number of respondents in the control and new applicant groups have no sons (27% and 30%, respectively), compared to the 5-year and 10-year loanee groups (13% and 20%, respectively). Among the respondents having sons, a majority in the control, new applicant, and 5-year loanee groups had only one son; 43, 23 and 40 percent of the total number of respondents, respectively. However, among the 10-year loanees, a majority had two sons; 30 percent. One respondent, among the 5-year loanee group, had eight sons.

**Table IV.B.4. Number of Sons**

Number of Sons	Control Group	New Applicants	5-Year Loanees	10-year Loanees
None	26.7%	30.0%	13.3%	20.0%
One	43.3%	23.3%	40.0%	23.3%
Two	16.7%	20.0%	30.0%	30.0%
Three	10.0%	20.0%	10.0%	13.3%
Four	0.0%	0.0%	3.3%	10.0%
Five	3.3%	3.3%	3.3%	3.3%
Eight	0.0%	3.3%	0.0%	0.0%

**IV.B.5. Number of Daughters.** Of the respondents in all the groups, a majority had either one or two daughters. The largest number of respondents have between three and

four daughters was found in the 10-year loanee group. None of the respondents had more than 5 daughters.

**Table IV.B.5. Number of Daughters**

Number of Daughters	Control Group	New Applicants	5-Year Loanees	10-year Loanees
None	23.3%	33.3%	33.3%	10.0%
One	33.3%	26.7%	30.0%	26.7%
Two	30.0%	30.0%	26.7%	26.7%
Three	10.0%	6.7%	6.7%	20.0%
Four	3.3%	0.0%	3.3%	6.7%
Five	0.0%	3.3%	0.0%	10.0%

#### **IV.C. Analyses of Data**

Results from a number of cross tabulations were compiled relating measures of income and empowerment among 10-year and 5-year GB loanees, new GB applicants, and the control group. The cross tabulation tests have revealed that certain variables are statistically significant while others are not. The cut-off point for level of significance is 0.05. The variables that have been found significant are shown in the tables and discussed in detail. Cross tabulation of several other variables did not produce statistically significant results. They are described in the text briefly. The statistically significant

variables have been developed into sub-hypotheses. As the discussion progresses, each sub-hypothesis is reported.

#### **IV.C.1. Hypothesis I**

Hypothesis I has been defined as follows:

Participation of Bangladeshi women in GB is associated with higher levels of economic and social empowerment as indicated by measures of income generation, decision-making power, family planning practices, food consumption, literacy skills, and socio-political awareness.

In Hypothesis I the empowerment level was tested among the loanee and the non-loanee groups of respondents. The loanee includes the 10-year and 5-year loanees, and the non-loanee group consists of the new applicant and the control groups. The discussion of the statistical analysis pertaining to Hypothesis I is divided into two sections: (i) the statistically significant variables; and (ii) the statistically in-significant variables.

**IV.C.1.a. Statistically Significant Variables.** The variables in which statistically significant results have been found are (1) ability to sign for the respondents, (2) education experience among the respondents, (3) mobility outside home, (4) satisfaction of personal needs/wants, (5) decision-making on family planning, (6) number of meals eaten by the

respondents, (7) grade level of daughters in school, (8) tutors for children, and (9) health awareness. Each of these variables will make up a sub-hypothesis formed for the study.

**IV.C.1.a.1. Ability to sign.** The sub-hypothesis formed with the variable of "ability to sign" is stated as follows:

Participation in GB is associated with higher levels of ability to sign.

All the 10-year and 5-year loanee respondents said they know how to sign their names. The GB requires this skill so that the financial transactions can be consummated. However, if women are selected to be members and are not able to sign their names, the GB teaches them the skill. Thus, the responses to this question are not surprising. Among the non-loanee respondents, about 56 percent reported knowing how to sign.

**Table IV.C.1.a.1. Ability to sign**

	Non-Loanees	5-Year Loanees	10-Year Loanees
Yes	55.9%	100.0%	100.0%
No	44.1%	0.0%	0.0%

Chi-square (df=2, N=119) = 33.8, significance = 0.00.

**IV.C.1.a.2. Education experience.** The sub-hypothesis developed for the variable "education experience" is stated as follows:

Participation in GB is associated with higher levels of education experience.

The education experience among the group overall is not high. Among the 10-year loanee population the number of years of formal education is higher than that of the other groups. It is difficult to explain why there is a higher level of formal education experience among the 10-year loanees than the rest of the groups. This could be because those who apply tend to have higher levels of education, or GB participation inspires them to gain a higher level of education. What is clear is that there is little formal education experience among the non-loanee group, which includes the new applicants as well as the control group. The *madrasha* education is based primarily on Islam, the predominant religion of Bangladesh. The curriculum of *madrasha* education is entirely different from the public education curriculum. It is important to note here that in order to run the cross tabulations, formal education, in this case, included the category of respondents with education experience in *madrasha* together with regular school, and respondents with education experience in regular school alone.



**Table IV.C.1.a.2. Education Experience**

	Non- Loanees	5-Year Loanees	10-Year Loanees
No Education	53.3%	36.7%	30.0%
<i>Madrasa</i> Only	25.0%	36.7%	20.0%
Formal Education	21.7%	26.7%	50.0%

Chi-square (df=4,  $N=120$ ) = 10.1, significance = 0.04.

**IV.C.1.a.3. Mobility Outside Home.** The sub-hypothesis developed for the variable "mobility outside home" is stated as follows:

Participation in GB is associated with higher levels of mobility outside home.

In the case of the respondents' mobility outside home, responses have been found to be statistically significant on only two variables: (i) trips to work; and (ii) trips to the bank. No significance was found in the responses to questions on frequency of visits to relatives or trips to stores, crop fields, grazing fields, and other places.

**(i) Trips to work.** A majority of the respondents in all groups, 10-year, 5-year loanee and the non-loanee, did not leave their homes to go to work. Of the 10-year loanee group, only 10 percent said they left the household for work less than once a month. None of the 5-year loanee respondents reported a work trip of this frequency, while about 7 percent of the non-loanee members reported work-related travel less than once a month. Only

**Table IV.C.1.a.3. Mobility Outside Home**

		Non-Loanees	5-year Loanees	10-Year Loanees
Frequency of travel to work <sup>a</sup>	Never	75.0%	100.0%	83.3%
	Less than once a month	6.7%	0.0%	10.0%
	Less than once a week	0.0%	0.0%	3.3%
	More than/equal to once once a week (not daily)	0.0%	0.0%	0.0%
	Daily	18.3%	0.0%	3.3%
Frequency of trips to bank <sup>b</sup>	Never	90.0%	0.0%	3.3%
	Less than once a month	5.0%	90.0%	80.0%
	Less than once a week	5.0%	10.0%	13.3%
	More than/equal to once a week (not daily)	0.0%	0.0%	3.3%
	Daily	0.0%	0.0%	0.0%

<sup>a</sup>Chi-square (df=6, N=120) = 15.7, significance = 0.02.

<sup>b</sup>Chi-square (df=6, N=120) = 98.9, significance = 0.00.

3 percent of the 10-year loanees go to work less than once a week, while the 5-year loanees and the non-loanees do not leave home for work less than once a week. However, 3 percent of the 10-year loanee and 18 percent of non-loanee groups said they went to work on a daily basis. None of the 5-year loanee respondents reported travelling to work daily.

The results demonstrate that 3 percent of the 10-year loanees travel to work less than once a week, more frequently than those of the other groups. A possible explanation for this may be that the 10-year loanees, being better off than the other groups (see Table IV.A.1), have a somewhat more complex set of business relationships, often home-based, than the other groups. Even though the GB members probably do not leave their homes often to oversee their small businesses (as a male member from the family may do that), a small percentage (3.3%) of the 10-year loanees may need to do so because of the increased work-load. The reason for the fairly large number of non-loanee respondents' going to work daily could be that a large number may work as helpers in other households. Another explanation for the increased mobility of the 10-year loanees could be because they feel more comfortable to go outside their homes, because they have been with GB longer. (Follow-up questions and responses, perhaps, could have provided more certainty to those possible explanations. The survey instrument, however, did not include follow-up questions.)

**(ii) Trips to banks.** A large majority of the 10-year and 5-year loanee respondents reported going to a bank less than once a month whereas 90 percent of the non-loanee respondents said they did not travel to or visit a bank to make any financial transactions. The reason the majority of the loanees go to a bank is that they, as members of GB, are required to go to the GB village branch to make financial transactions. It is not clear why a very small percentage of the 10-year loanee respondents reported never having been to

the bank. It is likely that they have somebody else from their own group goes to the bank to withdraw the loans because their age or health conditions do not permit them to travel. A branch office is often miles away from the homes of the loanees, and most would have to make the trip on foot.

**IV.C.1.a.4. Satisfaction of Personal Material Needs/Wants.** The sub-hypothesis developed for the variable 'satisfaction of personal material needs/wants' is stated as follows:

Participation in GB is associated with higher levels of satisfaction of personal material needs/wants.

This category of variables helps to determine whether women are aware of their non-food essential (toiletries, clothes, etc.) and non-essential material (cosmetics, luxury items like radios, etc.) needs and wants in the family and whether they can satisfy them. These variables were chosen to determine the level of satisfaction among the respondents regarding their material needs and wants. The respondents were asked to respond whether their (i) essential needs and (ii) non-essential wants are satisfied. About 37 percent of 10-year and 5-year loanee group members said they are able to satisfy their essential needs. Among the non-loanees, however, only 13 percent reported similar levels of satisfaction. In the category of partially satisfying their essential needs, more non-loanee members said they are able to satisfy their needs than the 10-year and 5-year loanee

respondents. Thirty-seven percent of the 10-year loanees and 27 percent of the 5-year loanees are able to satisfy their non-essential wants. On the other hand, only 10 percent of the non-loanees are able to satisfy their non-essential needs. One reason for the high levels of satisfaction of the 10-year loanee and 5-year loanee groups may be that these respondents, because of their greater mobility (Table IV.C.1.3), are more aware of the non-essential material goods available. They are also better able to satisfy their wants for these goods because they have a higher level of income, compared to the control group (Table IV.A.1).

**Table IV.C.1.a.4. Satisfaction of Personal Material Needs/Wants**

		Non-Loanees	5-year Loanees	10-Year Loanees
Are you able to satisfy your essential needs? <sup>a</sup>	Yes	13.3%	36.7%	36.7%
	No	18.3%	3.3%	6.7%
	Partially	68.3%	60.0%	56.7%
Are you able to satisfy your non-essential wants? <sup>b</sup>	Yes	10.0%	26.7%	36.7%
	No	23.3%	3.3%	10.0%
	Partially	66.7%	70.0%	53.3%

<sup>a</sup>Chi-square (df=4, N=120) = 11.7, significance = 0.02.

<sup>b</sup>Chi-square (df=4, N=120) = 14.2, significance = 0.01.

**IV.C.1.a.5. Decision-making on Family Planning.** The sub-hypothesis developed for the variable 'decision-making on family planning' is stated as follows:

Participation of Bangladeshi women in GB is associated with higher levels of decision-making on family planning.

With respect to decision-making about family planning, two variables were related at statistically significant levels. They are (i) decisions about use of contraceptive, and (ii) which partner uses the contraceptive. The variable was used to measure who makes the decision to use contraceptives whether the respondent themselves, their husbands, or jointly.

**(i) Decision to use contraceptives.** More 5-year loanee group respondents said they decided on their own whether to use contraceptive than did the 10-year loanees. Among the non-loanee group members, none of the respondents said she makes a decision to use contraceptives on her own. They said the decisions were made either by the husband or jointly. The reason more 5-year loanees than 10-year loanees decide on their own is probably because more of the 5-year loanees are of child-bearing age. The 5-year loanees are, on the average, younger than the 10-year loanees (see Table IV.B.1). It is noted that more husbands of the 5-year loanees make the decisions for using birth control. When it comes to joint decisions as to whether to use contraceptives, respondents in the loanee group decide jointly more than those in the non-loanee group. Among the loanees,

10-year loanees decide jointly more than the 5-year loanees. One possible explanation is that the 10-year loanees, being more exposed to the GB family planning programs, would be in a better position to make decisions jointly with their husbands regarding the use of contraceptives.

**Table IV.C.1.a.5. Decision-Making on Family Planning**

		Non-Loanees	5-year Loanees	10-Year Loanees
Who Decides? <sup>a</sup>	Self	0.0%	17.2%	3.4%
	Husband	12.5%	17.2%	10.3%
	Self + Husband	25.0%	34.5%	48.3%
	Do not practice	62.5%	31.0%	37.9%
Who Uses It? <sup>b</sup>	Self	0.0%	3.4%	3.4%
	Husband	37.5%	65.5%	55.2%
	Self + Husband	62.5%	31.0%	37.9%

<sup>a</sup>Chi-square (df=6, N=106) = 17.8, significance = 0.01.

<sup>b</sup>Chi-square (df=6, N=120) = 11.9, significance = 0.05.

(ii) **Use of contraceptives.** A large majority of both loanee groups said their husbands, rather than themselves, use contraceptives. The highest percentage is found among the 5-year loanees. This could be because the members of the 5-year loanee group are, on the average, younger than the group of 10-year loanees (see Table IV.B.1). Only one percent of the 10-year and 5-year loanee respondents themselves were found to use contraceptives. None of the non-loanee respondents was found to use any contraceptives.

**IV.C.1.a.6. Number of Meals Eaten per Day.** The sub-hypothesis developed for the variable 'number of meals eaten a day' is states as follows:

Participation in GB is associated with higher levels of number of meals eaten a day.

This variable is used to determine the empowerment level in the area of nutrition. Welfare among members can be indicated by the number of meals eaten a day. Out of the respondents in the 10-year loanee group, 83 percent reported having three meals; 17 percent had two meals per day. Among the 5-year loanees, 80 percent said they had three meals with 20 percent reporting two meals per day. No respondent in the two groups said they had but one meal per day. Among the non-loanee group though, only 50 percent had three meals, 43 percent had two meals and 7 percent had only one meal per day. Even though 7 percent is a small percentage, it is important to observe that only in the

**Table IV.C.1.a.6. Number of Meals Eaten per Day**

	Non- Loanees	5-Year Loanees	10-year Loanees
One Meal	6.7%	0.0%	0.0%
Two Meals	43.3%	20.0%	16.7%
Three Meals	50.0%	80.0%	83.3%

Chi-square (df=4, N=120) = 14.7, significance = 0.01.



non-loanee group that women are found to be eating only one meal a day and that a majority of the non-loanee members, at best, can afford two meals a day.

**IV.C.1.a.7. Grade Level of Daughters' Education.** The sub-hypothesis developed for the variable 'grade level of daughters' education' reads:

Participation in GB is associated with higher grade levels of daughters' education.

This variable is used to determine the level of importance respondents place on their daughter's education. Also, it is seen as reflecting the degree to which respondents view education as a means to a better life for their daughters.

**Table IV.C.1.7. Grade Level of Daughters' Education**

	Non-Loanees	5-Year Loanees	10-Year Loanees
No Schooling	22.0%	3.6%	9.1%
Grades I-V	16.9%	42.9%	50.0%
Grades VI-X	10.2%	0.0%	13.6%
Grades XI, XII	1.7%	3.6%	4.5%
Bachelor's Degree	1.7%	0.0%	4.5%
Master's/Graduate	1.7%	0.0%	0.0%
Other	45.8%	50.0%	18.2%

Chi-square (df=12, N=106) = 22.6, significance = 0.03.

Grades have been divided into the above categories to correspond to the elementary, secondary and higher secondary education in the Bangladeshi system. The elementary or primary education in Bangladesh includes grades I-V. The secondary education includes grades VI-X and the higher secondary education includes grades XI-XII.

The data show that the daughters of the 10-year and 5-year loanee respondents had more grade I-V education than the non-loanees. And a similar pattern is noticed in the category of grades between XI and XII. However, between the grades VI-X none of the 5-year loanee members have their daughters attending or have attended those years in school. However, among the 10-year loanees, 14 percent of their daughters have attended or are attending grades VI-X. And about 10 percent of the daughters of the non-loanees have attended or are attending grades VI-X. There is a small percentage of women whose daughters have or are pursuing college education both at the bachelor's and master's level. However, the percentage of college-bound daughters of the respondents is higher among the 10-year loanees than the non-loanees. And among the 5-year loanees, no daughters have attended or are attending college. This could be because among the 5-year loanees, their daughters are younger and, therefore, not yet of college-going age. As can be seen from the data presented in Table IV.C.1.7, the level of GB participation seems to make a difference in the education of the daughters of the respondents. This is possibly because GB has several social development programs (see Section II.C.2), one of which is the promotion of education among the children of GB members. However, while the results

of the analyses were significant for the education of daughters, no significance was seen in the education of sons of the GB member respondents. The reason for this is not known, but one could speculate that the GB respondents, being women, have more decision-making power with regard to the education of their daughters than of their sons. Another reason may be that an educated daughter results in a lower dowry at marriage time (McCarthy et al., 1978).

In the category 'daughters never attended school', the non-loanee members total 22 percent, the 5-year loanee group 4 percent, and the 10-year loanee population 10 percent. The reason more daughters of 10-year loanee respondents have not attended school ever can be attributed to the fact that the 10-year loanees are generally older in age and, therefore, may have had more traditional views about their daughters going to school. The category of 'other' includes women with daughters too young to go to school, women without daughters, or women who are single.

**IV.C.1.a.8. Tutors for Children.** The sub-hypothesis developed for the variable 'whether children have tutors' is stated as follows:

Participation in GB is associated with higher percentages of children having tutors.

Whether the women can hire tutors for their children indicates a measure of welfare in the family. This variable can reflect both whether they can afford tutors and whether they view education as a priority. It is found that two-thirds of the 10-year loanee and about half of the 5-year loanee groups hire a tutor for their children. However, only a small percentage of the non-loanee group hire a tutor for their children. The 'other'

**Table IV.C.1.a.8. Tutors for Children**

	Non-Loanees	5-Year Loanees	10-Year Loanees
Yes, Children Tutored	23.3%	43.3%	66.7%
No, Not Tutored	55.0%	50.0%	30.0%
Other	21.7%	6.7%	3.3%

Chi-square (df=4, N=120) = 18.8, significance = 0.00.

category includes women having children either too young or too old for schooling, women who are single, and women without children.

**IV.C.1.a.9. Health Awareness.** The sub-hypothesis developed for the variable 'health awareness' is as follows:

Participation in GB is associated with higher levels of health awareness.

Three variables have been found statistically significant in the area of health awareness among the respondents. The categories are (i) type of health practices followed, (ii) kind of toilet used, and (iii) family treatment.

**(i) Type of health practices followed.** Respondents were asked which of the four basic health practices were followed: a) use of clean water; b) use of sanitary toilet; c) immunization of children; and d) benefits of going to a doctor and using medicine when ill. All of the four practices are followed by 33 percent of 10-year loanee members and 37 percent of 5-year loanee members. However, only 16 percent of the non-loanee group practice all these four basic health practices. Three of these practices are observed by 60 percent of the 10-year loanee members, 43 percent of the 5-year loanee members and 74 percent of the non-loanee group. In general, it is observed that a much larger number of respondents belonging to the 5-year and 10-year loanee groups follow all four of the health practices.

**(ii) Kind of toilet used.** In the variable 'kind of toilets used', the respondents were asked what kind of toilets they used at home. Four categories were listed in the variable including a) no toilet, b) no sanitary toilet, c) sanitary toilets, and d) covered toilets. Both 10-year and 5-year loanee members have some of type toilet facility. Three percent of the non-loanee group have no toilet facility at all. A smaller number of 5-year and 10-year loanee members use non-sanitary toilets as compared to non-loanees. A larger number of

5-year and 10-year loanee respondents have sanitary toilets than the non-loanee respondents. Only respondents belonging to the 10-year loanee group have a covered toilet facility, even though their number is small — 3 percent of the group. These data reveal that the 5-year and 10-year loanee groups have better toilet facilities compared to the non-loanee group.

(iii) **Family treatment.** The variable 'the place frequented for treatment when the respondent or her family gets ill' has two categories: a) to a medical doctor only; and b) to

**Table IV.C.1.a.9. Health Awareness**

		Non-Loanees	5-year Loanees	10-Year Loanees
How many health practices are followed ? <sup>a</sup>	One	1.7%	10.0%	6.7%
	Two	8.6%	10.0%	0.0%
	Three	74.1%	43.3%	60.0%
	Four (All)	15.5%	36.7%	33.3%
What kind of toilet is being used ? <sup>b</sup>	No toilet	3.3%	0.0%	0.0%
	No sanitary	85.0%	63.3%	66.7%
	Sanitary toilet	11.7%	36.7%	30.0%
	Covered toilet	0.0%	0.0%	3.3%
Where does your family go for treatment? <sup>c</sup>	Medical Doctor	1.7%	6.7%	16.7%
	Multiple sources	98.3%	93.3%	83.3%

<sup>a</sup>Chi-square (df=6, N=118) = 13.2, significance = 0.04.

<sup>b</sup>Chi-square (df=6, N=120) = 13.2, significance = 0.04.

<sup>c</sup>Chi-square (df=2, N=120) = 7.2, significance = 0.03.

multiple sources (a medical doctor as well as to other sources, including traditional sources of treatment like homeopathic doctor, herbal practitioner, spiritual pundits, quacks, etc). Seventeen percent of the 10-year loanee members said they or their family go only to a medical doctor. And the rest, 83 percent, of the 10-year loanee members said they go to a doctor as well as to other sources for treatment. Among the 5-year loanee member respondents, 7 percent go to a medical doctor only and 94 percent go to a doctor as well as to other sources of treatment when ill. About 2 percent of the non-loanee group said they or their family go only to a medical doctor for treatment. The majority, 98 percent, of the non-loanee group visit a doctor as well as other sources when ill. These data reveal that a higher number of 5-year and 10-year loanee groups go to a medical doctor only, as compared to the non-loanee group. Whether this is because they are aware of the advanced treatment available at a medical doctor's facility, or can afford the higher costs of a medical doctor, is not known.

**IV.C.1.b. Statistically Insignificant Variables.** The variables that have been found to be statistically insignificant are presented in this section of the study.

**IV.C.1.b.1. Decision-making**

— Decision-making in the Household (HH)

- purchase of daily groceries
- buying/selling valuable objects in the HH

- purchase of family clothing
- decision-making in event of disagreement in the HH; resolution of disagreements
- HH savings
- decision-making of how family income should be spent; budgeting

On analyzing the data for the above variables, there was no significant difference found in the decision-making power of the respondents belonging to the 5-year and 10-year loanee groups as compared to the non-loanee group. For these variables, a majority of the decisions were made by the husband alone, or jointly with the wife. There was no significant increase even in the category of 'decision-making by both husband and wife', which would reveal the indirect influence of the wife in decision-making power in the household.

— Decision-making on mobility

- visit to the woman's parents
- movement and frequency of visits outside of homestead
  - to relatives
  - to stores
  - to crop fields
  - to graze fields
  - to other places



The data indicate that there was no significant increase in the decision-making power of the respondents belonging to the 5-year and 10-year loanee groups as compared to the non-loanee group. For these variables, a majority of the decisions were made by the husband alone, or jointly with the wife. Furthermore, there was no significant increase in mobility to places outside the homestead. The places mentioned above are generally areas which are controlled by the male (e.g., grazing and crop fields). However, even in the case of visits to the woman's parents' home, there was no significant increase, thus suggesting that this decision was controlled by the husband or male member of the family. The only significant increase in mobility outside the home was found for reasons concerning work which were influenced by GB; visits to work areas and banks. This was discussed earlier in section IV.C.1.3.

#### **IV.C.1.b.2. Literacy/Education**

##### **— Women's literacy/numeracy level**

- calculation skill
- record-keeping in the HH

##### **— Interest in children's education**

- desire to send children to school
- number of years of son's education

In the area of literacy or education among the respondents or among their children, several variables were found statistically insignificant. A majority of the 5-year loanee, 10-year

loanee and the non-loanee respondents had counting skills, and most of them, jointly with their husbands, kept accounts in the household. Interestingly, more 5-year loanee group respondents (90%) were found to know how to count than the 10-year loanees (80%). This was in spite of the fact that the education level among the 10-year loanees was slightly higher than the 5-year loanees (see Table IV.A.1).

A large percentage of the respondents were interested in sending their children to school. The highest number is among the 10-year loanee group (97%) followed by the 5-year loanee group (93%), and the non-loanee group (88%). This finding reveals that the majority of the women believed that education would provide better lives for their children and, therefore, wanted their children to go to school. In the variable 'how many grades sons have studied or are studying', no significant differences were found among the respondents. This may be because, among all three groups of women, there is a strong desire to have all their sons obtain an education. The non-loanee group, interestingly, had a slightly higher number of sons studying or have studied in different grades. Which is not the case with their daughters' education; as it was found that there was statistically significantly higher number of 10-year GB loanee respondents who had daughters going to school or have had some schooling already (See Table IV.C.1.a.7).

#### **IV.C.1.b.3. Health Awareness**

##### **— Awareness of basic health practices**

- major source of drinking water
- major source of cooking water
- boiling drinking water
- garbage disposal
- immunization of children

A number of variables in the category 'health awareness' were not found to be statistically significant. A majority of the respondents in non-loanee, 5-year and 10-year loanee groups, used water obtained from tube wells for drinking purposes. However, for cooking, 48 percent of the respondents from the 5-year and 10-year loanee groups and 26% of the non-loanee group used water from tube wells. The remainder of the respondents in all three groups used water from other sources (open wells, covered wells, ponds, rivers or canals) to obtain water for cooking purposes. Water from these sources, especially from the ponds, rivers or canals, is not hygienic. Almost all the respondents were found not to boil water for drinking. This could be because it is generally felt that water from tube wells, a major source of drinking water, is clean and hygienic. Therefore, a majority of the women do not feel the need to boil water for drinking.

A similar pattern was seen regarding garbage disposal. A majority of the respondents in all the three groups said that they disposed of their garbage in ditches around their houses.

Twenty percent of the non-loanee respondents used garbage as fertilizer; the numbers were slightly higher for respondents belonging to the 5-year and 10-year loanee groups (23% and 28%, respectively). Thirty-five percent of the non-loanee group disposed garbage by throwing it around their houses (anywhere). A slightly smaller number, about 22 percent, of the 5-year loanee and 10-year loanee members disposed garbage in a similar manner.

For the category 'immunization of children', a majority of the 10-year loanee group (90%) had immunized their children. A smaller number of the non-loanee respondents (73 %) and the 5-year loanee respondents (67%) had immunized their children. However, it is not clear why the largest number of respondents who had not immunized their children belonged to the 5-year loanee group.

#### **IV.C.1.b.4. Social, Political and Legal Awareness**

##### **— Attitudes regarding children's marriage**

- age of son's/daughter's marriage
- if children not married, preferred age of marriage
- expectation of dowry at son's wedding

##### **— Attitudes regarding inheritance**

- family inheritance received
- if yes, with whose consultancy

- women's right to get parent's property

— Attitudes regarding political rights

- member of the arbitration committee
- member of the union committee
- assistance sought from political leader/administrative/village leader
- type of issues taken up with local political leader

All the variables developed to measure the level of socio-political awareness turned out to be statistically insignificant among all three groups. The variable on attitudes towards expectation of dowry at son's wedding, a slightly higher number (57%) of the 5-year loanee group than the 10-year loanee group (50%) said that they did not expect dowry at their sons' wedding. The higher numbers for the 5-year loanee group could stem from the fact that they are, on the average, younger than the 10-year loanee group and therefore less likely to be bound by tradition. It is important to note here that GB in its social reform activities attempts to develop social reform and eradication of the dowry system is one of them.

In the area of attitudes regarding women's right to family inheritance, a large majority of the 10-year loanee (87%) and the non-loanee (85%) groups believe that women have the right to inherit family property. However, surprisingly, 23 percent of the 5-year loanees believe that women have no right to inherit. A large number of the respondents had not inherited any property from their father. However, of the respondents who had inherited

any property, there were twice as many 10-year loanee respondents as there were in each of the other groups. Further inquiry revealed that a majority of these 10-year loanee respondents had received advice about their rights to inherit from others and not from their husbands.

Concerning political issues, not even a single respondent was found to be a member of the community groups like the village arbitrary committee or the union committee. The data reveals that all the three groups of respondents were totally unaware of their accessibility to these political action committees to solve problems pertaining to the household as well as the neighborhood or community. However, some of the 10-year loanee members (21%), more than twice those of the other groups, sought the assistance of local political, administrative or village leader's help to resolve a problem. It is common for Bangladeshi villagers to go to village leaders with problems for assistance.

#### **IV.C.2. Hypothesis II**

In Hypothesis II the responses of the new GB applicant group have been compared to those of the control group. The tested variables that were found statistically significant are: (1) ability to sign; (2) mobility outside home; (3) satisfaction in terms of material need/want; (4) number of meals eaten per day; (5) whether children have tutors; (6) health awareness; and (7) expectation of dowry for son.

Hypothesis II has been developed as follows:

Respondents in the 'new applicant' category will have higher levels of empowerment than women who meet GB eligibility criteria but have not applied.

**IV.C.2.a. Statistically Significant Variables.** The variables in which statistically significant results have been found are (1) ability to sign for the respondents, (2) mobility outside home, (3) satisfaction of personal needs/wants, (4) number of meals eaten by the respondents, (5) tutors for children, (6) expectation of dowry for sons, and (7) health awareness. Each of these variables has been developed into a sub-hypothesis for the study.

**IV.C.2.a.1. Ability to sign.** The sub-hypothesis developed for the variable 'ability to sign' has been developed for Hypothesis II as follows:

Respondents in the 'new applicant' category will have higher levels of ability to sign than women who meet GB eligibility criteria but have not applied.

GB teaches new applicants how to sign when they become new members. The data show that 77 percent of the new applicants know how to sign their names as compared to 34 percent of the control group. The high percentage of the new applicants know how to sign their names may be because they already anticipate having to learn it as GB requires

its members to know how to sign their names for financial transactions. However, it may also be that the new-applicant groups are already better aware of the benefits of knowing how to sign their names and, therefore learned it prior to deciding to apply for GB membership.

**Table IV.C.2.a.1. Ability to sign.**

	Control Group	New Applicants
Yes	34.5%	76.7%
No	65.5%	23.3%

Chi-square (df=1, N=59) = 10.6, significance = 0.00.

**IV.C.2.a.2. Mobility Outside Home.** The sub-hypothesis developed for the variable 'mobility outside home' is stated as follows:

Respondents in the 'new applicant' category will have higher levels of mobility (or will demonstrate higher levels of empowerment) than women who meet GB eligibility criteria but have not applied.

This variable has two parts in which some statistical significance has been found:

(i) frequency of travel to work; and (ii) frequency of trips to banks.



**Table IV.C.2.a.2. Mobility Outside Home**

		Control Group	New Applicants
Frequency of travel to work <sup>a</sup>	Never	50.0%	100.0%
	Less than once a month	13.3%	0.0%
	Less than once a week	0.0%	0.0%
	Greater than/equal to once a week (not daily)	0.0%	0.0%
	Daily	36.7%	0.0%
Frequency of trips to bank <sup>b</sup>	Never	80.0%	100.0%
	Less than once a month	10.0%	0.0%
	Less than once a week	10.0%	0.0%
	Greater than/equal to once a week (not daily)	0.0%	0.0%
	Daily	0.0%	0.0%

<sup>a</sup>Chi-square (df=2, N=60) = 20.0, significance = 0.00.

<sup>b</sup>Chi-square (df=2, N=60) = 6.6, significance = 0.04.

**(i) Frequency of travel to work.** Thirty seven percent of the control group women leave home for work daily and 13 percent do so less than once a month. Whereas no women among the new applicant group are found to go to work at all. Women of the control group who report going to work likely reflect the fact that many are extremely poor (annual income of 8,800 *taka*; Table IV.A.1) and resort to working in other households in the village as domestic help. Another possible explanation is that they work as laborers in the food-for-work projects in the villages that the government or the NGOs provide.

Also, some control group respondents resort to begging due to extreme poverty — reported as work because it was a source of income.

**(ii) Frequency of trips to bank.** Ten percent of the control group respondents reported going to a bank less than once a month and 10 percent less than once a week. However, no women from the new applicant group said they to go to banks to make financial transactions. This result is surprising considering the fact that the control group respondents have the lowest income level among the two groups and yet go to the bank more frequently than the new applicant group. Some of the control group women, who claim to go to banks, may be getting credit from some other NGOs and, therefore, they need to go to some other banks to make financial transactions. The results show that members of the control group are more mobile than the new GB applicants in their travel to work and the bank. This result is the inverse of the expected pattern.

**IV.C.2.a.3. Satisfaction of Personal Material Needs.** The sub-hypothesis developed for the variable satisfaction of personal material needs is as follows:

Respondents in the 'new applicant' category will have higher levels of satisfaction of personal material needs than women who meet GB eligibility criteria but have not applied.

Both the control and the new applicant groups were asked whether their essential material needs are satisfied and whether their non-essential material wants are satisfied. Only the category of essential material needs has been found to be statistically significant. The category of non-essential wants was not found to be statistically significant.

Thirteen percent of both the control group and the new applicants said they were able to satisfy their essential needs. However, only 3 percent of the new applicants said they could not satisfy their essential needs as compared to 33 percent of the control group who

**Table IV.C.2.a.3. Satisfaction of Personal Material Needs**

		Control Group	New Applicants
Are you able to satisfy your essential needs?	Yes	13.3%	13.3%
	No	33.3%	3.3%
	Partially	53.3%	83.3%

Chi-square (df=2, N=60) = 9.3, significance = 0.01.

said they could not satisfy their essential needs. Of those who responded to the inquiry about being able to satisfy their essential needs partially, 83 percent of the new applicant group responded affirmatively, while only 53 percent of the control group said they were able to satisfy their essential needs partially. These data show that the new applicant group are better able to satisfy their essential needs compared to the control group respondents.

**IV.C.2.a.4. Number of Meals Eaten per Day.** The sub-hypothesis developed for the variable 'number of meals eaten a day' is as follows:

Respondents in the 'new applicant' category will have higher levels of number of meals eaten per day than women who meet GB eligibility criteria but have not applied.

Among the new applicant respondents, 67 percent reported having three meals per day, 33 percent two meals per day. No one reported being limited to one meal per day. All of the

**Table IV.C.2.a.4. Number of Meals Eaten per Day**

	Control Group	New Applicants
One Meal	13.3%	0.0%
Two Meals	53.3%	33.3%
Three Meals	33.3%	66.7%

Chi-square (df=2,  $N=60$ ) = 8.7, significance = 0.01.

new applicants, thus, said they can afford at least two meals a day. Of the control group, 33 percent said they had three meals, 53 percent two meals, and 13 percent only one meal per day. Thus, it seems that the new applicant group is better off compared to the control group, as seen from being able to afford a larger number of meals a day.

**IV.C.2.a.5. Tutors for Children.** The sub-hypothesis developed for the variable 'whether children have tutors' is as follows:

Respondents in the 'new applicant' category will have higher levels of children who have tutors than women who meet GB eligibility criteria but have not applied.

Thirty-seven percent of the respondents from the group of new applicants have tutors for their children. In comparison, only 10 percent of the control group respondents said they have tutors for their children. The 'other' category includes women having children either too young or too old for schooling, women who are single, and women without children.

**Table IV.C.2.a.5. Tutors for Children**

	Control Group	New Applicants
Yes, Children Tutored	10.0%	36.7%
No, Not Tutored	63.3%	46.7%
Other	26.7%	16.7%

Chi-square (df=2, N=60) = 6.02, significance = 0.05.

The higher number of the new applicants hiring tutors for their children may not only mean that they can afford to have tutors for their children but may also mean that they place a higher value of on education and learning. The new applicants may want their

children to excel in school and get a better education so that the children can have a better life.

**IV.C.2.a.6. Expectation of Dowry for Son.** The sub-hypothesis developed for the variable 'expectation of dowry for son' is as follows:

Respondents in the 'new applicant' category will have higher levels of expectation of dowry for sons than women who meet GB eligibility criteria but have not applied.

The question as to whether respondents expect dowry for their sons was asked to measure the level of social awareness. Sixty percent of the new applicants do not expect any

**Table IV.C.2.a.6. Expectation of Dowry for Son**

	Control Group	New Applicants
Yes	46.7%	16.7%
No	33.3%	63.3%
Other	20.0%	20.0%

Chi-square (df=2, N=60) = 7.1, significance = 0.03.

dowry for their sons compared to 33 percent of the control group. Only 17 percent of the new respondents expect dowry for their sons compared to the 47 percent of the control

group who want dowry for their sons. The category of 'other' includes women who are single or women without any sons. The results show that the new applicant group has a larger number of responses saying that they do not expect dowry for their sons at marriage. This is a sign of social empowerment — hence the new applicant respondents seem to be more empowered than the control group respondents.

**IV.C.2.a.7. Health Awareness.** The sub-hypothesis developed for the variable 'health awareness' is stated as follows:

Respondents in the 'new applicant' category will have higher levels of health awareness than women who meet GB eligibility criteria but have not applied.

In the area of health awareness, only the variable on children's immunization was found to be statistically significant. The other variables, such as the use of toilet or where to throw garbage, were not found to be statistically significant. The 'other' category includes women having children either too old to be immunized, women who are single, and women without any children. Eighty-seven percent of the new applicants said their children had been immunized compared to 60 percent of the control group. The fact that a majority of the new applicant respondents said their children were immunized indicates persons in this group that may already have a higher level of empowerment than the control group. The category of 'other' includes respondents with no children.

**Table IV.C.2.a.7. Health Awareness**

		Control Group	New Applicants
Are your children immunized?	Yes	60.0%	86.7%
	No	33.3%	3.3%
	Other	6.7%	10.0%

Chi-square (df=2,  $N=60$ ) = 9.0, significance = 0.01.

**IV.C.2.b. Statistically Insignificant Variables.** In this section, the variables of Hypothesis II that have been found to be statistically insignificant are examined.

#### **IV.C.2.b.1. Decision-making**

##### **— Decision-making in the Household (HH)**

- purchase of daily groceries
- buying/selling valuable objects in the HH
- purchase of family clothing
- decision-making in event of disagreement in the HH; resolution of disagreements
- HH savings
- decision-making of how family income should be spent; budgeting

The data show that for the variables listed above on household financial decision-making have no statistically significant difference between the control group and the new applicant



group. In general, it is noticed that for buying or selling valuable articles, household savings, and spending, the husband is more likely to decide than the wife (respondent) for the new applicants group. For the control group, however, a higher percentage of the respondents made the decisions themselves, in comparison to the new applicant respondents. In the areas of decision-making for daily grocery purchases, and buying clothing, a much larger proportion of the respondents (of both groups) made these decisions themselves. A large number of the respondents in these two groups, control group (45%) and the new applicant group (31%), are observed to seek advice from other members of the family when there is disagreement in the household.

— Decision-making on mobility

- visit to the woman's parents
- movement outside of homestead
  - to relatives
  - to stores
  - to crop fields
  - to graze fields
  - to other places
- frequency of visits outside of homestead

No significant difference is found in the data on the above variables on the mobility outside the home. When a decision has to be made about the visit of the respondents to their parents' home, in a majority of the cases it is the husband who makes the decision

(46% and 62% for the control and new applicant groups, respectively). The number of respondents who make a decision for themselves is slightly higher for the control group than for the new applicant group, 18% and 14% respectively. Twenty-nine percent of the control group allow others (not including the husband) to make that decision, compared to 10% for the new applicant group.

Analyses of the data for mobility of respondents of both groups revealed that, except for the frequency of visits to relatives which were nearly equal, both the control and new applicant groups had few visits outside the home. Whenever the respondents did visit outside the home it was seen that those belonging to the control groups visited outside their home on more occasions than the new applicant group. The visits were to relatives, banks, shops, and grazing and crop fields. Also, the higher frequency visits (daily and less than once a week) were generally more for the control group than for the new applicant group. Apart from visits to the places mentioned, a large majority of the respondents (77% of the control group and 97% of the new applicant group) had never visited other places.

— Decision-making on family planning

- interest in family planning
- use of contraceptives

Twenty-one women, out of a total of 60 respondents belonging to both groups, said that they had practiced family planning. Of these 21 respondents, only 1, belonging to the

control group, said that it was her decision to practice family planning. The number of respondents who said that it was a joint decision was higher for the control group (27%) than for the new applicant group (17%). All the respondents said that it was themselves who had to use contraceptives.

- **satisfaction of essential material wants**

Only 10 percent of both the control and new applicant groups said that their essential material wants were satisfied. However, 77 percent of the new applicant group said that their essential material wants were partially satisfied as compared to 57 percent of the control group.

#### **IV.C.2.b.2. Literacy/Education**

- **Women's literacy/numeracy level**

- **calculation skills**
- **record-keeping in the HH**
- **number of years of schooling**

There is no significant difference in the number of respondents who knew how to count (calculation skill); a slightly larger number of respondents from the new applicant group (90%) knew how to count than the control group (80%). However, in general, respondents from the new applicant group were more educated than those of the control group (57% versus 37%, respectively). Fifty-nine percent (or 33% of the total) of the educated respondents belonging to the new applicant group had formal education, which

includes both *madrasha* education together with regular school, compared to 27% (or 10% of the total) of the educated respondents of the control group. Thus, even though the numbers did not seem significantly higher for the new applicant group, they were better educated and had higher calculation skills than the control group. However, only 7% of the new applicant group kept accounts by themselves in the family, compared to 23% of the control group. But a larger number (40%) of the new applicant group kept accounts jointly with their husbands, in contrast to 13% of the control group. In a majority of the respondents' families, it was the husbands who kept the accounts; 37% of the new applicant group and 47% of the control group.

— Interest in children's education

- desire to send children to school
- number of years of son's/daughter's education in school

A large percentage of both the groups seem to be interested in having their children educated; 90 percent of control group and 87 percent of the new applicant group. Fifty-seven percent of the control group and 68 percent of the new applicant group had sons who were of school-going age or older; those having daughters of school-going age or older were 63 percent and 48 percent for the control and new applicant groups, respectively. The other respondents either had no children or had children who were too small to go to school. Of the children who were of school-going age or older, 76 percent belonging to the control group and 84 percent of the new applicant group had some sort of formal schooling (defined as grade school through graduate school); the corresponding

numbers for the daughters were 53 percent of the control group and 69 percent of the new applicant group. Thus, in general, the sons of the respondents were better educated than the daughters, although the highest level of education (graduate school) was observed for a daughter of a respondent belonging to the new applicant group. Also, the new applicant group had larger numbers of sons or daughters availing of an education, compared to the control group.

#### **IV.C.2.b.3. Health Awareness**

##### **— Awareness of basic health practices**

- number of health practices followed
- major source of drinking water
- major source of cooking water
- boiling drinking water
- garbage disposal
- type of toilet used
- place for treatment when family members get ill

Several of the variables in the category 'health awareness' were not found to be statistically significant. For the health practices of sanitation, drinking purified water, and availing of medical health, only 17 percent of the control group and 14 percent of the new applicant group followed all three health practices. However, sixty-three percent of the control group and 86 percent of the new applicant group said that they followed the medical

health procedures. Thus, a majority of the respondents considered the practice of medical health an important health practice. All the respondents, except one in the new applicant group, used tube wells as a source of drinking water. However, for cooking purposes, only 30 percent of the control group and 21 percent of the new applicant group used tube wells, which are considered the purest source of water. A large number (43 %) of the control group used pond water, not considered a clean source of water, for cooking; 29 percent of the new applicant group used the same. Thirty-nine percent of the new applicant group used open wells as their source of cooking water and a smaller percentage (20%) of the control group used the same source. Thus, the respondents did not see the quality of water used for cooking to be very important because a majority of them did not use tube wells as a source. All the respondents, except one belonging to the new applicant group, said they did not boil water for drinking purposes. This could be because it is generally felt that water from tube wells, a major source of drinking water, is clean and hygienic. Therefore, a majority of the women felt that it was unnecessary to boil water for drinking.

A similar trend was observed for the disposal of garbage. A majority of the respondents in all the three groups said that they disposed of their garbage by throwing it anywhere or in ditches around their houses. However, a sizable number (30%) of the new applicant group used garbage as fertilizer; only one respondent (10%) of the control group disposed garbage in a similar manner.

The data also show that a majority of the respondents of both groups used non-sanitary toilets (80% and 90% of the control and new applicant groups, respectively). Only a small number used sanitary toilets (13% and 10% of the control and new applicant groups, respectively). Also, two respondents in the control group did not have any toilet facilities.

Nearly all of the respondents went to multiple sources, including a medical doctor, for medical treatment. Only one respondent, belonging to the new applicant group, used only a medical doctor for the purpose of medical treatment. These results are not unexpected considering that the other sources, including spiritual healers, quacks, homeopathic doctors, and herbal practitioner, are much cheaper and easily accessible than the medical doctor.

#### **IV.C.2.b.4. Social, Political and Legal Awareness**

##### **— Attitudes regarding inheritance**

- family inheritance received
- if yes, with whose consultancy
- women's right to get parent's property

##### **— Attitudes regarding political rights**

- member of the arbitration committee
- member of the union committee
- assistance sought from political leader/administrative/village leader

● type of issues taken up with local political leader

Several variables developed to measure the level of socio-political awareness turned out to be statistically insignificant for Hypothesis II. A large number of the respondents reported that they did not inherit any property from their father; 80 percent and 90 percent of the control and new applicant groups, respectively. However, of the respondents who had inherited property, only one respondent belonging to the control group did not use any advice from her husband or others in collecting her inheritance. Regarding women's right to family inheritance, a large majority of the control (83%) and the new applicant (87%) groups believed that women have the right to inherit family property. Pertaining to political issues, no respondent was found to be a member of community organizations like the Union Committee or the '*Shalish*' or the arbitrary committee. In fact, a great majority of them (90% and 93% of the control and new applicant groups, respectively) did not seek help of political administrators. Similar data were observed for the 5-year and 10-year loanee groups (discussed in section IV.C.2) suggesting that the women were completely unaware of their accessibility to these political action committees to solve problems pertaining to the household as well as the neighborhood or community. Only 3 control group members and 2 new applicant group members sought the assistance of local political, administrative or village leader's help to resolve any problem.



#### **IV.C.3. Hypothesis III**

This hypothesis compares results between only the GB loanees — the 10-year and the 5-year loanees. It attempts to determine whether longer participation as a GB loanee results in a better level of economic and social empowerment. The variables tested with cross tabulations for chi-squares are (1) GB help with livestock/poultry/gardening, (2) members planning to maintain themselves without GB loans, (3) use of contraceptives only after joining GB, (4) improvement of quality of food after joining GB, (5) number of times meat eaten before joining GB, (6) number of times meat eaten after joining GB, (7) source of knowledge about the importance of using sanitary toilet, and (8) immunization of children after joining GB. However, only one variable, the use of contraceptives only after joining GB, has been found statistically significant.

Hypothesis III is stated as follows:

The 10-year GB loanees will exhibit more empowerment characteristics than the 5-year GB loanees.

**IV.C.3.a. Statistically Significant Variables.** The only variable that has been found to be statistically significant in Hypothesis III is discussed here.

**IV.C.3.a.1. Use of Contraceptives Only After Joining GB:** The sub-hypothesis developed for the variable 'use of contraceptives only after joining GB' is:

Use of contraceptives is associated more strongly among 10-year GB loanees than among 5-year GB loanees.

About 67 percent of the respondents from the 10-year loanee group said that they began to use contraceptives only after joining GB. Only half of that number, about 33 percent, among the 5-year loanee group began to use contraceptives only after joining GB.

**Table IV.C.3.a.1. Use of Contraceptives Only After Joining GB**

	5-Year Loanees	10-Year Loanees
Yes	33.3%	66.7%
No	66.7%	33.3%

Chi-square (df=1, N=42) = 4.67, significance = 0.03

**IV.C.3.b. Statistically Insignificant Variables.** The following variables that have been found to be insignificant in chi-square values are (1) GB Help With Livestock/Poultry/Gardening, (2) Members Planning to Maintain Themselves Without GB Loans, (3) Improvement of Quality of Food After Joining GB, (4) Number of Times Meat Eaten Before Joining GB, (5) Number of Times Meat Eaten After Joining GB, (6) Source

of Knowledge About the Importance of Using Sanitary Toilet, and (7) Immunization of Children After Joining GB.

**IV.C.3.b.1. GB Help With Livestock/Poultry/Gardening.** This variable was used to determine whether borrowing from the GB longer helped loanees increase their income through raising livestock and poultry, and growing vegetables and fruits. If the loanees were able to increase their income through these activities it may suggest greater economic empowerment. Eighty-three percent of the 10-year loanees benefitted substantially from GB loans by increasing their livestock, poultry or garden produce compared to 82 percent of the 5-year loanees. The percentage of loanees benefitting from GB loans to increase livestock, poultry, and garden produce seems to be high in both the loanee categories, however, there is no significant difference between the two categories. Therefore, one may conclude that the length of time of a loan taken from GB, makes no substantial change in a loanee's capacity to increase income through livestock, poultry or garden.

**IV.C.3.b.2. Members Planning to Maintain Themselves Without GB Loans.** This question was asked to assess whether the respondents had any plans to maintain themselves without the GB loans. Only thirteen percent of the 10-year loanees, and 10 percent of the 5-year loanees, said they would like to leave GB eventually. No significant difference was noticed among the two groups for wanting to maintain without GB loans.

The high percentage of respondents indicating they had no plans to leave GB may signify that the women believe (i) that borrowing from GB is going to bring them a better life, or (ii) that they cannot maintain themselves without the loans from GB. In other words, it may signify that the loanees were satisfied with the GB loans or were becoming dependent on GB loans to maintain a living. The positive aspects of this trend are that the loanees will continue a relationship with GB. However, the down side may be that the loanees were not optimistic about economic productivity and therefore planned on continuing taking loans from GB.

**IV.C.3.b.3. Improvement of Quality of Food After Joining GB.** Eighty seven percent of the 10-year loanees, compared to 70 percent of the 5-year loanees said that the quality of their food had improved since they joined GB. However, even though there were more 10-year loanees, compared to 5-year loanees, suggesting improvement in food quality, the difference was not statistically significant. The rest of the 10-year and 5-year loanee respondents said that the quality of their food had either remained the same, or had deteriorated, since joining GB.

**IV.C.3.b.4. Number of Times Meat Eaten Before Joining GB.** Four response categories had been used to classify the frequency of meat eaten: (i) once a week; (ii) once a month; (iii) once in two month; and (iv) 1-5 times a year. No significant statistically difference was noted in among the two groups in the variables of the 'number of times

meat eaten before joining GB'. Fourteen percent of the 10-year loanee group ate meat once a week before joining GB, as opposed to thirteen percent of the 5-year-loanee group. More 10-year loanees (30%) than 5-year loanees (14%) ate meat once a month. Thirteen percent of the 10-year loanees ate meat once in two months; 43 percent ate meat 1-5 times a year. Twenty-five percent of the 5-year loanees ate meat once in two months whereas 46 percent ate meat 1-5 times a year. The meat eaten in Bangladesh includes beef, mutton or chicken. This variable has been used in this study as an indicator of economic welfare because the frequency of meat eating in developing countries is considered an indicator of economic welfare. It is rare for most people to eat meat. Even though other forms of protein are eaten, like fish products and beans, meat can be afforded by only those with a higher income because of its costly price.

**IV.C.3.b.5. Number of Times Meat Eaten After Joining GB.** No statistically significant differences were found in the frequencies of meat eaten by the two groups of loanees surveyed. Thirty-seven percent ate meat once a month and 40 percent ate meat once a week for the 10-year loanee group, whereas 21 percent ate meat once a month and 25 percent ate meat once a week for the 5-year loanee group. In general, therefore, a larger percentage of the 10-year loanee group, compared to the 5-year loanee group, ate meat more frequently.

**IV.C.3.b.6. Source of Knowledge About the Importance of Using Sanitary Toilet.**

Among the 10-year loanee group, 67 percent learned about the usefulness of using sanitary toilets from GB. And 80 percent of the 5-year loanee group learned about the usefulness of using sanitary toilets from GB. The rest of the respondents heard about the importance of using sanitary toilets from non-GB sources including radio/TV, government officials, other NGOs, family, and neighbors. Thus all the respondents from these two groups were found to be aware of the importance of the use of sanitary toilets. It is obvious that the majority of the respondents heard about the importance of using sanitary toilets from GB. GB's social development program on hygiene has a strong emphasis on promoting the awareness of using sanitary toilets among its members. GB gives loans to build sanitary toilets so that many illnesses can be controlled.

**IV.C.3.b.7. Immunization of Children After Joining GB.** No significant differences were observed among the two groups regarding children's immunization after joining GB. However, forty-three percent of the 10-year loanees said they immunized their children after joining GB compared to 48 percent of the 5-year loanee group who immunized their children after joining GB. It is also seen that a large number of the 10-year loanee group had their children immunized (90%) compared to the 10-year loanee group (67%) who had their children immunized (see page 30).

## **CHAPTER V**

### **SUMMARY AND CONCLUSIONS**

This final chapter of the study is arranged into sections that include (A) a summary of the findings, (B) conclusions of the study, (C) how the findings relate to the previous research on the same subject, (D) contributions to new knowledge, (E) policy implications, and (F) implications for future research.

#### **V.A. Summary of Findings**

The section is divided into (1) problem, (2) methodology, (3) results of analysis, and (4) limitations of research.

##### **V.A.1. Problem**

The aim of this study was to examine the effectiveness of the GB programs in promoting empowerment among its female loanees. In particular, the study attempted to discover the relationship between participation in the GB and variables showing women's empowerment. The empowerment variables examined were (i) women's income generation, (ii) women's decision-making concerning the use and distribution of household

resources, (iii) participation in family planning practices, (iv) food consumption indicators, (v) literacy skills, and (iv) socio-political awareness.

Previous research has shown that GB was successful in assisting women to generate income and improve their standard of living (Rahman, 1986; Hossain, 1988; Auwal & Singh, 1992; Shehabuddin; 1992; Mizan; 1993; Schuler & Hashemi, 1994; and Wahid, 1994). However, these studies were not complete for several reasons. One, previous studies have been only cross-sectional and had little longitudinal perspective. Two, the relationship between GB participation and women's empowerment and influence on household decision-making has not been well studied.

#### **V.A.2. Methodology**

A survey was carried out in two branches of GB located in two Bangladeshi villages. The respondents were divided into four categories: (i) GB members for ten years; (ii) GB members for five years; (iii) GB applicants; and (iv) a control group of villagers who satisfied the conditions for GB participation but who did not apply for GB membership. The respondents were asked questions on household income generation, women's decision-making initiatives concerning the use and distribution of household resources, family planning practices, household food consumption, literacy, education, and socio-political awareness.



A questionnaire was developed in Bangladesh entirely by the researcher. A pilot test was done before the actual survey was conducted. This pilot test helped to delete certain questions considered unnecessary, as well as add questions not included earlier. The questionnaire was written in Bengali, the native language spoken throughout Bangladesh.

A list of bank members who had been taking GB credit for five years and ten years was obtained from the two village branch offices. Fifteen members from each category were picked randomly in both the branches. The applicant group and the control group were selected as follows: for the applicant group, a list of applicants from each branch was collected by the branch office and the first fifteen applicants were selected. The control group, comprising of fifteen from each village, was selected using the assistance of GB officials and other community members.

Two female enumerators were hired to help in conducting the survey. Both the enumerators were residents of the villages in which the branches were located. With the sample list, the enumerators and the researcher went to the homes of the women to interview them. Some women were interviewed in the bank compounds if they happened to be there to collect their loans.

The data were then entered on a PC computer using the SPSS/PC statistical package. The mean and the standard deviation of the different variables were calculated across the four

groups of women surveyed. From these results, cross-tabulations were done. The significance levels of the relevant variables for each of the four groups of respondents were then determined.

### **V.A.3. Results of Analysis**

The data were analyzed by cross-tabulations using chi-squares. The analyses were done in three sets, including (i) cross-tabulations between 5-year, 10-year and non-loanee groups, to test Hypothesis I, (ii) cross-tabulations between the control and new applicant groups to test Hypothesis II, and (iii) cross-tabulations between the 5-year and 10-year loanee groups to test Hypothesis III. The results are summarized in this section.

**(i) Cross-tabulations between 5-year, 10-year, and non-loanee groups.** Out of several variables tested, some were found to be statistically significant. These include the ability to sign for the respondents, education experience among the respondents, mobility outside home, satisfaction of personal needs/wants, decision-making on family planning, number of meals eaten by the respondents, grade level of daughters in school, tutors for children, and health awareness. The analyses results reveal that, for these variables, the 5-year and 10-year loanee groups are better off compared to the non-loanee groups. Thus, Hypothesis I is not rejected. In other words, participation in GB is associated with higher levels of economic and social empowerment. More specifically, it is seen that in a majority of the variables found significant, the 'empowerment' was found to be more

economic than social. For example, it is seen that the 5-year and 10-year loanee groups have a higher level of mobility outside the home, than the non-loanee group. However, the reason for the mobility of these women is to visit the bank or to the workplace — both economic reasons. Another variable used for mobility outside the home, namely visits to relatives, was found to be non-significant — this variable being a social variable. On examining some of the significant variables, it is found that some important variables representing social empowerment were found to be significant. For instance, the variables of decision-making regarding 'use of contraceptives' and 'who uses them' were found to be significant.

Several variables were not found to be significant, including decision-making in the household finances, decision-making on mobility, women's numeracy level and keeping of accounts, an interest in children's education, awareness of basic health practices, and attitudes regarding children's marriage, inheritance, and political rights. However, the analyses results clearly show that, in general, there is a higher level of GB influence in the 5-year and 10-year loanee groups than the non-loanee groups, even though these variables were found non-significant. Also, it is seen that joint decisions involving both husband and wives, are generally higher for the 5-year and 10-year loanee groups than for the non-loanee groups.

**(ii) Cross-tabulations between the control and new applicant groups.** The tested variables that were found statistically significant include the ability to sign, mobility outside home, satisfaction in terms of material needs, number of meals eaten per day, whether children have tutors, health awareness, and expectation of dowry for son.

Hypothesis II stated that there is a higher level of empowerment among GB loanees because new GB applicants have higher levels of empowerment compared to women who are potential GB applicants but have not applied for membership. Since many of the variables were found to be statistically significant, this hypothesis has not been rejected. It is also noted that some of the variables found significant here were similar to the variables found significant in Hypothesis I. For some of the variables found not significant, it was observed that the control group women made decisions more on their own regarding household financial management than the new applicant groups. The reason for this could be that most of the women of the control group are very poor (see Table IV.A.1), and hence belong to homes where the husband is away in the cities working as a migrant worker. In these cases, the women are often left to make decisions involving immediate financial matters. On analysis of the demographic data about heads of households (see Table IV.B.3), it is observed that 30 percent of the control group respondents are heads of their families, compared to 10 percent for the new applicant group.

**(iii) Cross-tabulations between the 5-year and 10-year loanee groups.** In the survey a few questions were developed to measure the level of empowerment between 5-year and

10-year GB loanees. Of several variables tested, only one variable was found to be statistically significant. This was with regard to the use of contraceptives. However, the variables that were insignificant included GB help with livestock/poultry/gardening, members planning to maintain themselves without GB loans, improvement of quality of food after joining GB, number of times meat eaten before joining GB, number of times meat eaten after joining GB, source of knowledge about the importance of using sanitary toilet, and immunization of children after joining GB. For some of these variables, it was observed that, in general, the 10-year loanee group respondents were slightly better empowered than the 5-year loanee group respondents, but not significant enough to support Hypothesis III. Taking into account the fact that only one of the variables was determined to be statistically significant, Hypothesis III was rejected. In other words, the study did not establish the fact that longer participation in GB increased the level of empowerment for the GB loanees.

#### **V.A.4. Limitations of Research**

Several limitations were encountered during the research. With the availability of more time or access to more resources, it is possible that some of the limitations could have been avoided. The limitations experienced were: (i) selection of research methodology; (ii) site selection for the survey; (iii) sample selection for the survey; (iv) type of tests run for data analysis; and (v) necessity for some questions to be modified after doing the analysis.

**V.A.4.a. Selection of research methodology**

In an ideal situation, the hypotheses about the effect of GB on the empowerment of women should be tested using a panel data set comparing changes in empowerment variables among the three categories of women: GB loanees for several years, new applicants of GB loans, and non-loanee. Such a panel data approach could determine whether changes in measures of empowerment variables associated with GB participation resulted from the GB program, or from initial differences in characteristics between GB loanees and non-loanee control groups. The researcher originally intended that such a panel data approach be done by following up on an extensive household data set collected by the Bangladesh Institute of Development Studies (BIDS) in collaboration with the International Food Policy Research Institute (IFPRI). Unfortunately this data set, which would have made such an analysis possible, was completely erased along with the original questionnaires and household sample lists. Therefore, this study had to address the research hypothesis in another way, using "next best" methods.

**V.A.4.b. Site selection for conducting the survey**

Limitations in the selection of sites for the survey conducted for the research were also experienced. The researcher selected the GB branches closer to Dhaka, the capital of Bangladesh, because of the availability of transportation and accommodation. The proposed research required the study of 10-year loanees. However, not many GB

branches near Dhaka were in operation for more than ten years. Therefore, the pool from which the selection had to be made was small.

#### **V.A.4.c. Type of tests run for data analysis**

The data collected are nominal and, therefore, only the tests that could obtain any significance level of the data could be run. With nominal data, only certain types of statistical tests can be done. Using the present data, running cross-tabulations with chi-squares were sufficient to test for significance levels of the data. Other tests such as 't-tests' or 'ANNOVA tests' could also have been used. However, these tests would have given almost the same results as obtained through the cross-tabulations using chi-square and would have been repetitive.

However, if the data were continuous, then other sophisticated tests such as the multiple regressions could have been run. The researcher was constrained to design the questionnaire in a manner that could be comprehensible to a majority of the women, who were illiterate, in the survey sample. The simple pattern used to design and set the questions could produce only nominal data.

#### **V.A.4.d. Sample selection**

The study encountered certain limitations in selecting the new applicants and the control group for the survey. These two groups could not be selected at random as was the case

with the other two groups — the 5-year and 10-year loanees. Each GB branch had a list of thirty or more new applicants and the first thirty from the list were selected as a sample set. With the selection of control groups, additional difficulties were encountered. Not many women, in the villages where the branches were located, fit the criteria to be a control group which required the respondents (1) not to be a GB member, and (2) own less than one *pakhi* of land to satisfy GB eligibility criteria. Those women who did not fall under either of the categories generally had more than one *pakhi* of land which made them ineligible to join GB. The limited number of women fitting that criterion, forced the researcher to choose the first thirty women who were identified with the help of GB employees and the community members.

#### **V.A.4.e. Questions modified during analysis**

When analyzing the data, it was found that some of the answers given were not in reply to questions that were posed. This was because the surveyors may have posed the questions slightly differently, in a manner more comprehensible to the respondents. To accommodate these data, these answers were regrouped, and the question for that answer modified appropriately. For example, regarding the question "where do you/your family go for medical treatment", at least 5 different answers were obtained. To ensure inclusion of these answers as well as to facilitate analysis of the data, the answers were grouped into two categories: "medical doctor only" and "medical doctor and others", where others included spiritual healers, quacks, homeopaths, and herbal practitioners. While these



changes did not affect the analysis in any way, they increased the work load for the analyst.

### **V.B. Conclusions of the Study**

In general, the study found that participation in GB is associated with higher levels of economic and social empowerment. In other words, GB helps improve the lives of its members. Therefore, it was concluded that Hypothesis I was accepted.

The study revealed that empowerment is higher among GB loanees than non-loanees because new GB applicants have higher empowerment levels, compared to the control group. This shows that GB is not accessible to the poorest of the poor. Therefore, Hypothesis II was accepted.

The research also found that participation in GB for a longer period did not increase empowerment levels significantly. Even though there was an initial increase in empowerment levels of its members, further increase was slower. Therefore, Hypothesis III was not accepted.

From these findings, it can be concluded that GB helps improve the situation of the poor rural Bangladeshi women. However, it is not powerful enough to overcome the strong forces of culture. It will take time to win the battle; it cannot be accomplished overnight.

One or two generations of participation may be required to empower the poor rural Bangladeshi women. Also, the findings indicate that there is still a need for empowerment efforts that are accessible to the poorest of the poor rural Bangladeshi women. Whether targeting these poorest women would be best achieved by expanding access to GB programs, or instead through a different program remains an open question.

### **V.C. Relation of Findings to Previous Research**

The findings of this study add to the pool of knowledge collected previously on this topic of women's empowerment by GB participation. In addition, this study looks at decision-making in depth, and from a longitudinal perspective, two areas that were deficient in previous research of GB and women's empowerment.

Most of the previous studies (see section II.E) have generally reported that GB has had positive effects on its members. However, these studies mainly looked at the economic impacts of GB on its members. Some studies (Rahman, 1986; Mizan, 1993) showed a positive impact of GB on its member's decision-making power. In the present research, an in-depth study of GB's impact on household decision-making was conducted (section IV.C.1.b). The analyses results reveal that in all cases GB was not able to raise significantly the level of decision-making of its female members. The levels of mobility of GB's female members were seen to be significantly higher than non-members, but only in areas connected to workplace visits and bank visits. Mobility to other areas including

visits to relatives, stores, grazing and crop fields, and other places, were also higher for GB members, but not at significant levels. Thus, the present study differs from previous studies on GB's impact on its member, at least in part.

The study also compared the impact of GB on women who were members for 5 years and 10 years, (discussed in section IV.C.3). This was done to find out whether those who have been in GB for a longer period had higher levels of empowerment. The results (section IV.C.3) indicate that there is no significant difference between the 5-year and 10-year female loanee groups. Thus, while GB increases empowerment of its members, compared to non-members, in certain areas, there is little increase in the level of empowerment after the initial participation in GB programs. This is the first such study showing a partial longitudinal perspective on GB participation.

#### **V.D. Contributions to New Knowledge**

The contribution of this study to the body of new knowledge on GB's impact on the level of empowerment on its female loanees is found in the two areas of (1) elimination of cross-sectional biases, and (2) household financial decision-making process.

##### **V.D.1. Eliminating cross-sectional biases**

On major problem of all previous studies on GB has been that no variables have been measured for the loanees of GB before they took any loans. For example, studies

comparing incomes between loanees and non-loaneees (the control group) have not compared current income levels of loanees with the income levels prior to the loanees joining the bank. The question that needed to be answered was whether there was, to begin with, any correlation between women's empowerment variables and the decision of the women to participate in GB. If this was the case, it suggested that a sample selection bias may have been present in previous cross-sectional empirical studies comparing empowerment variables between loanee and non-loanee women.

This study addressed the questions posed by tracking measures of empowerment variables over time for GB member loanees and by comparing these traits among GB and non-GB women. This research also tested whether differences in empowerment characteristics existed between those who are currently seeking to participate in GB and those who are eligible but are not seeking any participation in GB.

#### **V.D.2. Household financial decision-making process**

This study also attempted to compare the level of women's involvement in household financial decision-making among the GB loanees and the non-loaneees in greater detail. Other studies (Rahman, 1986, for example) have inquired into household decision-making but lacked depth. This study attempted to probe into the details of household financial decision-making among the GB loanees and the non-loaneees. An important finding of this

study was that GB has not had a significant impact on the area of decision-making of the household finances among its female 5-year and 10-year loanees.

### **V.E. Policy Implications**

Findings obtained from this study can be utilized to view how GB policies on empowerment of rural Bangladeshi women can be developed or current policies improved upon. The areas that need to be emphasized in the policy areas at the bank level are:

**(i) Financial decision-making in the household.** The GB target group consisted of the poor rural Bangladeshi women who live in a male-dominated society, where men tend to make all the decisions even in the household sphere. GB apparently helps improve the standard of living of the poor households of the women who access credit from GB. However, whether that actually helps them become empowered is not definite. One would expect that, with an improvement in the standard of living, there would be increased awareness, and therefore involvement of the women in household financial decisions. Yet the data show otherwise. The non-involvement of the women in household financial management could be because they lack the skills necessary to handle simple accounts. GB should consider developing programs for its female members to improve their home economic skills. Classes held on a regular basis at the bank premises itself would not only help in increasing their much-needed home financial management skills, but would also help in raising their mobility which has been found to be low.

**(ii) Literacy of loanees as well as emphasizing to them the importance of education of their children.** A majority of the GB female members were observed to be illiterate. Improving their literacy should be a major goal of GB. By organizing adult literacy programs on a regular basis, these women's literacy levels, and hence their empowerment, can be increased. It is known that rural women in Bangladesh have little time to spare because of their heavy work-load involving housework, post-harvest food processing, and child-rearing. Therefore, to avoid absenteeism in the literacy programs, they could be scheduled along with other programs, such as family planning or primary health-care programs.

The study also revealed that a large majority of the respondents affirm that they are interested in educating their children, in spite of the fact that they themselves have little or no education. However, it was observed that some children, especially girls, have not gone to school or have studied only a few grades even though in Bangladesh primary education is free. One of the reasons for the lack of education among the children is that education involves other costs — removal from household tasks as well as expenses for resources such as textbook, notebooks, pencils, and other supplies. GB could help in this area by offering its members' children school supplies at a subsidized rate. Increased education translates to increased mobility for the children, especially girls. The more educated the members' daughters are, the higher levels of empowerment they will achieve as adults.

**(iii) Primary health care awareness and family planning.** One of the findings of this study is that the primary health care awareness of GB's members needs to be improved. To cite some examples: drinking water is not boiled; toilets are not sanitary; garbage is disposed of by throwing it anywhere. All this relates to a lack of awareness about hygiene and the environment. GB can introduce primary health care programs for its female members and their children. Several studies have revealed that children play an important role in fostering conscientious health behavior in their families and among their peer groups (El Katsha and Watts, 1993).

The study also shows that when it came to making decisions about family-planning, it was mainly the husband who made them; a small number of respondents made the decisions by themselves. This indicated a lack of empowerment on the part of the women members. GB can arrange family planning clinics for its female members. By educating them on family planning, the women can have more control over their reproductive systems and be more empowered as a result.

**(iv) Socio-political awareness.** Even though they had access to village leaders and committees, a majority of the women surveyed were not aware of or did not seek assistance of these units to solve their problems. GB can enhance knowledge of the various facilities and resources available to its members through its already-existing social development programs.

**(v) Community development.** GB is a catalyst for the process of community development. GB can encourage loanees to take leadership roles to bring about change in the community .

#### **V.F. Implications for Future Research**

This study was not able to investigate in several areas because of various limitations. In the future, however, those limitations can be overcome and additional research could be conducted to probe into areas that could not be covered in this study. The possible areas of investigation are: (i) a panel study; and (ii) setting data differently.

**(i) Panel study.** A panel study may be conducted in the future, using the same variables of empowerment and the same questionnaire used in this study, to determine if there are changes in empowerment variables among the three categories of respondents — those who have been GB loanees for several years, those who are about to receive their first GB loans, and those who have never been GB loanees. Such a panel data approach could address problems of causality, such as deciding whether changes in measures of empowerment variables associated with GB participation result from the GB program, or instead from initial differences in characteristics between GB loanees and control groups. This longitudinal study of the same respondents would help track the changes in the level of empowerment among the GB loanees over time.



**(ii) Setting data differently.** One of the limitations of this research is that the data collected were nominal. Therefore, by setting the questionnaire differently in future studies, and by using the same variables, a continuous set of data could be obtained. With a continuous set of data, more sophisticated analyses such as linear regressions could be conducted. Also, the continuous data would allow one to run co-relation tests between different variables, which may give new and valued insights into the level, as well as the process of empowerment, among the GB loanees and the non-GB loanees of rural Bangladesh.

## **APPENDICES**

## **APPENDIX A**

## APPENDIX A

### RESEARCH QUESTIONNAIRE ON GRAMEEN BANK

#### An Empirical Study of the Relationship Between Participating in the Grameen Bank and Women's Income Generation and Empowerment

Center # .....

Serial # .....

Branch .....

Date .....

Enumerator's Signature .....

#### A. Welfare Indicators

##### 1. Demographic data

Serial #	Number of Children	Relationship With Head of Family	Age	Education	Major Occupation	Additional Occupation	How Long Have You Been Member of GB?
	M F			Sign name? Public school? Religious school?			

2. Do you own/ rent any land?

a. Yes      b. No

If answer is yes:

Homestead Land	Agriculture and Other	Total Land

3. Give a description of your family annual income?

Income	Amount	Total Expenditure	Total Savings
a. Farming (Seasonal)			
b. Business (Annual)			
c. Handicrafts (Annual)			
d. Job (Monthly)			
e. Labor (Daily)			
f. Animal Husbandry			
g. Poultry			
h. Vegetables			
i. Other			

4. Do you own any business (e.g. poultry, fisheries, store, rice ....etc.)?

a. Yes      b. No

If answer is yes:

What type of enterprise/s do you own?	How long have you owned this enterprise? Month      Year	Where did you get the initial capital for this enterprise?	At present what is the amount of capital invested in your enterprise?
a. b. c. d. e.			

Answer to Column 3:

- a. Grameen Bank      b. Own savings      c. Friends & relatives  
 d. Money Lender      e. Property      f. Others

5. Do you own poultry/cattle?

- a. Yes  
 b. No

6. If yes, then how many?

- a. Ducks .....      b. Cows .....  
 c. Chicken ....      d. goats .....

7. Present Value

- a. ....      b. ....  
 c. ....      d. ....

8. Do you grow vegetables and fruits in your homestead?

- a. Yes  
 b. No

9. How much has the loans from Grameen Bank helped you towards all this?
- Fully
  - Partly
  - Not at all
  - No loan
10. Do you plan to increase the number of your livestock in the future?
- Yes
  - No
  - No livestock
11. Do you plan to take Grameen Bank loans in the future?
- Yes
  - No
  - Not GB member
12. If yes, why?
- Self Reliance
  - Husband uses up money/no benefit to the household
  - After paying off debt
13. If yes, then after how many years will you stop taking GB loans?
- .....
14. How many members have left Grameen Bank in your center?
- .....
15. Why did they leave?
- Illness
  - Self Reliance
  - Default on loan
  - Other
16. Do you borrow money from others?
- Yes
  - No
17. If yes, then from who do you take loans?
- Money lender
  - Relatives
  - Neighbors
  - Friends
  - More than 1 of the above sources
  - NGOs
18. If (a) yes and (b) no, then do you owe money at present?
- Yes
  - No
19. Is it convenient for you to take loans from the informal money lenders?
- Yes
  - No
  - Partially
20. If you have borrowed from informal money lenders, how much have you borrowed?
- .....

**The following questions are for the Control Group:**

**21. Have you received assistance from any NGOs**

- a. Yes      b. No

**22. If yes, then what type of assistance?**

.....

**B. The decision-making involved in the use and distribution of daily household objects**

**1. Who decides what should be bought for daily groceries?**

- a. Self      b. Husband      c. Self + husband      d. Others

**2. Who makes decisions on the purchase of family clothing?**

- a. Self      b. Husband      c. Self + husband      d. Others

**3. If there is a disagreement, who makes decisions?**

- a. Self      b. Husband      c. Self + husband      d. Others

**4. Do you go to the bank yourself and carry on the transactions? (Ask this question only to the control group)**

- a. Yes      b. No

**5. Do you go out of the homestead?**

- a. Yes      b. No

**If yes, then where do you go?**

- a. Work      b. Relatives      c. Bank  
d. Shopping      e. Help graze cattle      d. Harvest crop  
f. Others

**6. If you go out, then how often do you go outside your homestead usually?**

- a. Never      b. Less than once a month (1-11 times a year)  
c. Less than once (12-51 times a year)  
d. greater than/equal to once a week but not daily      e. Daily



7. When you visit your parent's family, who makes the decision?  
a. Self      b. Husband      c. Self + husband      d. Others
8. Who decides on household savings?  
a. Self      b. Husband      c. Self + husband      d. Others
9. How many members earn in your family?  
a. One      b. Two      c. Three      d. Four
10. Who decides on issues like buying/selling of land, house and other valuable objects in the household?  
a. Self      b. Husband      c. Self + husband      d. Others
11. Who makes decisions as to how the family income should be spent?  
a. Self      b. Husband      c. Self + husband      d. Others
12. Are you able to satisfy your essential needs?  
a. Yes      b. No      c. Partially
13. Are you able to satisfy your non-essential wants?  
a. Yes      b. No      c. Partially

**C. Decision-making on family planning & pregnancy**

1. Where did you hear about contraception first?  
a. Radio/TV      b. Family Planning Worker      c. Grameen Bank  
d. Others      e. Not aware of it
2. Have you used any contraceptive measures?  
a. Yes      b. No
3. Did you begin to use contraceptives since joining Grameen Bank?  
a. Yes      b. No
4. If yes for # 2, who uses the contraceptives?  
a. Self      b. Husband      c. Self + husband
5. If contraceptives are used by you/husband, who decided it should be used?  
a. Self      b. Husband      c. Self + husband      d. Do not use

6. Which method do you use?

- a. Pills    b. Ligation    c. Vasectomy
- d. Coil    e. Condom    f. Other    g. Injection

7. When you get sick, who do you tell?

- a. Immediate family    b. Neighbors    c. Others    d. Nobody

8. While pregnant, who do/did you consult?

- a. Doctor    b. Relatives    c. Midwife    d. More than 1 source
- e. Nobody    f. Never been pregnant

#### **D. Decision-making on nutrition**

1. How many times do you cook each day?

- a. Once    b. Twice    c. Thrice

2. How many times do you eat each day?

- a. Once    b. Twice    c. Thrice

3. Which of the following types of food do you cook daily?

- a. Vegetables    b. Fish    c. Meat    d. Vegetables + meat

4. Before you joined Grameen Bank, how often did you eat meat?

- a. Once a week    b. Once a month    c. Once in two months
- d. 1-5 times a year    e. Not applicable

5. After joining Grameen Bank, how often do you eat meat?

- a. Once a week    b. Once a month    c. Once in two months
- d. 1-5 times a year    e. Not applicable

6. Has the standard of your food consumption improved since joining Grameen Bank?

- a. Yes    b. No/ the same    c. Deteriorated

7. After everybody eats in the family, is there enough food left for you?

- a. Enough    b. Not enough

#### **E. Standard of education**

1. Can you do accounts on your own?

- a. Yes    b. No

2. Who does the accounts in your household?
  - a. Self      b. Husband/other male      c. Self + Husband
3. If the answer is b for the above question, what is the reason?  
 .....
4. How do you keep accounts of your household?
  - a. Written      b. Verbal      c. Other      d. Do not keep accounts
5. Are you aware of the importance of basic health practices such as:
  - a. Sanitation      b. Drinking pure water      c. Medical Health
  - d. All of the above      e. Two out of three
6. Do you follow all of the above practices?
  - a. Sanitation      b. Drinking pure water      c. Medical Health
  - d. All of the above      e. None of the above
7. If answer is no, what is the reason?  
 .....
8. Are you interested in sending your children to school?
  - a. Yes      b. No      c. Not applicable
9. How far has/have your son/s studied?
  - a. Not going/never went to school
  - b. Grades I-V
  - c. Grades V-X
  - d. Grades XI-XII
  - e. Bachelor
  - f. Master/grad
  - g. Other
10. How far has/have your daughter/s studied?
  - a. Not going/never went to school
  - b. Grades I-V
  - c. Grades V-X
  - d. Grades XI-XII
  - e. Bachelor
  - f. Master/grad
  - g. Other

11. If son/s has/have studied more than daughter/s, then why? .....  
 If daughter/s has/have studies more than son/s, then why? .....

12. Do you hire tutors at home for your children's education?

- a. Yes      b. No

13. Are any of your children married?

- a. Yes      b. No

14. If yes, at what age did they get married?

- a. Son/s .....      b. Daughter/s .....

15. If no, at what age would you like them to be married?

- a. Son/s .....      b. Daughter/s .....

16. Do you expect any dowry at your son's wedding?

- a. Yes      b. No      c. Other

17. If yes, then why? .....

18. If no, then why? .....

19. Who makes decisions on your daughter's marriage?

- a. Self      b. Husband      c. Self + husband      d. Others

#### **F. Social and health awareness**

1. What is the major source of your drinking water?

- a. Tube well      b. Open well      c. Both

2. What is the major source of your cooking water?

- a. Tube well      b. Open well      c. Covered Well  
 d. Pond      e. River/canal

3. Do you boil your drinking water?

- a. Yes      b. No

4. If the answer is yes, where did you first learn about the importance of boiling drinking water?

- a. Radio/TV      b. Government officials      c. Grameen Bank  
 d. NGOs      e. Others      d. Not applicable

**5. Where do you throw your garbage?**

- a. Throw it anywhere      b. Fill up ditch
- c. Use as Fertilizer      d. Cover with soil

**6. What kind of toilet do you use?**

- a. No toilet      b. No sanitary toilet
- c. Sanitary toilet      d. Covered toilet

**7. Where did you learn about the importance of the use of sanitary toilets?**

- a. Radio/TV      b. Government officials      c. Grameen Bank
- d. NGOs      e. Family      d. Neighbors
- e. More than one of the above sources      f. Not aware of it

**8. Are your children immunized?**

- a. Yes      b. No      c. Other

**9. If the answer is yes, then did you get your children immunized after joining the Grameen Bank?**

- a. Yes      b. No      c. Do not know      d. Other

**10. When you or your family gets ill, where do you go for treatment?**

- a. Doctor      b. Doctor + other sources

**11. Are you a member of the Union Committee?**

- a. Yes      b. No

**12. Are you a member of an arbitration committee?**

- a. Yes      b. No

**13. Do you seek assistance of a political/administrative/village leader to help resolve a problem?**

- a. Yes      b. No

**14. Did you ever go to a political leader for assistance?**

- a. Yes      b. No

**15. Have you received any of your family inheritance?**

- a. Yes      b. No

**16. If yes, then with whose advice did you receive it?**

- a. Self            b. Husband
- c. Self + husband   d. Others

If no, then why? .....

**17. Do you think women have the right to get their parent's property?**

- a. Yes    b. No

If yes/no, then what is the reason? .....

**18. Are you concerned about your daughter's physical security?**

- a. Yes            b. No            c. Somewhat

If yes/no, then what is the reason? .....

**19. If your daughter's physical security is lost, then what will you do?.....**

## **APPENDIX B**

## **APPENDIX B**

### **CODING FOR RESEARCH QUESTIONNAIRE ON GRAMEEN BANK**

#### **A. Demographics**

**1. Branch:**

1 = Mohadevpur - Shibaloy

2 = Elashin - Deldowar

**2. ID = Respondents's Identification number**

**3. Group of respondents:**

1 = 10-year loanee

2 = 5-year loanee

3 = Grameen Bank Applicant

4 = Control Group

**4. Center:**

Numeric #

**5. Marital = Marital status**

1 = married

2 = divorced

3 = widow

4 = single

5 = abandoned by husband

**6. Child S = Number of son/s (numeric)**

**7. Child D = Number of daughters (numeric)**

**8. FHead ( who is the head of the family?):**

2 = wife

3 = husband

4 = other males

**9. Signa = whether respondent can sign**

1 = yes

2 = no



## 10. Education:

1 = *Madrasha* only2 = school (school and *madrasha* + school)

0 = none

11. *Madrasha* = years of education in *madrasha*

12. School = years of education in school

## 13. OccupS:

1 = agriculture

2 = home-maker

3 = labor

4 = business

5 = cottage industry

6 = service

7 = other

8 = begging

## 14. OccupF:

As above

## 15. Occup2:

As above

## 16. Member:

1 = yes

2 = no

**B. Income Generation**

## 17. Land (do you own/rent any land?):

1 = yes

2 = no

18. LandH = homestead area in hectares

19. LandA1 = owned agricultural land in hectares (owned but may be rented out)

20. LandTot = Total land in hectares

21. IncomeA = annual income in agriculture (in \$)

- 22. **IncomeB** = annual income in business
- 23. **IncomeC** = annual income in cottage industry
- 24. **IncomeS** = monthly income in service
- 25. **IncomeDL** = daily income in labor
- 26. **IncomeLS** = monthly income in livestock
- 27. **IncomeP** = monthly income in poultry
- 28. **IncomeV** = monthly income vegetables
- 29. **IncomeM** = income through misc. sources
- 30. **IncomeTot** = annual total income
- 31. **Expense** = annual expenses
- 32. **Savings** = annual savings
- 33. **Enterpri** (do you own any business?):
  - 1 = yes
  - 2 = no
- 34. **Entertyp** (Type of enterprise, e.g. poultry, fisheries, etc.):
  - 1 = poultry
  - 2 = fish farming
  - 3 = small business
  - 4 = store
  - 5 = hotel
  - 6 = other
- 35. **Enteryr** = (how long have you owned this enterprise?)
- 36. **SCapital** (source of capital?):
  - 0 = not applicable
  - 1 = Grameen Bank
  - 2 = own savings
  - 3 = friends & relatives
  - 4 = money lender

- 5 = property
- 6 = more than one of the above
- 7 = other

37. Totalcap = total fixed capital (in \$)
38. Livestock (do you have livestock/poultry?)  
1 = yes  
2 = no
39. ChickenN = number of chicken?
40. ChickenP = price of chicken?
41. DuckN = no. of ducks?
42. DuckP = price of ducks?
43. CattleN = no. of cattle?
44. CattleP = price of cattle?
45. GoatN = no. of goats?
46. GoatP = price of goats?
47. Total LSP = total price/value of livestock (chickenP + duckP + cattleP + goatP)
48. Garden (do you grow vegetables & fruits in your homestead?):  
1 = yes  
2 = no
49. GBhelp (has GB helped in livestock/poultry/gardening?):  
1 = fully  
2 = partly  
3 = not at all  
4 = no loan
50. Futplan (any future plans for increasing number of livestock?):  
1 = yes  
2 = no  
3 = no livestock

51. NoGBCR (do you plan not to take GB loans in the future?):

- 1 = yes
- 2 = no
- 3 = not GB member

52. NoGBwhy (if yes why?):

- 1 = self reliance
- 2 = husband uses up money/no benefit to the household
- 3 = after paying off loan

53. GBYR (if yes, then after how many years do you plan to stop taking GB loans?):

.....

54. LeftGB (how many members have left GB in your center?):

.....

55. Reason (Why did they leave?)

- 1 = illness
- 2 = non repayment of credit
- 3 = self-reliance
- 4 = moved
- 5 = death
- 6 = husband disagreed
- 7 = other
- 8 = got married
- 9 = could not utilize the money

56. Borrow (do you take loans from others?):

- 1 = yes
- 2 = no

57. Borrowwho (if yes, from where?):

- 1 = money lender
- 2 = relatives
- 3 = neighbors
- 4 = friends
- 5 = more than one of the above sources
- 6 = NGOs

58. BorrowN (if yes, do you still owe money?):

1 = yes

2 = no

59. BorrowML (Is it convenient for you to take loans from money lenders?):

1 = yes

2 = no

3 = partially

60. Borrowhow (how much have you borrow?): .....

61. NGOS (Have you received any assistance from any NGOs?):

1 = yes

2 = no

### C. Household Decision-making

62. Dgrocery (who decides what be bought for daily groceries?):

1 = self

2 = husband

3 = self + husband

4 = other

63. Clothing (who makes decisions on the purchase of family clothing?):

1 = self

2 = husband

3 = self + husband

4 = other

64. Disagree (if there is disagreement, who makes decisions?):

1 = self

2 = husband

3 = self + husband

4 = other

65. CGbank (who does banking transactions?):

1 = yes

2 = no

66. OutsideH (do you go out of the homestead?):

- 1 = yes
- 2 = no

67. Ifyes (if yes, then where do you go?):

- 1 = work
- 2 = visit relatives
- 3 = bank
- 4 = shopping
- 5 = help graze cattle
- 6 = harvest crop
- 7 = other

68. Work1 (frequency of visit to work?):

- 1 = never
- 2 = less than once a month (1-11 times a year)
- 3 = less than once a week (12-51 times a year)
- 4 = greater than/equal to once a week but not daily
- 5 = daily

69. Relativ2 (frequency of visits to relatives?):

- 1 = never
- 2 = less than once a month (1-11 times a year)
- 3 = less than once a week (12-51 times a year)
- 4 = greater than/equal to once a week but not daily
- 5 = daily

70. Bank3 (frequency of visits to bank?):

- 1 = never
- 2 = less than once a month (1-11 times a year)
- 3 = less than once a week (12-51 times a year)
- 4 = greater than/equal to once a week but not daily
- 5 = daily

71. Shop4 (frequency of visits to grocers?):

- 1 = never
- 2 = less than once a month (1-11 times a year)
- 3 = less than once a week (12-51 times a year)
- 4 = greater than/equal to once a week but not daily
- 5 = daily

**71. Graze5 (frequency of grazing animals in the fields?):**

- 1 = never
- 2 = less than once a month (1-11 times a year)
- 3 = less than once a week (12-51 times a year)
- 4 = greater than/equal to once a week but not daily
- 5 = daily

**72. Crop6 (frequency of visits to the fields?):**

- 1 = never
- 2 = less than once a month (1-11 times a year)
- 3 = less than once a week (12-51 times a year)
- 4 = greater than/equal to once a week but not daily
- 5 = daily

**73. Others (frequency of visits to other places?):**

- 1 = never
- 2 = less than once a month (1-11 times a year)
- 3 = less than once a week (12-51 times a year)
- 4 = greater than/equal to once a week but not daily
- 5 = daily

**74. ParentV (who decides on your visits to your parents?):**

- 1 = self
- 2 = husband
- 3 = self + husband
- 4 = other

**75. Saving (who decides on household savings?):**

- 1 = self
- 2 = husband
- 3 = self + husband
- 4 = other

**76. EarningM (how many members earn in your family?):**

- 1 = one
- 2 = two
- 3 = three
- 4 = four

**77. Buying (who decides to purchase/sell valuable objects in the HH?):**

- 1 = self
- 2 = husband

- 3 = self + husband
- 4 = other

78. Spend (who decided on the spending in the HH?):

- 1 = self
- 2 = husband
- 3 = self + husband
- 4 = other

79. Need (are you able to satisfy your essential needs?):

- 1 = yes
- 2 = no
- 3 = partially

80. Desire (are you able to satisfy your non-essential wants?):

- 1 = yes
- 2 = no
- 3 = partially

#### **D. Family Planning Decision-making**

81. FPinfo (where did you hear about contraception first?):

- 1 = radio/TV
- 2 = family planning workers
- 3 = GB
- 4 = others
- 5 = not aware of it

82. UseFP (have you used any contraceptive measures?):

- 1 = yes
- 2 = no

83. GBFAMPLN (did you begin to use contraceptives since joining the GB?):

- 1 = yes
- 2 = no

84. WhoFP (if yes, who uses the contraceptives?):

- 1 = self
- 2 = husband
- 3 = self + husband



**85. Decide (who decided that contraceptives should be used?)**

- 1 = self
- 2 = husband
- 3 = self + husband
- 4 = other

**86. Contra (if yes, which method do you use?)**

- |               |                    |
|---------------|--------------------|
| 1 = pills     | 6 = vasectomy      |
| 2 = coil      | 7 = not applicable |
| 3 = injection | 8 = other          |
| 4 = ligation  | 9 = pill + condom  |
| 5 = condom    |                    |

**87. Illness (when you get sick, who do you tell?):**

- 1 = immediate family
- 2 = neighbors
- 3 = other
- 4 = nobody

**88. Pregnant (while pregnant, who do/did you consult?):**

- 1 = doctor
- 2 = relative
- 3 = midwife
- 4 = more than one source
- 5 = nobody
- 6 = never been pregnant

**E. Food Habits****89. Cooking (how many times do you cook each day?):**

- 1 = once
- 2 = twice
- 3 = thrice

**90. FoodInt (how many times do you eat each day?):**

- 1 = once
- 2 = twice
- 3 = thrice

91. Menu (which of the following types of food do you cook daily?)

- 1 = vegetables
- 2 = fish
- 3 = meat
- 4 = vegetables + meat

92. GBmeat (how often did you eat meat before joining GB?):

- 1 = once a week
- 2 = once a month
- 3 = once in two months
- 4 = 1-5 times a year
- 5 = not applicable

93. MeatGB (how often do you eat meat after joining GB?):

- 1 = once a week
- 2 = once a month
- 3 = once in two months
- 4 = 1-5 times a year
- 5 = not applicable

94. Quality (has the standard of food consumption improved since joining GB?):

- 1 = yes
- 2 = no/the same
- 3 = deteriorated

95. Enough (after everybody eats in the family, is there enough food left for you?):

- 1 = enough
- 2 = not enough

#### **F. Level of Education**

96. Count (can you do accounts on your own?):

- 1 = yes
- 2 = no

97. Trans (who does the accounts in your household?):

- 1 = self
- 2 = husband/other male
- 3 = self + husband

98. Why1 (if answer is b for the above questions, what is the reason?): *[String Variable]*

99. Account (how do you keep accounts of your HH?):

- 1 = written
- 2 = verbal
- 3 = other
- 4 = do not keep accounts

100. Health (are you aware of the importance of basic health practices such as?):

- 1 = sanitation
- 2 = drinking pure water
- 3 = medical health
- 4 = all of the above
- 5 = two out of the above three

101. Follow (do you follow all of the above practices?):

- 1 = sanitation
- 2 = drinking pure water
- 3 = medical health
- 4 = all of the above
- 5 = all no

102. Why2 (if answer is no, what is the reason?): *[String Variable]*

103. Childed (are you interested in sending your children to school?):

- 1 = yes
- 2 = no
- 3 = not applicable

104. Son (how far has/have your son/s studied?)

- 0 = not going/never went to school
- 1 = grades I-V
- 2 = grades VI-X
- 3 = grades XI, XII
- 4 = bachelor
- 5 = master/grad
- 6 = other

105. Daughter (how far has/have your daughter/s studied?):

- 0 = not going/never went to school
- 1 = grades I-V
- 2 = grades VI-X

- 3 = grades XI, XII
- 4 = bachelor
- 5 = master/grad
- 6 = other

106. Sonmore (if son/s have studied more than daughter/s, then why?): *[String Variable]*
107. Daughtm (if daughter/s have studied more than son/s, then why?): *[String Variable]*
108. Childmar (are any of your children married?):  
 1 = yes  
 2 = no
109. Why3 (if yes, at what age did your son/s get married?)  
 1 = below 10    2 = 10-15  
 3 = 16-20      4 = <21
110. Why4 (if yes, at what age did your daughter/s get married?)  
 1 = below 10  
 2 = 10-15  
 3 = 16-20  
 4 = <21
111. Why5 (if your son/s are not yet married, at what age would you like them to be married?):  
 .....
112. Why6 (if your daughter/s are not yet married, at what age would you like them to be married?):  
 .....
113. Dowry (do you expect any dowry at your son's wedding?):  
 1 = yes  
 2 = no  
 3 = other
114. Dowryyes (if yes, then why?): *[String Variable]*
115. Dowryno (if no, then why?): *[String Variable]*

116. Daughtdc (who makes decisions on your daughter's marriage?):

- 1 = self                      2 = husband  
3 = self + husband      4 = others

117. Tutor (do you hire tutors at home for your children education?):

- 1 = yes  
2 = no  
3 = other

### **G. Health & Social Awareness**

118. Drink (what is the major source of your drinking water?):

- 1 = tube well  
2 = open well  
3 = both

119. Cook (what is the major source of your cooking water?):

- 1 = tube well                      2 = open well  
3 = covered well              4 = pond  
5 = river/canal

120. BoilH2O (do you boil your drinking water?):

- 1 = yes  
2 = no

121. BoilH2OW (if yes, where did you first learn about the importance of the boiling water?):

- 1 = radio/TV  
2 = govt. officials  
3 = GB  
4 = NGOs  
5 = others  
6 = not applicable

122. Garbage (where do you throw your garbage?):

- 1 = throw it anywhere  
2 = fill up ditch  
3 = use as fertilizer  
4 = cover with soil

123. Toilet1 (what kind of toilet do you use?):

- 1 = no toilet
- 2 = no sanitary toilet
- 3 = sanitary toilet
- 4 = covered toilet

124. Toilet2 (where did you learn about the importance of the use of sanitary toilet?):

- 1 = radio/TV
- 2 = govt. officials
- 3 = Grameen Bank
- 4 = NGOs
- 5 = family
- 6 = neighbors
- 7 = more than one of the above sources
- 8 = not aware of it

125. Immunel (are your children immunized?):

- 1 = yes
- 2 = no
- 3 = other

126. Immune2 (if yes, then did you get your children immunized after joining GB?):

- 1 = yes
- 2 = no
- 3 = do not know
- 4 = other

127. Treatment (when you/your family get/s ill, where do you go for treatment?):

- 1 = doctor
- 2 = doctor + other sources

128. Member2 (are you a member of the Union Committee?):

- 1 = yes
- 2 = no

129. Shalish (are you a member of an arbitrary committee?):

- 1 = yes
- 2 = no

130. Resolve (do you seek assistance of a political/administrative/village leaders' help to resolve a problem?):

- 1 = yes
- 2 = no

131. Politicl (did you ever go to a political leader for assistance?):

1 = yes

2 = no

132. Inherit (have you received any of your family inheritance?):

1 = yes            2 = no

133. AdviceY (if yes, then with whose advice did you receive it?):

1 = self

2 = husband

3 = self + husband

4 = others

134. AdviceN (if no why?): *[String Variable]*

135. Right1 (do you think women have the right to get their parent's property?):

1 =yes

2 = no

136. Right2 (if yes/no, why?): *[String Variable]*

137. Secure1 (are you concerned about your daughter's physical security?):

1 = yes

2 = no

3 = somewhat

138. Secure2 (if yes/no, then what is the reason?): *[String Variable]*

139. Secure3 (if your daughter's physical security is lost, then what will you do?):

*[String Variable]*

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