

**EFFECT OF MICROCREDIT ON LIVELIHOOD IMPROVEMENT  
OF WOMEN BENEFICIARIES INVOLVED IN ASSOCIATION  
FOR SOCIAL ADVANCEMENT**

A Dissertation

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Submitted to the  
Hajee Mohammad Danesh Science and Technology University, Dinajpur  
In partial fulfillment of the requirements for the degree of



**DOCTOR OF PHILOSHOPHY**

By

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**Roll No. 02/2005**  
**Student No. 0505023/2005-2006**

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Dinajpur

September 2011

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September 2011

*DEDICATED TO*  
*MY*  
*BELOVED FATHER AND*  
*DEPARTED SOUL OF MY MOTHER*

## **DECLARATION**

I do hereby declare that the present study was undertaken with my own initiative under the guidance and supervision of the Supervisory Committee. The findings embodied in this dissertation are original results of my own initiatives. The help and sources of information being cited in the dissertation have been duly acknowledged. I myself have composed and prepared this dissertation and no part of this has been submitted for any other degree or diploma anywhere.

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## BIOGRAPHICAL SKETCH

The author was born on 04 December, 1963 in Dhaka district. He comes from a respectable muslim family of Nawabganj upazila under Dinajpur district. He is the first son of late Akhter Banu and Mr. A.N.M. Shamsul Huda retired Director (Training), DAE, Khamarbari, Dhaka. He passed Secondary School Certificate (SSC) Examination in science group from Mohammadpur Govt. High School, Dhaka in 1980. He also passed Higher Secondary Certificate (HSC) Examination in science group from Notre Dame College, Dhaka in 1982. The author obtained B.Sc.Ag. (Hons.) and M.Sc. (Ag. Ext. Ed.) degrees from Bangladesh Agricultural University, Mymensingh in 1986 (held in 1989) and 1989 (held in 1995) respectively.

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He is a life member of Bangladesh Agricultural Extension Society (BAES). He has published 10 scientific articles in various journals of home and abroad.

The author is married with Fahmida Khanum and blessed with a son, Rafayet Huda and a daughter, Subah Musarrat.

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## ABSTRACT

### **Effect of Microcredit on Livelihood Improvement of Women Beneficiaries Involved in Association for Social Advancement**

The purposes of this study were to determine the effect of microcredit programme of Association for Social Advancement (ASA) in livelihood improvement (LI) of women, describe the selected individual characteristics of the women and to explore its relationships and contributions with their individual characteristics. Data were collected by using pre-tested interview schedule from a sample of 290 women selected by multistage random sampling procedure from four branches of ASA in Sadar Upazila of Dinajpur district during August 2010 to January 2011. The livelihood improvement was determined initially on four aspects viz. i) food security, ii) health and sanitation, iii) family assets and shelter and iv) social empowerment. After that selection, in each of the four aspects twelve specific activities were identified and selected. Finally a Livelihood Improvement Index (LII) was computed. Among the 48 activities of 4 aspects of livelihood improvement included in the study 'availability of oral dehydration saline (ORS) (if necessary)' was the highest and it was followed by 'having cash money to buy rice or wheat'; however, 'toilets in open place' was the lowest. Nearly two-third (65.9 percent) of the respondents had low, 24.8 percent medium and 9.3 percent had high livelihood improvement. Among twelve individual characteristics of the women, education, annual family income, credit received, savings, attitude towards ASA, aspiration, self-confidence and family expenditure had significant positive relationships with their livelihood improvement. However, age and fatalism of the respondents had significant negative relationship with the livelihood improvement of the women. Regression analysis indicated that variations in the livelihood improvement were mainly due to the contributions of five predictors viz. self-confidence, annual family income, fatalism, aspiration and education and these variables contributed more than 37 percent of the total variation on livelihood improvement. Among these five, self-confidence contributed 9.00 percent variation in the livelihood improvement of the women followed by 8.63 percent variation by annual family income, 8.30 percent by fatalism, 7.37 percent by aspiration and 3.90 percent by education. Main problem of the women beneficiaries in utilizing microcredit was the 'insufficient loan for proper utilization'. In respect of measures to overcome the problems, 'distribution of desirable amount of credit by ASA and other organizations' topped the rank.



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## ABBREVIATIONS USED

Ag.Ext.Ed.	Agricultural Extension Education
ASA	Association for Social Advancement
BAES	Bangladesh Agricultural Extension Society
BAU	Bangladesh Agricultural University
BBS	Bangladesh Bureau of Statistics
BIDS	Bangladesh Institute of Development Studies
BRAC	Bangladesh Rural Advancement Committee
BRDB	Bangladesh Rural Development Board
CBFM	Community Based Fisheries Management
CLP	Chars Livelihoods Programme
DAE	Department of Agricultural Extension
DFID	Department for International Development
<i>et al.</i>	All others
GB	Grameen Bank
GO	Government Organization
IBBL	Islami Bank Bangladesh Limited
IGA	Income Generating Activities
kcal	Kilo Calorie
LIS	Livelihood Improvement Score
LII	Livelihood Improvement Index
MFI	Micro Finance Institution
NGO	Non Government Organization
PDBF	Palli Daridro Bimochon Foundation
PETRRRA	Poverty Elimination Through Rice Research Assistance
PKSF	Palli Karma Sahayak Foundation
PROSHIKA	An NGO Concerned with Human Resources Development
RD-12	Rural Development Project-2
RDRS	Rangpur Dinajpur Rural Service
RDS	Rural Development Scheme
SAIP	Smallholder Agricultural Improvement Project
SFDP	Small Farmers Development Project
UNDP	United Nations Development Programme
<i>viz.</i>	Videlicet (namely)

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background Information

Bangladesh is a developing and predominantly a rural and agrarian country having a population of 142.3 million where about 50 percent (71.0 million) of them are women (Bangladesh Population Census, 2011) and are excluded by social custom from working outside the home. Empirical evidences show that the women have little access to employment and income earning opportunities, leadership and decision-making. The women are generally, not organized, hardly possess any power and are the victims of various kinds of exploitation, deprivation and injustice. Lower rate of literacy may be one of reason behind that. Total literacy rate of population in Bangladesh is 43.1 percent, while in case of female it is 31.8 percent (BBS, 2009). Most of rural people in the country are living below the poverty line and so rural development is the most essential component of the development strategy in Bangladesh. With the help of the different government and non-governmental voluntary agencies the socio-economic conditions of the rural people have increased significantly. The poor and the landless in Bangladesh, elsewhere, do not have access to formal financial system for credit (UNDP, 1995). Providing the poor with access to financial services is one of the many ways to help them to increase their income and productivity. In many countries like Bangladesh, traditional financial institutions have failed to provide this service (World Bank, 1975 and 1993). Due to three main reasons, the commercial banks fail to provide credit to the poor. The reasons are: i) the banks require collateral, which the poor find difficult to provide, ii) for obtaining loan, the procedure for filling the application form and completing other formalities become cumbersome for the illiterate poor, and iii) they prefer large loans rather than the petty loans that the poor need (Hossain,1988).

Bangladesh is a pioneer in the micro-credit concept for poverty reduction, which brought a Nobel Prize in Peace for the country in 2006. The founder of the world reputed Grameen Bank (GB), Professor Dr. Muhammad Yunus is the Nobel laureate of Bangladesh. Professor Yunus truly introduced a system of credit delivery to the poor without collateral, popularly known as microcredit. Moreover, the system that provides small credit without collateral in group based approach to the poor for creating self-employment with a view to elevating poverty is called microcredit. On the contrary, the institution that provide collateral free microcredit to the target based landless and asset less people and collect micro saving from them are termed as Micro Finance Institution (MFI). At present, microcredit has reached an unprecedented scale and is expanding fast in the country. The chronology of collateral free loan i.e. microcredit in Bangladesh is presented in Table 1.1.

Table 1.1 Chronology of collateral free loan i.e. microcredit in Bangladesh

Year	Individual/Organization	Description
1905	Poet Rabindranath Tagore	Founded Kaligram Krisi Bank in Patishar for group based small loans to rural farmers free of collateral.
1974	BRAC	Started programme of microcredit programme in Sullah, Sunamganj.
1976	Grameen Bank (GB) Project	Experimental group-based collated free loans to poor women in rural areas.
1983	Grameen Bank (GB)	Started operation as a development bank for providing collateral free microcredit to poor people.
1983-	NGOs/MFIs	NGOs opened up microfinance section and started operation of collateral free microcredit.

Source: Mondal, 2002

Between 1905 and 1974, there was no other financial institution sponsored by any individual or non-governmental organizations (NGOs) providing non-collateralized loans to poor borrowers. In 1972, an NGO was established in the name of

'Bangladesh Rural Advancement Committee', popularly known as BRAC. The focus of BRAC was rural development including building of physical infrastructure and empowerment of women. In 1974 BRAC started a programme of providing collateral free loans to the poor people of Sullah located in the district of Sunamganj. BRAC's lending programme in Sullah was the first model of "microcredit" offered to poor borrowers by any NGO. Thereafter, the Grameen Bank (GB) project went into operation in 1976 under government sponsorship. Grameen Bank (GB) started its full-fledged operation in 1983 as a government bank with the government retaining 60 percent ownership.

Microcredit creates a virtuous cycle to break the vicious cycle of poverty. The typical microcredit programme has the following key features (Alamgir, 1993):

- a) It is collateral free so that the poor and landless may easily avail it.
- b) To get loan, the poor member are mobilized in to groups, ranging from 5 to 30 members by a particularly microfinance institution (MFI).
- c) The members meet once every week and make small savings deposit with the concerned MFI.
- d) Loans are usually given for one year and recovered in weekly installments.
- e) The field staff of MFI supervises the utilization of loan.
- f) The loans are usually provided for common petty traders; micro-business and other activities in rural areas so that the members can pay weekly installments.
- g) The majority of the borrowers are women.
- h) MFI usually sets branches in remote areas that help the poor members in receiving loan. The procedure for receiving loan has been greatly simplified, making the programme very attractive to the poor.
- i) The MFI starts with small loan (TK. 5 thousand) and providing repeated loans of increasing amount if repayment of earlier loan is satisfactory. This system allows continued flow of credit fund since the poor had regular access to credit to maintain and to expand their economic activities and this ensures good repayment.

The infusion of microcredit creates self-employment for the borrowers, increases income leading to increased consumption/savings, additional credit increases further income and so on, and the borrower is expected to increase their overall livelihood improvement. The poor, especially women, have been benefited from such micro-credit programmes demonstrated by their increased income and assets. Several studies showed that micro-credit recipient households enjoy better standard of living, improved housing, higher human development status and greater assets and have shifted away from money lenders. In most cases, there is significant improvement in social indicators (i.e. livelihood improvement) such as children's school enrollment, fertility rates and use of clean drinking water (Hossain, 1988; BIDS, 1990; Alamgir, 1998). In some cases dropout from microcredit programmes become a concern for the total success of poverty alleviation. Young, poorest and those who lack family labour found dropped out more as their individuals and family conditions adversely affected programme participation (Karim, 2005 and Karim, 2006). Grameen Banks group-based lending approach is the guiding principle for more than thousand non-governmental organizations (NGOs) operating small-scale microcredit programmes in Bangladesh. Among the NGOs, ASA, BRAC, RDRS, PROSHIKA are dominating in this sector. The MFIs and NGOs in Bangladesh have been basically following two strategies: (a) micro-credit programme as their only programme (GB and ASA) and b) microcredit and other non-lending services, such as social awareness, skill training, health, education, agricultural development etc. as their objectives (eg. BRAC, PROSHIKA, RDRS etc.).

## **1.2 Importance of the Study**

The poor people of Bangladesh have very limited options to improve their socio-economic conditions. Many poor women in Bangladesh are found to seek employment outside the home but their husbands and fathers are likely to trivialize their contribution through economic activity. Female deprivation results from what Herz (1991) call "Vicious Circle of Deprivation" shown in Figure 1.1.

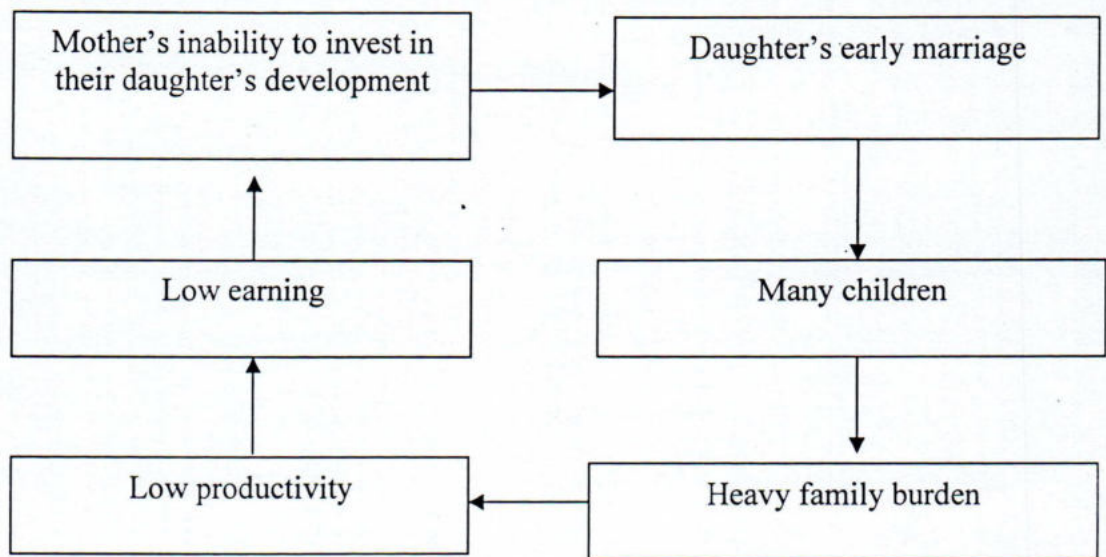


Figure 1.1 Vicious circle of women deprivation

Bangladeshi girls are expected merely to play traditional role: marry out early, become mother of many children, having low productivity and low earning. Mothers fail to invest their daughter's development and they do not expect their daughters to make economic contribution to the family and thus parents marry out their daughter early. By ensuring financial services to the poorest, microcredit is widening the concept of employment and engaged in economic activity where he/she deems to be yielding highest return given in his/her situation. Such initiatives have the highest possibility of success. Microcredit programmes are particularly important for rural women who have proved to be excellent credit users, with default rates only 03 percent and also benefited from microcredit programme. Microcredit should enhance women empowerment within household, influencing their own and their children's consumption and other measures of welfare (such as schooling) (Khandker, 1998). Bangladesh is the first country to introduce microcredit successfully, especially for the poor. The NGOs are one of the most important vehicles available to low income people, entrepreneurs and producers. The NGOs and some GOs like BRDB are working in Bangladesh to improve the socio-economic conditions of the poorest section of the population. These poor people do not have sufficient employment opportunities and income

generating activities (IGA) to maintain their livelihoods. Such organizations are providing an alternative microcredit model for poverty alleviation that would successfully reduce the problems of low income, low saving, low consumption and other aspects of poverty and as well as improves the livelihoods status through their institutional design, credit policy and programmes.

A poor woman care little about the socio-economic development and overall poverty alleviation, rather she is much careful about her own livelihoods. Very often she considers that if she can get a small amount of money (microcredit) in easy terms and conditions without collateral, she would develop herself in utilizing the money in any income generating activities. Moreover, the effect of microcredit in livelihood improvement assessment is necessary not only to meet the success of the programme in raising the socio- economic and livelihood improvement of the beneficiaries, but also to identify the shortcoming of the programme and assess its sustainability. The study would also help the concerned researchers and policy makers to conduct as well as formulate future policy framework in this connection.

ASA, a microfinance institution, has been implementing its poverty reducing activities since 1978 to materialize the dream of poverty free Bangladesh. ASA focused on integrated development, such as, development of education, mini irrigation, primary health, women's empowerment, etc. in 1984 but realized that microcredit programme was the most essential and effective one to reduce poverty. In 1991, considering all these, ASA took the bold initiative to continue only the microcredit programme to bring a quick and positive change in the lives of the poor. Thus ASA attained specialization in microcredit from early 1990s. ASA succeeded in achieving the self-sustainable status by 2001, which is unique in Bangladesh. Since becoming self-reliant ASA has been running as an independent institution free from any kind of foreign donation or grant. The overall development and strategies of ASA have been discussed below (ASA, 2009).

### **1.2.1 Evolution and transformation of ASA**

ASA started working as a development non-governmental organization (NGO) in Bangladesh in 1978 with a radical action agenda. The programme's focus was on consciousness-raising and group organization for the poor. ASA later redesigned its strategies in accordance with its philosophy of poverty alleviation and empowerment of the poor. This brief account of the changes in its approach and programmes will give a clear picture of how the organization reached its current mission. Three distinctive phases can be identified in the transformation of ASA: 1) foundation phase (1978-1984); 2) reformative phase (1985-1991); and 3) programme specialization phase: savings and credit for income generation (1992 to date).

#### **1.2.1.1 Foundation phase (1978-1984)**

During this phase, the main activity of ASA was to organize the landless and the poor to establish their rights. The programmes at this phase were: awareness-raising for social action, legal aid, training for the landless and training for journalists in the rural areas. All of these programmes were designed to make the poor conscious of their rights and enable them to take steps to stop social exploitation. Some examples of the actions taken by the groups mobilized by ASA include: initiatives to gain access to khas land (government owned land); ensuring fair wages; and protecting the legal rights of the poor. During this period, ASA only organized men in the rural areas.

#### **1.2.1.2 Reformative phase (1985-1991)**

In 1985, ASA assessed the impact and limitations of its initial programmes. The conclusion was that the impact of the programmes was generally positive but could not be sustained. Another realization was that development could not be sustained without the economic emancipation of the poor. ASA introduced an integrated development programme comprising: development education for empowerment, credit for income generation - first introduced on an experimental basis in 1987, mini-irrigation programmes for the landless and marginal farmers, a programme for



women's development, a health programme (primary health care, nutritional improvement, training of traditional birth attendants), human development training, and a rehabilitation programme. Along with individual credit, ASA emphasized loans for collective enterprise that were taken by all members of a group. Unfortunately, the group projects failed miserably.

### **1.2.1.3 Programme specialization phase (current phase of ASA)**

During the 1980s, the credit programme became very popular and development practitioners became convinced that providing financial resources in the form of credit was an effective way to create self-employment, providing for income generation and poverty alleviation for the poor. Most NGOs introduced credit programmes for accelerated development, but ASA lagged behind. Thousands of group members were asking for loans which ASA was unable to provide for several years. Members started to leave ASA and join other lending organizations. The members' demand for loans prompted ASA to review its approach. Since 1992, ASA has concentrated on a credit programme to provide loans to members at a reasonable interest rate allowing clients to improve their standard of living. ASA also changed its strategy by becoming an organization for women instead of men. By the end of 1996, 98.6% of its members were women. Year wise specialization phase are noted below:

#### **► 1992**

ASA set off small loan, power pump loan and housing loan for the clients as the first initiative of being specialized in microfinance. These credit programmes were initiated under the strong demand of the clients.

#### **► 1993**

Small savings was introduced for the clients to offer them opportunity to save in a very small scale so that they could use this money in their hardship days. ASA started providing Technical Assistance (TA) internationally so that other interested organizations of different countries can replicate the ASA Cost-effective and Sustainable Microfinance Model to assist the poor worldwide.

► **1994**

Taking premium for loan insurance was introduced to shield the inheritors from sudden risk that is paying the outstanding if a client dies.

► **1995**

Flood is a common natural calamity in Bangladesh that damages lives and livelihoods at a large scale almost every year. Considering this frequent flood, interest free rehabilitation loan was launched to assist the victims to fight this curse.

► **1996**

Loan against savings was allowed.

► **1997**

Small business loan and voluntary savings were introduced for the clients.

► **2001**

ASA declared itself as a completely donation free organization.

► **2003**

Small Entrepreneur Lending (SEL) was introduced for the small entrepreneurs. Hardcore poor loan was introduced for the poor who were not eligible for small loan. Mini Life Insurance (Female) was introduced to cover up the poor with insurance.

► **2004**

Education loan was introduced for the member's kids who are studying in different educational institutions at various levels. Business development loan was for only the clients who faced unexpected situations/damage (flood, fire, theft, etc.) in their business and livelihoods. Mini Life Insurance (Male) was introduced to cover husband/guardians of the clients.

► **2005**

Small Loan (Male) was introduced to help the male members of clients to run different projects. Monga (scarcity) loan was also introduced for the monga

affected areas. Short term loan was given to meet clients' urgent need for the time being. Long term savings (LTS) was introduced to meet clients' need of depositing money for longer period.

▶ **2006**

Information technology loan was introduced to help the clients to have access to the modern technology.

▶ **2007**

Agri-business loan was introduced to promote all kinds of agro-related business and assist the small cultivators for cropping.

▶ **2008**

ASA introduced remittance services.

▶ **2009**

Introduced CNG auto rickshaw and power tiller loan.

### **1.2.2 Vision of ASA**

The vision of ASA is to establish a poverty free society.

### **1.2.3 Broad objectives of ASA**

The overall objectives of ASA are to provide financial services which help to alleviate poverty and improve the quality of life of the landless and asset less rural poor.

### **1.2.4 Development strategy of ASA**

The development strategy of ASA is to provide credit to all members, especially women and the disadvantaged, and resource mobilization through voluntary savings, to fight poverty.

### **1.2.5 Present programs of ASA under implementation**

ASA has specialized its program in microfinance and gradually phased out all of its other programs. This process of exclusion began in early 1991. Since then, the

institution has focused on strengthening and empowering the country's poor women. The ASA turned towards financing the small income-generating activities (IGAs), in which poor women may be involved in addition to their household work. The following programs are under implementation:

#### **1.2.5.1 Micro-credit program**

ASA provides small loans to the landless poor group members with a 15% service charge. The amounts are invested in the IGAs, which are profitable. ASA's micro-credit program aims to ensure financial sustainability of the members as well as the organization.

#### **1.2.5.2 Micro-savings program**

Small accumulated savings help further lending and provide benefits for increased number of the poor. The savings prevent dependence on outside financial assistance. Both mandatory and voluntary savings programs are being implemented at ASA.

#### **1.2.5.3 Small business program**

ASA implements this program for the small traders who lack necessary capital to run their businesses smoothly. The traders' livelihoods are fully dependent on these small trades.

#### **1.2.5.4 ASA-NGO partnership program**

The main objective of this program is to assist in giving loans to the local small NGOs who are involved in microfinance activities in the remote areas of Bangladesh.

#### **1.2.6 Credit programmeme of ASA**

ASA offers various types of credits, savings, insurance and loan security products to its members in the rural as well as urban areas. About 4.78 million households are enjoying ASA's cost effective flexible financial services for decades. Borrowers of ASA invest the loan money in different Income Generating Activities (IGAs) run by themselves. They repay the loan installments from a portion of profit. A small

part of the profit is also used to buy necessary things for the family. After the payment of the installments they get opportunity to use the profit for themselves. A large number of them are becoming self-reliant gradually through the income generation activities (IGAs). Employment opportunities are also created for the extreme poor through these projects:

#### **1.2.6.1 Credit programme**

A group consists of 15-30 members generally, with an average number of 20 in each group. ASA provides collateral free loans to its members. There is no group liability in ASA's credit programmes that is the respective individual; not the group, is responsible for delinquency. Members have to wait for only 7 days after their registration to get the first loan. Commonly, weekly or monthly installment process is followed for repayment and the first installment is given in the 2nd week of the loan. The service charge is calculated flat on the principal of the loan. Now a days ASA termed 'micro-credit' as 'small loan'.

#### **1.2.6.2 Small loan (female)**

Generally the poor women are given this loan to run different Income Generating Activities (IGAs). Women members of Union level are provided up to Tk 10,000; Upazila/Thana Sadar Tk 15,000; District or Divisional Sadar Tk 20,000 as the initial loan. Up to Tk. 6,000 is allowed as yearly increase.

#### **1.2.6.3 Small loan (male)**

This loan is for the husband/guardians of the female members of the small loan programme. This loan is provided as the additional assistance to the respective family. Male loan also includes respective male members with the programme but they don't have to come to the group meeting as payments are done by the female members. The loan size is generally from Tk. 1,000 to Tk. 5,000 and the highest is not more than Tk. 5,000.

#### **1.2.6.4 Small business loan programme**

This is for the small businessmen or traders who are willing to start a small business or already have the same but can't run for lack of necessary fund. Graduated women members who already have proved themselves successful in business are also eligible to get this loan. The initial loan ceiling for this programme is from Tk. 20,000 to Tk. 25,000. The subsequent increase is Tk. 10,000.

#### **1.2.6.5 Small entrepreneur lending (SEL)**

This programme is for the small entrepreneurs. SEL offers a bigger amount, from Tk. 50,000 to Tk. 7,00,000 (Seven hundred thousand) to the small entrepreneurs. The main objective of this programme is to help the entrepreneurs so that they also expand their own business and also create jobs for the extreme poor. Duration of this loan is 1 year, 1.5 year and 2 years. The borrowers under this programme make repayment of their loans through cheques. This system is more flexible and has brought a new dimension in the existing programmes of ASA. There were 80,088 clients under the SEL programme of ASA at the end of 2009. The total loan disbursed through this was Tk. 7,119 million, with Tk. 6,172 million realized and Tk. 4,312 million outstanding. The recovery rate was 99.04%.

#### **1.2.6.6 Education loan**

Children of the poor family generally fall in a severe problem at the time of paying their admission, examination and other fees. It is also found that some poor students cannot sit for the final examination as they fail to submit the required fees. ASA has come forward to save these students and introduced this programme for the children of the group members. It is designed with a view to helping the group members in continuing their children's education. The highest loan size is Tk. 5,000 with 10% service charge and it is especially provided for meeting their admission and examination fees. In 2009 Tk. 18.43 million was distributed among 6,778 members' children as education loan and on 31st December, 2009 the outstanding amount of this programme was Tk. 8.42 million. The recovery rate was 99.84% in this programme.

#### **1.2.6.7 Disasters rehabilitation programme**

Members, specially affected by heavy flood, cyclone and other natural disasters are allowed to get this interest-free and long-term based loan. ASA also provides these people with free medicine to save them from the harmful effect of flood.

#### **1.2.6.8 Agri-business loan**

Bangladesh is an agricultural country and more than 70 per cent population of the country lives on it. The organization has taken different types of programmes for developing the agricultural sector as well as the cultivators from the very beginning. ASA has launched this product, along with government of Bangladesh, to introduce further development in this sector in 2006. Duration of this loan is 6 months to 3 years and the highest range is TK. 3,50,000. There were 12,444 clients under this programme at the end of 2009. The total loan disbursed through this was Tk. 1,009 million, with Tk. 561 million realized and Tk 621 million outstanding. The recovery rate was 99.25%.

#### **1.2.7 ASA savings program**

Generally all the members of NGO/MFIs have to save regularly on a weekly basis. But they are, in most cases, not allowed to withdraw their deposited savings. So the members can't utilize these savings in rainy days. ASA took a praiseworthy initiative sometime in 1997 through introducing the product of voluntary savings along with the mandatory savings. This initiative ensured huge benefit for the group members. Members are allowed to deposit more amounts along with mandatory savings. They always enjoy the right of withdrawing their savings with interest in their crisis hours. ASA has been successfully operating both the mandatory and voluntary savings programs.

##### **1.2.7.1 Mandatory savings**

There are different amount for different programs of ASA. Members of small loan program and small business loan program have to save Tk. 10 and Tk. 20 respectively each week. Small entrepreneur lending (SEL) program does not demand savings from its clients. In other flexible products the monthly mandatory savings size is Tk. 10 only. In 2008 balance of this savings was TK. 5,161 million.

### 1.2.7.2 Voluntary savings

In voluntary savings, members can also save small amount according to their convenience and ability. They can withdraw up to Tk. 500 (rural) and Tk. 1,000 (urban) in their weekly group meeting. In the case of withdrawing above this amount, they have to go to the branch office. In 2008 the balance of voluntary savings was TK. 1,343 million.

### 1.2.7.3 Long term savings (LTS)

Members of NGOs are the poorer section of the society. They generally don't get the opportunity to save for long term in the commercial banks. But they also need, like others, to shield them against risk as well as to face dangers, hardships and emergencies etc. Again, members as well as staffs are all allowed to run more than one account at a time. The credit programmes of ASA are presented in Table 1.2.

Table 1.2 ASA savings products at a glance

Sl.	Particulars	Small	Small Business	Long term
1	Time of mandatory savings deposit	Weekly	Weekly/ Monthly	Monthly
2	Amount of mandatory savings deposit	Tk.10	Tk.20 - Tk.100	TK.50 - Tk.500
3	Provision for voluntary savings	Can save above Tk.10	Can save above Tk.20	N/A
4	Deposit starts	After membership	After membership	After received loan, after membership
5	Withdrawal provision	100% savings are withdrawable, but minimum Tk.100 shall be balance. if one opens life insurance accounts for both wife & husband, 95% savings are withdrawable, only 10% savings of per thousand loan disbursed will remain as balance.100% withdrawal provision during natural disaster and emergencies.		Flexible (Anytime they are willing to close)
6	Withdrawal place	Up to Tk.1,000 in the group meeting and above in the branch office		Same as small savings
7	Interest on savings	4%-5%		9%-12%



### 1.2.8 National coverage of ASA

As of 31 December 2009, ASA extended its activity in all 64 districts, 511 thanas (upazilas) and have 3,236 branches. The ASA coverage is given in Figure 1.2.

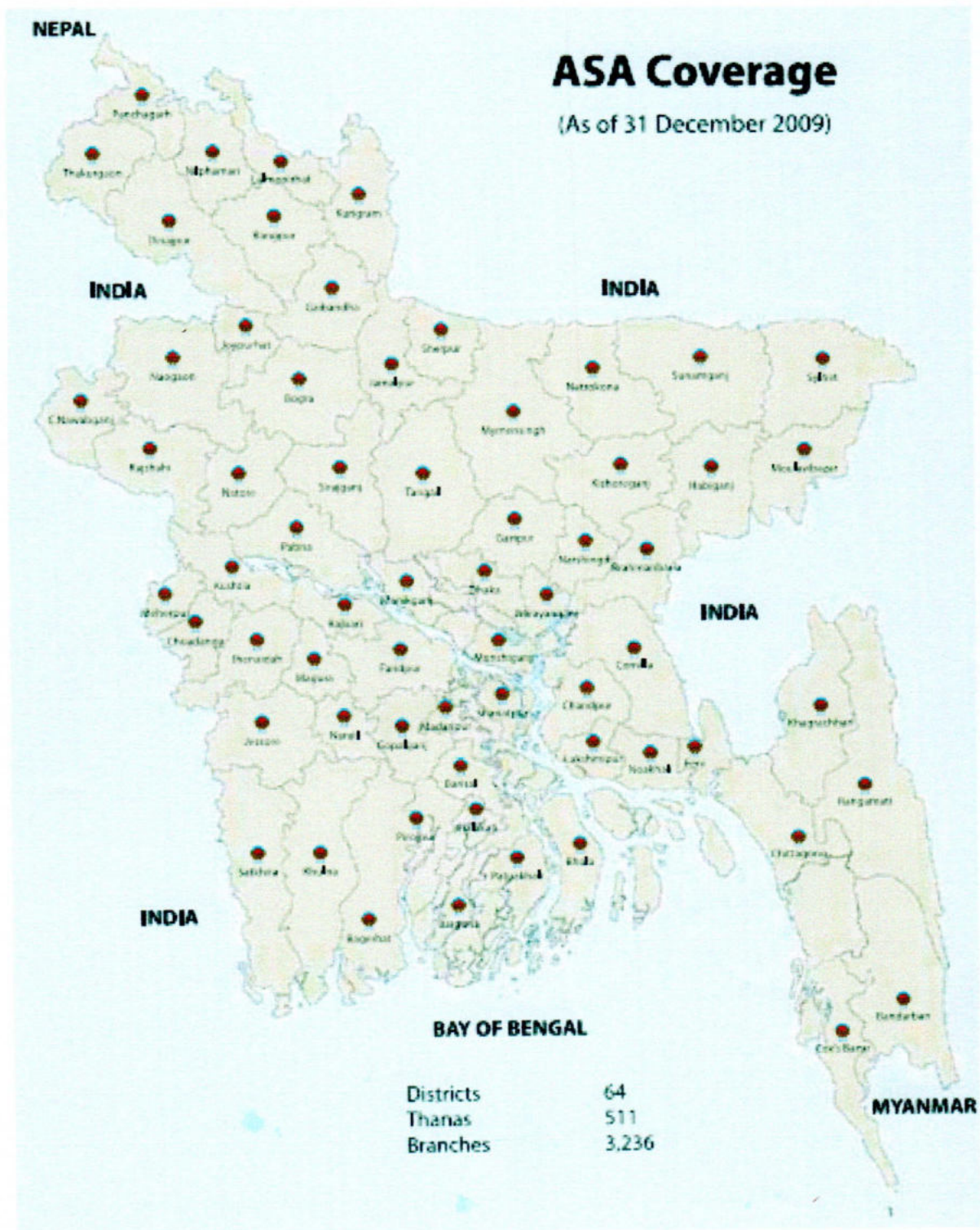


Figure 1.2 National coverage of ASA (as of 31 December 2009)

### **1.3 Statement of the Problem**

It has been realized that true development cannot be achieved unless and until the women are made part of the development process. Now a days the women of Bangladesh want equal participation in development activities with their male partners. By increasing participation of women in various development activities, the emancipation of women with changed social status will be achieved. In spite of many plans, programmes and promises, the developing country like Bangladesh is still waiting to achieve the food security, employment and improvement of both social and natural environment for livelihood of their poor people. For the livelihood improvement, the Bangladesh government has taken different sector wise programmes since its independence. The NGOs and the private organizations also have come forward on these issues. All of their programmes are aimed at increasing employing opportunity, providing housing, accelerating income generation, improving health condition, uplifting housing condition, providing pure drinking water source, eradicating illiteracy and so on. Most of the NGOs working in Bangladesh now have been incorporating women into their multiphase development activities. Khandker (1998) emphasized that microcredit programmes are an effective policy instrument for reducing poverty among the poor people with the skills to become self-employed. There are a good number of research studies reporting positive impact of microcredit on socio-economic uplift of the lowest segment of women in Bangladesh. Some researchers however, found few negative impact of microcredit operation. But the research works determining the impact or effects of microcredit in livelihood improvement of the women in Bangladesh are still very limited. Hence, it is very necessary to undertake a research study on this aspect. In view of the foregoing discussion the researcher undertook a research study entitled "Effect of Microcredit on Livelihood Improvement of Women Beneficiaries Involved in Association for Social Advancement". Therefore, the present study undertakes to endeavor with the followings research questions.

1. To what livelihood improvement occurred among women through microcredit progamme of ASA?

2. What are the characteristics of the women that are related to livelihood improvement?
3. What relationships exist between selected characteristics of women and their livelihood improvement due to involvement in microcredit programme?
4. What are the problems faced by the women in utilizing their microcredit and the measures to overcome that problems?

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

In view of the above discussion and in order to give proper direction to the study, the researcher undertook the present research with the following specific objectives:

1. To determine the extent of livelihood improvement of the women due to their involvement in microcredit programme of ASA. The aspects of livelihood improvement include:
  - a) Food security
  - b) Health and sanitation
  - c) Family assets and shelter
  - d) Social empowerment
2. To explore the relationships of selected characteristics of the women with their livelihood improvement.
3. To determine the contribution of personal selected characteristics to the livelihood improvement of the respondent.
4. To identify the problems faced by women in utilizing their microcredit and probable measures to overcome those problems.

#### **1.5 Assumptions of the Study**

An assumption is the supposition that an apparent fact or principle is true in the light of the available evidence (Goode and Hatt, 1981). The researcher made following assumptions while under taking the study.

1. The respondents included in the sample were competent enough to reply queries designed for the study.

2. Responses furnished by the respondents were valid and reliable.
3. Views and opinions of respondents were reflective to whole population of the study.
4. The researcher was well adjusted to the social environment of the study area and the collected data were free from biasness.
5. The data were normally and independently distributed.
6. The items, questions and scales included in the questionnaire were relevant and appropriate.
7. The information sought reveals the real situation to satisfy the objectives of the study.
8. The results of the study were applicable for all areas of Bangladesh where more or less similar socio- economic status exists.

#### **1.6 Limitations of the Study**

From the researcher's point of view, in order to make the study meaningful and manageable way with the available fund, time and resources, the following limitations were considered:

1. Study was confined within Sadar Upazila of Dinajpur district.
2. The study was restricted within the women who are the beneficiaries of the NGO called ASA.
3. Generally, the women remain busy with their household work and not encouraged to provide household information without consulting with their husband or guardian. So, effort was made to incorporate that information which is within their easy reach.
4. Though the researcher is male, initial hesitation may occur with the female respondents to give information. This situation was subsequently overcome by creating proper rapport by the researcher and also with the help of the concerned ASA personnel.
5. Among many attributes or characteristics of the respondents only twelve were selected for investigation.

6. Due to time, money and other resource constrains small sample size was considered in conducting the present study.
7. Furnished information was biased on the wills of respondents and free from cross-check.
8. The researcher depended on data as furnished by the randomly selected women during the interview.
9. There are lots of activities performed by the women regarding livelihood improvement. Due to time and other constraints, only twelve activities against each of the four aspects were selected.

### **1.7 Definition of Important Terms**

Certain terms used throughout the study are defined below for clear understanding.

**Livelihood:** Livelihood referred to those things (material and social) that allow a person to live well, or prevent a person from doing anything against development. It includes clean water, shelter and access to health care and education, freedom abuse, access to credit facilities, virtually anything that would contribute to get better life.

**Livelihood aspects:** It refers those indicators (food security; health and sanitation; family assets and shelter; and social empowerment), which are used to measure the livelihood improvement.

**Food security:** Food security exists when all people, at all time, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food performance for and active and healthy life.

**Decision making ability:** It referred to such kind of ability by which a person takes decision regarding important activities of his / her family. Traditionally, women are used to enjoy lower status in making decision about different household affairs.

**Social participation:** The term referred to the voluntary sharing in person and group-to-group relationship beyond the immediate household. It shows the degree to which the people are involved in formal organizations as member or office bearer and regularity in their attendance to meeting.

**Social mobility:** It referred to the degree to which individual orientation is external to his/her own social system.

## CHAPTER 2

### REVIEW OF LITERATURE

This chapter deals with the review of available literature related to different dimension of the present study. Various books, journals, reports, MS and Ph.D. theses were the sources of the literature review. Searching from the internet web site was also one of the sources of literature of the present study. So the review were presented directly or indirectly related with the different aspects of livelihood improvement status due to use of micro-credit.

#### **2.1 Information Relating Livelihood Improvement**

##### **2.1.1 Livelihood**

The concept of livelihoods has gained wide acceptance as a valuable means of understanding the factors that influence people's lives and well-being particularly those of the poor in the developing world. It has been embraced by a number of development agencies, with UNDP the first to do so fully and DFID adopting it as central to its strategy for meeting the goals set out in its 1997 white paper 'Eliminating World Poverty'.

Chambers and Conway (1992) defined that "a livelihood comprises the capabilities, assets (store, resources, claims and access) and activities required for a means of living. A livelihood is sustainable which can cope with and recovers from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation, and which contributes net benefits to other livelihoods at the local and global levels and in the long and short-term."

Singh and Perpetua (1995) described that sustainability and vulnerability are 'processes' and not events. Livelihood systems and groups (i.e. individual households, communities) on the above-mentioned continuum are dynamic in nature. Based on the specific configuration of this space, livelihood systems can be

located at a certain point on this continuum. Additionally, accounting for vulnerable and sustainable livelihoods as processes allows us to view the relationship between, for example economic growth and social equity, or even sustainability not in either/or terms, but as more complex relationships where the existence of such contradictions is a part of the process.

A livelihood is a more tangible concept than 'development', easier to discuss, observe, describe and even quantify. Predominantly the poor of the world depend directly on natural resources, through cultivation, herding, collecting or hunting for their livelihoods. Therefore, for the livelihoods to be sustainable, the natural resources must be sustained (Rennie and Singh, 1996).

'A livelihood comprises the capabilities, assets (including both material and social resources) and activities for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base' (Carney, 1998).

Roe (1998) highlighted that UNDP's sustainable approach includes poverty eradication, employment and sustainable livelihoods, gender, protection and regeneration of the environment and governance. Sustainable livelihoods are those that are: able to cope with and recover from shocks and stresses (such as drought, civil war, policy failure) through adaptive and coping strategies; economically effective; ecologically sound, ensuring that livelihood activities do not irreversibly degrade natural resources within a given ecosystem; and socially equitable, which suggests that promotion of livelihood opportunities for one group should not foreclose option for other groups, either now or in the future.

DFID (1999) described that the livelihood approach is a way of thinking about the objectives, scope and priorities for development. The livelihood approach puts people at the centre of development. This focus on people is equally important at higher levels (when thinking about the achievement of objectives such as poverty reduction, economic reform or sustainable development) as it is at the micro or

community level. The sustainable livelihood approach is broad and encompassing. It can, however, be distilled to six core objectives. DFID aims to increase the sustainability of poor people's livelihoods through promoting: improved access to high-quality education, information, technologies and training and better nutrition and health, a more supportive and cohesive social environment; more secure access to, and better management of, natural resources, better access to basic and facilitating infrastructure, more secure access to financial resources; and policy and institutional environment that supports multiple livelihood strategies and promotes equitable access to competitive markets for all.

Barrett and Reardon (2000) describe livelihoods as being similar to a production functioning that they are processes that map assets (akin to factors of production) to outputs. As such livelihoods cannot be compared because they are by nature processes. They also note that the livelihood concept has tended to ignore the importance of prices and price risk, which is an important determinant of income from livelihood strategies.

Ellis (2000) defined "A livelihood comprises the assets, the activities, and the access to these that together determine the living gained by an individual of households." Household activities map into outcomes. Activities may lead to single or multiple outcomes. In certain circumstances, outcomes are directly linked to a household asset rather than obtained from a particular activity. The concept of livelihoods is, however, a dynamic concept that recognizes long-term planning by households.

UNDP (2005) described that livelihoods, are the means, activities and entitlements by which people make a living. A livelihood system is a dynamic realm that integrates both the opportunities and assets available to a group of people for achieving their goals and aspirations as well as interactions with and exposure to a range of beneficial or harmful ecological, social, economic and political perturbations that may help or hinder groups' capacities to make a living.



### **2.1.2 Livelihood improvement**

Alam (1990) evaluated the performances of some GO and NGOs like BRDB, Grameen Bank, RDRS, BRAC and PROSHIKA and found that the mentioned organizations had substantial positive impact on income, poverty and income inequality of the poorest section of the rural people. Those organizations made significant positive impact on health, education, sanitation, family planning and nutrition status of the group members. All observed organizations were found successful in enhancing the skill, economic capabilities, income and productive employment of poor rural women.

Yunus (1994) reported that in the Bangladesh Grameen Bank (GB) borrowers had improved their income, widened asset based and crossed over their poverty line. The nutritional level and adoption of family planning in GB families were better than the non GB families. Women were also visibly empowered.

Akther (1996) observed that due to participation in the microcredit programmes rural women raises their employment and income and thus lift them above the poverty line.

Rushidan *et al.* (1996) observed that microcredit plays a vital role in bringing about change in the rural women's life styles. Greater reduction in poverty attained when microcredit programmes are combined with increased access to basic social services than when the programmes focus on credit only.

Khandker (1998) studied three microcredit programmes of Grameen Bank, BRAC and RD-12 and observed that these programmes were an effective policy instrument for reducing poverty among poor people to become self-employed.

Islam (1999) studied the SFDP microcredit programme on income, employment and asset position for the rural people of sadar upazila of Bogra district. He found that members' income and production had increased and moreover there was a remarkable improvement in the living standard of participant household.

Haque *et al.* (2002) studied the effect of project intervention of RDRS on improvement of rural livelihood. The findings of the study indicating that the project interventions have exerted a broad impact on livelihood outcomes in terms of human, natural, financial, physical and social capital.

Habib (2003) in his study found that, due to the effect of loan provided by IBBL under Rural Development Scheme (RDS), the respondents had increased their income and production. There was a remarkable improvement in the living standard of the participants' households. It was also found that the asset position became much better after participation in the RDS activities.

Muniruzzaman *et al.* (2003) conducted a study to measure the effect of NGO interventions in the northwest region of Bangladesh with particular reference to RDRS Bangladesh. RDRS has been supporting rural poor families with a range of development interventions including agriculture, health, sanitation, women right, environment and microfinance under a multi-sectorial approach. The study indicates overall growth of the poor households' in-terms of income, access to land, housing condition, domestic assets, health care, food security, education, women mobility, access to credit skills trainings.

Waheduzzaman (2004) in his study observed that before involvement in the Caritas CBFM-2 project, the majority women beneficiaries had low livelihood improvement (57 percent) and after involvement in the project, majority had medium livelihood improvement (71 percent).

Alam (2005) performed a study on rural women on microcredit program of BRAC in sadar upazila of Netrokona district. He observed that the credit receivers have invested their income and production as well as remarkable improvement in their living standard. The respondents also had positive saving.

Islam (2005) conducted a study to determine and compare the livelihood improvement of Garo women of four different organizations namely SAIP, World Vision Bangladesh, Caritas and PDBF. He found that 58 percent PDBF respondent

had very high livelihood improvement, where 80 percent Caritas respondent had medium livelihood improvement. Path analysis result indicated that family income has the highest direct effect on livelihood improvement.

Sarkar (2006) reported that the respondents of village phone (VP) credit programme of Grameen Bank had brought positive change in different types of livelihood capital, food intake and so on. Positive changes also occurred in income and savings due to VP operation. The study also reveals that the 63.0 percent of the respondents had improved in their socio-economic condition.

Mondal (2007) observed that due to BRAC microcredit Programme, 61.4 percent of the respondents had moderate, 34.0 percent low and only 4.6 percent had high poverty alleviation.

Sarker (2007) in his study found that the poverty alleviation of the rural people increased significantly due to their participation in Chars Livelihoods Programme (CLP). Poverty alleviation measured through changes in food availability, source of drinking water, physical assets, sanitation and increasing scope of income.

## **2.2 Information Relating to Food Security of Livelihood Improvement**

Haque (1998) found that rice consumption of the household participating in BRAC programme had increased by 51 percent.

Khatun *et al.* (1998) in their study reveals that an integrated rural development intervention can have a significant impact in meeting the daily calorie requirement.

Ali (2003) found that the women involved with microcredit program of BRAC have significant increased in their income and food consumption.

Akter (2006) in her impact study of microfinance by RDS of Mymensingh district observed that after joining the program the income of the respondents from petty business and other source has increased and this also increase the food consumption.

### **2.3 Information Relating to Health and Sanitation of Livelihood Improvement**

Haque (1998) in his study found that family assets of the household have increased by 213 percent during participating in BRAC programme.

Ali (2003) found significant increase in housing environment (housing unit and family assets) of the women beneficiaries of BRAC.

Akter (2006) observed that the RDS members of Mymensingh district had improved their awareness regarding general healthcare and sanitation.

### **2.4 Information Relating to Family Assets and Shelter of Livelihood Improvement**

Ali (2003) found that the women involved with microcredit program of BRAC had significant increase in their housing environment (toilet condition and drinking water source).

Kabir (2005) in his study compare the livelihood improvement between the rural women of adibashi and native where the adibashi rural women had better livelihood improvement. They have better material possession i.e. assets.

### **2.5 Information Relating to Social Empowerment of Livelihood Improvement**

Banu (1992) conducted six case studies of six poor women of BRAC programme and found their increase in earning income and also changed their position in the family and in the society.

Amin and Pebley (1994) reported that women participation in the BRAC's program had a statistically significant impact on gender inequality within the household in terms of women's participation in decision- making and control over resources.

Naved (1994) focused on credit program that brought about substantial change in the life of women and also increased women empowerment.

Goetz (1995) in his study suggested that economic empowerment was not an automatic consequence of the provision of financial resources for women. Gender

power relations within the household must be taken in to account because they affect the distribution and use of cash resource.

Begum and Chakraborty (1995) revealed that women who made effective economic towards running their families enjoyed relatively greater acceptability in their families decision-making, either independently or jointly with their husbands. They also have greater influence on family saving.

Kabir and Amin (1995) in their study pointed out that the rural women's participation in the three development institutions namely BRAC, BRDB, and GBs income generating activity had increased use of contraceptives and improves their decision- making ability.

Cheston and Kuhn (1997) studied on empowering women through surveying 60 microfinance institutions. They found strong evidence that microfinance institutions contributing to women's empowerment through increasing self-confidence, self esteem and participation in decision-making.

Kamal (1998) found significant positive effects on economic empowerment and social empowerment of the women group members who received microcredit from Grameen Bank

Parvin (1998) studied on the impact of Grameen Bank on the socio-economic development of women members in Rangpur District. She found that the income of the participants from various sources has increased and new scope of employment and extra employment has been generated. It also improves the decision-making status of the women.

Gony (2000) conducted study to assess the extent of empowerment of women by the microfinance program of GB (Grameen Bank). The study reveals that overall income of the respondents has increased to a greater extent. Economic as well as social status of the respondents expectedly improved due to GB activities in the study area.

Rana *et al.* (2001) conducted a study to determine the extent of women's participation in income generation activities financed by BRAC microcredit programmes. The result of the study revealed that freedom in decision-making matters of the family was likely to be higher for rural women involved with public or private development agencies.

Asaduzzaman (2003) found education, annual income, credit received and saving have significant correlation with their decision-making ability of women under microfinance activities of PROSHIKA which improve their empowerment.

Yeasmin (2004) in her study found that the rural women who joined the Grameen Bank (GB) credit program have an improvement in their living standard and grow positive saving during the year of study. The program also found significant positive effects on social empowerment indicators, namely, i) decision-making ii) mobility outside home; iii) participation in village arbitration; and iv) attitude towards daughters education.

Jalil (2005) found that annual income and expenditure of the women who joined the microcredit program of RDRS have increased. He also observed that the living standard of the respondents improved in respect of social awareness, freedom of attitude, financial freedom in decision-making activities compared to their previous situation.

Kabir (2005) in his study found that adibashi rural women have better cosmopolitaness (part of social empowerment habit) than native rural women.

## **2.6 Literature Related to Relationship between the Characteristic of the Respondents with Their Livelihood Improvement**

Women beneficiaries of ASA differ in their personal characteristics due to their socio-economic environments. A study of their characteristics may help the researcher in formulating present study in right direction. Pertinent literatures regarding personal characteristics of the respondent and their livelihood improvement have been presented in the following sections.

### 2.6.1 Age and their livelihood improvement

Findings regarding age of the respondents and their livelihood improvement have been presented in Table 2.1.

Table 2.1 Age and livelihood improvement

Researcher and year	Dependent variable	Relationship
Ali (2003)	Housing environment	Significant positive
Islam (2003)	Living status	Significant positive
Khatun (2004)	Extent of contact with information system on sustainable livelihood	Significant positive
Alam (2001)	Living status	significant negative
Amin (2002)	Livelihood status	significant negative
Rahman (2002)	Livelihood asset building capacity	significant negative
Kabir (2003)	Change in living condition	significant negative
Mortoza <i>et al.</i> (2004)	Sustainable livelihood	significant negative
Rokonuzzaman (2004)	Livelihoods	significant negative

No positive relationship was also reported by Waheduzzaman (2004); Islam (2005) and Rashid (2001) between the variables. The findings indicate an inconsistent relationship trend between the age of the women beneficiaries and their livelihood improvement.

## 2.6.2 Education and their livelihood improvement

Relationship between education of the women beneficiaries and livelihood improvement was reviewed and presented in Table 2.2.

Table 2.2 Education and livelihood improvement

Researcher and year	Dependent variable	Relationship
Amin (2002)	Livelihood status	Significant positive
Ali (2003)	Food consumption and housing environment	Significant positive
Asaduzzaman (2003)	Decision-making ability	Significant positive
Islam (2003)	Living status	Significant positive
Mortoza <i>et al.</i> (2004)	Sustainable livelihood	Significant positive
Kabir (2005)	Livelihood status	Significant positive
Islam (2005)	Sustainable livelihoods	Significant positive
Kabir (2003)	Change in living condition	No relationship
Rokonuzzaman (2004)	Livelihoods	No relationship

The findings indicate a positive relationship between education of the women and their livelihood improvement in general.



### 2.6.3 Family size and their livelihood improvement

Table 2.3 shows the relationship between family size and their livelihood improvement.

Table 2.3 Family size and livelihood improvement

Researcher and year	Dependent variable	Relationship
Islam (2001)	Living status in terms of consumption	Significant positive
Islam (2002)	Living status in terms of household assets	Significant positive
Ali (2003)	Food consumption	Significant positive
Khatun (2004)	Extent of knowledge on sustainable livelihood	Significant positive
Rahman (2002)	Livelihood asset building capacity	No relationship
Kabir (2003)	Change in living condition	No relationship
Rokonuzzaman (2004)	Livelihoods	No relationship
Waheduzzaman (2004)	Livelihoods	No relationship
Islam (2005)	Sustainable livelihoods	No relationship
Kabir (2005)	Livelihood status	No relationship

Alam (2001); Asaduzzaman (2003) and Mortoza *et al.* (2004) also observed no relationship between family size and livelihood improvement. Most of the findings indicate that family size had no relationship with livelihood improvement with few had significant positive relationship between the variables.

#### 2.6.4 Annual family income and their livelihood improvement

Findings regarding annual family income of the respondents and their livelihood improvement have been presented in Table 2.4.

Table 2.4 Annual family income and livelihood improvement

Researcher and year	Dependent variable	Relationship
Rahman (2002)	Livelihood asset building capacity	Significant positive
Asaduzzaman (2003)	Decision-making ability	Significant positive
Kabir (2003)	Change in living condition	Significant positive
Islam (2004)	Change in living condition	Significant positive
Mortoza <i>et al.</i> (2004)	Sustainable livelihood	Significant positive
Waheduzzaman (2004)	Livelihoods	Significant positive
Islam (2005)	Sustainable livelihoods	Significant positive

These findings indicate positive trend of relationship between annual family income and livelihood improvement.

#### 2.6.5 Credit received and their livelihood improvement

Table 2.5 shows the findings pertaining to relationship of credit received with livelihood improvement.

Table 2.5 Credit received and livelihood improvement

Researcher and year	Dependent variable	Relationship
Asaduzzaman (2003)	Decision-making ability	Significant positive
Islam (2005)	Sustainable livelihoods	Significant positive
Ali (2003)	Housing environment	No relationship
Kabir (2005)	Livelihood status	No relationship

The findings indicate a positive relationship between credit received of the women and their livelihood improvement.

### 2.6.6 Savings and their livelihood improvement

It is generally expected that more the savings of the women have more livelihood improvement. However, some literature related to savings are cited here in Table 2.6.

Table 2.6 Savings and livelihood improvement

Researcher and year	Dependent variable	Relationship
Ali (2003)	Food consumption and housing environment	Significant positive
Asaduzzaman (2003)	Decision-making ability	Significant positive
Islam (2005)	Sustainable livelihoods	Significant positive
Kabir (2005)	Livelihood status	No relationship

These findings indicate almost consistent positive relationship between savings of the women and their livelihood improvement.

### 2.6.7 Duration of involvement with ASA and their livelihood improvement

Ali (2003) found a significant positive relationship between duration of involvement with NGO and housing environment as a part of livelihood improvement.

### 2.6.8 Attitude towards ASA and their livelihood improvement

Relationship between Attitude towards ASA i.e. NGO and livelihood improvement have been presented in Table 2.7.

Table 2.7 Attitude towards ASA and livelihood improvement

Researcher and year	Dependent variable	Relationship
Ali (2003)	Food consumption and housing environment	Significant positive
Mortoza <i>et al.</i> (2004)	Sustainable livelihood	Significant positive
Waheduzzaman (2004)	Livelihoods	Significant positive
Asaduzzaman (2003)	Decision-making ability	No relationship
Kabir (2003)	Change in living condition	No relationship

These findings indicate positive trend of relationship between the variables.

### 2.6.9 Aspiration and their livelihood improvement

Findings regarding the relationship of aspiration of the women and livelihood improvement have been presented in Table 2.8.

Table 2.8 Aspiration and livelihood improvement

Researcher and year	Dependent variable	Relationship
Rahman (2002)	Livelihood asset building capacity	Significant positive
Khatun (2004)	Knowledge and contact with information system on sustainable livelihood	Significant positive
Islam (2005)	Sustainable livelihoods	Significant positive

The findings indicate consistent positive relationship between aspiration of the women and their livelihood improvement.

### 2.6.10 Fatalism and their livelihood improvement

Findings regarding fatalism of the respondents and their livelihood improvement have been presented in Table 2.9.

Table 2.9 Fatalism and livelihood improvement

Researcher and year	Dependent variable	Relationship
Rahman (2002)	Livelihood asset building capacity	Significant negative
Sarker (2007)	change in food availability, source of drinking water, physical assets and sanitation	No relationship

These findings indicate negative trend of relationship between the variables, generally which are desirable.

**2.6.11 Self-confidence and their livelihood improvement** Islam (2005) found a significant positive relationship between self-confidence and sustainable livelihoods.

### **2.6.12 Family expenditure and their livelihood improvement**

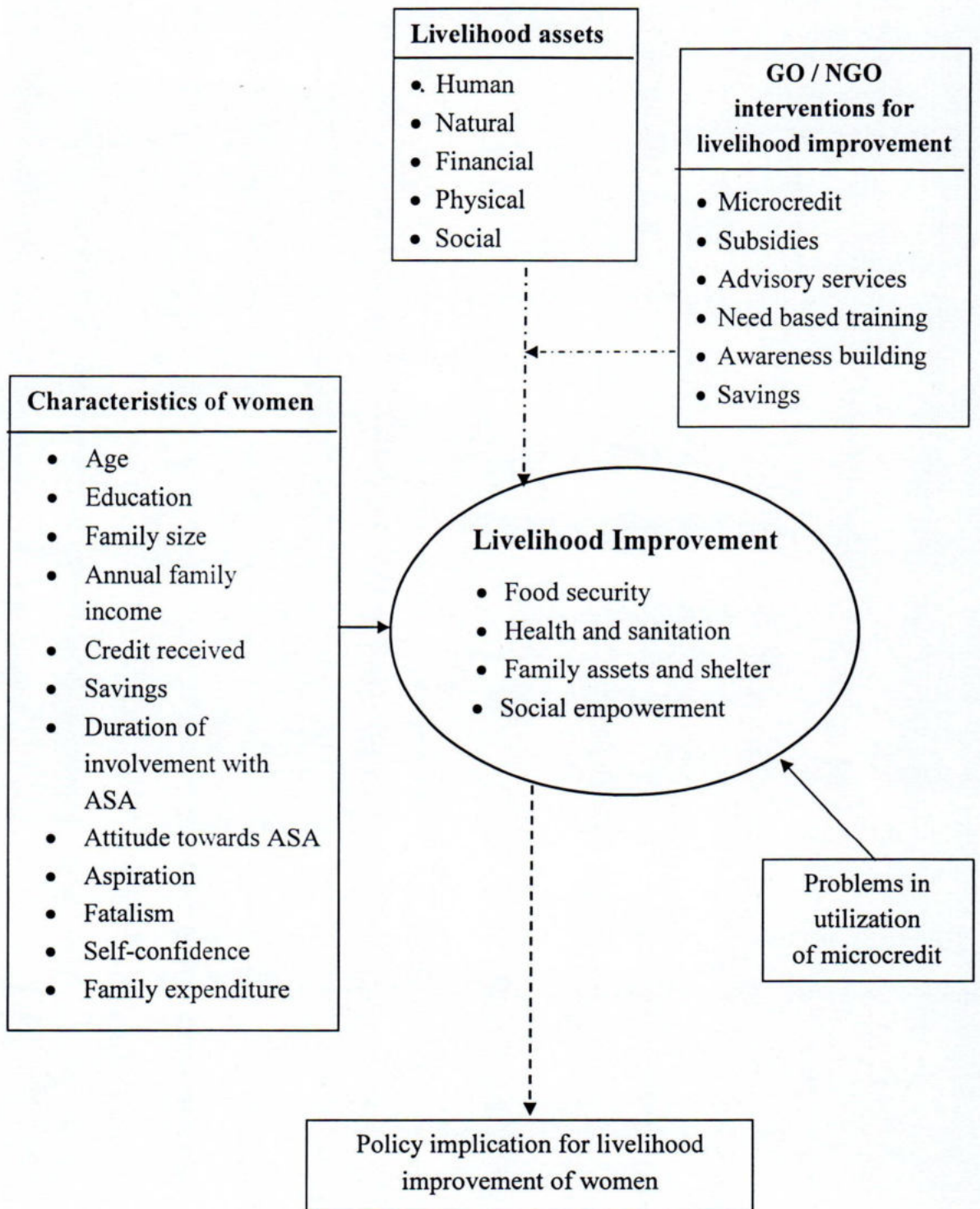
After through searching, no information was found on this aspect. Hence, it was not possible to put relationship in this context.

The literature reviewed above showed that a good number of studies regarding impact/effect of microcredit in relation to women empowerment, decision making ability, reducing poverty have been done. But livelihood improvement due to effect of microcredit was not found clearly. That's why this study may create considerable interest to the researchers, policy makers and the concerned organizations.

### **2.7 Conceptual Framework of the Study**

While framing the structural arrangement for the dependent and independent variables of the research, the conceptual framework of Rahman (2002) and Rashid (2006) was kept in mind. This study was concerned with dependent variable-livelihood improvement and the selected individual characteristics of women as independent variables. There are many factors which influence livelihood improvement. According to DFID (2000), there are 5 core assets or types of capital upon which livelihood status built. These "asset pentagon" are: a) human capital; b) natural capital; c) financial capital d) physical capital and e) social capital. But considering the review of literature and actual situation in the research area, only four aspects of livelihood improvement i.e. a) food security; b) health and sanitation; c) family assets and shelter and d) social empowerment were included in the research. There are many characteristics which influence the livelihood improvement of women. In a single study, it is neither possible nor desirable to investigate all the factors taken into consideration that are responsible for livelihood improvement. Therefore, after careful consideration of respondents' situation and her culture, only twelve characteristics have been selected for investigation in the present study. The selected characteristics are: age, education, family size, annual family income, credit received, savings, duration of involvement with ASA, attitude towards ASA, aspiration, fatalism, self-confidence and family expenditure. Considering the past research and main theme of present

study, a conceptual model was constructed which is self-explanatory and presented in Figure 2.1.



————> Indicates parameters under investigation  
 - - - - -> Indicates parameters not considered for investigation

Figure 2.1 The conceptual model of the study

## CHAPTER 3

### METHODOLOGY

The methods and procedures that were followed in conducting this research are described in this Chapter under the following subsequent sub-sections.

#### **3.1 Locale of the Study**

The study was conducted in Sadar Upazila under Dinajpur district. Out of 13 upazilas of Dinajpur district, Sadar Upazila is one of the important upazila where different government and non-government organizations carry out microcredit programs. This upazila is bounded by Kaharole upazila on the north, West Bengal of India on the south, Chirirbandar upazila on the east, and Biral upazila on the west. A map of Dinajpur district including its upazilas as well as Bangladesh (inset) and a map of Dinajpur Sadar Upazila are presented in Figure 3.1 and Figure 3.2 respectively.

#### **3.2 Sampling Procedure**

Multi-stage random sampling procedure was followed to conduct the research. Firstly, Dinajpur district of Bangladesh was selected purposively for the study. It is the largest district of northern Bangladesh with an area of 3,438 sq.km. At second stage, Sadar Upazila of Dinajpur was selected purposively because: a) Sadar Upazila is the third largest upazila of Dinajpur (354 sq.km.) and it has the largest number of female population (BBS, 2008), b) easy accessibility and better communication facilities, and c) researchers' familiarity with the area, language and culture of the people. In all total 9 branches of ASA in Sadar Upazila. Four branches were selected purposively at the third stage considering the borrowers who took loan at least for 4th consecutive years. Total borrowers of the selected 4 branches were 2896, out of which 290 (about 10% of the population) was selected as sample of the study by random sampling procedure. A reserve



Figure 3.1 Map of Dinajpur district showing the study area (Bangladesh inset)



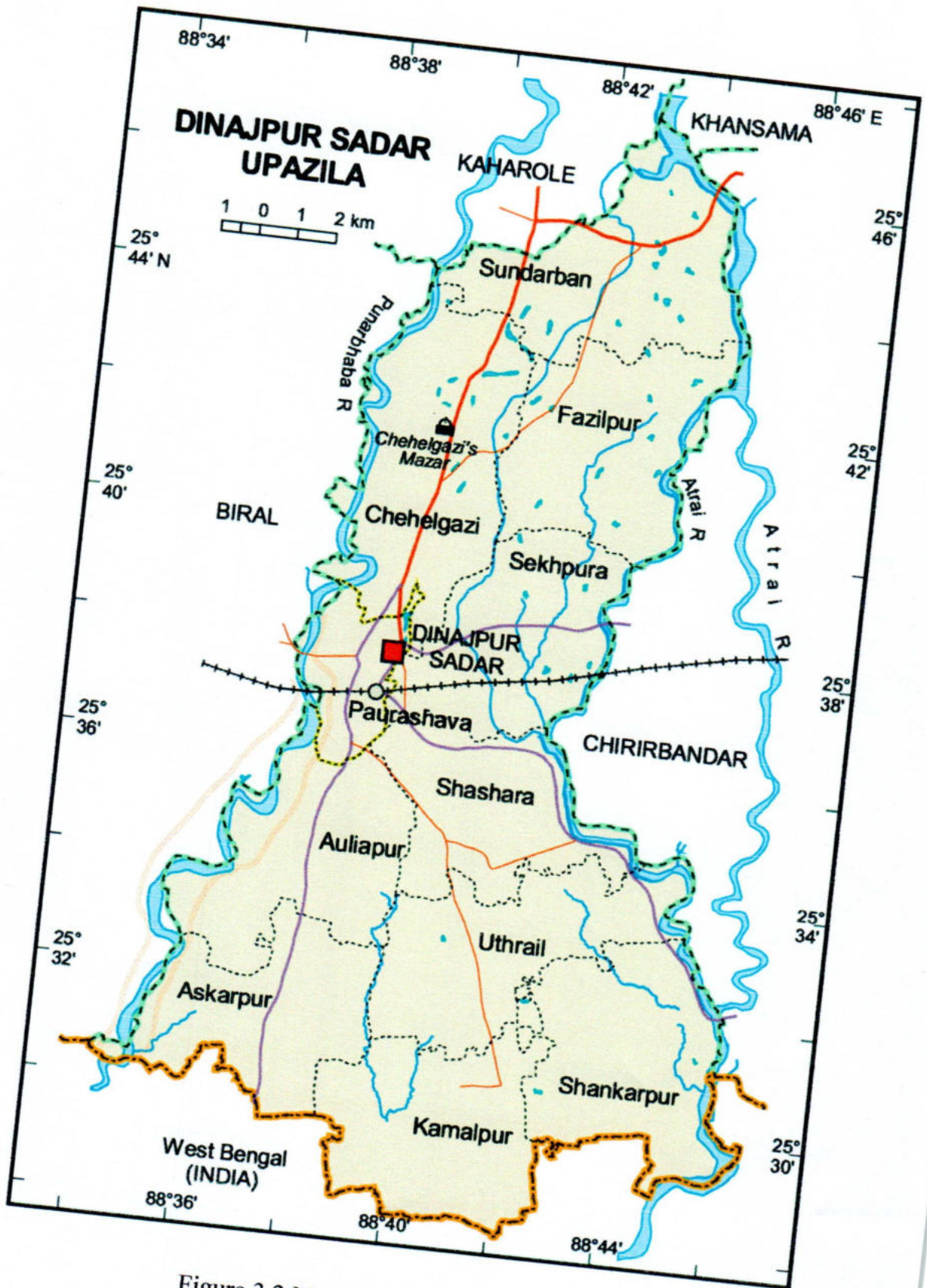


Figure 3.2 Map of Dinajpur Sadar Upazila

list of 29 borrowers (about 10% of the sample) was also prepared for using as respondent in case any member of original sample would be unavailable during the time of interview. The detailed distribution of population and sample are shown in Table 3.1.

Table 3.1 Distribution of population and sample of the respondent

Stage No.	Stage	Selected area	Sampling unit	Comment
1.	Dinajpur district	Sadar Upazilla	Purposive	-----
2.	Sadar Upazilla	4 Branches out of 9 branches of ASA	Purposive	Borrowers who took loan at least for 4th consecutive year
3.	4 Branches	290 borrowers out of 2896	Random	About 10% of the population

The selected 4 branches of ASA had different number of desired borrowers, so the sample size in respective 4 branches was different. The distribution of sample according to branches is shown in Table 3.2.

Table 3.2 Distribution of sample according to branch

Sl. No.	Name of the branch	No. of borrowers who took loan at least for 4th consecutive years	No. of borrowers for interview	No. of borrowers for reserve list
1.	Dinajpur-1	801	80	8
2.	Dinajpur-2	688	69	7
3.	Dinajpur-6	740	74	7
4.	Pulhat	667	67	7
<b>Total</b>		<b>2896</b>	<b>290</b>	<b>29</b>

### **3.3 Criteria for Selecting Respondent**

- i The respondents were kept confined within the woman of each of the families.
- ii Women, who were engaged in the microcredit programme of ASA, had been considered as the respondents.
- iii The respondents were selected who took loan at least for the 4th consecutive years i.e. before that they took loan at least for the three times and repaid in time. Hence they were treated as good client of ASA.

### **3.4 Variables of the Study and their Measurement**

A variable is something which varies. More specifically variables are those attributes of objects, events, things and being which vary and can be measured. In other words, variables are the characteristics or conditions that can be observed, manipulated or controlled by the researcher. A well organized piece of research usually contains at least two important elements, viz. a dependent variable and an independent variable. Dependent variable may be defined as the phenomenon or characteristics hypothesized to be the outcome, effect, consequence or output of some input variables. Its occurrence depends on some other variable which had preceded it in time. On the other hand, the phenomenon or characteristics to be the input or antecedent variable is called independent variable. It is presumed to cause the dependent variable and is selected, manipulated or measured prior to measuring the outcome or dependent variable (Ray and Mondal, 2004).

#### **3.4.1 Measurement of independent variables**

Twelve characteristics of the women were considered as the independent variables in this study. The procedures followed for measuring the independent variables of the study are presented below:

##### **3.4.1.1 Age**

Age of a respondent was measured in terms of complete years from her birth to the time of interview. A unit score was assigned for each year of one's age.

#### **3.4.1.2 Education**

Education of a respondent was measured in terms one's year of schooling. A score of 1 (one) was assigned for each year of complete schooling. For example if a respondent passed the final examination of class VI, then his level of education score was taken as 6. A score of 0.5 was given to a respondent who could only sign her name.

#### **3.4.1.3 Family size**

The family size of a respondent was measured on the basis of the actual number of members in her family living in a dwelling unit and used to eat from the same cooking arrangement. The family members included the respondent herself, husband, children together with dependent members who lived jointly. A unit score was assigned for each member of the family. If a respondent has 5 members in her family then her family size score was 5.

#### **3.4.1.4 Annual family income**

The annual family income of a respondent was measured on the basis of her all family members earning during the last one year from different sources such as agricultural (crops, poultry, livestock etc.), business, service, day labour etc. Thus the total income was calculated by added together all earning from all sources and was expressed in 1,000 taka. A score of one (1) was assigned for each '1000' Taka for the annual family income scores of the respondents.

#### **3.4.1.5 Credit received**

It was calculated based on the total amount of credit in Taka received by the respondent during her membership period of ASA at the time of interview. The amount of credit received by the women was expressed in terms of 1,000 taka. A score of 1 (one) was given for each 1,000 taka.

#### **3.4.1.6 Savings**

It was measured by taking the total amount of taka deposited by a respondent and member of her family in any savings account (i.e. bank, NGO group etc.) from any source during a year. A score of 1 (one) was given for each thousand taka.

#### **3.4.1.7 Duration of involvement with ASA**

It was measured by considering the involvement period of the respondent with ASA microcredit programme to the time of interview. Duration was calculated in terms of years on the basis respondent's response and it was verified from the concerned ASA office. A score of one was assign for each year.

#### **3.4.1.8 Attitude towards ASA**

Attitude may be defined as "the degree of positive or negative effect associated with psychological object like symbol, phrase, slogan, person, institution, ideal or ideas towards which people can differ in varying degrees" (Thurstone, 1946). So the attitude of a respondent towards ASA programmes is used to refer her feeling, believe and action tendency towards the various aspects of activities of ASA. A total of 12 statements (6 positive and 6 negative) were used to measure the attitude towards ASA. A five point Likert scale was used to measure the attitude of the respondent by checking the responses- 'strongly agree', 'agree', 'no opinion', 'disagree' and 'strongly disagree'. Scores assigned to the rating scale was 5, 4, 3, 2 and 1 respectively for the positive statements and reverse-scoring methods were followed in case of the negative statements. The attitude score of a respondent was measured by adding her scores for all the statements. Thus, the possible attitude scores of the respondent could range from 12 to 60, where 12 indicating very unfavourable attitude and 60 indicating very favourable attitude towards ASA.

#### **3.4.1.9 Aspiration**

Aspiration usually refers to a person's or a group of person's orientation towards a goal. Islam (2005) constructed an 8 (eight) items levels of aspiration for getting response from garo women in Bangladesh. Khatun (2004) and Sarker (2007) selected 5 aspects for measuring aspiration level of the respondent. However,

considering the above methods of aspiration rating, 6 (six) items have chosen for getting the opinion of the respondent. The level of aspiration against a particular item was measured against a 5 point rating scale (1-5). Thus the possible aspiration score of a respondent could range from 6 to 30, where 6 indicating lowest level of aspiration and 30 indicating highest level of aspiration in life.

#### **3.4.1.10 Fatalism**

The term fatalism referred to the view or opinion that all events are predetermined by divine power and therefore human being can do nothing to change the course of events (Rahman, 2002). A five Point Likert scale with 8 statements was used to measure the fatalism. Among eight statements, four were positive and four were negative to fatalism. The respondent was indicated each statement of the scale whether they 'strongly agree', 'agree', 'no opinion', 'disagree' and 'strongly disagree'. A weight of 5,4,3,2 and 1 was assigned for each of the positive statements and reverse scoring system was followed for negative statements. Thus, the total fatalism scores of the respondent could range from 8 to 40, where 8 indicating low fatalism and 40 indicating high fatalism.

#### **3.4.1.11 Self-confidence**

It refers to the capacity of a person in tackling uncertain situation on different aspects of his/her life and could measure by computing a "self-confidence score". For measuring the self-confidence of a respondent, like Islam (2005) and Rashid (2006), five incomplete statements were constructed and administered the women to complete the statements taking one of the three options. For three options of each statement a score of 1, 2 and 3 was assigned according to a continuum scale of the self-confidence. Total self-confidence score was computed by adding the scores on five statements. The self-confidence score of a respondent could range from 5 to 15, where 5 indicating low level of self-confidence and 15 indicating high level of self-confidence.

#### **3.4.1.12 Family expenditure**

Family expenditure of a respondent was measured on the basis of her monthly all family expenditure in different heads like fuel, electricity, house repairing, medical, education etc. Thus the total family expenditure was calculated by added together all expenditure from all heads and was expressed in 1,000 Taka. A score of 1 (one) was given for each thousand taka.

#### **3.4.2 Measurement of dependent variable**

Livelihood improvement is the dependent variable of the study. It was measured by computing a “Livelihood Improvement Index” in mainly four aspects of livelihood improvement. They are identified through literature review, visit to study area and consultation with members of the supervisory committee. The aspects were: i) food security, ii) health and sanitation, iii) family assets and shelter and iv) social empowerment. After that selection, in each of the four aspects 12 specific activities were identified and selected. The measurement procedure of four aspects of dependent variable are describes as follows:

##### **3.4.2.1 Food security**

The 1996 World Food Summit adopted a definition: “Food security, at the individual, household, national, regional and global levels is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”.

Food security is built on three pillars:

- a) Food availability: sufficient quantities of food available on a consistent basis.
- b) Food access: having sufficient resources to obtain appropriate foods for a nutritious diet.
- c) Food utilization: appropriate use based on knowledge of basic nutrition and care.

In total 12 activities (four activities in each pillar) was selected to measure the food security of the respondent.

### **3.4.2.2 Health and sanitation**

It was measured through three dimensions: a) medical facilities, b) drinking water source and c) toilet condition.

- a) Medical facilities: It is a measure of practices used by a respondent in a whole year. Four statements were selected to measure medical facilities.
- b) Drinking water source: It is a measurement of availability of drinking water source. Four items were selected to measure the status of drinking water source.
- c) Toilet condition: It is the extent of toilet facilities of a respondent household. Four types of toilet were selected for measure the toilet condition status.

To measure health and sanitation status of the respondent, total 12 activities was selected.

### **3.4.2.3 Family assets and shelter**

This aspect of livelihood improvement is divided into two sub-sections i.e. a) family assets and b) shelter.

- i) Family assets: It was measured on the basis of asset possession of a respondent household. Nine main family asset items was selected to measure the family assets.
- ii) Shelter: Shelter is the housing unit condition of the respondent. Three items was selected to measure the shelter status during interviewing.

Thus total 12 activities were selected to measure the health and sanitation condition of the respondent.

### **3.4.2.4 Social empowerment**

It can be easily understood that women's participation in decision-making, social mobility outside home etc. are the main paramount indicators of social empowerment. By considering that point mentioned above three indicators i.e. a)



decision-making ability, b) social participation and c) social mobility are selected to measure the social empowerment of women.

- i) Decision-making ability: It refers to the activity of women in a decision-making process in her family affairs. Traditionally, in Bangladesh, women enjoy lower status in comparison to men in making decision about household affairs. Six statements were selected to measure the role or interaction of women with the decision-making process in the family.
- ii) Social participation: The term referred to the voluntary sharing in person and group-to-group relationship beyond the immediate household. It is the degree to which people are involved in social activities like marriage, birthday etc. and formal organizations office bearers or members and regularity in their attendance to meeting. Three statements were selected for the measurement of social participation.
- iii) Social mobility: It is the degree of movements of an individual's from outside of his/her social system. Three mobility indicators were used to measure the social mobility.

For measurement of the social empowerment of women in total 12 activities was selected.

The respondent i.e. a women was asked to express her opinion to what extent her livelihood status has been improved in each of 48 activities along a 4-point scale: "high", "moderate", "slight" and "not at all". The responses of the scale was given scores as 3 for "high" (improvement at the second year of involvement with ASA), 2 for "moderate" (improvement at the third year of involvement with ASA), 1 for "slight" (improvement at the fourth year and onward of involvement with ASA) and 0 for "not at all". The summation of the scores against all the 48 specific activities produces the "Livelihood Improvement Score (LIS)" of women. Thus the LIS could range from 0-144, where 0 indicating not at all improvement and 144 indicating high improvement.

### 3.4.2.5 Development of indices

For comparative analysis of livelihood improvement of women in individual activities a “Livelihood Improvement Index” was calculated by using the following formula:

$$\text{Livelihood Improvement Index, LII} = P_{hi} \times 3 + P_{mi} \times 2 + P_{si} \times 1 + P_{ni} \times 0$$

Where,

$P_{hi}$  = Percentage of women with high improvement

$P_{mi}$  = Percentage of women with moderate improvement

$P_{si}$  = Percentage of women with slight improvement

$P_{ni}$  = Percentage of women with not at all improvement

In respect of any activities in livelihood improvement the “Livelihood Improvement Index” could range from 0 to 300, where 0 indicating no improvement and 300 indicating high improvement. Livelihood improvement indices on 48 activities of 4 aspects of improvement and rank order were computed for each selected livelihood improvement activity.

### 3.5 Problems Faced by the Women in Utilizing Microcredit

Focus Group Discussion (FGD) was conducted among a group of 30 women to identify the problems faced by them in utilizing their microcredit. At first the group was divided into five sub-groups and each sub-group was asked to identify the problems in utilizing the microcredit. Each group was allowed to work through discussion among themselves. One of the group members was selected to list down the problems. Each group was closely monitored. After completing the discussions, all identified problems were listed down and finally included in the interview schedule. The respondents was asked to indicate the importance of the problems by mentioning whether it was high , medium , low or none with the corresponding scores of 3,2,1 and 0 respectively. A 'Problem Index' was prepared for analyzing the degree of severity using following the formula:

$$PI = f_n \times 0 + f_l \times 1 + f_m \times 2 + f_h \times 3$$

Where,

PI= Problem Index

$f_n$  = frequency of women mentioning the problem as 'none'

$f_l$  = frequency of women mentioning the problem as 'low'

$f_m$  = frequency of women mentioning the problem as 'medium'

$f_h$  = frequency of women mentioning the problem as 'high'

### **3.6 Instrument for Data Collection**

An interview schedule containing mostly closed form and some of open form of questions was prepared on the basis of the objectives of the study. Simple and direct questions and statements were included in the schedule to ascertain the dependent and independent variables. At first the schedule was prepared in english, which was finally transferred to bengali version for clear understanding of the respondents (an english version of the interview schedule is enclosed in Appendix-I). The researcher made all possible efforts to establish rapport with the respondents so that they could feel free to respond to the questions and their answers were recorded sincerely. The respondents did not keep records of annual or daily transaction of many of their activities. Hence, it was very difficult to collect actual data and the researcher had to rely on the memory of the women. The interview schedule was pre-tested with 30 women of the sample area before finalizing the interview schedule for data collection. Based on the pre-test result, necessary addition, deletion and correction were made in the interview schedule.

### **3.7 Validity and Reliability of the Instrument**

It is a vital task to take care about the validity and reliability of the instrument for collecting data. An instrument possesses validity when it actually measures what it claims to measure. A scale is reliable when it will consistently produce the same result when applied to the same scale (Goode and Hatt, 1981).

#### **3.7.1 Validity of scales**

Livelihood improvement along with attributes and items of the scales were initially selected based on review of literature and discussion with the relevant experts. By

relevant experts the initially selected practices with attributes and items of the scales were judged (i.e. judge rating), respondent's group discussions and pre-test among 30 women of the study area. Finally, practices with attributes and items of the scales were changed, modified and discarded on the basis of the outcome of above-mentioned procedure. So, it was considered that the scales had content validity.

### **3.7.2 Reliability of scales**

In this study, most of the variables were measured through standard scales developed and measured by different researchers and experts. So, the test scales used for the measurement were considered stable and reliable. However, reliability of the scales for measuring women's attitude towards ASA, aspiration, fatalism and self-confidence were ascertained by split half and test retest method. Computed reliability coefficients of split half and test retest method for these scales were significant at 0.01 percent level. It indicated that the scales used in this study were highly stable and reliable for measurement of selected variables.

### **3.8 Collection of Data**

The prime task in materializing objectives of the study was to collect data by interviewing 290 women. Data were collected by the researcher himself using structured interview schedule through face-to-face contact. Before data collection, the selected respondents were well informed by the ASA personnel. Researcher established desired rapport with the respondents before explaining the purpose of the research and collection of data. If any respondent failed to understand any questions, utmost care was taken to explain it as far as possible. In order to minimize error, the information of the respondent was carefully recorded and duly checked. Data were collected during August 2010 to January 2011.

### **3.9 Analysis of Data**

The collected data was compiled, tabulated, coded and analyzed for statistical analysis according to the objectives of the research. Descriptive statistical analysis such as, range, mean, number, percentage, standard deviation, coefficient of

variance and rank order was used wherever necessary in describing the selected variables.

Pearson's Product Moment Correlation Co-efficient ( $r$ ) was used to examine the relationships of independent variables of the women with their livelihood improvement (dependent variable). Regression and path analysis was also being done for assessing the contribution and direct/indirect effect between independent and dependent variables and within independent variables. Five (5) percent level of probability was used as a basis for rejecting any null-hypotheses through out the study.

### **3.10 Hypothesis**

A hypothesis is a proposition, which can be put to a test to determine its validity (Goode and Hatt, 1981). According to Kerlinger (1973) a hypothesis is a conjectural statement of the relation between or more variables. In broad sense hypothesis are divided into two categories: (a) Research hypothesis, and (b) Null-hypothesis.

#### **3.10.1 Research hypothesis**

Research hypothesis ( $H_a$ ) states anticipated relationships between concerned variables. Based on review of literature and development of conceptual framework, the research hypothesis was: "there are relationships between 12 selected characteristics of the women with their livelihood improvement".

#### **3.10.2 Null hypothesis**

Null hypothesis ( $H_0$ ) states that there is no relationship between the concerned variables. Therefore, the null hypothesis of this study is "there are no relationships between 12 selected characteristics of the women with their livelihood improvement".

## CHAPTER 4

### LIVELIHOOD IMPROVEMENT OF THE WOMEN

The main objective of the study was to determine the extent of livelihood improvement of women which constitute the dependent variable of the study. It was measured by covering four aspects of livelihood improvement such as: i) food security; ii) health and sanitation; iii) family assets and shelter; and iv) social empowerment. The findings of each of the four selected aspects have been presented in this section. The summary statement of observation on livelihood improvement score in four selected aspects has been presented in Appendix-II.

#### 4.1 Livelihood Improvement of Women in Food Security Related Activities

The Livelihood Improvement Index (LII) of twelve activities related to food security ranged from 32.7 to 126.2 against the possible range of 0-300. Distribution of the respondents according to their food security activities have been presented in Table 4.1. 'Having cash money to buy rice or wheat' activity had the highest LII. In Bangladesh, carbohydrate (i.e. rice or wheat) is the main source of food. When the poor people earn some money, at first they spent it for cereal consumption purpose. As vegetables are comparatively cheap in price than meat, fish etc. they consider for inclusion of those items in the food menu next. This might be a reason for the activity 'consumption of cereal crops (rice/ wheat) and vegetables' ranked second. Rice, wheat etc. are the main dish in table menu of common Bangladeshi people. When people have more money in hand, they think to spent it for next days, weeks or months for food confirmation. So they try to store their main food i.e. rice, wheat etc. for future which was found third in rank order. This is why women want to preserve and store at least some foodgrains so that they can use it at the time of acute food crisis period. "Having cash money to buy fish, meat, eggs and fruits" and 'storage of pulses and oils' were found in the lowest rank order.

Table 4.1 Distribution of women according to their livelihood improvement in food security aspect

Activities	Extent of livelihood improvement (%)				LII	Rank
	High	Moderate	Slight	Not at all		
Having cash money to buy rice or wheat	3.1	23.4	70.1	3.4	126.2	1
Consumption of cereal crops (rice/ wheat) and vegetables	3.8	19.7	69.6	6.9	120.4	2
Storage of food grains (rice, wheat etc.)	3.8	19.0	62.0	15.2	111.4	3
Having buying facilities from local shop and market	4.5	21.4	54.5	19.6	110.8	4
Availability of food in adverse situation	3.4	11.4	47.9	37.3	80.9	5
Having cash money to buy vegetables, pulses, spices and oils	2.8	15.2	41.7	40.3	80.5	6
Storage of vegetables (potato, onion, garlic etc.)	2.8	14.1	36.9	46.2	73.5	7
Preparation of food in scientific method and Consumption	3.8	6.2	27.9	62.1	51.7	8
Consumption of protein (fish, meat, eggs, pulses)	1.7	6.9	27.9	63.5	46.8	9
Use of balance diet	3.8	5.5	23.8	66.9	46.2	10
Storage of pulses and oils	2.4	3.1	25.5	69.0	38.9	11
Having cash money to buy fish, meat, eggs and fruits	1.0	3.8	22.1	73.1	32.7	12

#### 4.1.1 Overall livelihood improvement of women in food security

The overall livelihood improvement scores (LIS) in twelve food security related activities varied from 2 to 29 against possible range of 0 to 36. The mean, standard deviation and coefficient of variance were 10.08, 6.99 and 69.34 respectively. On the basis of the scores, the women were classified into three categories viz. 'low improvement; (up to 12); 'medium improvement' (13-25) and 'high improvement' (above 25). Two-thirds (67.2 percent) of the respondents had low improvement,

whereas slightly less than one-fourth (23.8 percent) had medium and only 9.0 percent had high improvement. The distribution of the respondents is shown in Table 4.2.

Table 4.2 Distribution of women according to their food security aspects of livelihood improvement scores

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
0-36	2-29	Low improvement (Up to 12)	195	67.2	10.08	6.99	69.34
		Medium improvement (13-25)	69	23.8			
		High improvement (Above 25)	26	9.0			

An overwhelming majority (91.0 percent) of the women had low to medium improvement in their food security status. Amin (2008) found in her study that 89.0 percent of the respondents had low to medium food security, which is almost similar to the present findings. So it might be concluded that these 91.0 percent of the women had been passing their days with food crisis of varying extent.

#### 4.2 Livelihood Improvement of Women in Health and Sanitation Related Activities

Livelihood improvement in health and sanitation activities of the respondents was determined and found that the LII varied from 2.7 to 145.6 (Table 4.3). For obtaining better livelihood improvement, health consciousnesses are mostly needed. Usually women are the victims of diarrhea in the rural area of Bangladesh. This is because they often consume low quality and adulterated food items in their daily diets. Oral dehydration saline (popularly known as ORS) is a necessary medicine for initial treatment of diarrhea. Probably due to this, the ORS topped the rank in respect of health and sanitation. For better health of children, applications of different immunization doses are necessary where family awareness is considered. This activity has been appeared as important due to its high LII of 111.3. Different family planning programmes are being implemented in Bangladesh for controlling population growth. Women's access to family planning



materials and advices are necessary to achieve this goal. Hence, this appeared as third in rank with LII of 91.4. 'Toilets in open place' and 'kancha well' as source of drinking water ranked 12th and 11th respectively.

Table 4.3 Distribution of women according to their livelihood improvement in health and sanitation aspect

Activities	Extent of livelihood improvement (%)				LII	Rank
	High	Moderate	Slight	Not at all		
Availability of oral dehydration saline (ORS) (if necessary)	26.9	25.2	14.5	33.4	145.6	1
Reception of immunization doses	16.9	18.6	23.4	41.1	111.3	2
Use of family planning materials and advice	21.0	9.7	9.0	60.3	91.4	3
Consultation with MBBS doctor	5.9	3.1	57.6	33.4	81.5	4
Tube well	2.8	4.8	26.9	65.5	44.9	5
Sanitary latrine	0.7	1.7	24.5	73.1	30	6
Pacca sanitary latrine	1.7	3.8	13.1	81.4	25.8	7
Pacca well	0.3	0.7	8.3	90.7	10.6	8
Kancha latrine	0.0	0.3	5.9	93.8	6.5	9
Ponds/river water	0.0	1.0	2.4	96.6	4.4	10
Kancha well	0.0	0.0	2.8	97.2	2.8	11
Toilets in open place	0.0	0.3	2.1	97.6	2.7	12

#### 4.2.1 Overall livelihood improvement of the women in health and sanitation

Overall LIS in twelve health and sanitation related activities ranged from 0 to 21 against the possible range of 0 to 36. The average score was 5.64. Standard deviation and coefficient of variance was 4.17 and 73.93 respectively. On the basis of scores, the women were classified into three categories viz. 'low improvement; (up to 12); 'medium improvement' (13-25) and 'high improvement' (above 25). An overwhelming majority (86.9 percent) of the women had low improvement

compared to 12.1 percent having medium and only 1.0 percent had high improvement in health and sanitation related activities (Table 4.4).

Table 4.4 Distributions of women according to their health and sanitation aspects of livelihood improvement scores

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
0-36	0-21	Low improvement (Up to 12)	252	86.9	5.64	4.17	73.93
		Medium improvement (13-25)	35	12.1			
		High improvement (Above 25)	3	1.0			

Considering the overall livelihood improvement, the picture is not satisfactory. Ninety-nine percent of the women had low to medium improvement in health and sanitation related activities. So, extensive efforts are needed from both the GO and NGOs for the improvement of this situation.

#### 4.3 Livelihood Improvement of Women in Family Assets and Shelter Related Activities

The indices of twelve activities related to family assets and shelter ranged from 7.1 to 110.0 against the possible range of 0-300 (Table 4.5). Mobile phone is a most necessary item for quick and easy communication. At present there are about 74 million mobile phone subscribers in Bangladesh. And obviously the use of mobile phone has come along as a top priority item and ranked in the first position (LII of 110.0). Television (TV) is also a very popular and important media for entertainment. People use mobile phones and enjoy recreational facilities through television at a comparatively cheaper price. Furniture is always needed for better living status. Besides high price of timber, there are other comparatively cheap sources like steel or partex for preparing furniture. Furniture and TV as asset possession are in the second and third positions which also are familiar with our present social condition. Ownership of building and fridge involves big amount of money and generally rich can people enjoy these facilities. Poor people have little scope to avail it. So 'building' and 'fridge' was found as lowest and second lowest in the rank table.

Table 4.5 Distribution of women according to their livelihood improvement in family assets and shelter aspect

Activities	Extent of livelihood improvement (%)				LII	Rank
	High	Moderate	Slight	Not at all		
Mobile Phone	1.4	13.4	79.0	6.2	110.0	1
Furniture	1.0	13.4	70.7	14.9	100.5	2
TV	1.7	4.1	57.6	36.6	70.9	3
Bi-cycle	0.7	3.1	47.9	48.3	56.2	4
Tin shed building	0.7	5.2	43.1	51.0	55.6	5
Chicken	0.3	7.2	25.9	66.6	41.2	6
Cow	1.0	8.6	20.0	70.4	40.2	7
Goat	0.0	5.2	25.5	69.3	35.9	8
Duck	0.3	3.4	12.8	83.5	20.5	9
Hut/tin house	1.4	2.1	10.7	85.9	19.1	10
Fridge	0.3	0.3	10.3	89.1	11.8	11
Building	0.3	1.7	2.8	95.2	7.1	12

#### 4.3.1 Overall livelihood improvement of the women in family assets and shelter

Scores of overall livelihood improvement in twelve family assets and shelter related activities ranged from 1 to 21 against the possible range of 0 to 36. The mean score was 5.80 with a standard deviation and coefficient of variance was 3.17 and 54.75 respectively. Based on the scores, the women were classified into three categories viz. 'low improvement; (up to 12); 'medium improvement' (13-25) and 'high improvement' (above 25). An overwhelming majority (95.2 percent) of women had low improvement whereas 4.1 percent having medium and only 0.7 percent had high improvement (Table 4.6).

Table 4.6 Distributions of women according to their family assets and shelter aspects of livelihood improvement scores

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
0-36	1-21	Low improvement (Up to 12)	276	95.2	5.80	3.17	54.75
		Medium improvement (13-25)	12	4.1			
		High improvement (Above 25)	2	0.7			

Almost all the respondents (99.3 percent) fell in low to medium improvement category. This may be due to the reason that the respondents spent bulk amount of their earning in purchasing food materials. They also compelled to spend their earning in health care after food security.

#### **4.4 Livelihood Improvement of Women in Social Empowerment Related Activities**

The LII of twelve selected activities related to social empowerment of women varied from 47.1 to 123.9. Distribution of the women according to their social empowerment related activities are presented in Table 4.7. Three sub-sections namely a) decision-making ability, b) social participation and c) social mobility constitute the social empowerment aspect of livelihood improvement of this study. After involving in microcredit programme of ASA, the women had wide vision and their contact with relatives /neighbours /friends have been increased. Hence 'visit to houses of relatives /neighbours /friends became top in the rank table. As mentioned earlier the respondents in the research area had comparatively high improvement in healthcare sector. Consequence to that phenomenon, their decision-making ability in 'family healthcare and treatment' became second in the table. 'Participation in social function such as marriage, birthday, chehnam, puja, etc.' activities had the third highest index. This scenario indicates that the poor women's social contact increased significantly after joining ASA's microcredit programme. Generally the women had limited opportunity to visit own upazila HQ rather they have some personal or organization related works to do there. In Bangladesh, head of the family had a normal tendency to keep away the women from land related activities as they think that the women do not understand this complex matter. So 'visit to own upazila HQ' and 'purchase, sell or mortgage of land' activities was found as lowest and second lowest in the rank table.

Table 4.7 Distribution of women according to their livelihood improvement in social empowerment aspect

Activities	Extent of livelihood improvement (%)				LII	Rank
	High	Moderate	Slight	Not at all		
Visit to houses of relatives /neighbours /friends	3.8	29.7	53.1	13.4	123.9	1
Family healthcare and treatment	10.7	21.7	46.6	21.0	122.1	2
Participation in social function such as marriage, birthday, chehnam, puja etc.	3.8	19.0	71.4	5.8	120.8	3
Education of children	10.3	25.5	34.8	29.4	116.7	4
Marriage ceremony (adult child, brother sister, nearest relatives)	4.5	13.8	56.6	25.1	97.7	5
Family planning	22.1	11.0	8.3	58.6	96.6	6
Casting vote as personal preference	14.5	17.6	12.4	55.5	91.1	7
Visit to near by NGO office	2.1	13.8	50.0	34.1	83.9	8
Arbitration in family quarrel of neighbours and relatives	4.1	12.8	36.2	46.9	74.1	9
Participation in village meeting /shalish	1.0	6.9	38.3	53.8	55.1	10
Purchase, sell or mortgage of land	3.1	7.9	22.4	66.6	47.5	11
Visit to own upazila HQ	1.4	6.6	29.7	62.3	47.1	12

#### 4.4.1 Overall livelihood improvement of women in social empowerment

Overall LIS in twelve social empowerment related activities ranged from 2 to 29 against the possible range of 0 to 36. The average score was 10.76 with a standard deviation and coefficient of variance were 5.86 and 54.46 respectively. Based on the scores, the women were classified into three categories viz. 'low improvement; (up to 12); 'medium improvement' (13-25) and 'high improvement' (above 25) as presented in Table 4.8.

Table 4.8 Distribution of women according to their social empowerment aspects of livelihood improvement scores

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
0-36	2-29	Low improvement (Up to 12)	159	54.8	10.76	5.86	54.46
		Medium improvement (13-25)	111	38.3			
		High improvement (Above 25)	20	6.9			

More than half (54.8 percent) of the respondents had low improvement compared to nearly two-fifths (38.3 percent) having medium and 6.9 percent had high improvement. More than one-third (38.3 percent) women had medium improvement in social empowerment related activities which was much better than those other three aspects of livelihood improvement i.e. food security (23.8 percent); health and sanitation (12.1 percent) and family assets and shelter (4.1 percent). Social empowerment is a mental process and the scenario found in the research indicates that the women in the research area had comparatively better livelihood improvement regarding their decision making ability, social participation and social mobility. The livelihood improvement of the women in four aspects has been shown in Figure 4.1.

Distribution of livelihood improvement of women based on livelihood aspects

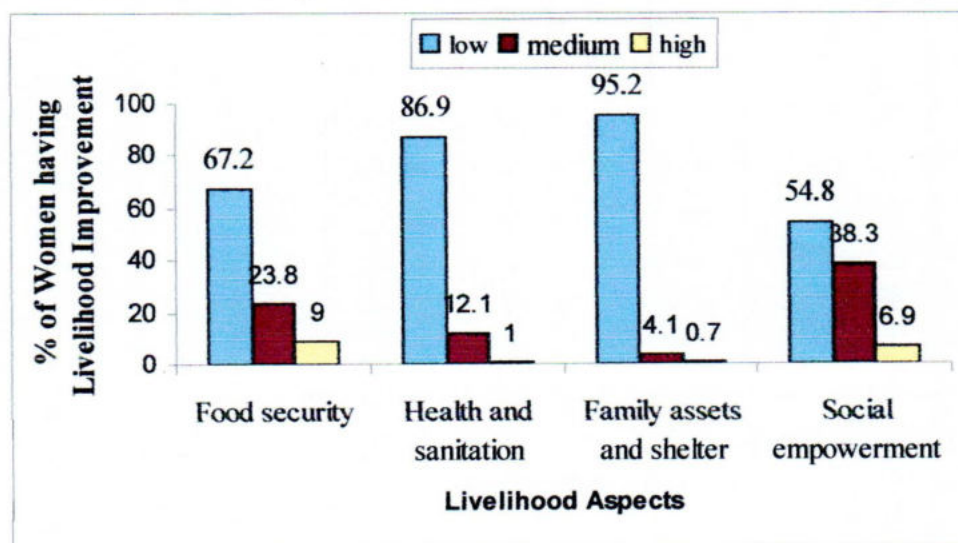


Figure 4.1 Distribution of livelihood improvement of women based on livelihood aspects

The average livelihood improvement score of women according to their livelihood aspects have been shown in Figure 4.2.

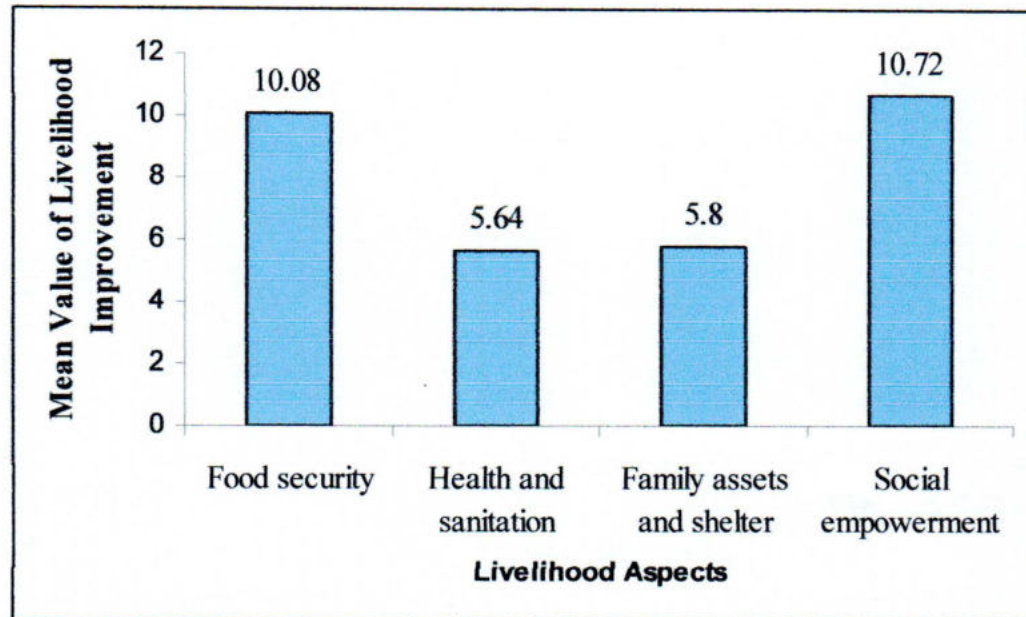


Figure 4.2 Bar graph showing aspects wise livelihood improvement of women based on the mean value of LIS

#### 4.5 Total livelihood improvement of women in four aspects

Scores of the total livelihood improvement of the women varied from 9 to 83 against possible range of 0 to 144. The mean, standard deviation and coefficient of variance were 32.28, 13.69 and 42.41 respectively. On the basis of the above-mentioned scores, the women were classified in to three categories viz. 'low improvement' (up to 45); 'medium improvement' (46-90) and 'high improvement' (above 90). Nearly two-third (65.9 percent) of the women had low improvement, almost one-fourth (24.8 percent) medium and 9.3 percent had high improvement (Table 4.9).

Table 4.9 Distribution of women relating to their total livelihood improvement scores in four aspects

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
0-144	9-83	Low improvement (Up to 45)	191	65.9	32.28	13.69	42.41
		Medium improvement (46-90)	72	24.8			
		High improvement (Above 90)	27	9.3			

As discussed earlier, the low rate of activities regarding 'health and sanitation' and 'family assets and shelter' contribute a great extent for the total low livelihood improvement of the respondents. Usually they used their income in purchasing food (i.e. food security related activity). So, their capabilities in fulfillment of other aspects are decreasing. For further improvement in 'social empowerment' aspects, development in the educational level of the women is needed. Overall, the extensive and coordinated development approach from both the GOs and NGOs are needed for increasing the awareness and IGAs of the respondents in the research area.



## CHAPTER 5

### CHARACTERISTICS OF THE WOMEN BENEFICIARIES

There are many interrelated and constituent attributes that characterize an individual and form an integral part in the development of human behavior. This section deals with the presentation of findings of 12 selected attributes of the women. For detail description, the women were classified into suitable categories in accordance to each characteristic. The procedure followed in measuring the each of 12 selected characteristic are described in the following section. A summary statement on characteristics has been presented in Appendix-III.

#### 5.1 Age

The age of the women varied from 19 to 59 years with a mean, standard deviation and coefficient of variance (percent) were 37.72, 9.23 and 24.46 respectively. The respondents were classified into three categories on the basis of their age: 'young' (up to 35 years); 'middle aged' (36–50 years) and 'old' (above 50 years). The distribution of the women according to their age has been presented in Table 5.1.

Table 5.1 Distribution of women according to their age

Range	Categories	Respondents (290)		Mean	SD	CV (%)
		Number	Percent			
19-59	Young (up to 35)	138	47.6	37.72	9.23	24.46
	Middle aged (36-50)	120	41.4			
	Old (above 50)	32	11.0			

Nine out of ten (89.0 percent) of women belonged to the young and middle-aged group and slightly more than one-tenth (11 percent) were under old category. Almost similar findings was observed in the study conducted by Islam (2005), where he found that 91.8 percent of the garo women were young to middle aged and 8.2 percent were in old aged category. Strategically and unofficially, ASA discourage old women as recipient of loan. For sudden death of the borrower or her

husband, their family gets exemption for further repayment of loan. May be for this reason, the percentage of old women were fewer in the category. Maximum of the respondents belonged to active age group (young and middle) having strong encouragement and hard working ability for livelihood.

## 5.2 Education

The education score of the respondents ranged from 0.5 to 15, the mean being 4.33, standard deviation 3.68 and coefficient of variance 84.98 percent. Based on the education scores, the women were classified into four categories like 'ability to sign' (0.5); 'primary education' (1-5); 'secondary education' (6-10) and 'above secondary education (above 10)'. The distribution of the respondents on the basis of their level of education has been presented in Table 5.2.

Table 5.2 Distribution of women according to their education

Range	Categories	Respondents (290)		Mean	SD	CV (%)
		Number	Percent			
0.5-15	Ability to sign (0.5)	108	37.3	4.33	3.68	84.98
	Primary education (1-5)	80	27.6			
	Secondary education (6-10)	92	31.7			
	Above Secondary education (above 10)	10	3.4			

Without ability to signature, no women are entitled for getting loan from ASA. They have to sign in the loan application form and weekly meeting attendance register. For this cause, no illiterate women were found in the study. Little more than one thirds (37.3 percent) of the women had ability to sign whereas 27.6 percent had primary education and percentage of secondary education and above secondary education are 31.7 and 3.4 percent respectively. Moreover, slightly less than two-thirds (62.7 percent) of the respondents had functional literacy indicating that they can read, write and understand. So it is evident from the Table that the literacy rate found in the research area was more than the present literacy situation (women 31.8 percent) of Bangladesh (BBS, 2009).

### 5.3 Family Size

The maximum and minimum family size scores were 15 and 2 respectively. The average family size was 4.74 with a standard deviation 1.90 and the coefficient of variance of 40.08 percent. The women were classified into three categories viz. 'small family' (up to 4); 'medium family' (5-6) and 'large family' (7 and above) are presented in Table 5.3.

Table 5.3 Distribution of women according to their family size

Range	Categories	Respondents (290)		Mean	SD	CV (%)
		Number	Percent			
2-15	Small family (up to 4)	159	54.8	4.74	1.90	40.08
	Medium family (5-6)	96	33.1			
	Large family (7 and above)	35	12.1			

More than half (54.8 percent) of the respondents had small family size compared to almost one-third (33.1 percent) having medium and little more than one-tenth (12.1 percent) had large family size. The national average of family size in Bangladesh is 4.9 (BBS, 2009), which is near the mean value of the present study (4.74). Almost similar result was found in the study of Amin (2008).

### 5.4 Annual Family Income

The annual family income score of the respondents ranged from 62 to 380 with a mean of 159.04, standard deviation 65.07 and coefficient of variance 40.91 percent. According to the annual family income, the women were classified into three categories such as 'low income' (up to 125); 'medium income' (126.1-250) and 'high income' (above 250) as shown in Table 5.4.

Table 5.4 Distribution of women according to their annual family income

Range	Categories	Respondents (290)		Mean	SD	CV (%)
		Number	Percent			
62-380	Low income (up to 125)	43	14.8	159.04	65.07	40.91
	Medium income (125.1-250)	178	61.4			
	High income (above 250)	69	23.8			

Slightly more than three-fifths (61.4 percent) of the respondents belonged to the medium income category while little less than one-fourth (23.8 percent) had high income and rest (14.8 percent) fell in the low income category. Majority of the women i.e. 76.2 percent were in the low to medium income category. The findings of Kabir (2005) were in conformity with the present study. The average income of the respondents was greater than the national average. National per capita income is TK. 47,373/- (BBS, 2009). This might be due to the fact that the active family members were engaged in different IGAs such as service, business, agriculture and other activities. Another important reason for higher annual family income might be proper utilization of loan received from ASA.

### 5.5 Credit Received

Credit received score of the women ranged from 4.0 to 50.0 averaging 21.05 with a standard deviation of 8.79 and coefficient of variance 41.75 percent. Based on the credit received scores, the respondents were classified into three categories namely 'low recipient' (up to 10); 'medium recipient' (10.1-30) and 'high recipient' (above 30). Number and percentage distribution of the women according to their credit received has been presented in Table 5.5.

Table 5.5 Distribution of women according to their credit received

Range	Categories	Respondents (290)		Mean	SD	CV (%)
		Number	Percent			
4--50	Low recipient (up to 10)	27	9.3	21.05	8.79	41.75
	Medium recipient (10.1-30)	232	80.0			
	High recipient (above 30)	31	10.7			

The information of Table 5.5 indicates that four-fifths (80 percent) of the respondents had medium recipient while more or less one-tenth of them were in high and low recipient category (10.7 percent and 9.3 percent respectively). Low recipient group (9.3 percent) are almost near to the percentage of low family income group (14.8 percent) but high recipient group (10.7 percent) are less than half of the percentage of high family income group (23.8 percent). This phenomena

indicating that high income group had less interest in higher amount of loan rather than medium amount of loan. Asaduzzaman (2003) and Ali (2003) in their study also found almost similar findings.

### 5.6 Savings

The savings score of all the respondents ranged from 0.60 to 33.0 with a mean, standard deviation and coefficient of variance (percent) of 9.34, 10.37 and 111.02 respectively. The women were classified into three categories as 'low savings' (up to 10); 'medium savings' (10.1-20) and 'high savings' (above 20) on the basis of savings score (Table 5.6).

Table 5.6 Distribution of women according to savings

Range	Categories	Respondents (290)		Mean	SD	CV (%)
		Number	Percent			
0.6-33.0	Low savings (up to 10)	145	50.0	9.34	10.37	111.02
	Medium savings (10.1-20)	94	32.4			
	High savings (above 20)	51	17.6			

Half (50.0 percent) of respondents had low savings whereas little less than one-third (32.4 percent) of them had medium savings and remaining 17.6 percent had high savings. Almost similar result was found regarding low savings attitude in the study of Asaduzzaman (2003). In comparison to low annual family income and low credit received situation, the low savings percentages are almost five times greater. This might have happened due to the forced savings attitude of ASA. While repaying their weekly installment, the borrower must have to contribute minimum 30.0 Taka as savings which she would get back after quitting ASA or whenever necessary during repayment process.

### 5.7 Duration of Involvement with ASA

Duration of involvement with ASA ranged from 4 to 16 years with an average of 8.86 years. Standard deviation was 3.22 with a coefficient of variance of 36.34 percent. On the basis of duration of involvement with ASA, the respondents were classified into three categories like, 'short duration' (up to 5); 'medium duration'

(6-10) and 'long duration' (11 and above). Little less than half (46.9 percent) of the women had medium duration followed by almost one-third (33.1 percent) long duration and exactly one-fifth (20.0 percent) had short duration (Table 5.7).

Table 5.7 Distribution of women according to their duration of involvement with ASA

Range	Categories	Respondents (290)		Mean	SD	CV (%)
		Number	Percent			
4-16	Short duration (up to 5)	58	20.0	8.86	3.22	36.34
	Medium duration (6-10)	136	46.9			
	Long duration (11 and above)	96	33.1			

Exactly four-fifth (80.0 percent) of the respondents belonged to medium to high duration categories. The reason might be due to the borrower's friendly policy of ASA. In comparison to other NGO's working in the study area, ASA offers better benefits to the borrowers. ASA's loan distribution rule is comparatively easy; borrowers could collect money from their savings in their weekly meeting, (other NGO don't have this facility, and borrowers have to collect it from head office). After third year of membership in ASA, the client could get some financial benefits during their physical illness like, caesarean operation, uterus operation etc. Considering the above situation the borrowers generally did not leave ASA without adverse situation.

### 5.8 Attitude towards ASA

Attitude score of the respondents towards ASA was found to range from 30 to 55 against a possible range of 12 to 60. The mean attitude score was 45.05 while the standard deviation and coefficient of variance (percent) were 4.22 and 9.36 respectively. On the basis of the attitude score towards ASA, the women were classified into three categories namely the 'unfavorable' (up to 20); 'moderately favourable' (21-40) and 'highly favourable' (above 40) as shown in Table 5.8.

Table 5.8 Distribution of women according to their attitude towards ASA

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
12-60	30-55	Unfavourable (up to 20)	7	2.4	45.05	4.22	9.36
		Moderately favourable (21-40)	251	86.6			
		Highly favourable (above 40)	32	11.0			

Data furnished in Table 5.8 indicated that overwhelming majority (86.6 percent) of the respondents had moderately favourable attitude while slightly more than one-tenth (11.0 percent) were highly favorable and only 2.4 percent had unfavourable attitude towards ASA. As mentioned earlier, the possible causes of the respondents for their more involvement (80 percent medium and long duration) with ASA, might contribute a great extent to take positive attitude (97.6 percent moderately to highly favourable) towards ASA.

### 5.9 Aspiration

The aspiration scores of the women ranged from 6 to 27 against the possible range of 6 to 30 with a mean, standard deviation and coefficient of variance of 16.83, 4.52 and 26.85 percent respectively. The respondents were classified into three categories on the basis of their aspiration scores as 'low aspiration' (up to 10); 'medium aspiration' (11-20) and 'high aspiration' (above 20). The distribution of women is presented in Table 5.9.

Table 5.9 Distribution of women according to their aspiration

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
6-30	6-27	Low aspiration (up to 10 )	214	73.8	16.83	4.52	26.85
		Medium aspiration (11-20 )	72	24.8			
		High aspiration (above 20)	4	1.4			

It is observed from the Table that around three-fourths (73.8 percent) of the respondents had low aspiration whereas nearly one-fourth (24.8 percent) had medium aspiration and only 1.4 percent had high aspiration. High rate of low

aspiration might be the effect of low education status of the respondents. About two-thirds (64.9 percent) of the women had up to primary level education which might have influenced their mind set for less progressive thinking.

### 5.10 Fatalism

Fatalism is a mental condition which leads an individual to believe in his/ her fate. The fatalism score of the respondents varied from 9 to 31 and the possible range was 8 to 40. The mean score was 18.96 with a standard deviation of 3.93 and coefficient of variance of 20.72 percent. On the basis of fatalism scores, the respondents were classified into three categories viz. 'low fatalism'; (up to 12); 'medium fatalism' (13-25) and 'high fatalism' (26 and above). The number and percentage distribution of the women according to their fatalism has been presented in Table 5.10.

Table 5.10 Distribution of women according to their fatalism

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
8-40	9-31	Low fatalism (up to 12)	16	5.6	18.96	3.93	20.72
		Medium fatalism (13-25)	264	91.0			
		High fatalism (26 and above)	10	3.4			

As indicated in Table 5.10, slightly more than nine-tenths (91.0 percent) of the respondents were in medium fatalism Category, while 5.6 percent were in low fatalism and 3.4 percent in high fatalism Category. Large majority (96.6 Percent) of the women had medium to low fatalism which were similar to their aspiration pattern. Rahman (2002) in his study found almost similar findings regarding fatalism.

### 5.11 Self-confidence

The self-confidence scores of the respondents varied from 5 to 14 against the possible range to 5 to 15. The average self-confidence score was 10.67 with a standard deviation and coefficient of variance of 1.99 and 18.65 percent respectively. Based on the self-confidence scores, the women were classified into



three categories i.e. ‘low self-confidence’ (up to 8); ‘medium self-confidence’ (9-12) and ‘high self-confidence’ (above 12), as show in Table 5.11.

Table 5.11 Distribution of women according to their self-confidence

Range		Categories	Respondents (290)		Mean	SD	CV (%)
Possible	Observed		Number	Percent			
5-15	5-14	Low self-confidence (up to 8)	44	15.2	10.67	1.99	18.65
		Medium self-confidence (9-12)	181	62.4			
		High self-confidence (above 12)	65	22.4			

Majority of the respondents (62.4 percent) had medium self-confidence while little more than one-fifth (22.4 percent) had high self-confidence and 15.2 percent had low self-confidence. Mondol (2009) in his study found that 60.94 percent of the respondents had medium self-confidence which is almost similar to the present findings.

### 5.12 Family Expenditure

The family expenditure of the respondents ranged from 3.5 to 24.7 thousand with mean, standard deviation and coefficient of variance of 10.65 thousand, 3.44 and 32.30 percent respectively. Based on the family expenditure scores, the respondents were classified into three categories, namely, ‘low expenditure’ (up to 7); ‘medium expenditure’ (7.1–13) and ‘high expenditure’ (above 13). The distributions of the women according to their family expenditure are presented in Table 5.12.

Table 5.12 Distribution of women according to their family expenditure

Range	Categories	Respondents (290)		Mean	SD	CV (%)
		Number	Percent			
3.5-24.7	Low (up to 7)	37	12.8	10.65	3.44	32.30
	Medium (7.1-13)	199	68.6			
	High (above 13)	54	18.6			

More than two-thirds (68.6 percent) of respondents had medium family expenditure compared to 18.6 percent having high family expenditure and 12.8 percent of them had low family expenditure. More than four-fifths (87.2 percent) of the respondents had either medium or high expenditure. Based on the existing market situation, the average family size i.e. 4.74 and their average family expenditure 10.65 thousand can be considered reasonable.

## CHAPTER 6

### RELATIONSHIPS AND CONTRIBUTION OF SELECTED CHARACTERISTICS OF WOMEN WITH THEIR LIVELIHOOD IMPROVEMENT

This Chapter deals with the relationships and contribution of the selected characteristics of women with their livelihood improvement. The procedure followed for measuring the dependent and independent variables have already been discussed in Chapter 3. In order to ascertain the relationships and contribution of the characteristics of the women to livelihood improvement, four different analyses were used. At first, the relationship among the variables was determined by conducting Pearson's correlation coefficient ( $r$ ) test. Secondly, regression analysis was run to determine the factors responsible for livelihood improvement. At third stage, stepwise multiple regression analysis was computed to determine the actual contribution of the selected factors to the dependent variable. Finally, path analysis was conducted to assess the direct and indirect effects of the individual variables on the livelihood improvement of women. The null hypothesis ( $H_0$ ): to be tested were "there were no relationships between twelve selected characteristics of the women with their livelihood improvement". The relationships and contribution of the selected characteristics of women with their livelihood improvement have been discussed below:

#### 6.1 Relationships and Hypothesis Testing

A total of twelve selected characteristics of the women were considered as independent variables in this study. The computed coefficients of correlation ( $r$ ) between the independent and dependent variables are shown in Table 6.1 and correlation matrix in Appendix-IV. For descriptive interpretation of meaning of ' $r$ ', the following guidelines as laid down in Table 6.2 have been followed.

Table 6.1 Coefficient of correlation (r) between the selected characteristics of women and their livelihood improvement

Sl. No.	Selected characteristics of women	Correlation coefficient (r)
1	Age	-0.198**
2	Education	0.320**
3	Family size	-0.009
4	Annual family income	0.340**
5	Credit received	0.190**
6	Savings	0.233**
7	Duration of involvement with ASA	0.037
8	Attitude towards ASA	0.136**
9	Aspiration	0.376**
10	Fatalism	-0.397**
11	Self-confidence	0.409**
12	Family expenditure	0.324**

\* Significant at 0.05 level of probability ( $r = 0.088$ )

\*\* Significant at 0.01 level of probability ( $r = 0.115$ )

Table 6.2 The meaning of 'r' value

'r' value	Meaning
0.00 to 0.19	A very low correlation
0.20 to 0.39	A low correlation
0.40 to 0.69	A moderate correlation
0.70 to 0.89	A high correlation
0.90 to 1.00	A very high correlation

Source: Cohen and Holliday, 1982

### **6.1.1 Age and livelihood improvement**

The computed coefficient of correlation was found to be -0.198 (Table 6.1), which led to the following observations:

*'Firstly, the relationship showed negative trend, secondly, the strength of relationship between the variables was very low, and thirdly, the value of  $r$  (-0.198) with 288 degrees of freedom was significant at 0.01 level of probability'.*

Based on the findings, the null hypothesis was rejected and it was concluded that livelihood improvement of the women had significant negative relationship with their age. Young women are usually energetic and they possess favourable attitude towards technology. They had also high aspirations and self-confidence. Consequently, they achieve higher livelihood improvement than the older one. Alam (2001) have also found a significant relationship between age and living status. This finding was in conformity with the findings of Mortoza *et al.* (2004), Kabir (2003), Amin (2002) and Rokanuzzaman (2004).

### **6.1.2 Education and livelihood improvement**

The computed correlation coefficient value was found to be 0.320 (Table 6.1), which reflects the following findings:

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was low, and thirdly, the value of  $r$  (0.320) with 288 degrees of freedom was significant at 0.01 level of probability'.*

Based on the above findings, the null hypothesis was rejected and it implies that the education of the respondents had significant and positive relationship with their livelihood improvement. Education is the basis of all type of development. It makes an individual innovative and receptive to new ideas and information. Educated persons come in contact with different individuals including different communication sources such as extension agents of GOs and NGOs and as such get many ideas and information to meet their needs. Hence, it is quite logical that education of the women would have significant positive relationship with their livelihood improvement. The findings of Kabir (2005), Islam (2005), Mortoza *et al.* (2004), Islam (2003) and Amin (2002) also confirm the present findings.

### **6.1.3 Family size and livelihood improvement**

The relationship between family size of the women and their livelihood improvement has been shown in Table 6.1, which reflects the following observations:

*'Firstly, the relationship showed negative trend, secondly, the strength of relationship between the variables was very low, and thirdly, the value of  $r$  (-0.009) with 288 degrees of freedom was not significant even at 0.05 level of probability'.*

From the above observations, the null hypothesis could not be rejected and hence, it can be concluded that family size of the women had no significant relationship with their livelihood improvement. Thus, it might be said that family size of the respondents was not so important factor for livelihood improvement. However, it may also be argued that large family size act as barrier in gaining improvement on livelihood. Mortoza *et al.* (2004), Waheduzzaman (2004), Islam (2005) and Kabir (2005) also found no relationship between the variables.

### **6.1.4 Annual family income and livelihood improvement**

Following observations was made based on the computed correlation coefficient of 0.340 (Table 6.1).

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was low, and thirdly, the value of  $r$  (0.340) with 288 degrees of freedom was significant at 0.01 level of probability'.*

Thus, the null hypothesis was rejected and the researcher concluded that annual family income had a significant positive relationship with livelihood improvement of the women. Through increased annual family income women become able to buy necessary items for fulfilling the basic family needs. The more the income, the higher is the capability of an individual to invest their money for the improvement of the quality of life. The findings of the present study also demonstrate that livelihood improvement of the women significantly increased with their increase of annual family income. Similar findings also observed by Rahman (2002), Kabir (2003), Mortoza *et al.* (2004), Waheduzzaman (2004) and Islam (2005).

### **6.1.5 Credit received and livelihood improvement**

The computed coefficient of correlation was found to be 0.190 (Table 6.1), which led to the following findings:

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was very low, and thirdly, the value of  $r$  (0.190) with 288 degrees of freedom was significant at 1 percent level of probability.'*

Based on the above findings, the null hypothesis was rejected and it implies that the credit received of the respondents had significant and positive relationship with their livelihood improvement. Credit is an input which if used efficiently and effectively can lead to progress and prosperity through increased income. Generally in our society, the women are the best utilizers of the credit or loan money. Not only the women's utilization of loan money is better than men, their repayment behaviour of loan is also better than men. Probably the women under the present study utilized their credit money in productive enterprises and increased their family income and consequently their livelihood improvement also increased correspondingly. Islam's (2005) study also showed that livelihood status of the garo women had significant positive relationship with their credit availability.

### **6.1.6 Savings and livelihood improvement**

The relationship between savings of the women beneficiaries and their livelihood improvement has been shown in Table 6.1, which reflects the following observations:

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was low, and thirdly, the value of  $r$  (0.233) with 288 degrees of freedom was significant at 0.01 level of probability.'*

Based on the findings, the null hypothesis was rejected and it was concluded that livelihood improvement of the women had significant positive relationship with their savings. All people in the society do not always think about the future. Some are too much fatalistic while some are just careless. However, there are people who

save money, in spite of their hardships, for using the same during crisis or to face any odd situation. Savings definitely helps a woman to lead their life comfortably. She can buy food, can take care of health and can educate her children by using their saved money. This has reflection in the present findings since the livelihood improvement of the women was found to have significant positive relationship with their savings. The present findings have the conformity with the findings of Islam (2005).

#### **6.1.7 Duration of involvement with ASA and livelihood improvement**

The computed correlation coefficient value was found to be 0.037 (Table 6.1), which reflects the following findings:

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was very low, and thirdly, the value of  $r$  (0.037) with 288 degrees of freedom was not significant even at 0.05 level of probability.'*

From the above observations, the null hypothesis could not be rejected and hence, it can be concluded that the women's duration of involvement with ASA had no significant relationship with their livelihood improvement. Thus, it might be said that the duration of involvement with ASA was not so important factor for livelihood improvement of women beneficiaries. But in general, it is assumed that involvement of a respondent in any development agency influenced the effect on her livelihood improvement. This scenario was not found in the study area.

#### **6.1.8 Attitude towards ASA and livelihood improvement**

The computed coefficient of correlation was found to be 0.136 (Table 6.1), which led to the following observations:

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was very low, and thirdly, the value of  $r$  (0.136) with 288 degrees of freedom was significant at 0.01 level of probability.'*



Based on the above findings, the null hypothesis was rejected. Hence, the researcher concluded that the attitude towards ASA had a positive significant relationship with the livelihood improvement. Attitude of an individual is an important element for mental make-up and act accordingly. People usually do not respond positively to certain stimulus unless she/he possess favourable attitude towards it. Optimistic and favourable attitude of a person directs his/her to work hard to reach the destination. In conformity to this, almost all (97.6 percent) of the women under the present study had either moderately or highly favourable attitude towards ASA. This favourable attitude motivated the women to execute and implement activities they undertook under the ASA and consequently their livelihood improvement also increased.

#### **6.1.9 Aspiration and livelihood improvement**

Following observations was made based on the computed correlation coefficient of 0.376 (Table 6.1).

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was low, and thirdly, the value of  $r$  (0.376) with 288 degrees of freedom was significant at 0.01 level of probability'.*

Based on the above findings, the null hypothesis was rejected and hence it was concluded that aspiration had a positive significant relationship with livelihood improvement. Aspiration of an individual acts as a driving force to work hard to make his/ her fortune. Without aspiration people often become idle and pass their days as usual. The aspirant people can think today and what would happen tomorrow. They work hard and try heart and soul to achieve the things as they aspire. The findings of the present study also showed that livelihood improvement of the women significantly improved with their increase of level of aspiration. Islam (2005) also observed similar findings.

#### **6.1.10 Fatalism and livelihood improvement**

The relationship between fatalism of the women and their livelihood improvement has been shown in Table 6.1, which reflects the following observations:

*'Firstly, the relationship showed negative trend, secondly, the strength of relationship between the variables was low, and thirdly, the value of  $r$  (-0.397) with 288 degrees of freedom was significant at 0.01 level of probability'.*

Thus, the null hypothesis was rejected and it was concluded that fatalism had a significant negative relationship with livelihood improvement of the women. Fatalistic people usually depend and rely on fate for deeds. They consider that all the activities and achievement are pre-determined by the Almighty Allah and they have nothing to do to change this. Attempts to change this cannot produce any fruitful result. And hence, fatalistic persons do not work hard to change his/her present situations. The present findings indicate that fatalism of the women had significant negative relationship with the livelihood improvement; the more the fatalistic attitude and behaviour of the women less was their livelihood improvement. Therefore, any attempt to reduce the fatalistic behavioural tendency of the women may be useful to increase their moral courage to work hard to change their fate.

#### **6.1.11 Self-confidence and livelihood improvement**

The computed value of coefficients of correlation between self-confidence of the women and livelihood improvement was found to be 0.409 (Table 6.1), which led to the following observations:

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was moderate, and thirdly, the value of  $r$  (0.409) with 288 degrees of freedom was significant at 0.01 level of probability'.*

Based on the above findings, the null hypothesis was, therefore, rejected. Hence, it was concluded that the self-confidence had a positive significant relationship with the livelihood improvement of women. Self-confidence among individuals help them to take bold steps towards certain actions and activities. Through self-confidence people can do things which they thought difficult or impossible to do. In fact, strong will and determination always win over the fear, Prejudice and wrong belief. Self-confidence not only increases one's mental strength and courage but it also increases one's ability to face any odd and difficult situations to cope with. The present findings have rightly demonstrated that livelihood improvement of the women significantly improved with their increase of self-confidence among them. Islam (2005) also found significant positive relationship between the self-confidence of the garo women and their livelihood status.

#### **6.1.12 Family expenditure and livelihood improvement**

The computed value of coefficient of correlation was found to be 0.324 as shown in Table 6.1. This led to the following observations:

*'Firstly, the relationship showed positive trend, secondly, the strength of relationship between the variables was low, and thirdly, the value of  $r$  (0.324) with 288 degrees of freedom was significant at 0.01 level of probability'.*

On the basis of the above findings, the null hypothesis was rejected and therefore it was concluded that family expenditure of the women had a significant positive relationship with their livelihood improvement. Family expenditure definitely is an indicator to livelihood improvement of an individual. The more the family expenditure, the more would be his/her livelihood improvement. More expenditure on family and household items is possible when an individual has high family income. The findings of the present study also showed that annul family income of the women had high significant positive correlation with their family expenditure (ct. Appendix-IV). Hence it was possible that livelihood improvement of the

women under study had significant positive relationship with their family expenditure.

## **6.2 Contribution of the Selected Variables to Livelihood Improvement**

The results of correlation did not reveal the effect and contribution of independent variables to the dependent variable. The purpose of this section was to examine the effects of the selected characteristics on the livelihood improvement (i.e. dependent variable). The independent variables in isolation would not give a picture of the effects on livelihood improvement. Different characteristics of the women may interact together to contribute a combined effect to the livelihood improvement. Keeping this point in view, regression analysis was run with the above independent variables and the result of the test has been discussed below:

### **6.2.1 Regression analysis**

Linear multiple regression analysis was computed in order to determine the characteristics of the women contributing to their livelihood improvement. Only those variables, which had significant relationship with livelihood improvement, were included in the regression analysis model. Thus, a total of ten variables namely age, education, annual family income, credit received, savings, attitude towards ASA, aspiration, fatalism, self-confidence and family expenditure were included in the model. The findings of the regression analysis are presented in Table 6.3.

The regression coefficient of only five variables namely, self-confidence, annual family income, fatalism, aspiration and education were statistically significant indicating that these five variables had significant contribution to the livelihood improvement of the respondent women. It has been shown in the Table 6.3 that the  $R^2$  was 0.386 and the corresponding F value was 17.554 which was significant at 0.000 levels. The  $R^2$  value indicates that 38.6 percent of the total variation in the livelihood improvement of women was explained by the five variables included in the regression analysis. To avoid the multi-co-linearity problem and to ascertain proper contribution of the variables, stepwise multiple regression analysis was run

among five significant variables with livelihood improvement. The findings of stepwise multiple regression analysis is presented in Table 6.4.

Table 6.3 Regression coefficient of livelihood improvement of women with their selected characteristics

Sl. No.	Characteristics of poor women (Constant)	Regression coefficient		Significant level
		Unstandardized	Standardized	
	(Constant)	10.185		
1	Age	-0.139	-0.093	0.084
2	Education	0.417	0.112	0.030
3	Annual family income	0.044	0.209	0.013
4	Credit received	0.106	0.068	0.195
5	Savings	0.084	0.063	0.211
6	Attitude towards ASA	0.053	0.016	0.735
7	Aspiration	0.506	0.167	0.002
8	Fatalism	-0.635	-0.182	0.001
9	Self-confidence	1.440	0.209	0.000
10	Family expenditure	0.118	0.030	0.727

$R^2 = 0.386$

F value = 17.544

P = 0.000

Table 6.4 Stepwise multiple regression analysis showing contribution of the selected independent variables to livelihood improvement of women

Predictors	Unstandardized regression Coefficients	Standardized regression Coefficients	Sig.	r	R <sup>2</sup>
Self confidence (SEC)	1.513	0.220	0.000	0.409	0.0900
Annual family income (AFI)	0.053	0.254	0.000	0.340	0.0863
Fatalism (FAT)	-0.728	-0.209	0.000	-0.397	0.0830
Aspiration (ASP)	0.593	0.196	0.000	0.376	0.0737
Education (EDU)	0.454	0.122	0.017	0.320	0.0390

Total R<sup>2</sup> = 0.3720

Constant as intercept (a) = 9.491; R<sup>2</sup> = 0.372; F = 5.755; p < 0.001

The  $R^2$  value found in the stepwise regression was 0.372 and the F value was 5.755, which was significant at five percent level. Therefore, whatever variation was on the livelihood improvement, it was mainly due to the contributions of five variables namely: self-confidence (SEC), annual family income (AFI), fatalism (FAT), aspiration (ASP) and education (EDU). This final analysis indicated that 37.2 percent of the total variation on the livelihood improvement was explained by the above five mentioned predictors.

### **6.2.2 Livelihood improvement model**

Referring to the statistics given in Table 6.4, the regression model for livelihood improvement (LI) of the women has the following interpretations.

$$LI = 9.491 + 0.220 SEC + 0.254 AFI + (-0.209) FAT + 0.196 ASP + 0.122 EDU$$

According to this model of livelihood improvement (LI) means that the women had initial or inherent improvement of 9.491 out of the central informative value 32.28 (mean scores of livelihood improvement as in Table 4.9). This value and standardized regression coefficient's prove that the women's higher self confidence, more annual family income, low fatalism, high aspiration and demand for education contributed for increasing livelihood improvement.

The livelihood improvement model concludes that the women's self confidence, annual family income, low fatalism, higher aspiration and high education influenced their livelihood improvement.

Self-confidence as significant variable for livelihood improvement mean that self confidence of the women was less and 77.60 percent of the women had low to medium self-confidence (Table 5.11). Higher self confidence is also a vital variable for livelihood improvement by the women.

Annual family income as significant variable of governing the livelihood improvement meant that the great proportion (85.20 percent) of the women had medium to high income (Table 5.4). The increase of annual family income might be an essential attribute for livelihood improvement.

Fatalism as a significant characteristic (negative) for livelihood improvement implied lower the fatalism greater would be the livelihood improvement, because 96.60 percent of the women had low to medium fatalism (Table 5.10). The lower fatalism is essential for more livelihood improvement by the women. Concern GOs' and NGOs' have a great scope for minimizing the fatalism tendency of the respondents.

Aspiration as significant characteristic indicated the higher aspiration for more livelihood improvement. This is evident from the fact that 98.6 percent of the women had low to medium aspiration (Table 5.9). Aspiration is a vital variable for enhancement of livelihood improvement.

Education as a significant characteristic for livelihood improvement implied that the education would increase the livelihood improvement. The latent information was that the lower education was a hindrance to livelihood improvement, because 96.60 percent of the women had 'ability to sign' to secondary level of education (Table 5.2). The better education is essential for livelihood improvement.

### **6.3 Direct and Indirect Contribution of Independent Variables to the Livelihood improvement by the women**

Since stepwise regression analysis does not show separately the direct and indirect effects of the independent variables, path analysis was computed in order to minimize the shortfall of the analysis.

According to Dewey and Lu (1959) 'path co-efficient' is simply a 'standardized partial regression co-efficient' and as such measures the direct influence of one variable upon another and permits the separation of the co-efficient of correlation into components of direct and indirect effects. Path co-efficient analysis is superior to multiple regression analysis as it is free of effects of measuring unit of the variables, whether be the actual units of measurement of the variables (Li, 1954).

In the present study, path analysis was done to have clear understanding about direct and indirect effects, and contributions of the selected five characteristics on livelihood improvement.

### 6.3.1 Direct and indirect effects of the predictors

The correlation matrix with path co-efficient (p) of selected five significant characteristics on the livelihood improvement has been presented in Table 6.5.

Table 6.5 Correlation matrix of the significant characteristics

	SEC	AFI	FAT	ASP	EDU	Correlation with DV*
SEC	1	0.127	-0.342	0.241	0.310	0.409
AFI	0.127	1	-0.071	0.159	0.102	0.340
FAT	-0.342	-0.071	1	-0.292	-0.301	-0.397
ASP	0.241	0.159	-0.292	1	0.204	0.376
EDU	0.310	0.102	-0.301	0.204	1	0.320
<b>Path</b>	<b>0.220</b>	<b>0.254</b>	<b>-0.209</b>	<b>0.196</b>	<b>0.122</b>	

DV\* = Dependent variable

In fact, path co-efficient, p is an inherent correlation owned by the respondent in automatic manner. It is the direct effect of specific characteristic on the dependent variable and the indirect effects of other characteristics working in group are obtained by multiplying the column values of Table 6.5 by the p of same column and the results are presented in Table 6.6.

Table 6.6 Direct and indirect effects of the characteristics on livelihood improvement

	SEC	AFI	FAT	ASP	EDU	Correlation with DV*	Total indirect effect = r-p
SEC	<b>0.2200</b>	0.0323	0.0715	0.0472	0.0378	0.409	0.189
AFI	0.0279	<b>0.2540</b>	0.0148	0.0311	0.0124	0.340	0.086
FAT	-0.0752	-0.0180	<b>-0.2090</b>	-0.0572	-0.0367	-0.397	-0.188
ASP	0.0530	0.0404	0.0610	<b>0.1960</b>	0.0249	0.376	0.180
EDU	0.0682	0.0259	0.0629	0.0400	<b>0.1220</b>	0.320	0.198

DV\* = Dependent variable



The main diagonal elements (bold face) are direct effects and the off-diagonal elements are path-wise indirect effects and the row-wise sum of direct and indirect effects must be equal to the correlation coefficient 'r' on livelihood improvement.

The direct effect, 0.2200 of self-confidence raises to 0.409 at interaction with the annual family income (AFI), fatalism (FAT), aspiration (ASP), and education (EDU) adding 0.189 as total indirect effect of the correlation (r) on livelihood improvement .

In case of annual family income, the direct effect 0.2540 raises to 0.340 at interaction with self-confidence (SEC), fatalism (FAT), aspiration (ASP) and education (EDU). The added value 0.086 as total indirect effect of correlation coefficient 'r' meant that annual family income is influenced by the said interacting characteristics on livelihood improvement.

The direct effects -0.209, 0.196, and 0.122 respective to fatalism (FAT), aspiration (ASP) and education (EDU) have been increased to -0.397, 0.376 and 0.320 respectively, due to interaction with rest of the characteristics. The total indirect effect of the above mentioned characteristics i.e. fatalism (FAT), aspiration (ASP) and education (EDU) was -0.188, 0.180 and 0.198 respectively. These increases were the indications of sufficient improvement due to interaction with characteristics working in the channel of the specific variable. For better understanding of the direct and indirect effects of the selected independent variables on the livelihood improvement of women are shown in Table 6.7.

#### **6.3.1.1 Contribution of self-confidence of the women on livelihood improvement**

The direct effect of self-confidence on livelihood improvement was positive and substantial (0.220) which indicated that the self-confidence had high direct effect on women's livelihood improvement. This means that if all other variables remaining constant, increase of one standard deviation in the self confidence of the

women will directly increase 0.220 standard deviation of their self-confidence by the women. The total indirect effect of self-confidence was also positive and sufficient (0.189) which showed that self-confidence had sufficient indirect effect on their livelihood improvement. The indirect effect of self-confidence was mostly channeled via annual family income (0.0323), fatalism (0.0715), aspiration (0.0472) and education (0.0378). It may be inferred that if other variables remaining constant, self-confidence had a substantial direct and indirect influence on livelihood improvement by the women.

Table 6.7 Path Coefficient showing the direct and indirect effects of selected independent variables on the livelihood improvement of women

Sl. No.	Independent variables	Direct effects	Indirect effects	Variable through which substantial indirect effects are channeled	
				Value	Variable
1.	Self-confidence	0.220	0.189	0.0323	Annual family income
				0.0715	Fatalism
				0.0472	Aspiration
				0.0378	Education
2.	Annual family income	0.254	0.086	0.0148	Fatalism
				0.0311	Aspiration
				0.0124	Education
				0.0279	Self confidence
3.	Fatalism	-0.209	-0.188	-0.0572	Aspiration
				-0.0367	Education
				-0.0752	Self confidence
				-0.0180	Annual family income
4.	Aspiration	0.196	0.180	0.0249	Education
				0.0530	Self confidence
				0.0404	Annual family income
				0.0610	Fatalism
5.	Education	0.122	0.198	0.0682	Self confidence
				0.0259	Annual family income
				0.0629	Fatalism
				0.0400	Aspiration

### **6.3.1.2 Contribution of annual family income of the women on livelihood improvement**

The direct effect of annual family income on livelihood improvement was positive and substantial (0.254) which showed that the annual family income had high direct effect on women's livelihood improvement. The total indirect effect of annual family income was also positive and low (0.086) which exhibited that annual family income had indirect effect on livelihood improvement of women. The indirect effect of annual family income was mostly channeled via fatalism (0.0148), aspiration (0.0311), education (0.0124) and self-confidence (0.0279). It may be inferred that if other variables remaining constant, annual family income had a substantial direct and indirect influence on livelihood improvement by the women.

### **6.3.1.3 Contribution of fatalism of the women on livelihood improvement**

The direct effect of fatalism on livelihood improvement was negative and substantial (-0.209) which indicated that the fatalism had direct negative effect on women's livelihood improvement. The total indirect effect of fatalism was also negative and sufficient (-0.188) which showed that fatalism had negative and sufficient indirect effect on livelihood improvement of women. The indirect effect of fatalism was mostly channeled via, aspiration (-0.0572) education (-0.0367), self-confidence (-0.0752) and annual family income (-0.0180). Hence, it may be concluded that if other variables remaining constant, fatalism had a negative substantial direct and indirect influence on livelihood improvement by the women.

### **6.3.1.4 Contribution of aspiration of the women on livelihood improvement**

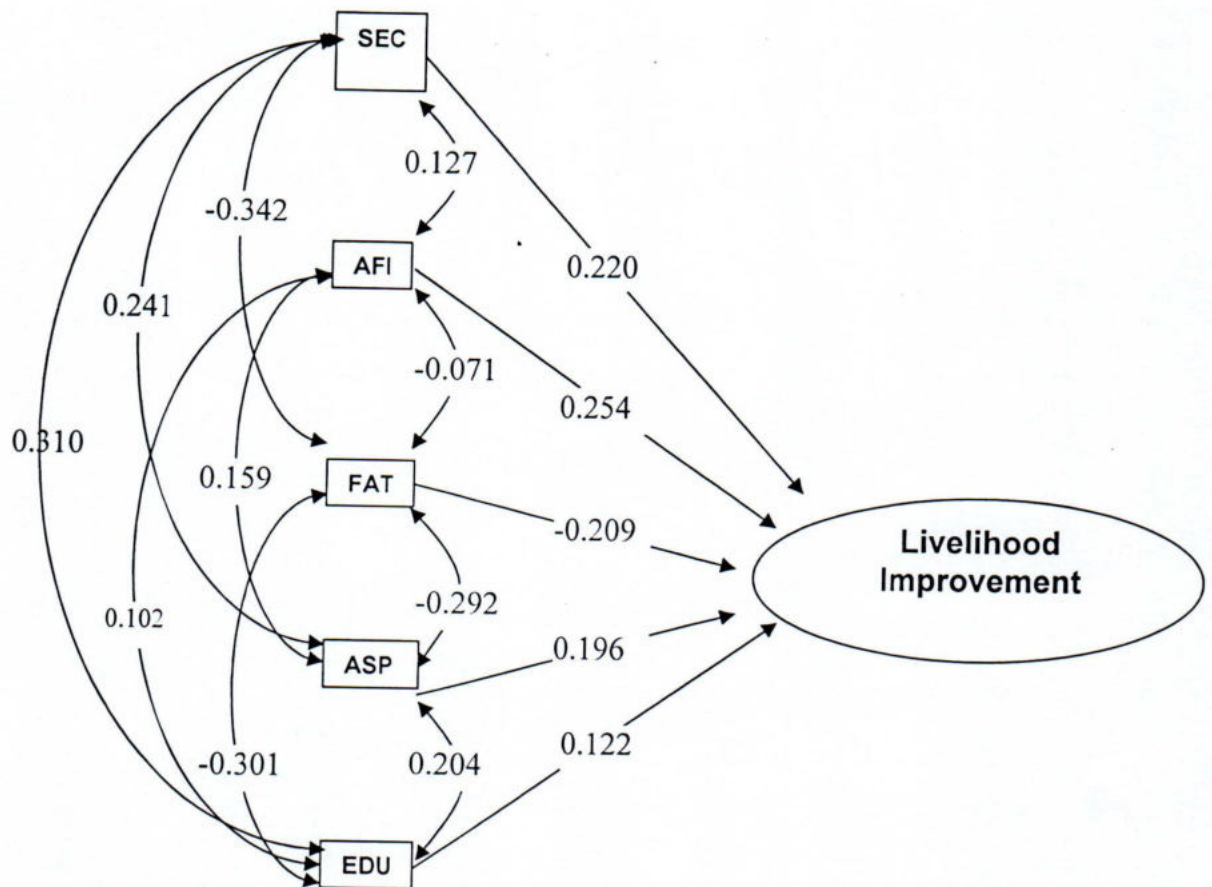
The direct effect of aspiration on livelihood improvement was positive and substantial (0.196) which indicated that the aspiration had direct effect on women's livelihood improvement. The total indirect effect of aspiration was also positive and sufficient (0.180) which showed that aspiration had sufficient indirect effect on livelihood improvement of women. The indirect effect of aspiration was mostly channeled via, education (0.0249), self-confidence (0.0530), annual family income (0.0404) and fatalism (0.0610). Thus, it may be inferred that if other

variables remaining constant, aspiration had a substantial direct and indirect influence on livelihood improvement by the women.

#### **6.3.1.5 Contribution of education of the women on livelihood improvement**

The direct effect of education on livelihood improvement was positive and substantial (0.122) which indicated that the education had direct effect on women's livelihood improvement. This means that if all other variables remaining constant, increase of one standard deviation in the education of the women will directly increase 0.122 standard deviation of their education by the women. The total indirect effect of education was also positive and sufficient (0.198) which showed that education had sufficient indirect effect on livelihood improvement of women. The indirect effect of education was mostly channeled via, self-confidence (0.0682), annual family income (0.0259), fatalism (0.0629) and aspiration (0.0400). Thus, it may be inferred that if other variables remaining constant, education had a substantial direct and indirect influence on livelihood improvement by the women.

The indirect effects of significant characteristics relating to livelihood improvement were channeled with direct effects and it has been shown in path model as given in Figure 6.1 to make the effects more comprehensible (Muller, 1977). The straight one-way arrows represent the direct path from the independent variables to the dependent variable (livelihood improvement) and the curved two-way arrows represent the correlation between the connected variables (Falkenberg, 2005). Thus, indirect effect of an independent (first) variable through another independent (second) variable to the dependent variable was obtained by multiplying the correlation coefficient of those two (first and second) independent variables with the path coefficient of the second independent variable to the dependent variable. In this way, direct effect of self confidence on the livelihood improvement was 0.220 and the correlation between self confidence and annual family income was 0.127. So, the indirect effect of self confidence through annual family income became  $(0.220 \times 0.127 =) 0.0279$ . In this way other direct and indirect effects are explained in the path model.



Correlation coefficient (r)	Independent Variables	Direct effect / Path coefficient (p)	Dependent Variable
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Variable code

SEC = Self-confidence  
 AFI = Annual family income  
 FAT = Fatalism

ASP = Aspiration  
 EDU = Education

Figure 6.1 Path model of the women of livelihood improvement

**6.3.2 Indirect contributions of the predictors**

The direct and indirect effect matrix given in Table 6.6 indicates inadequate information about the contribution of the characteristics on livelihood improvement. The direct, indirect and multiple contributions of each characteristic are obtained by multiplying of row elements by the main diagonal value of the same row (Table 6.6) and the results are given in Table 6.8.

Table 6.8 Direct and indirect contributions of the characteristics on the livelihood improvement

	SEC	AFI	FAT	ASP	EDU	Contribution (R <sup>2</sup> )
SEC	<b>0.0484</b>	0.0071	0.0157	0.0104	0.0083	0.0899
AFI	0.0070	<b>0.0645</b>	0.0038	0.0079	0.0031	0.0863
FAT	0.0157	0.0038	<b>0.0437</b>	0.0120	0.0077	0.0829
ASP	0.0104	0.0079	0.0120	<b>0.0384</b>	0.0049	0.0736
EDU	0.0083	0.0032	0.0077	0.0049	<b>0.0149</b>	0.0390

Total R<sup>2</sup> = 0.3717

The main values (bold face) are direct contribution of the respective characteristic. The value for self confidence (0.0484) confirms that this predictor contributed to livelihood improvement to the greatest extent. The second and third highest contributing factors were annual family income and fatalism which are overall in the same level. The remaining two characteristics i.e. aspiration and education were also contributed for livelihood improvement to some extent.

#### 6.4 Problems faced by women in utilizing the microcredit

The women expressed their opinion regarding problems in utilizing microcredit and the "Problem Index" as described in the methodology has been presented in Table 6.9.

Table 6.9 Problem index of women in utilizing the microcredit.

Problem statement	Extent of problem faced				Problem Index (PI)	Rank
	None	Low	Medium	High		
Insufficient loan for proper utilization	44	53	77	116	555	1
Pressure from husband/family members for investing loan in other sector rather than the area for which loan has been taken	128	91	24	47	280	2
Utilizing loan for repaying loan installment of other organization	188	42	26	34	196	3
Investment become invalid due to sudden accident	195	33	43	19	176	4
Taking loan from mahajan (money lender) with high interest rate	232	34	14	22	128	5
Receiving loan for other person, and hence no control over utilization of loan	226	27	24	13	114	6
Taking loan through group leader by giving bribe but repaying full installment of loan	264	15	5	6	43	7

Attempts were made to ascertain the problems faced by the women beneficiaries of ASA in utilization of microcredit. The problems have been stated below:

- **Insufficient loan for proper utilization:** Any type of investment requires a considerable amount of capital. Although women in the rural areas are not capable to handle huge amount of capital for business purpose, but they need at least TK. 50,000/- to 1,00,000/- for running a small business. However, ASA at present provides loan to women amounting TK. 5,000/- to 20,000/- only which the women consider as inadequate to run the business effectively and profitably. Probably due to this reason 'insufficient loan for proper utilization' has PI (problem index) of 555 and appeared as the number one problem faced by the women in utilizing the microcredit.

- Pressure from husband/family members for investing loan in other sector rather than the area for which loan has been taken:** Loan is usually taken for some specific purpose. Of course, it is mandatory to state the purpose of taking loan in application form. However, when the loan is sanctioned from ASA and loan money is received by the women, there are occasions and incidences that the women are pressurized by their husband and/or family members to invest the loan on the aspects other than the stated purposes. Sometimes, the women have nothing to do against this, but to surrender their entire money to their husband and/or other family members. However, as they are liable to receive, utilize and repay the loan money, they have to repay the weekly installment without knowing much about the utilization of the loan money. May be due to this fact, women indicated the problem as important and it appeared in the second position with PI of 280.
- Utilizing loan for repaying loan installment of other organization:** As mentioned earlier the sanctioned loan amount from ASA becomes inadequate to the women for running financial activities smoothly. For this reason, some woman received loan from more than one organization and invest some part of that in unproductive arena. So, regular repayment of loan becomes difficult to them. In that case they took loan from one NGO and repaying another NGO's installment. Thus their loan utilization became immaterial and the problem secured third position in the ranking.
- Investment become invalid due to sudden accident:** Due to some unavoidable circumstances, women's loan utilization became ineffective though they invested their loan properly in IGA. . Sudden death of animal purchased by loan, stolen of rickshaw, van, house materials etc. are main causes behind that. So the investment of the women beneficiaries became returnless and their repayment of loan fell in uncertain condition. Thus the concerned problem became fourth in the ranking with a PI of 176.



- **Taking loan from mahajan (money lender) with high interest rate:** This problem secured the fifth rank with a PI of 128. Repay weekly installment is a compulsory issue for the borrowers. If they fail to repay personally, they have to manage it from group members or others. When there were no ways of managing installment, they have to collect it from local mahajan (money lender) with high interest rate. Sometimes the rate became 30 taka for 100 taka per day. Due to this situation it is impossible for the women for proper utilization of loan as they spent a great portion of their return in repaying mahajan's (money lender) installment.
- **Receiving loan for other person, and hence no control over utilization of loan:** Sometimes request from other person, the women beneficiaries of ASA took loan which they don't enjoy but give that money to the requested person. She just has to repay weekly installment after getting it from actual borrower. Thus utilization of loan became a unrealistic issue. Hence, 'receiving loan for other person, and hence no control over utilization of loan' ranked sixth on the table on the basis of PI.
- **Taking loan through group leader by giving bribe but repaying full installment of loan:** In few cases, some borrowers opined that they do not have eligibility to get loan from ASA. So they unethically contacted with group leader and getting loan by giving bribe to her. It means she is not getting full amount of credit but have to pay full installment. This is also a problem proper in utilization of microcredit. Thus, this problem became seventh in the ranking.

#### **6.4.1 Probable measures to overcome the problems**

Based on the probable causes of the problems as mentioned by the respondents, the women were also asked to mention the probable measures to overcome the problem in utilizing of microcredit. The measures suggested by the respondents are recorded, expressed in percentage and has been arranged in rank order in Table 6. 10.

Table 6.10 Rank order of measures to overcome the problems faced by women in utilizing the microcredit

Measures	No. of citation	Percent	Rank
Distribution of desirable amount of credit by ASA and other organizations	232	80	1
Constant monitoring by ASA personnel for actual utilization of loan as mentioned in the application form	183	63	2
Motivational activities by concerned agencies for improving ability in tackling pressure from husband/family members	157	54	3
Introduction of insurance policy to overcome the situation incase of any accident	90	31	4
Selection of honest and sincere group leader	29	10	5
Control the activities of mahajan (money lender) through concerned law and order agencies	23	8	6

In total six measures were mentioned by the women for overcoming above mentioned problems. There was considerable variations in the measures cited by the respondents to overcome the problems and are discussed below:

- Distribution of desirable amount of credit by ASA and other organizations:**  
 The measure which secured the first position was "distribution of desirable amount of credit by ASA and other organizations" and 232 women mentioned it. As discussed earlier credit is an important tool for accelerating any financial activity for improving one's existing socio-economic condition. Inadequate supply of capital hinders this development process. Sanctioning logical and desirable loan by ASA and other organizations will make possible to the respondents for proper utilization of credit.
- Constant monitoring by ASA personnel for actual utilization of loan as mentioned in the application form:** Many women mentioned that they faced various difficulties in proper utilization of loan. Sometimes they have to give whole amount of loan to others which ultimately produce nothing to them. Generally the officials of ASA collected loan's weekly installment from 2-4 groups per day and usually monitoring about proper utilization of credit for all

members are not possible. Regular monitoring by ASA personnel regarding proper utilization of loan could minimize the problem as perceived by respondents. For this reason the concerned measure become second in the ranking and 183 women (63 percent) respond in favour of that.

- **Motivational activities by concerned agencies for improving ability in tackling pressure from husband/family members:** Women in Bangladesh are usually behind in decision-making activities in the family. Normally the husband, son or other male family member dominate in this sector. Due to this dominancy sometimes the women failed to utilize their loan properly. Increasing the ability to tackle these sorts of dominancy or pressure could minimize the proper utilization problem. Motivational activities for concerned GOs and NGOs among the members of the family especially the women would increase the ability for handle undue pressure in investing loan in other sector. Considering this situation, 157 women i.e. 54 percent mentioned "motivational activities by concerned agencies for improving ability in tackling pressure from husband/family members" as a measure to overcome the problem it stands third in the ranking.
- **Introduction of insurance policy to overcome the situation incase of any accident:** There are some accidents where people have nothing to do such as sudden death of people and animal, cyclone, flood, drought etc. But these incidents make people helpless and sometimes capitalless. As a result it becomes difficult for them to restart their socio-economic activities. Different insurance policies (eg. crop insurance) help them to a great extent to overcome these kinds of undesired situation. The women in the study area also think about different insurance policy to tackle the sudden accident which affects their loan utilization process. Thus ' introduction of insurance policy to overcome the situation incase of any accident' stand fourth (Table 6.10) and 31 percent (90 women) of them mentioned it as a measure to overcome the problem.
- **Selection of honest and sincere group leader:** All we know that 'honesty is the best policy' which is applicable to everywhere. Honest people always produce

good result. A group with a leader of honesty and dedication put them into the right direction. When a group leader becomes honest, then the group members have no scope to conduct any kind of unlawful activities. Due to this feelings, 29 respondents (10 percent) stated 'selection of honest and sincere group leader' as a measure to overcome the problem in proper utilization of microcredit and it become fifth in the ranking.

- **Control the activities of mahajan (money lender) through concerned law and order agencies:** There are many Gos and NGOs working in Bangladesh providing different services like, microcredit, education, health etc. at a minimum or free of cost. But still sometimes the people become undone to collect money when urgently needed. On that time, these mahajan (money lender) played a negatively vital role. They encourage the needed person to take loan with an interest rate. Sometimes the interest become  $2/3$  or more times greater than the distributed loan. As a result, the borrower ultimately is bound to engage all his/her resources to repay the high interest of the loan. In some cases, this situation happened in the study area. Hence, 'control the activities of mahajan (money lender) through concerned law and order agencies' as a measure to overcome that problem become sixth in rank order.

## CHAPTER 7

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This Chapter summarizes the whole research activities along with conclusions and recommendations based on major findings.

#### 7.1 Summary

##### 7.1.1 Introduction

Bangladesh is an underdeveloped and predominantly a rural and agrarian country where about fifty percent of the population are women and are excluded by social custom from working outside the home. Providing the poor with access to financial services is one of the many ways to help them to increase their income and productivity but traditional financial institutions have failed to provide this service. Our country is a pioneer in the micro-credit concept for poverty reduction. Dr. Muhammad Yunus, the founder of the world reputed Grameen Bank (GB) brought a Nobel Prize in Peace for the country in 2006. Professor Yunus truly have introduced a system of credit delivery to the poor without collateral, popularly known as microcredit. In 1974 BRAC started collateral free loans to the poor people of Sullah located in the district of Sunamganj. Thereafter, the Grameen Bank (GB) project went into operation in 1976 under government sponsorship. The infusion of microcredit creates self-employment for the borrowers, increases income leading to increased consumption/savings, additional credit increases further income and so on, and the borrower is expected to improve their overall livelihood improvement. The poor, especially women, have been benefited from such micro-credit programmes. The NGOs are one of the most important vehicles available to low income people, entrepreneurs and producers. The NGOs and some GOs like BRDB are providing an alternative microcredit model for poverty alleviation. The effect of microcredit in livelihood improvement assessment is necessary not only to meet the success of the programme in raising the socio-

economic and livelihood improvement of the beneficiaries, but also to identify the shortcoming of the programme and assess its sustainability. ASA, a microfinance institution, has been implementing its poverty reducing activities since 1978. ASA focused on integrated development, such as, development of education, mini-irrigation, primary health, women's empowerment, etc. in 1984 but realized that microcredit programme was the most essential and effective one to reduce poverty. In 1991, considering all these, ASA took the bold initiative to continue only the microcredit programme to bring a quick and positive change in the lives of the poor. Thus ASA attained specialization in microcredit from early 1990s. ASA succeeded in achieving the self-sustainable status by 2001. Most of the NGOs working in Bangladesh now have been incorporating women into their multiphase development activities. Assessment of the impact or effects of microcredit in livelihood improvement of the women in Bangladesh are limited. Present research study was undertaken to determine the effect of microcredit in livelihood improvement of women beneficiaries under NGO named ASA.

### **7.1.2 Objectives**

In view of the above discussion and in order to give proper direction to the study, the following specific objectives have been put forward:

1. To determine the extent of livelihood improvement of the women due to their involvement in microcredit programme of ASA. The aspects of livelihood improvement include:
  - a) Food security
  - b) Health and sanitation
  - c) Family assets and shelter
  - d) Social empowerment
2. To explore the relationships of selected characteristics of the women with their livelihood improvement.

3. To determine the contribution of personal selected characteristics to the livelihood improvement of the respondent.
4. To identify the problems faced by women in utilizing their microcredit and probable measures to overcome those problems.

### **7.1.3 Methodology**

Sadar Upazila of Dinajpur district were the locale of the study. Multi-stage random sampling procedure was followed in this study. The borrowers who took loan at least for 4th consecutive year from ASA constitute the population of the study. A total of 290 women were selected randomly from a population of 2896 women of selected four branches of ASA constituted the sample of this study. The Data were collected during August 2010 to January 2011 using interview schedule by the researcher himself. Possible measures were taken for collecting reliable and valid data. Both qualitative and quantitative measures were used for data analysis.

### **7.1.4 Variables of the study**

Livelihood improvement was the dependent variable, while twelve characteristics namely (i) age, (ii) education , (iii) family size, (iv) annual family income, (v) credit received, (vi) savings. (vii) duration of involvement with ASA, (viii) attitude towards ASA, (ix) aspiration, (x) fatalism, (xi) self-confidence and (xii) family expenditure were considered as independent variables of the study.

#### **7.1.4.1 Measurement of independent variables**

The twelve characteristics of the women were taken as independent variables of the study. Most of the variables were measured through computing scores based on either some scales or appropriate methodologies were followed in maintaining technical soundness for developing different categories.

#### **7.1.4.2 Measurement of dependent variable**

Livelihood improvement was the dependent variable of the study. For measuring the livelihood improvement status, four aspects were determined namely, i) food

security, ii) health and sanitation, iii) family assets and shelter and iv) social empowerment. After that selection, in each of the four aspects 12 specific activities were identified and selected. A 4-point scale: “high”, “moderate”, “slight” and “not at all” were used in this purpose and weights were assigned to each of the scale responses as 3 for “high” (improvement at the second year of involvement with ASA), 2 for “moderate” (improvement at the third year of involvement with ASA), 1 for “slight” (improvement at the fourth year and onward of involvement with ASA) and 0 for “not at all”. The summation of the scores against all the 48 specific activities produces the “Livelihood Improvement Score (LIS)” of poor women. This score could range from 0-144, where 0 indicating not at all improvement and 144 indicating high improvement.

For comparative analysis of livelihood improvement of women in individual activities a “Livelihood Improvement Index (LII)” was calculated by using specific formula. In respect of any activities in livelihood improvement the LII could range from 0 to 300, where 0 indicating no improvement and 300 indicating high improvement. Livelihood improvement indices on 48 activities of 4 aspects of improvement and rank order were computed for each selected livelihood improvement activity.

#### **7.1.5 Hypothesis**

The twelve characteristics of the women which were considered as independent variables of the study were tested with the livelihood improvement. Therefore, for statistical treatment a total of twelve null hypotheses were formulated as follows:

There were no relationships of twelve selected characteristics of the women with their livelihood improvement.

#### **7.1.6 Livelihood improvement of women**

The Livelihood improvement index of women in 48 activities, overall and total livelihood improvement in the activities of four aspects has been briefly mentioned in the following.



#### **7.1.6.1 Livelihood improvement index**

Livelihood improvement Index (LII) of the 48 activities varied from 2.7 to 145.6. Only two activities had indices over 125 and 10 had LII over 100. However based on the indices, top four activities of four aspects were i) having cash money to buy rice or wheat (126.2); ii) availability of oral dehydration saline (ORS) (if necessary); (145.6); iii) mobile Phone (110.0) and iv) visit to houses of relatives /neighbours /friends (123.9). The lowest LII of four activities of four aspects were i) having cash money to buy fish, meat, eggs and fruits (32.7); ii) toilets in open place (2.7); iii) building (7.1) and iv) visit to own upazila HQ (47.1).

#### **7.1.6.2 Overall livelihood improvement scores**

The Livelihood improvement scores of four aspects such as i) food security, ii) health and sanitation, iii) family assets and shelter and iv) social empowerment are summarized below:

Scores of the overall livelihood improvement in twelve food security related activities varied from 2 to 29 against possible range of 0 to 36. The mean, standard deviation and coefficient of variance were 10.08, 6.99 and 69.34 percent respectively. More than two-third (67.2 percent) of the respondents had low improvement, whereas less than one-fourth (23.8 percent) had medium improvement and 9.0 percent had high improvement.

LIS in health and sanitation related activities ranged from 0 to 21. The average score was 5.64. Standard deviation and coefficient of variance (percent) was 4.17 and 73.93 respectively. Majority (86.9 percent) of the women had low improvement compared to 12.1 percent having medium improvement and only 1.0 percent had high improvement in health and sanitation related activities.

Overall Livelihood improvement scores in family assets and shelter related activities ranged from 1 to 21. The mean score was 5.80 with a standard deviation and coefficient of variance of 3.17 and 54.75 percent respectively. Overwhelming majority (95.2 percent) of women had low improvement where as 4.1 percent having medium and only 0.7 percent had high improvement.

LIS of social empowerment related activities ranged from 2 to 29. The average score was 10.76 with a standard deviation and coefficient of variance of 5.86 and 54.46 percent respectively. More than half (54.8 percent) of the respondents had low improvement compared to near about two-fifth (38.3 percent) having medium improvement and 6.9 percent having high improvement.

#### **7.1.6.3 Total livelihood improvement of women in four aspects**

Scores of the total livelihood improvement of the women in four aspects varied from 9 to 83. The mean, standard deviation and coefficient of variance were 32.28, 13.69 and 42.41 percent respectively. Nearly two-third (65.9 percent) of the women had low improvement, almost one-fourth (24.8 percent) medium and 9.3 percent had high improvement.

#### **7.1.7 Characteristics of the women**

The age of the women varied from 19 to 59 years with a mean, standard deviation and coefficient of variance (percent) of 37.72, 9.23 and 24.46 respectively. Around nine tenth percent (89.0 percent) of women belonged to the young and middle aged group and slightly more than one-tenth (11 percent) were under old category. The education of scores of the respondents ranged from 0.5 to 15, the mean being 4.33, standard deviation 3.68 and coefficient of variance 84.98 percent. Little more than one third (37.3 percent) of the women had ability to sign where as 27.6 percent had primary education and percentage of secondary education and above secondary education are 31.7 and 3.4 percent respectively. The maximum and minimum family size scores were 15 and 2 respectively. The average family size was 4.74 with a standard deviation 1.9 and the coefficient of variance of 40.08 percent. More than half (54.8 percent) of the respondent had small family size compared to almost one-third (33.1 percent) having medium size and little more than one-tenth (12.1 percent) had large family size. The annual family income score of the respondents ranged from 62 to 380 with a mean of 159.04, standard deviation 65.07 and coefficient of variance 40.91 percent. Slightly by more than three-fifth (61.4 percent) of the respondents belonged to the medium income category while little less than one-fourth (23.8 percent) had high income and rest 14.8 percent were fell in the low income category.

Credit received score of the women ranged from 4.0 to 50.0 averaging 21.05 with a standard deviation of 8.79 and coefficient of variance of 41.75 percent. Exactly four-fifths (80 percent) of the respondents had medium recipient were as more or less one-tenth of them were in the high and low recipient category (10.7percent and 9.3 percent respectively). The savings scores of all the respondents ranged from 0.60 to 33.0 with a mean, standard deviation and coefficient of variance (percent) of 9.34, 10.37 and 111.02 respectively. Exactly half (50.0) percent of respondents had low savings where as little less than one-third (32.4 percent) of them had medium savings and remaining 17.6 percent had high savings. Duration of involvement with ASA ranged from 4 to 16 years with an average of 8.86 years. Standard deviation was 3.22 with a coefficient of variance of 36.34 percent. Little less than half (46.9 percent) of the women had medium duration followed by nearly one-third (33.1 percent) long duration and exact one-fifth (20.0 percent) had short duration. Attitude of the respondents towards ASA score was found to range from 30 to 55 against a possible range of 12 to 60. The mean attitude score was 45.05 while the standard deviation and coefficient of variance (Percent) were 4.22 and 9.36 respectively. Majority (86.6 percent) of the respondents had moderately favourable attitude while slightly more than one-tenth (11.0 percent) were highly favorable and only 2.4 percent had unfavourable attitude towards ASA.

The aspiration scores of the women ranged form 6 to 27 against a possible range of 6 to 30, with a mean, standard deviation and coefficient of variance of 4.52, 16.83 and 26.85 percent respectively. Around three-fourth (73.8 percent) of the respondents had low aspiration where as near one-fourth (24.8 percent) had medium aspiration and only 1.4 percent had high aspiration. Fatalism scores of the respondents varied from 9 to 31 and the possible range was 8 to 40. The mean score was 18.96 with a standard deviation of 3.93 and coefficient of variance of 20.72 percent. Slightly more than nine-tenth (91.0 percent) of the respondents were in medium fatalism category, while 5.6 percent were in low fatalism and 3.4 percent in high fatalism category. The self-confidence scores of the respondents varied from 5 to 14 against a possible range of 5 to 15.. The average of the self-confidence scores was 10.67 with a standard deviation and coefficient of variance of 1.99 and 18.65 percent respectively. Majority of the respondent (62.4 percent) had medium self-confidence while little more than one-fifth (22.4 percent) had high self-

confidence and 15.2 percent had low self-confidence. The family expenditure score of the respondents ranged from 3.5 to 24.7 with mean, standard deviation and coefficient of variance of 10.65, 3.44 and 32.30 percent respectively. More than two-third (68.6 percent) of respondents had medium family expenditure compared to 18.6 percent having high family expenditure and 12.8 percent of them had low family expenditure.

#### **7.1.8 Results of statistical testing**

According to the calculated correlation co-efficient (r) among the selected characteristics of the women, education, annual family income, credit received, savings, attitude towards ASA, aspiration, self-confidence and family expenditure had positive and significant relationship with livelihood improvement. Age and fatalism was significantly and negatively correlated with the dependent variable. Family size and duration of involvement with ASA had no significant relationship.

Linear multiple regression analysis was computed with ten significant variables and revealed that the regression coefficient of only five variables namely, self-confidence, annual family income, fatalism, aspiration and education were statistically significant indicating that these five variables had significant contribution to the livelihood improvement. To avoid the multi-co-linearity problem and to ascertain proper contribution of the variables, stepwise multiple regression analysis was run among five significant variables with livelihood improvement.

The livelihood improvement of the relevant characteristics had  $R^2 = 0.372$  with intercept, 9.491 as low livelihood improvement to the mean value 32.28. The five relevant characteristics having considerable amount of effects (b's) contributed significant role on livelihood improvement. Among those, self-confidence provided the highest, 0.0900 out of 0.409, annual family income, 0.0863 and fatalism, 0.0830 contributions on increasing the livelihood improvement.

#### **7.1.9 Problems faced by women in utilizing their microcredit and probable measures to overcome those problems**

The women mentioned their opinion on seven problems regarding utilization of microcredit. 'insufficient loan for proper utilization ' ranked first in the problem

index table followed by 'pressure from husband/family members for investing loan in other sector rather than the area for which loan has been taken'. They also mentioned six measures to overcome the problems. 'Distribution of desirable amount of credit by ASA and other organizations' stand top in the ranking and 'constant monitoring by ASA personnel for actual utilization of loan as mentioned in the application form' followed that.

## **7.2 Conclusions**

On the basis of the findings and their logical interpretations in the light of relevant facts, the conclusions are presented below:

1. Nearly two-thirds (65.9 percent) of the women had low improvement and almost one-fourth (24.8 percent) had medium improvement of livelihood. The low rate of activities regarding 'health and sanitation' and 'family assets and shelter' contributes a great extent for the total low livelihood improvement of the respondents. So, it may be concluded that the extensive and coordinated developmental approach from both the GOs and NGOs have scope for increasing the consciousness and IGAs of respondents in the research area.
2. The Livelihood Improvement Index (LII) of the 48 activities varied from 2.7 to 145.6. Only two activities had indices over 125 and 10 had LII over 100 with possible range of 0 to 300. The livelihood improvement in 48 activities reveals that the women had considerable improvement in 'food security' and 'social empowerment' aspects. They are investing their earning mainly in the food security related activities. This situation lead to conclude that intensive mass awareness programme could have influence to enhance their existing condition.
3. Among the selected 12 characteristics of the women, 10 characteristics such as age, education, annual family income, credit received, savings, attitude towards ASA, aspiration, fatalism, self-confidence and family expenditure had significant correlation with the livelihood improvement. The finding leads to conclude that certain attributes of women played an important role in their livelihood improvement.
4. Self confidence, annual family income, fatalism, aspiration and education were the effective predictors and showed significant contribution in the livelihood

improvement. This leads one to conclude that the policy makers may have room to give attention on the above factors for increased livelihood improvement by the women.

5. Livelihood improvement model constituted with the influencing five relevant characteristics had the adequacy,  $R^2 = 0.317$  with the constant value of 9.491 that defined a low livelihood improvement comparing to the mean value of 32.28. It may be concluded from the difference between the mean values and model-constant that women eagerly need better livelihood improvement through increasing the significant characteristics included in the livelihood improvement model.
6. Insufficient supply of loan was the highest problem of women beneficiaries for utilization of it. Supply of desirable amount of loan as perceived by the women ranked top to overcome that problem. This phenomenon concludes that lack of supply of desirable amount of loan had great influence on utilization of loan which ultimate hinder the livelihood improvement of women beneficiaries.

### **7.3 Recommendations**

#### **7.3.1 Recommendations for policy implications**

The following recommendations were made on the basis of the findings and their logical interpretations:

1. A great number of women (65.9 percent) had low to medium level of livelihood improvement. 'Health and sanitation' and 'family assets and shelter' related activities are not contributing effectively in livelihood improvement matter. Hence, it is recommended that concerned government authorities like BRDB, family planning department, local government office etc. and NGOs should come forward with special health care and IGA related programmes for the women in the research area.
2. Out of five, four influencing characteristics, namely, self confidence, annual family income, aspiration and education were positively related and had positive effect on the livelihood improvement of women. But other influencing characteristics i.e. fatalism was negatively related and had negative effect on the

same. Therefore, it is recommended that these characteristics might be considered while planning and executing livelihood improvement for the women.

3. Considering the livelihood improvement activities the 'health and sanitation' and 'family assets and shelter' aspects are in the third and last position respectively. It is recommended that different GOs and NGOs should strengthen their different development programme regarding 'health and sanitation' and 'family assets and shelter' related activities. 'Food security' and 'social empowerment' enhancing activities should also be included in the same programme.
4. ASA and other organizations should take proper steps for distribution of desirable amount of loan to the women beneficiaries. Different motivational approach should also be taken for overcoming other problems for proper utilization of loan.
5. Special care should be taken by ASA and other concerned organizations working in the study area so that more women beneficiaries could be included in their microcredit programme for enhancing livelihood improvement.

### **7.3.2 Recommendations for further study**

Considering the scope and limitations of the study and unbiased observations, the following recommendations are made for further study:

1. The present study was conducted in Sadar Upazila under Dinajpur district of Bangladesh. Further study needs to be conducted in other places of Bangladesh to examine the variation of livelihood improvement by the women due to variation in location.
2. Only twelve characteristics of the women were included in the study. But there might be other characteristics of the women which may have influence on livelihood improvement. So, it is recommended that further study should be conducted involving other unexplored characteristics than these twelve characteristics.

3. The study deals with women group only. However, separate study can be conducted with the male borrowers who took small loan from ASA to find their livelihood improvement.
4. In this study 'livelihood improvement' has been studied on four aspects such as: i) food security, ii) health and sanitation, iii) family assets and shelter and iv) social empowerment. In each of the four aspects, 12 specific activities were identified and selected. In further study, more specific activities may be included in each of aspects of livelihood improvement.



## REFERENCES

- Akhter, S. (1996). Rural Women in Microcredit Programmes for Poverty Alleviation in Bangladesh: Participation and Constrains to their Activities, *Bank Parikrama*, 21(3&4): 78-102.
- Akter, K. (2006). Microfinance by RDS: An Impact Study in Sadar Upazila of Mymensing District. *M.S. Thesis*, Department of Agricultural Finance, Bangladesh Agricultural University, Mymensingh.
- Alam, A.B.M.N. (2005). Rural Women in Microcredit Programmes for Poverty Alleviation: A Study of BRAC in Sadar Upazila of Netrokona District. *M.S. Thesis*, Department of Agricultural Finance, Bangladesh Agricultural University, Mymensingh.
- Alam, A.B.M.T. (2001). Study on Socio-economic Aspects of the Participating Group Members of Caritas Social Forestry Project. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Alam, J. (1990). Organizing in the Rural Poor in Bangladesh: the Experiences of NGOs, GB and BRDB. *Bangladesh Journal of Political Economy*. 10(3): 42-57.
- Alamgir, D.A.H. (1993). Credit Programmes of Local Non-Governmental Organizations. Monograph, pp. 27-40.
- Alamgir, D.A.H. (1998). The Impact of Poverty Alleviation Programme of the PKSF: A Case Study. Research Report.
- Ali, M.J. (2003). Impact of Microcredit in the Poverty Alleviation of BRAC Women Beneficiaries in a Selected Area of Dinajpur District. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Amin, M.R. (2002). Impact of PETRA Project in Improving Livelihood Status of the Beneficiaries of RDRS. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

- Amin, S. and A.R. Pebly (1994). Gender Inequality Within Household: The Impact of a Women's Development Program in 36 Villages. *The Bangladesh Development Studies*. 22(2&3): 121-154.
- Amin, S.A. (2008). Role Performance of Charland Women in Maintaining Sustainable Livelihood. *Ph.D. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- ASA, (2009). *Annual Report 2009*. ASA Tower, 23.3 Khilji Road, Dhaka
- Asaduzzaman, M. (2003). Impact of Microfinance Towards Empowerment Through Decision Making Ability of Women Beneficiaries under Prosika. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Banu, D. (1992). Women in Poverty Alleviation: Six Studies. Bangladesh Rural Advancement Committee, Research and Evaluation Division, Dhaka, Bangladesh.
- Barrett, C. and T. Reardon. (2000). Asset, Activity and Income Diversification among African Agriculturists: Some Practical Issues. Project Report to the USAID, BASIS, CPSP.
- BBS. (2009). *Statistical Pocket Book of Bangladesh*. Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples Republic of Bangladesh.
- Begum, A. and K. Chakraborty (1995). Economic Contribution of Rural women and their Participation in the Household Decision-Making Process in Bangladesh, Research Note, *Bangladesh Journal of Agricultural Economics*.18:15-59.
- BIDS. (1990). *Evaluation of Poverty Alleviation Programme in Bangladesh*. Main Report.
- Carney, D. (ed.). (1998). *Sustainable Rural Livelihoods*, Department for International Development, London.
- Chambers, R. and G. Conway. (1992). *Sustainable Rural Livelihoods: Practical concepts for the 21<sup>st</sup> century*. IDS Discussion Papper-296. Brighton: IDS.
- Cheston, S. and L. Kuhn. (1997). Empowering Women Through Microfinance.

- Cohen, L. and M. Holiday. (1982). *Statistics of Social Science: An Introductory Text with Computer Programmes in Basic*. London: Harper and Row Publishers.
- Dewey, D.R. and K.H. Lu. (1959). A Correlation and Path Co-efficient Analysis of Components of Crested Wheat Grass Seed Production. *Agronomy Journal.*, 51: 515-518.
- DFID. (1999). Sustainable Livelihoods Guideline Sheet: Origins and Objectives. DFID's SL Framework. London: DFID.
- DFID. (2000). *Sustainable Rural Livelihood*. Department for International Development, 94 Victoria Street, London.
- Ellis, F. (2000). *Rural Livelihoods and Diversity Development Countries*. Oxford: Oxford University Press.
- Falkenberg, S. (2005). *Path Analysis Definitions*. Handout and Assignment Sheets of Statistics and Research Methods II. Department of Psychology, Kentucky, USA. <[http://people.eku.edu/falkenbergs/psy 862/pathdefs.htm](http://people.eku.edu/falkenbergs/psy%20862/pathdefs.htm)>
- Goetz, A.M. (1995). Credit for Poor Rural women in Bangladesh: Who controls the loan use? *Development and Cooperation*. 6:14-15.
- Gony, M.M. (2000). A Study on the Micro Finance for Women Development Sponsored by Grameen Bank in Some Selected Areas of Comilla District. *M.S. Thesis*, Department of Agricultural Finance, Bangladesh Agricultural University, Mymensingh.
- Goode W.J. and P.K. Hatt (1981). *Methods in Social Research* Singapore: Mc Graw- Hill Book Company.
- Habib, M.A. (2003). Effectiveness of Loan Provided by the Islami Bank Bangladesh Limited Under Rural Development Scheme in a Selected Area of Mymensingh District. *M.S. Thesis*, Department of Agricultural Finance, Bangladesh Agricultural University, Mymensingh..
- Haque, A. (1998). Impact of Rural Development Program of BRAC on Economic and Social Wellbeing of Women in a Selected Area of Mymensingh District. *M.S. Thesis*, Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh.

- Haque, M., I.K. Muniruzzaman and S. Samsuzzaman. (2002). Livelihood Improvement of the Poor Participants of a Rural Skill Training Income Generation Project in Northern Bangladesh. *Bangladesh Journal of Extension Education*, 14 (1 & 2): 53-61.
- Herz, B. (1991). Setting Girls Learning: Promising Approaches in Primary and Secondary. World Bank Discussion Paper No. 133, Washington D.C., USA.
- Hossain, M. (1988). Credit for Alleviation of Rural Poverty: The Grameen Bank in Bangladesh. Research Report No. 65. International Food Policy Research Institute and Bangladesh Institute of Development Studies.
- Islam, M.A. (2003). Effectiveness of Seed Production Program of Proshika in Reducing Poverty of the Beneficiaries. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Islam, M.N. (2005). GO-NGO Collaboration for Sustainable Livelihoods of Garo Women in Bangladesh. *Ph.D. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Islam, M.O. (2002). Poverty Alleviation of the Rural Women Through Some of the Selected Activities of Grameen Bank. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Islam, M.R. (2001). Impact of Adarsha Gram Project in Alleviation of poverty of the Landless Settlers. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Islam, M.S. (1999). Microcredit for the Rural Poor: A Study of Small Farmers Development Project (SFDP) in Sadar Thana of Bogra District. *M.S. Thesis*, Department of Finance, Bangladesh Agricultural University, Mymensingh.
- Islam, M.S. (2004). Extent of Knowledge and Information System in Rural Community for Improving Rural Livelihood of Farmers. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

- Jalil, M.A. (2005). Impact of Microcredit Programme of RDRS on Rural Women in Some Selected Areas of Kurigram District. *M.S. Thesis*, Department of Agricultural Finance, Bangladesh Agricultural University, Mymensingh.
- Kabir, L.I. (2005). Comparative Analysis of Livelihood Status between the Adibashi and the Native Rural women. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Kabir, M. and R. Amin. (1995). The Impact of Rural Women's Participation in Village Based development programs on Fertility. *The Journal Rural Development*, 25(1): 24-45.
- Kabir, M.F. (2003). Effect of Palli Daridro Bimochon Foundation (PDBF) on Reducing the Level of Poverty of Landless People. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Kamal, M. (1998). Empowering Rural Women. A Study on the Impact of Grameen Bank Microcredit Programmes in Selected Area Under Barishal District. *M.S. Thesis*, Department of Cooperative and Marketing, Bangladesh Agricultural University, Mymensingh.
- Karim, M.R. (2005). Extent of Dropout from Microcredit Programs: What We know and What it Should Be. *Social Science Journal*, 11: 141-150.
- Karim, M.R. (2006). Who Give Up the Opportunity of Coming out of Poverty: The Grameen Bank Case. *Social Science Journal*, 12(1): 51-59.
- Kerlinger, F.N. (1973). *Foundations of Behavioural Research*. New York: Holt, Rinehart and Winston Inc.
- Khandker, S.R. (1998). *Fighting Poverty with Micro Credit: Experience in Bangladesh*. Oxford University Press, Inc., New York.
- Khatun, M., A.A. Bhuiyan, A.M.R. Choudhury and S.M.Z. Hyder (1998). Effect of BRAC Rural Development programme on Calorie Consumption. *Annual Report-BRAC*, Dhaka.
- Khatun, M.M. (2004). Extent of Farmer's Knowledge and Contact with Information System on Sustainable Livelihoods. *M.S. Thesis*, Department of

Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

- Li, C.C. (1954). *Population Genetics*. The University of Chicago Press, Chicago.
- Mondal, M.A.A. (2007). *Poverty Alleviation Through Microcredit of BRAC Women Beneficiaries*. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Mondal, W.I. (2002). *Microcredit and Microentrepreneurship: collateral free loan at work in Bangladesh*. The Academic Press and Publications Limited (APPL), Dhaka, Bangladesh.
- Mondol, M.A.S. (2009). *Use of Communication Channel by the Farmers in Receiving Farm Information*. *Ph.D. Thesis*, Department of Agricultural Extension, Hajee Mohammad Danesh Science and Technology University Dinajpur, Bangladesh.
- Mortoza, M.G., M.A. Kashem, M.M. Islam, A. Halim and A. Ahmed. (2004). *Determination of Factors that Enhancing Sustainable Livelihood of Group Members of Krishak Samabay Samity (KSS) of BRDB*. Paper Presented at the Symposium on "Sustainable Livelihood Improvement- Challenges for Extension Service" Organized by BAES and DAE.
- Muller (1977). *Statistical Reasoning in Sociology*. 3<sup>rd</sup> edn. Boston: Moughton Mifflin Company.
- Muniruzzaman, I.K., M.G. Neogi, H.H. Khan and J. Ferdous. (2003). *Effects of NGO Interventions on Livelihood Conditions of Rural Poor in Northwest Bangladesh*. *Bangladesh Journal of Extension Education*, 15(1&2):155-163.
- Naved, R.T. (1994). *Employment of women: Listening to the Voices of Women*. *The Bangladesh Development Studies*, 22(2&3): 155-178.
- Parvin, S. (1998). *Impact of Grameen Bank Activities on the Socio-economic Development of Rural Women in Selected Area of Rangpur District*. *M.S. Thesis*, Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh.
- Rahman, S.M.M. (2002). *Seed Uptake Programme of RDRS: It's Impact on Livelihood Asset Building of Resource Poor Farmers*. *M.S. Thesis*,

Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

- Rana, M.M., M.J. Kabir, A.S.M.G. Hafeez, M.I. Khan and M.M. Alam (2001). Impact of BRAC Credit Programme on Income Generation of Rural Women. *Bangladesh Journal of Agriculture*, 26(I & II): 139-151.
- Rashid, M.H. (2001). Impact of BRAC Activities on Income and Women Empowerment in Selected Area of Mymensingh District. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Rashid, M.H. (2006). Participation of the Garo Farmers of Madhupur Garh Forest in Agricultural Activities. *Ph.D. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Ray, G.L. and S. Mondal. (2004). *Research Methods in Social Sciences and Extension Education*. New Delhi: Kalyani Publishers.
- Rennie, J.K. and N. Singh. (1996). *Participatory Research for Sustainable Livelihoods*, International Institute for Sustainable Development, Winnipeg.
- Roe, E.M. (1998). Policy Analysis and Formulation for Sustainable Livelihood. <[www.undp.org/sl](http://www.undp.org/sl)>.
- Rokonuzzaman, M. (2004). Impact of Community Based Fisheries Management Project on Livelihoods of a Fishing Community in Haor Area of Sunamganj District. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Rushidan, I., A. Rahman and A.M. Latif. (1996). Role of Targeted Credit Programs in promoting Employment and Productivity to the Poor in Bangladesh. Published in *Credit Programs for the Poor: Household and Intra-household Impacts and Program Sustainability (Vol. II)*, Bangladesh Institute of Development.
- Sarkar, M.S.K. (2006). Impact of Village Phone Credit on the livelihood improvement of the borrowing Households. *M.S. Thesis*, Department of Agricultural Finance, Bangladesh Agricultural University, Mymensingh.

- Sarker, M.N.I. (2007). Poverty Alleviation of Rural People through Chars Livelihoods Programme. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Singh, N. and K. Perpetua. (1995). *Adaptive Strategies and Sustainable Livelihoods: Integrated Summary of Community and Policy Issues*. Winnipeg: International Institute for Sustainable Development.
- Thurstone, L.L. (1946). Comment. *American Journal of Sociology*, 52:39.
- UNDP. (1995). *South Asia poverty Alleviation Programme*, Annual Report, Dhaka.
- UNDP. (2005). Sustainable Livelihoods: Concepts, Principles and Approaches to Indicator Development. <www\Livelihoods\UNDP-SL Documents SL Concept, Principles and Approaches to Indicator Development. htm.>
- Waheduzzaman, M. (2004). Impact of NGO-Interventions on Livelihoods of Women in a Fishing Community. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- World Bank. (1975). *Agricultural Credit: A World Bank Paper*. Washington D.C., USA.
- World Bank. (1993). *A Review of Bank Lending for Agricultural Credit and Rural Finance, 1948-1992*. Washington D.C., USA.
- Yeasmin, H. (2004). Effects of Grameen Bank (GB) Credit Extended to Rural Women and Social Empowerment There in a Selected Area of Comilla District. *M.S. Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Yunus, M. (1994). *Hunger, Poverty and Credit Making Poverty Unacceptable Future*. New Delhi. 31-32: 10-19.



## APPENDIX - I

### English Version of the Interview Schedule

Department of Agricultural Extension  
Hajee Mohammad Danesh Science and Technology University  
Dinajpur

### EFFECT OF MICROCREDIT ON LIVELIHOOD IMPROVEMENT OF WOMEN BENEFICIARIES INVOLVED IN ASSOCIATION FOR SOCIAL ADVANCEMENT

Serial No. ....

Name of Respondent : Father's/Husband's Name :  
Village/Para: : Union/ Ward :  
Name of Branch : Name of Group :

(Please provide information on the following aspects)

1. **Age:** Please mention your present age .....years.
2. **Education:** please mention your educational qualifications
  - a) Can sign only
  - b) Have passed class .....
3. **Family Size:** please mention the number of your family members
  - a) Male \_\_\_\_\_
  - b) Female \_\_\_\_\_
  - c) Total \_\_\_\_\_

#### 4. Annual Family Income:

Give particulars about your family income of last year from different sources.

Sl. No.	Source of income	Production	Market price	Total (TK.)
1.	Crops			
2.	Vegetables			
3.	Fruits			
4.	Poultry			

Sl. No.	Source of income	Production	Market price	Total (TK.)
5.	Fish culture			
6.	Domestic Animals			
7.	Service			
8.	Business			
9.	Day labour			
10.	Rickshaw/Auto- Rickshaw driving			
11.	Others (if any)			
Total (TK.)				

### 5. Credit received:

Please mention the following information regarding received credit

Sl. No.	Area of credit received	Amount of credit (TK.)
1.	Poultry rearing	
2.	Rearing of milking cow	
3.	Beef fattening	
4.	Goat rearing	
5.	Vegetable cultivation	
6.	Small business	
7.	Others	

### 6. Savings:

Please mention your savings status

Sl. No.	Source of savings	Amount (TK.)
1.	NGO group	
2.	Bank	
3.	Own hand	
4.	Others	

### 7. Duration of involvement with ASA:

How many years you are involved with ASA ? \_\_\_\_\_ Years

### 8. Attitude towards ASA:

Please, express your attitude towards ASA in the following aspects.

Sl. No.	Statement	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
1 (+)	My overall condition increasing due to taking credit from ASA					
2 (-)	For taking loan, I am not getting importance from the neighbouring people like before					
3 (+)	Poor women are much benefited by the activities of ASA					
4 (-)	High rate of interest in comparison to other NGOs'					
5 (+)	ASA microcredit program is better than any other NGO's programs					
6 (-)	The amount of credit is not sufficient as per demand					
7 (+)	I am benefited by involving myself in ASA program					
8 (-)	Management of ASA is not satisfactory					
9 (+)	Local people are happy on ASA because they don't put barrier to their religious sentiments					
10 (-)	ASA provides income generating activities among the poor women which deteriorate relationship between men and women					
11 (+)	The activities of ASA are important for socio-cultural improvement					
12 (-)	Men are not happy because ASA's microcredit programme are only for women					

### 9. Aspiration:

Please mention your opinions on the following statements

Sl. No.	Statement	Extent of aspiration				
		1	2	3	4	5
1.	Up to what level you want to educate your child?	No need of education	Up to Primary	Up to SSC	Up to HSC	Graduate or more
2.	What occupation would you like to see with your children?	No planning	Day labour	Parents' Job	Business	Government Service
3.	What is your desire regarding repairing existing house or constructing new house?	Nothing	Minor repair of existing house.	Make kacha house	Make tin house	Make Purcca house
4.	What type of decoration you want to promote in future?	Nothing	Well cloth	Well Furniture	worthy jewelry/ ornaments	Radio/ TV
5.	What is your aspiration if you get opportunity in political arena?	Nothing	Active member of the party	Attend in local govt. election	Leader in Upazilla level	Leader in national level
6.	For establishing in life, what is your ambition?	No planning	Buy rickshaw / Van	Own shop	Own shop with additional staff	Buy auto-rickshaw

### 10. Fatalism:

Please mention your degree of opinions on the following statements

Sl. No.	Statement	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
1 (+)	Man is horn by the wish of Allah, so birth control is a great sin					
2 (-)	We should work hard to prosper in life, and to not depend on fate					
3 (+)	If the luck is bad, it is not possible to become alive by taking medicine					

Sl. No.	Statement	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
4 (-)	For good health of children, not fate but they should feed green vegetables, fruits, meats etc					
5 (+)	One should not think about food and cloth because Allah/ God will arrange everything for them					
6 (-)	Without birth control, our socio- economic condition will not be improved					
7 (+)	Good crop production is not possible without good luck					
8 (-)	Our life style will not be developed if we only depend on fate					

### 11. Self-confidence:

Please express your opinion from the following statements:

A. If worthy household materials are stolen, I will-

- a) take no step (1)
- b) be careful in future (2)
- c) take legal action (3)

B. If loss everything and become helpless due to unavoidable circumstances, I will-

- a) Set idle keeping faith in God (1)
- b) try to earn as a day labourer (2)
- c) try to earn livelihoods by hard working without being frustrated (3)

C. If I fail to repay loan/ installment in time due to natural disaster or accident, I will-

- a) Repay by selling my other properties (2)
- b) Repay by borrowing from of group members or others (1)
- c) Repay by taking loan from other organization (3)

D. If my poultry or domestic animals are infected, I will-

- a) Call a veterinary surgeon (3)
- b) Sell only the disease infected poultry or domestic animals (2)
- c) Sell all the poultry or domestic animals (1)

E. For the development of my present economic condition, I will-

- a) Carry on with my present adopted programme (1)
- b) Do my job by harder working (2)
- c) Try to develop by adopting new technology (3)

## 12. Family Expenditure:

Please mention your family expenditure amount on the following heads

Sl. No.	Expenditure head	Time	Amount of expenditure
1.	Fuel wood/keroshine oil/cylinder gas/electric heater	Monthly	
2.	Electricity, water and other services	Monthly	
3.	Everyday used goods (oil, soap, comb, plate, glass etc.)	Monthly	
4.	Cigarette, Bidi, Pan, Jorda	Monthly	
5.	Spices and oils	Monthly	
6.	Transport cost (bus. rickshaw. auto- rickshaw, van etc.)	Monthly	
7.	Clothing	Yearly	
8.	House repairing and maintenance	Yearly	
9.	Educational expenditure (books, khata. tuition fees, dress etc.)	Yearly	
10.	Medical treatment (medicine, doctor's fees, hospital/clinic etc.)	Yearly	
11.	Social gathering/ gift	Yearly	
12.	Religious and other services	Yearly	

### 13.0 Extent of Livelihood Improvement:

Please mention your opinions on the following subject matter regarding your livelihood improvement

#### 13.1 Food Security:

Sl. No.	Considerable Subject Matter	Extent of improvement			
		High	Moderate	Slight	Not at all
<b>a) Food availability</b>					
1.	Storage of food grains (rice, wheat etc.)				
2.	Storage of vegetables (potato, onion, garlic etc.)				
3.	Storage of pulses and oils				
4.	Availability of food in adverse situation				
<b>b) Food access</b>					
5.	Having cash money to buy rice or wheat				
6.	Having cash money to buy vegetables, pulses, spices and oils				
7.	Having cash money to buy fish, meat, eggs and fruits				
8.	Having buying facilities from local shop and market				
<b>c) Food utilization</b>					
9.	Consumption of cereal crops (rice/ wheat) and vegetables				
10.	Consumption of protein (fish, meat, eggs, pulses)				
11.	Preparation of food in scientific method and Consumption				
12.	Use of balance diet				

#### 13.2 Health and sanitation:

Sl. No.	Considerable Subject Matter	Extent of improvement			
		High	Moderate	Slight	Not at all
<b>a) Medical facilities</b>					
1.	Availability of oral dehydration saline (ORS) (if necessary)				
2.	Use of family planning materials and advice				
3.	Reception of immunization doses				
4.	Consultation with MBBS doctor				

Sl. No.	Considerable Subject Matter	Extent of improvement			
		High	Moderate	Slight	Not at all
<b>b) Drinking water Source:</b>					
5.	Ponds/river water				
6.	Kancha well				
7.	Pacca well				
8.	Tube well				
<b>c) Toilet condition:</b>					
9.	Toilets in open place				
10.	Kancha latrine				
11.	Sanitary latrine				
12.	Pacca sanitary latrine				

### 13.3 Family assets and shelter:

Sl. No.	Considerable Subject Matter	Extent of improvement			
		High	Moderate	Slight	Not at all
<b>a) Family assets</b>					
1.	Furniture				
2.	Goat				
3.	Duck				
4.	Chicken				
5.	Cow				
6.	TV				
7.	Fridge				
8.	Mobile phone				
9.	Bi-cycle				
<b>b) Shelter</b>					
10.	Hut/tin house				
11.	Tin shed building				
12.	Building				



### 13.4 Social empowerment:

Sl. No.	Considerable Subject Matter	Extent of improvement			
		High	Moderate	Slight	Not at all
<b>a) Decision making ability</b>					
1.	Purchase, sell or mortgage of land				
2.	Education of children				
3.	Family healthcare and treatment				
4.	Casting vote as personal preference				
5.	Family planning				
6.	Marriage ceremony (adult child, brother sister, nearest relatives)				
<b>b) Social participation:</b>					
7.	Participation in social function such as marriage, birthday, chehnam, puja etc.				
8.	Participation in village meeting/shalish				
9.	Arbitration in family quarrel of neighbours and relatives				
<b>b) Social mobility</b>					
10.	Visit to houses of relatives /neighbours /friends				
11.	Visit to nearby NGO office				
12.	Visit to own upazila HQ				

### 14. Problems faced in utilizing the microcredit:

Please mention your degree of importance on the following problems you faced in utilization of microcredit properly

Problem statement	Extent of problem faced			
	None	Low	Medium	High
	0	1	2	3
Taking loan through group leader by giving bribe but repaying full installment of loan				
Investment become invalid due to sudden accident				

Problem statement	Extent of problem faced			
	None	Low	Medium	High
	0	1	2	3
Taking loan from mahajan (money lender) with high interest rate				
Insufficient loan for proper utilization				
Pressure from husband/family members for investing loan in other sector rather than the area for which loan has been taken				
Utilizing loan for repaying loan installment of other organization				
Receiving loan for other person, and hence no control over utilization of loan				

**15. Probable measures to overcome the problems:**

Please state the probable measures you think to resolve the problems.

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Thank you for your cooperation

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(Signature and date of the interviewer)

## APPENDIX-II

A summary of the distribution of women according to their total livelihood improvement score in four selected aspects

Dependent variable	Categories	Respondents (290)		Range	Mean	SD	CV (%)
		Number	Percent				
Food security	Low (Up to 12)	195	67.2	2-29	10.08	6.99	69.34
	Medium (13-25)	69	23.8				
	High (Above 25)	26	9.0				
Health and sanitation	Low (Up to 12)	252	86.9	0-21	5.64	4.17	73.93
	Medium (13-25)	35	12.1				
	High (Above 25)	3	1.0				
Family assets and shelter	Low (Up to 12)	276	95.2	1-21	5.80	3.17	54.75
	Medium (13-25)	12	4.1				
	High (Above 25)	2	0.7				
Social empowerment	Low (Up to 12)	159	54.8	2-29	10.76	5.86	54.46
	Medium (13-25)	111	38.3				
	High (Above 25)	20	6.9				
Total livelihoods improvement	Low (Up to 45)	191	65.9	9-83	32.28	13.69	42.41
	Medium (46-90)	72	24.8				
	High (Above 90)	27	9.3				

### APPENDIX-III



A summary statement showing categories and salient features of the selected characteristics of poor women (N=290)

characteristic	Measuring Unit	Categories	Respondents		Range	Mean	SD	CV (%)
			No.	%				
Age	Years	Young (up to 35)	138	47.6	19-59	37.72	9.23	24.46
		Middle aged (36-50)	120	41.4				
		Old (above 50)	32	11.0				
Education	Year of schooling	Ability to sign (0.5)	108	37.3	0.5-15	4.33	3.68	84.98
		Primary education (1-5)	80	27.6				
		Secondary education (6-10)	92	31.7				
		Above Secondary education (above 10)	10	3.4				
Family size	Numbers	Small family (up to 4)	159	54.8	2-15	4.74	1.90	40.08
		Medium family (5-6)	96	33.1				
		Large family (7 and above)	35	12.1				
Annual family income	Score (Thousand)	Low income (up to 125)	43	14.8	62-380	159.04	65.07	40.91
		Medium income (125.1-250)	178	61.4				
		High income (above 250)	69	23.8				
Credit received	Score (Thousand)	Low recipient (up to 10)	27	9.3	4-50	21.05	8.79	41.75
		Medium recipient (10.1-30)	232	80.0				
		High recipient (above 30)	31	10.7				
Savings	Score (Thousand)	Low savings (up to 10)	145	50.0	0.6-33.0	9.34	10.37	111.02
		Medium savings (10.1-20)	94	32.4				
		High savings (above 20)	51	17.6				
Duration of involvement with ASA	Years	Short duration (up to 5)	58	20.0	4-16	8.86	3.22	36.34
		Medium duration (6-10)	136	46.9				
		Long duration (11 and above)	96	33.1				
Attitude towards ASA	Score	Unfavourable (up to 20)	7	2.4	30-55	45.05	4.22	9.36
		Moderately favourable (21-40)	251	86.6				
		Highly favourable (above 40)	32	11.0				
Aspiration	Score	Low aspiration (up to 10)	214	73.8	6-27	16.83	4.52	26.85
		Medium aspiration (11-20)	72	24.8				
		High aspiration (above 20)	4	1.4				
Fatalism	Score	Low fatalism (up to 12)	16	5.6	9-31	18.96	3.93	20.72
		Medium fatalism (13-25)	264	91.0				
		High fatalism (26 and above)	10	3.4				
Self-confidence	Score	Low self-confidence (up to 8)	44	15.2	5-14	10.67	1.992	18.65
		Medium self-confidence (9-12)	181	62.4				
		High self-confidence (above 12)	65	22.4				
Family expenditure	Score (Thousand)	Low (up to 7)	4	1.4	3.5-24.7	10.65	3.44	32.30
		Medium (7.1-13)	133	45.9				
		High (above 13)	153	52.7				

## APPENDIX-IV

### Correlation matrix of the dependent and independent variables

	Age	Education	Family size	Annual family income	Credit received	Savings	Duration of involvement with ASA	Attitude towards ASA	Aspiration	Fatalism	Self confidence	Family expenditure	Livelihood improvement
Age	1												
Education	-.229**	1											
Family size	.153**	-.166**	1										
Annual family income	.163**	.102	.224**	1									
Credit received	.192**	.029	.134*	.359**	1								
Savings	.069	.080	.010	.299**	.259**	1							
Duration of involvement with ASA	.238**	-.193**	.088	.047	.371**	.222**	1						
Attitude towards ASA	-.081	.062	-.101	.051	.034	.000	-.070	1					
Aspiration	-.297**	.204**	.097	.159**	.051	.143*	-.001	.076	1				
Fatalism	.331**	-.301**	.192**	-.071	-.026	-.105	.053	-.181**	-.292**	1			
Self confidence	-.109	.310**	-.102	.127*	.098	.172**	-.052	.217**	.241**	-.342**	1		
Family expenditure	.136*	.074	.365**	.821**	.375**	.274**	.128*	.051	.227**	-.086	.140*	1	
Livelihood improvement	-.198**	.320**	-.009	.340**	.190**	.233**	.037	.136**	.376**	-.397**	.409**	.324**	1

\*\* Correlation is significant at the 0.01 level of probability; \* Correlation is significant at the 0.05 level of probability