GENDER DIFFERENCES, PARTICIPATION AND DECISION MAKING PROCESS IN FARM AND NON-FARM ACTIVITIES: THE CASE OF BARIND AREAS OF RAJSHAHI REGION

A Thesis
By

MD. RAKIB HASAN

Examination Roll No.:16AEP JD-33M
Registration No.: 39047
Session: 2011-2012
Semester: January-June/2018

MASTER OF SCIENCE (MS)
IN
AGRICULTURAL ECONOMICS (PRODUCTION ECONOMICS)

DEPARTMENT OF AGRICULTURAL ECONOMICS
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MYMENSINGH

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Submitted to the
Department of Agricultural Economics
Bangladesh Agricultural University, Mymensingh
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE (MS)
IN
AGRICULTURAL ECONOMICS (PRODUCTION ECONOMICS)

DEPARTMENT OF AGRICULTURAL ECONOMICS
BANGLADESH AGRICULTURAL UNIVERSITY
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DEDICATED TO
MY PARENTS

ABSTRACT

This study was an investigation to the gender power dimensions through access and control over resources and decision making process in farm and non-farm activities. It was further strengthen by the analysis of gender differentiated roles and responsibilities of men and women in farm and non-farm activities in Barind areas of Rajshahi region. A total of 114 farmers were surveyed from Nachole upazila under Chapai Nawabganj district and Godagari upazila under Rajshahi district for collecting necessary primary data and information. Data were collected during January-March 2018 through a semi-structured interview schedule. The socioeconomic characteristics of the sample farmers were assessed through relevant descriptive statistics. The survey reveals that the highest proportion of the respondents belonged to the age group 18-30, accounts 37 percent of the respondents. About 90 percent of the respondents are involved in farming as their main occupation. The average percentage share of men is higher in field agricultural activities than women such as land preparation (91 percent), fertilizer application (90 percent) and irrigation (90 percent). In some pre-plantation and post-harvest activities, women are more engaged than men such as seed storage (56 percent) and drying (67 percent) in the study area. Women have more participation than men in various non-agricultural activities such as cleaning (79 percent), cooking (90 percent), taking care of children and elderly people (82 percent) and collection of drinking water (67 percent). The proportion of women's participation in decision making was lower (0.82 percent) in various farm activities, compared men (59 percent). However, in about 40 percent households, both men and women take decision on various farm activities. In case of non-farm activities, both men and women together take decision on various aspects which shows a better participation of women compared to their position in farm decision making process. Considering the research findings, probable solutions of were suggested to reduce the gender gap in the study area. It is assumed that if these suggestions are taken care of, women and men would be able to practice their capability and power equally in farm and non-farm activities.

ACKNOWLEDGEMENT

At the inception, the author wish to acknowledge the immeasurable grace and profound kindness of the Almighty Allah without whose desire he could not have materialized his dream to conclude this thesis.

The author would like to express his heart squeezed gratitude, immense indebtedness, sincere appreciation, profound regard and deep sense of respect to his supervisor ***Dr. Hasneen Jahan****, Professor, Department of Agricultural Economics, Bangladesh Agricultural University (BAU), Mymensingh, for her unconditional love, scholastic guidance and advice, constructive criticism, untiring help, constant inspiration and continuous supervision from the beginning to the completion of this work.*

The author also expresses his heartfelt gratitude and sincere appreciation and profound indebtedness to his reverend co-supervisor, ***Dr. Fakir Azmal Huda****, professor, Department of Agricultural Economics, Bangladesh Agricultural University (BAU), Mymensingh, for his valuable suggestions and kind cooperation in completion of the research work and preparation of the thesis.*

The Sustaining Groundwater Irrigation for Food Security in the Northwest Region of Bangladesh – SDIP Phase – II project is gratefully acknowledged for supporting this research work in various aspects. The author also offers immense thanks to the Deputy Directors (DD) of Agriculture, Upazila Agriculture Officers (UAO), Sub-Assistant Agriculture Officers (SAAO), the enumerators and finally to the respondents (i.e., both husband and spouse) in the study areas.

The author also expresses his earnest recognitions to Professor Dr. Ismat Ara Begum, Head, Department of Agricultural Economics, BAU, Professor Dr. M. Serajul Islam,Professor Dr. W. M. H. Jaim, Professor Dr. Md. Akteruzzaman, Professor Dr. M. Harun-Ar Rashid, Professor Dr. Md. Taj Uddin, Professor Dr. Mohammad Saidur Rahman, Professor Dr. Sadika Haque, Professor Dr. Humayun Kabir and all other teachers of the Department of Agricultural Economics, Bangladesh Agricultural University, for their valuable teaching, worthy suggestions and inspiration for improving his knowledge and academic skills.

His genial acknowledgments are also due to all the teachers of the Faculty of Agricultural Economics and Rural Sociology, Bangladesh Agricultural University, Mymensingh, who thought the author in completing his graduation and MS degree.

The author also acknowledges his cheerful gratitude and special thanks to his friend ***Mizanur Rahman, Yousuf Ali, Mahe Alam, Tofajjol Hossain, Sharmin Akter, Marzia, Juthi, Shahrear, Rokibul*** *and all other friends and well-wishers for their kind co-operation throughout the period of the research work.*

The author would like to thank Ministry of Science and Technology, Government of Bangladesh for providing fund through NST (National Science and Technology) fellowship to complete this research work smoothly within time frame.

*Finally, the author owes a debt of appreciativeness to his treasured parents (****Md. Abdul Gofur*** *and* ***Sheuli Begum****), elder brother (****Md. Shihab Hasan****) and relatives for their blessings, constant source of inspiration, all out sacrifice and moral support throughout the entire period of his academic life.*

The Author

'Declaration of Support'

"This thesis was undertaken in collaboration with CSIRO and contributes to the South Asia Sustainable Development Investment Portfolio and is supported by the Australian aid program."

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ABBREVIATIONS

BAU	: Bangladesh Agricultural University
BBS	: Bangladesh Bureau of Statistics
CSIRO	: Commonwealth Scientific and Industrial Research Organization
DAP	: Di-Ammonium Phosphate
et al.	: Et alia (and others)
etc.	: Etcetera
Fig	: Figure
FY	: Fiscal Year
GDP	: Gross Domestic Product
GOB	: Government of Bangladesh
ha	: Hectare
HIES	: Household Income and Expenditure Survey
i.e.	: that is
Kg	: Kilogram
MoF	: Ministry of Finance
MS	: Master of Science
MT	: Metric Ton
No.	: Number
pp.	: Page
RNF	: Rural Non-farm
SDIP	: Sustainable Development Investment Portfolio
Tk.	: Taka
TSP	: Triple Super Phosphate
WHO	: World Health Organization
USDS	: United States Department of Agriculture
UNESCO	: United Nations Educational Scientific and Cultural Organization

CHAPTER 1

INTRODUCTION

1.1 Background and Contextualization

Gender tends to denote the social and cultural role of each sex within a given society. Rather than being purely assigned by genetics, as sex differences generally are, people often develop their gender roles in response to their environment, including family interactions, the media, peers, and education. The World Health Organization (WHO, 2018) defines gender as:

"Gender refers to the socially constructed characteristics of women and men, such as norms, roles, and relationships of and between groups of women and men. It varies from society to society and can be changed."

Gender roles in some societies are more rigid than those in others. The degree of decision-making and financial responsibility expected of each gender and the time that women or men are expected to spend on homemaking and rearing children varies between cultures. Within the wider culture, families too have their norms. Gender roles are not set in stone. In many societies, men are increasingly taking on roles traditionally seen as belonging to women, and women are playing the parts previously assigned mostly to men. Of the many presumed differences between the behaviors of males and females, some are real, some are found only inconsistently, and some are wholly mythical. Girls are more physically and neurologically advanced at birth. Boys have more mature muscular development but are more vulnerable to disease and hereditary anomalies. Girls excel early in verbal skills, but boys excel in visual-spatial and math skills. Boys' superior mathematic abilities, however, reflect only a better grasp of geometry, which depends on visual-spatial abilities. Boys are more aggressive, and girls more nurturing. Boys have more reading, speech, and emotional problems than girls. More equivocal are gender differences in activity level, dependency, timidity, exploratory activity, and

vulnerability to stress. There are no gender differences in sociability, conformity, achievement, self-esteem, or verbal hostility. Although differences exist, it is important to remember that the overlap between the distributions is always greater than the differences between them. In addition, noting the existence of the differences does not tell us why they exist. It is clear that girls and boys have many different experiences and opportunities as they develop which may lead to divergent outcomes or highlight existing differences (Ryle, 2011).

Bangladesh is a highly densely populated country. The country has a current population of 129 million. Rural areas appear to have become more densely populated (1,161 persons per km² as of 1999) while the number of people living in urban areas has risen to 19 percent of the total. In public health terms, poverty has had tangible impacts. In gender terms, almost half of the population is women (BBS, 2011). Women also constitute a substantial proportion of the rural poor population. The percentage of poor households is higher in the rural area than in the urban area. In addition women headed households (usually regarded as amongst the poorest of the poor) constitute 25 percent of the landless category (Khatun, 2014). This means that women alone must cope with the burden of poverty in the rural environment without the security of family networks or assets. In all occupation categories and employment status, the number of male labor force is much higher than that of female.

Rural households earn more from non-farm activities than agriculture due to the low price of farm products and lack of an appropriate marketing system, a recent survey by Bangladesh Bureau of Statistics (2014) found. Of their average annual income of Tk. 91,739, 22.77 percent comes from agriculture sector and 77.23 from the non-agriculture sector, according to the Rural Credit Survey 2014. The reason, according to Khondokar Ibrahim Khaled, former chairman and managing director of Krishi Bank, was that the production cost for agriculture is much higher, which may have eaten into the incomes. Plus, agricultural products often have to be sold at lower prices due to shortage of storage capacity, said Zahid Hussain, lead economist of World Bank's Dhaka office. As a result, farmers do not get returns proportionate to

their investment, he added. Subsequently, BBS in the survey report called for making the marketing system of agricultural products more efficient. Intermediaries in the distribution system in the market should be minimized and free or low-cost storage facilities established in concentrated localities, it said. A certain time-gap from harvesting should be considered by the loan providing institutions so that farmers can hold out for better prices of their crops rather than selling those right away to repay the loans (The Daily Star, 2015).

About the higher share of non-farm sector income, Hussain credited it to the substantial economic diversification currently taking place in rural areas. He also said at least one person from most of the households send remittances from abroad, which inflates their non-farm income. Furthermore, Khaled said a big portion of the loans taken by farmers are used in the non-farm sector. Meanwhile, the survey, which was conducted after 26 years in January 2014 to enable the government to make appropriate policies, found that agriculture was still the dominant sector of the economy, engaging about 47 percent of the labor force. In 2013, the total number of rural households was estimated at 2.47 crore. Of them, 1.2 crore took agricultural loans. Some Tk. 36,579 crore was disbursed in rural credit by different institutional and non-institutional providers during the calendar year. Of the amount, 17 percent was disbursed through banks, while the nongovernmental organizations distribute 67 percent. Non-institutional agri- loans, which account for 11 percent of the total credit, are distributed by local moneylenders and friends and so on. The survey also revealed that the majority of the rural borrowers were women (58.5 percent). The annual average expenditure of the households covered by the survey was Tk. 1.07 lakh, 46 percent of which was spent on food and 5 percent on repayment of outstanding debts. Repayment was due in case of about 21 lakh loans but was not paid partially or at all for various reasons, including sluggish business (36 percent), higher household expenditure (26.5 percent), low prices of cultivated crops (12.2 percent), support for medical expenditures (9.3 percent) and crop damage (6.2 percent) (The Daily Star, 2015).

The survey report also recommended agricultural insurance (crop insurance, livestock and poultry insurance) for borrowers. Insurance can be embedded with the loan scheme provided by the different loan granting institutions. It will help protect the borrowers from financial risks, including damage of crops for different natural calamities, low production, loss of domestic animal due to accident and sickness. The report also called for enhancing the monitoring mechanism of the central bank regarding compliance with the Agriculture and Rural Credit Policy. It also advocated patronizing the landless people more when it came to disbursing rural credit as well as training and guidance for women, as they are the key player in the borrowing households.

Bangladesh's economy, specifically agriculture, has been powerful drivers of poverty reduction in Bangladesh since 2000. Indeed, agriculture accounted for 90 percent of the reduction in poverty between 2005 and 2010. More than 70 percent of Bangladesh's population and 77 percent of its workforce lives in rural areas. Nearly half of all of Bangladesh's workers and two-thirds in rural areas are directly employed by agriculture, and about 87 percent of rural households rely on agriculture for at least part of their income. Bangladesh has made commendable progress over the past 40 years in achieving food security, despite frequent natural disasters and population growth (food grain production, for example, tripled between 1972 and 2014, from 9.8 to 34.4 million tons) (BBS, 2011). With one of the fastest rates of productivity growth in the world since 1995 (averaging 2.7 percent per year, second only to China), Bangladesh's agricultural sector has benefited from a sound and consistent policy framework backed up by substantial public investments in technology, rural infrastructure and human capital. But Bangladesh is among the most vulnerable countries to climate change, which poses a long-term threat to the country's agricultural sector, particularly in areas affected by flooding, saline intrusion, and drought. Faster and more inclusive rural growth with job creation will require greater agricultural diversification together with more robust rural non-farm enterprise development. A shift in production from rice to higher-value crops will significantly reduce malnutrition, trigger more rapid growth in incomes, and create more and better on-farm and non-farm jobs, especially for

women and youth. Livestock and fisheries also offer tremendous potential for reducing malnutrition and increasing incomes and jobs in a severely land constrained economy, but struggle because of inadequate government support.

1.2 Rural Farm and Non-farm Activities in Bangladesh

In Bangladesh, small farmers try to develop as many activities as their farming systems allow within the present socioeconomic and agro-climatic condition, and in accordance with household goals, preference and resources. In small farming in Bangladesh, there are four main components such as crops, livestock, fisheries and poultry. However, within the given component, farmers produce different types of crops such as cereals, oilseeds and Vegetables within the crop component; cattle, goats, sheep and in the livestock component; and culture and capture fisheries in fisheries component and poultry. This is the matter of farm activities.

The non-farm activities include all economic activities in rural areas except agriculture, livestock, forestry, fishing and hunting. Since it is defined negatively, as non-agriculture, it is not in any sense a homogeneous activity (Lanjouw and Lanjouw, 2005). Mostly manual labor based activities include self-employed subsistence-oriented cottage industries, wage employment in rural business activities, transport operation, and construction labor. Physical and human capital intensive activities include commercial type rural industries, including agro processing, shop-keeping, peddling, petty trading; medium and large scale trading etc. (LIFCHASA, 2012). The rural household workers engage in a set of earning activities that are not own-farm based or off farm based (except household activities in primary farm production of crop, livestock, poultry and fisheries) are included in the non-farm sector (NFS) (Malek and Usami, 2010). Especially, the local NFS is defined as any earning activity that the workers are participating in within the village, other neighboring villages, growth centers or rural town (excluding municipality at district headquarters and pouroshova at upazila headquarters), while retaining the households in the village. This definition included farm wage employments in the local NFS rather than the farm activities, because the relatively disadvantaged household (landless/land poor) workers could not work as self-

employed in the farm activities; they worked mainly either as farm or non-farm day laborers. In addition, a good number of absentee household workers engage in remittance employments in another place like non-local areas of the country for domestic migration (hereinafter in-country) and abroad for international migration (hereinafter out-country); and these remittance employments are considered as separate components under non-local NFS. The traditional image of farm households in developing countries is that they focus almost exclusively on farming and undertake little rural non-farm (RNF) activity.

This image persists and is widespread even today. Policy debate still tends to equate farm income with rural incomes, and rural/urban relations with farm/non-farm relations. There are several reasons why the promotion of RNF activity can be of great interest to developing country policy-makers. First, the evidence shows that

Rural non-farm income is an important factor in household economies and therefore also in food security, since it allows greater access to food. This source of income may also prevent rapid or excessive urbanization as well as natural resource degradation through overexploitation. Second, in the face of credit constraints, RNF activity affects the performance of agriculture by providing farmers with cash to invest in productivity-enhancing inputs. Furthermore, development of RNF activity in the food system (including agro processing, distribution and the provision of farm inputs) may increase the profitability of farming by increasing the availability of inputs and improving access to market outlets. In turn, better performance of the food system increases rural incomes and lowers urban food prices. Third, the nature and performance of agriculture, themselves affected by agricultural policies, can have important effects on the dynamism of the RNF activities to the extent that the latter is linked to agriculture. These activities grow fastest and most equitably where agriculture is dynamic – where farm output is available for processing and distribution, where there are inputs to be sold and equipment repaired and where farm cash incomes are spent on local goods and services (Reardon, 1998).

The Government of Bangladesh has already identified the NFS as a "leading sector" in the rural economy. But in practice, the NFS is not getting due attention like the

farm sector (Malek and Usami, 2009). The NFS expands quite rapidly in response to the farm sector development (Malek and Usami, 2009) and therefore merits special attention in designing poverty reduction strategy. It is envisaged that the non-farm employments (NFEs) have significant impacts on household production (farming and non-farming) and consumption (food and non-food) since the NFS develops. So, the importance of non-farm sector is great where livelihood diversification is necessary to improve the socioeconomic status of the household.

The concept of farm and non-farm linkages is most commonly used to describe the relation between the farm and non-farm activities. These activities can be linked directly via production linkages, in which case the linkage occurs either "upstream" or "downstream". When growth in the farm activities induces the non-farm activities to increase its activities by investing in productivity or additional capacity for supplying inputs and services to the former, the linkage is upstream. It is downstream (and is often referred to as a value-added activity) in cases where the non-farm activities is induced to invest in capacity to supply agro processing and distribution services, using farm products as inputs.

Rural non-farm production linkages with local agriculture take place through sale of inputs and purchase of output from the farm activities, with the agricultural output being used as an input for RNF activities (such as agro processing and distribution). Hence, the type of local agriculture will play an important role in determining the incentives for these kinds of RNF activity, as its characteristics will affect the profitability of RNF products and services as well as the market outlets. There are expenditure linkages between RNF and farm activities in that income generated from farm activities is spent on the output of non-farm activities and vice versa. Therefore, the profitability and market outlet for these are determined by local incomes (level and distribution) and tastes. Smallholders, the poor, are more likely to spend on local goods and services in the RNF activities, while richer households would tend to spend on items from the modern manufacturing activities located in cities, or on imports. The implication of this is that technical change in agriculture that benefits smallholders will have a greater impact on the local economy via

expenditure linkages than would technical change that benefits large landholders. Finally, there may be income or investment linkages between the two activities, in which case profits generated in one are invested in the other. Where there are constraints on access to credit, income and/or investment linkages between RNF activities and the farm activities may also be very important. In such circumstances, non-farm income may be crucial for a farm household's capacity to make farm capital investments and purchase modern inputs. Vice versa, savings generated by farm activities may be at the basis of investments in non-farm activity (Reardon, 1998).

1.3 National Gender Policy

Since, the present study deals with the gender differences, their role and responsibilities, it is important to review the country's gender policy to understand the gender dynamics more clearly.

The national gender policy -2011 spells out following to be its main goals:

- Establish equal rights of man and women in accordance with the constitution of Bangladesh in state and public affairs
- Ensure safety and security for men and women in all spheres of lives in state, social and family levels
- Ensure empowerment of women in economic, political, social, administration and legal affairs
- Establish human rights of women and men
- Ensure men and women full and equal participation in mainstream activities of socio-economic development
- Build women's as human resource through education and skill development
- Free men and women from the curse of poverty
- Eliminate all forms of disparity between men and women
- Recognize women's contribution in all sphere of social and economic arena
- Eliminate all forms of violence against women and girl children

- Establish equal rights between men and women in politics, administration, socio-economic activities, education, culture, sports and family lives
- Ensure domestic innovation and import of women friendly technology and eliminate use of technology that affects women adversely
- Enforce appropriate and effective measures to improve women's health and nutrition
- Ensure women's access to safe shelter and housing facilities
- Provide all out assistance to establish rights of disabled women and men from minority communities including small ethnic minority communities
- Undertake measures to ensure security for widow, elderly, women abandoned by husbands, unmarried and childless women
- Provide all kinds of supports and services for the prosperity of the women entrepreneurs.

It needs to be mentioned that this government's commitment to women's advancement and rights is guided by the constitution of Bangladesh. The need for gender equality is well recognized by the constitution of Bangladesh. The government from the very inception of Bangladesh showed commitment to women's issues and took actions accordingly.

1.4 Justification of the Study

Bangladesh is one of the most densely populated countries in the world and as a result, per capita arable land is very low. Of the 18 million households in Bangladesh, about 80 percent are small farmers and some of them farmers are landless. Due to its subsistence nature, agriculture in Bangladesh is characterized by diversified farming to meet the household requirements and to minimize the risk and uncertainty. Small farmers try to develop as many activities as their farming systems allow within the present socioeconomic and agro-climatic condition, and in accordance with household goals, preference and resources. So, agricultural activities as well as farm activities gain more importance in our country.

"Gender" is the most buzzing word in the real world especially in agricultural sectors. Most of the people do not have the consciousness about the differences between gender and sex. Gender refers to the different roles, rights, and responsibilities of men and women and the relationship between them. Gender does not simply refer to women or men, but to the way their qualities, behaviors, and identities are determined through the process of socialization. Every society has specific expectations of men and women and often their positions and opportunities vary greatly. The differences in tasks and relative status of men and women, lead to a difference in access to and control over resources and right. In our country, most of the potential works are done by women continually underestimated in agricultural sectors and their decisions are dominated by men. A large population of Barind areas of Rajshahi region involves directly in agricultural activities. The portion involved in both farm and non-farm activities can't be ignored in this area. Despite their routine domestic work, women in Barind areas are very actively involved in agricultural activities in Bangladesh. In this study, an attempt has taken to make the participation of women and men in farm and non-farm activities visible. The focus of the study is to explore the socio-economic status of male and female, their participation in farm and non-farm activities, their roles and responsibilities and their contributions to decision making process. The results of the study may be helpful to the policy makers in formulation gender equitable policies and planners for overall national development, especially for rural economy. Moreover, the findings may be useful to extension workers and researchers who are directly involved in different development programs particularly in relation to gender development.

1.5 Objectives of the Study

The specific objectives of the study are as follows**:**

i. To document the socio-economic characteristics of the sample respondents;
ii. To analyze the gender differentiated roles and responsibilities of men and women in farm and non-farm activities and
iii. To examine the gender power dimensions through access and control over resources and decision making process in farm and non-farm activities.

1.6 Outline of the Study

The thesis is organized into seven chapters to attain the above mentioned objectives.
Chapter 1 presents introduction and contextualization of the study, gender in farm and non-farm activities, national gender policy, justification of the study, objectives of the study and outline of the study.
Chapter 2 presents the review from the previous studies related to this current study.
Research methods of the current study are covered by Chapter 3 which gives a clear idea about the research design, study areas, period of the study, selection of samples and sample size, method of investigation, data processing and analytical techniques for the study.
Chapter 4 provides the overall scenario of socioeconomic profile of sample respondents in the study area.
Chapter 5 explains gender differentiated roles and responsibilities of men and women in farm and non-farm activities.
The gender power dimensions through access and control over resources and decision making process in farm and non-farm activities are shown in Chapter 6.
Finally a concrete summary, conclusions and policy recommendations are given in chapter 7.

Outline of the study

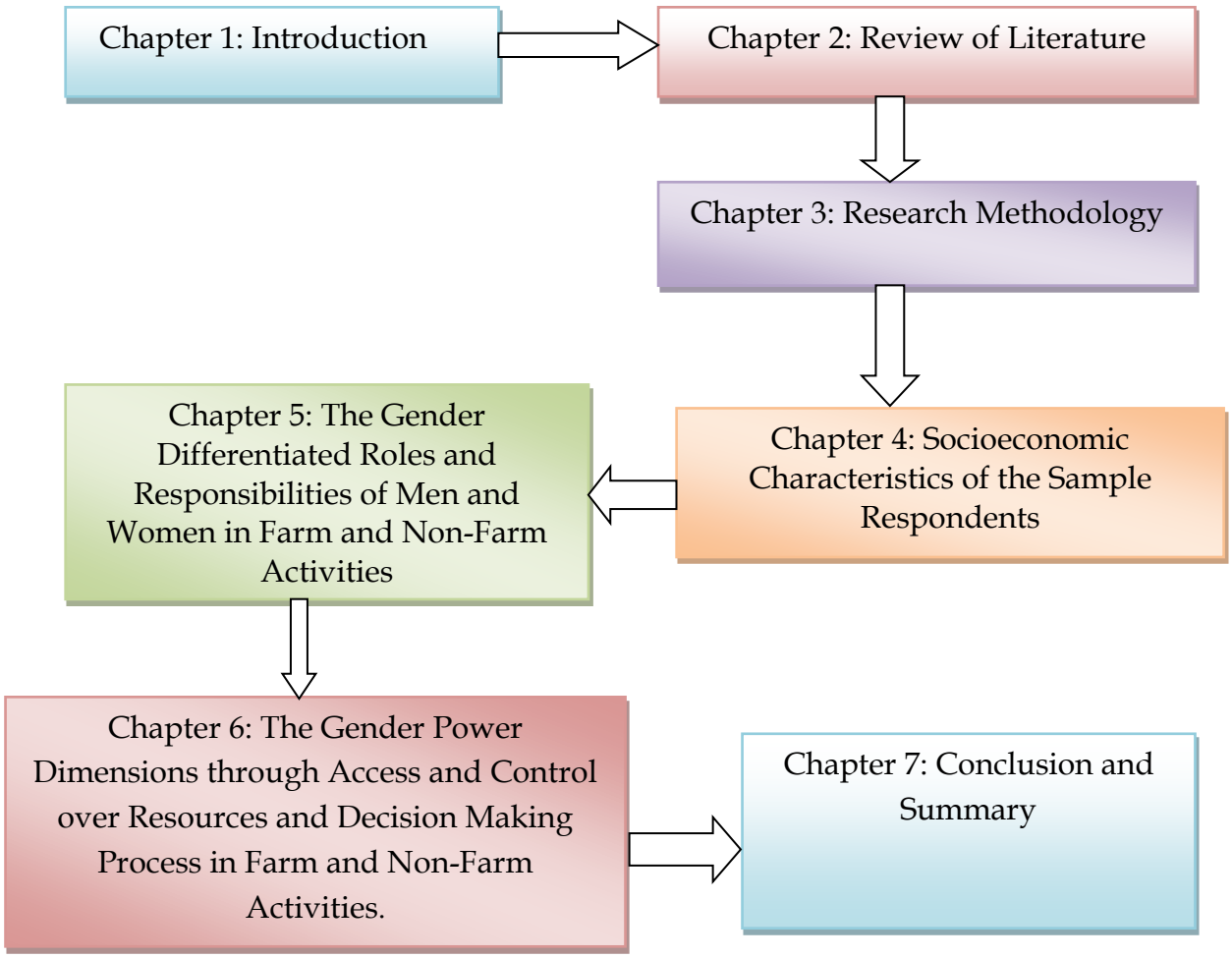


Figure 1.1: Flowchart of outline of the research.

CHAPTER 2
REVIEW OF LITERATURE

2.1 Introduction

When a researcher aims to select a topic, one should go through the studies done in past. As such researches on gender participation were not done before but there are few studies regarding differences between men and women, linkages between farm and non-farm activities.

The study of referred literature provides scientific and logic support to the study being undertaken. The study provides various bottleneck on the subject on which a researcher can add and develops suitable means and methodology and move further his work. The referred literature provides ideal guidance to plan the study being carried out by the researcher.

2.2 Review of the Previous Research Studies

Islam (2015) conducted a study to determine the participation of women in decision making process over various activities and to identify the freedom of women in social and cultural activities. Covering 400 women from four districts named Manikganj, Kishorganj, Tangail and Gopalganj of Bangladesh, he found that in 2013 the percentage of only women decision making over loan was 17, 15, 21, and 15 and in 2014 percentage of only women decision making was increased to 19, 18, 25, and 23 respectively in four districts. He also found that in 2013 the percentage of only men decision making over crop production was 30, 51, 34, and 35 and in 2014 percentage of only men decision making was increased to 24, 34, 23, and 22 respectively. In 2013 the percentage of only women decision making over child education was 11, 12, 17, 9 and in 2014 percentage of only women decision making was increased to 17, 19, 20, 15 respectively. He mentioned that in 2013 the percentage of freedom of women to go outside for social activities was 28, 17, 33, and 31 and in 2014 percentage of freedom of women to go outside for social activities was increased to 45, 33, 39, and 37 respectively.

Mkhize (**2012)** conducted a study on India 1960-2010: structural change, the rural nonfarm sector, and the prospects for agriculture. He found that, agricultural growth has not responded to the accelerating income growth, and agricultural employment is growing slowly. As a consequence, despite the growing labor productivity differential between the agricultural and the nonagricultural sector, urban and rural poverty rates have converged, and urban-rural per capita income and consumption differentials have not widened. With employment opportunities in the non-farm sector considerably better for young men than for young women, the current trend to feminization of agriculture will continue. Within these constraints, a positive vision for agriculture and rural development can nevertheless be achieved if government policy is supportive of the ways in which households will try to increase their incomes.

It's also supported by **Wahaj *et al.* (2012)** that women's role in the management of water resources has been increasingly acknowledged by development agencies, policymakers, national governments and non-governmental organizations over the past decade. Programs and projects that include supporting components such as capacity-development, access to capital and awareness-raising achieve better results in encouraging women's participation and improving their livelihoods. One of the major findings of the study was although the problems and issues in women's participation in water management are as well as documented, there is insufficient information, apart from some anecdotal evidence, on successful efforts to involve women in water projects.

But **Zwarteveen (2009)** argued that documenting gendered patterns of water work and water use, rights and responsibilities is a first step in recognizing women's importance as water actors. And she also added that irrigation came to be a masculine domain as a consequence of engineering becoming a man's profession. Irrigation texts do not explicitly exclude women, but professional irrigation identity and men came to belong to each other at symbolic and metaphoric levels.

Onwuemele (2011) studied the non-farm sector as a catalyst for poverty reduction in the Niger-delta region, Nigeria. The results indicated that the non-farm sector is playing significant roles in poverty reduction as households diversify into the nonfarm sector in response to poor yield from farming. The study revealed a total of 33 different non-farm activities being undertaken by respondents. The result also showed that rural households participating in the non-farm sector enjoy a higher quality of life than households engaged in only farm activities. It recommends that government should develop micro-credit schemes to assist the poor households who lack collateral to access credit to diversified their sources of income.

Malek and Usami (2010) conducted a study on "do non-farm incomes really matter for poverty among small households in rural Bangladesh? A case of advanced villages." Their study found that the small households in advanced villages were in a stage that their non-farm incomes did not contribute significantly to their household production for either farm or non-farm and food consumption (calorie adequacy); and accordingly, these could be spent on non-food consumption. Finally, the study found that the overall non-farm income significantly mattered for reducing income poverty but could be still low to be realized in reducing education poverty.

However, among the non-farm income components, while out-country remittance and non-farm self-employment incomes were more income poverty (incidence and gap) reducing compared to non-farm wage and in-country remittance incomes, the remittance incomes (both in-country and out-country) were reducing the severity of education poverty. Thus, the qualitative diversification of the small household workers and productive use (preferably in farm/non-farm production and demand driven education) of non-farm incomes deserved special attention.

Malek and Usami (2009) conducted a study on "effects of on-farm employments on poverty among small households in developed villages of Bangladesh: A case of Comilla Sadar Upazila". In their study, they found the significant positive role of overall NFEs on household NFAs rather faming. Remittance incomes do not contribute in household production either farming or non-farm activities and food adequacy; and thus, these must be spent on non-food consumption. Education

poverty levels are worse than income poverty levels among small households. The increasing NFI is reducing some income poverty, but it is yet to realize in achieving household education; however, access to formal sector employments by the small household workers is significantly reducing education poverty. Therefore, qualitative diversification of the poor household workers and productive use of household remittance incomes deserve special attention.

Chowdhury (2009) conducted a study on an economic analysis of participation of rural women in farm and non-farm activities. The result of the study showed that the male and female counterparts of low, medium and high income households rendered their involvement in combined farm and non-farm activities for 489.49 and 328.46 man-days, 625.66 and 289.81 man-days and 656.55 and 305.00 man-days respectively. It became evident that, in the case of both low and medium income households, female participation is markedly higher in non-farm activities than the high income households. From the finding, she inferred that the rural women are fighting back with non-farm activities for the improvement of their livelihoods. The annual average household incomes were estimated at Tk. 54878.25, Tk. 96278.25 and Tk. 147260 respectively. Women of these three categories contributed to Tk. 19398, Tk. 24180 and Tk. 20917.50 which were 35.18, 25.11 and 14.20 per cent of total household income respectively. Thus the study showed clear evidences of greater extent of women's participation in farm and non-farm activities as well as in various household decision making events.

Pal and Biswas (2009) studied diversification of farm and non-farm sectors and structural transformation of rural economy. They revealed that the structure of the rural economy in every country has been changing along with the overall economy. The farm and non-farm sectors- the two components of the rural economy – have been changing in structure through diversification of activities on the one hand and through increasing employment and income generation on the other. They also revealed that whether the two sectors are complementary or substitutable in the context of overall economic development is an issue attracting the interest of the researchers. Whether diversification of the sectorial activities is conducive to bring

about the desired transformation of the economy in general and rural economy in particular was an issue to examine. How diversification of activities is changing with inter-sector linkages was also their issue to examine.

A study by **Mjoli and Nenzhelele (2009)** reported that women were not getting any benefits from their involvement in Water User Associations (WUAs) because they did not own land and water rights in their individual capacity. Men who owned land and water rights had the power to influence the decisions on the allocation of water resources. Women interviewed for their study indicated that their participation in Management Committees (MANCO) of WUAs had provided them with an opportunity to learn about the water resources management and they also learned from the experience of other members of MANCO.

Farid *et al.* (2009) undertook a study in Bangladesh using quantitative methods to determine and describe the nature and the extent of rural women's participation in agricultural and non-agricultural activities. Their study found that poor rural women were the ones mostly involved in agricultural and non-agricultural activities. The results showed negative correlation between level of education and the rate of participation in agricultural activities. Those from affluent families spent more time in childcare and domestic activities. The poor participated in various activities in order to meet family needs and supplement family income.

Hussain (2007) explores that while making large contributions to irrigated agriculture, women depend on, and benefit from, irrigation water in a variety of ways including water uses for domestic and livelihood purposes. Designing the irrigation infrastructure such that the irrigation systems become multiple use systems can enhance the benefits of investments in irrigation for the poor women.

Uddin and Takeya (2006) focused on the patterns of farm and off-farm employment considering gender structure and the incomes earned from different sources. They found that conventional farming has not been able to generate the needed employment opportunities. Therefore, it is crucial to continue absorbing the ever-growing labor force through integrated farming which is considered as a good

source of increased income. The study also revealed that unemployment decreased with the increases in farm size and farmers practicing integrated farming had few families labor surplus compared to the conventional farmers. It was also found from the their analysis that the number of enterprises was the most significant factor in integrated farming, whereas working hours per week on off-farm activities by males had significant effect in conventional farming. It also implied that integrated farming is important not only for employment creation, but also for promoting the overall economic condition.

Lanjouw and Lanjouw (2005) prepared a paper on the rural non-farm sector: issues and evidence from developing countries. The paper documented the size and heterogeneity of the sector, pointing to evidence that in many countries the sector is expanding rather than declining. The distributional impact of non-farm earnings was examined and it was found that a pro-poor impact, while by no means inevitable, can be considerable. In their paper, they also mentioned that recent years have seen a shift away from this position towards recognition that the rural nonfarm sector can, and often does, contribute to economic growth, rural employment, poverty reduction, and a more spatially balanced population distribution.

Hossain (2004) conducted a study on promoting rural non-farm economy: is Bangladesh doing enough? His paper focused on the importance of the rural nonfarm activities as a source of rural development and factors affecting participation in it. His study estimated the duration of employment and the level of productivity, to examine whether the expansion of the rural non-farm economy (RFNE) is caused by "push" or "pull" factors. It also assessed whether access to capital is a constraint to expansion of RFNE. It analyzed the expenditure pattern of rural and urban households to assess the demand for nonfarm goods and services. It provided an overview of strategies and policies for the development of the rural non-farm sector.

Suguna (2002) threw light on strategies for empowerment of rural women. According to her, empowerment is a phenomenon of the nineties and is defined as 'giving power to' creating power within and enabling. The author has categorized

the concept into three broad categories- economic empowerment, social empowerment and political empowerment. The author emphasizes on social empowerment of women. This includes equal treatment, equal respect, equal opportunity, equal recognition and equal status. She further says that, empowerment of women is, therefore, the process of controlling power and strengthening of their vitality.

She says that, even though rural women constitute 75 percent of the total female population of the country, they are poor and ignorant as compared to the urban women. Rural women need to be trained and organized so that they are empowered. The study has found that in spite of all government efforts, some basic problems like illiteracy, limited skills, restricted mobility and lack of autonomous status still remain to be tackled.

Nevertheless, **Nahar (2002)** verified that the issue of gender in the water sector does not simply involve access to water. It involves questions of rights, responsibilities and participation (equal participation by men and women both) at all levels. When women are not encouraged to participate in water management, they are simultaneously de-linked from the urgent effort to protect these vital natural resources. However, as a major group of stakeholders, women are unable to effectively participate in these processes due to certain widespread constraints. These include: culturally determined inhibitions to their participation in public activities; their resulting lack of skills and experience in public participation and in leadership and management activities.

Khaleque (1999) studied women's involvement in farm and non-farm activities in some selected area of Tangail district. Her findings of the study showed that, for different farm and non-farm activities male working members of small farmers, small farmers –cum-weavers and weaver's households contributed 136.076, 336.1 and 330 man-days per year respectively, while female working members of these three categories contributed 97.60, 240.321 and 234 man-days per year. As regards the other farm activities women were more involved in Vegetables production and livestock and poultry rearing than men. In case of non-farm activities, women

utilized most of their time for threads making and other weaving related activities while men spent most of their time for weaving. The annual average household incomes of small farmers, small farmers-cum-weavers and weavers were Tk. 41193.22, Tk. 51343.00 and Tk. 44736.97 respectively. Women of these three categories contributed Tk. 4459.13, Tk. 12462.715 and Tk. 11020.10 which were 10.82, 24.27 and 24.66 percent of total household income respectively.

Another study from **Dick and Zwarteveen (1998)** argued that despite the rhetoric on women's participation, a review of evidence from South Asia shows that female participation is minimal in water user's organizations. One reason for this is that the formal and informal membership criteria exclude women. More formal participation of women can strengthen women's bargaining position as resource users within households and communities. Greater involvement of women can also strengthen the effectiveness of the organization by improving women's compliance with rules and maintenance contributions.

Nessa *et al.* (1998) reported that female laborers of landless families worked more time than the male laborers. The highest total income was recorded from different off-farm activities in small farms and the lowest in large farms. The rural women were involved in all kinds of homestead agricultural and non-agricultural activities.

Reardon (1998) prepared a paper for FAO on rural non-farm income in developing countries. In this paper he mentioned that the RNF sector has great importance to rural economies for its productive and employment effects which are critical to the dynamism of agriculture; while the income it provides farm households represents a substantial and growing share of rural incomes, including those of the rural poor. These sectorial contributions will become increasingly significant for food security, poverty alleviation and farm sector competitiveness and productivity in the years to come. He also mentioned in this paper that it is important to help the poor to overcome the constraints and thus enable them to participate in RNF activities. This will often require investments in general education and specific skill building for RNF activities (such as agro processing technologies) and in market and technology information centers in rural areas for the purpose of identifying promising

opportunities. It will also mean promoting RNF employment and strengthening agricultural linkages in areas poorly served by infrastructure. Finally, the study highlighted the actions required for promotion of the rural nonfarm economy of Bangladesh.

Majumder (1993) conducted a study on women participation in agricultural and non-agriculture activities in Bangladesh villages. He portrayed the pattern and nature of activities of the rural women along with their socioeconomic conditions. The study revealed that no housewife was a sole decision maker in the family affairs. The study further depicted that rural women on an average spent 19 hours a day for both agricultural and non-agricultural activities.

2.3 Conclusion

Gender alludes to the socially constructed roles of men and women. The above review of literature brings some issues of life revolve around being a man, or being a woman and their experiences in Bangladesh or in a different country or culture. It is also important to mention that the roles and responsibilities of men and women are not static rather it is a dynamic process that is continuously changing, and therefore requires updated information. No recent study was found from the above review that addresses both the men's and women's role, responsibility and decision making process in farm and non-farm activities, particularly in Barind region. Therefore, it can be said that this study will be a significant inclusion in the field of gender studies.

CHAPTER 3

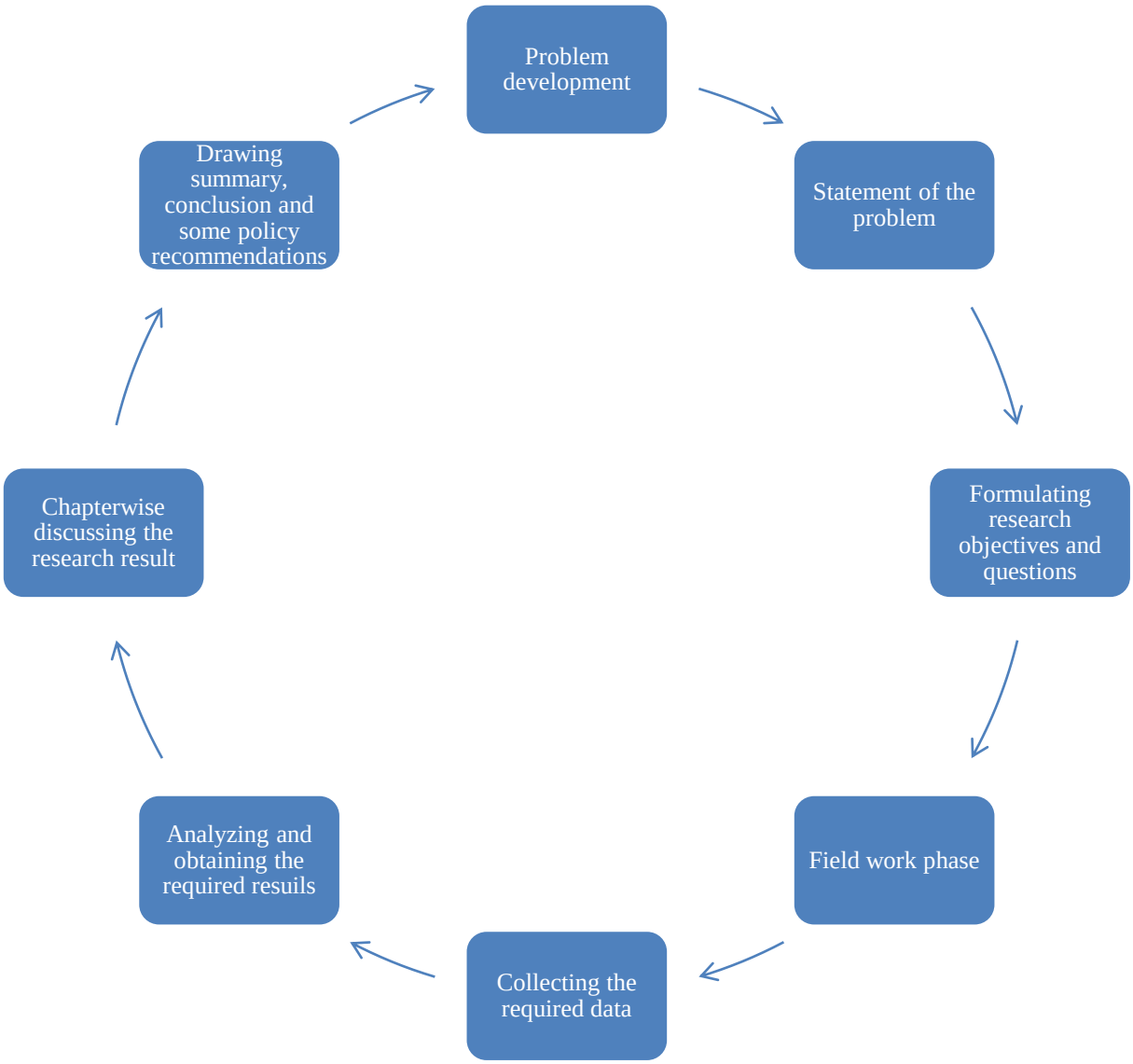
RESEARCH METHODS

3.1 Introduction

Methodology is a central and integral part of any research. It needs very careful and sincere consideration. This chapter deals with the methodology of the present research including survey to collect necessary information for the study. A farm management research usually involves collection of primary data from the individual farmers. The method was prepared considering the limitation of time, money and personnel. The main deficiency of this method is that the investigator had to rely upon the memory of the farmers. The design of the survey for the present study involved the following steps.

3.2 Research Design

The research design refers to the overall strategy that a researcher chooses to integrate the different components of the study in a coherent and logical way, thereby, ensuring that the research problems are effectively addressed. It constitutes the blueprint for the collection, measurement, and analysis of data. This research is initiated in relation to the objectives of the study. The research design is carried out with the purpose of establishing a theoretical framework to more fully understand how the proposed study is going to be undertaken. The process of the research approach is illustrated in Flow chart 1.1.



Flow chart 3.1 Research Design

3.3 Selection of the Study Area

Selection of the study area for conducting an economic research is an important step in farm management study. The area in which a farm business survey is to be conducted relies on the particular purpose of the survey and the possible cooperation from the respondents. Due to limitation of time and resources, the inclusion of the whole Barind area of Bangladesh for investigation was not possible.

The locations for the present study were selected purposively in Godagari upazila of Rajshahi district and Nacchole upazila of Chapai Nawabganj district (Figure 3.1 and 3.2). These areas were selected under the SDIP-II project work to examine the gender dimensions. In these areas multiple crops, livestock, poultry and fish catching of the different farming systems and also the different non-farm activities are practiced. Beside the farm practices, rural households also engage themselves in non-farm activities in order to sustain their farm production practices. The selection of the study area was also supported by the following considerations:

1. Both men and women involve in farm and non-farm activities;
2. Good transportation facilities of Rajshahi and Chapai Nawabganj districts, which may help the survey to become less expensive and less time consuming;
3. Cooperation from the respondents was expected to be high and possibility of getting reliable data; and
4. No study of this type was done previously in the area.

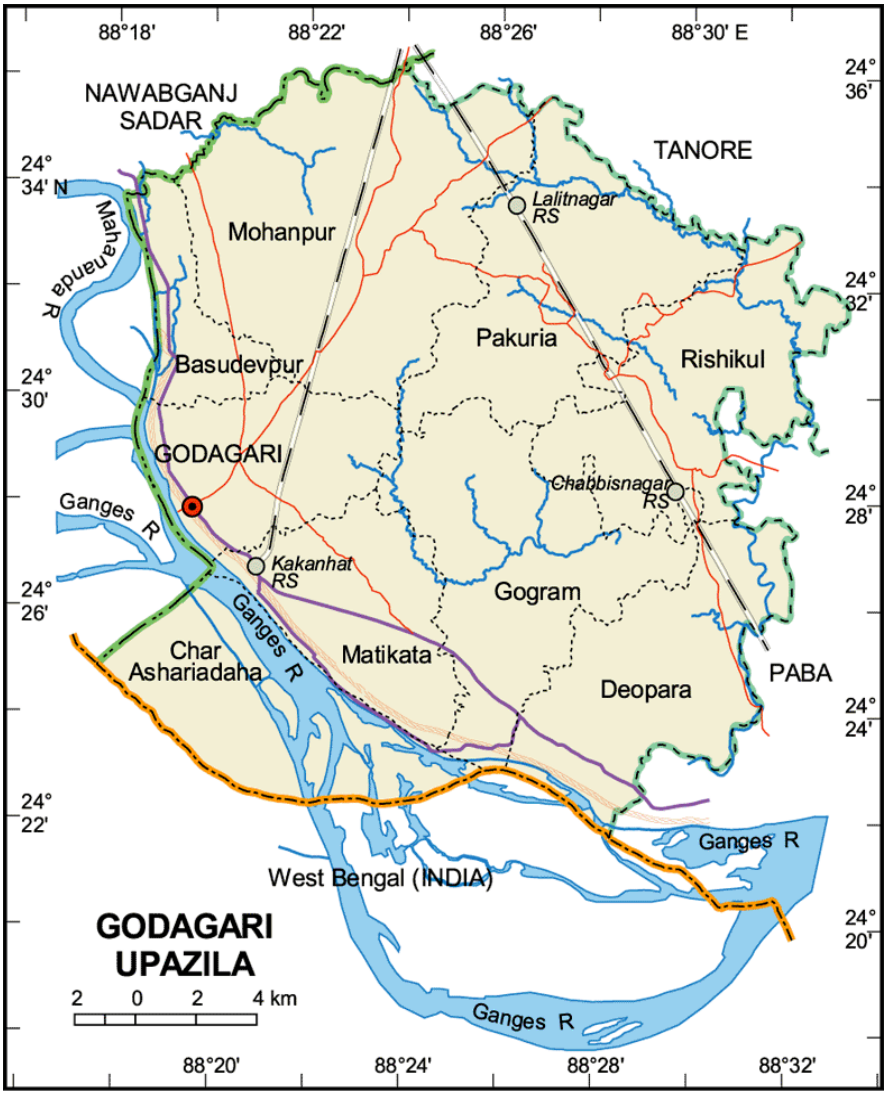


Figure 3.1 Map of Godagari upazila under Rajshahi district

Source: Banglapedia, 2018.

Figure 3.2 Map of Nachole upazila under Chapai Nawabganj district

Source: Banglapedia, 2018.

3.4 Sampling Technique

Sampling technique is an important part of farm survey and farm management research. In a complete enumeration, the required data are collected from each and every elements of the population. Thus a complete survey becomes costly and time consuming. The normal practice, therefore, is to select a sample of the entire population. Considering the objectives, time and availability of fund and man power, some villages of Godagari and Nachole upazilas were selected purposively. Considering these aspects, a sample size of 114 farmers was chosen randomly from these villages to provide information about their households for the present study. The primary data were collected through farm survey and the samples were selected

by simple random sampling procedure from with the help of Upazila Sub-assistant Agricultural Officer.

3.5 Period of the Study

Data were collected during the period from January to March 2018 through direct interviews with the selected respondents using a semi-structured survey questionnaire. For collecting supplementary data the author personally visited the area several times.

3.6 Data Collection Method

Most of the data required for the research were collected from primary sources. In any research work, data collection is an important step and the success of any study depends on accuracy and reliability of the collected data. The accuracy and reliability of a set of data mostly depend on the method of its collection. In the study, data were collected by the author himself along with other enumerators through personal interviews from 114 sample farmers. The interview schedule was used for collecting information. The respondents were briefed about the objectives of the study before going to make actual interview. It was explained to the farmers that the study was purely academic. Farmers were also explained the usefulness of the study in their farm business context.

The interview schedule was checked to be sure that information to each of the item was properly recorded. Interviews were normally conducted at farmer's house in their leisure time. At the time of interview, the researcher asked question systematically and explained whenever, it was felt necessary. Farmers usually do not keep any records of their day-to-day transactions of farm activities. Therefore, it was very difficult to collect actual data, especially gender related information and the researcher had to rely on the memory of the farmers. To overcome this problem of course, all possible efforts were made by the researcher own to ensure the collection

of reasonably accurate data from the field on recall basis. Farmers were requested to provide correct information as much as possible. Each time when interview was over, the filled interview schedule was checked to be sure so that information to each of the items had been properly recorded. If there were such items which were overlooked or contradictory that was recorded in the revisit. In order to minimize errors, data were collected in local units. However, these local units were later converted into standard international units at the time of data processing.

3.7 Processing of Data

For the analysis of the data, first the responses were recorded at the time of interview. Quantitative data was entered into computer using Microsoft Excel and tabulated accordingly. Editing was done before putting the data in the Excel Sheet for computation. Qualitative data was first coded and converted into quantitative type in order to be computed and then, the analysis was done. Quantification of data was also done during the development of questionnaire where possible. Descriptive statistics was mainly used during analysis of data. Proportions, ratios, average and percentages were applied during analysis. Cross tabulation between major variables were done using SPSS. Graphical representation of the data was done in Microsoft Excel.

3.8 Analytical Technique

Socio-economic characteristics of the sample respondents are necessary to observe as these characteristics have strong impact on the dimensions of increase in decision making by the participation of gender through agricultural and non-agricultural activities. Socio-economic data are presented mostly in tabular and graphical forms. Tabular and graphical forms are also used to explain men's and women's roles and responsibilities, participation and decision making status in farm and non-farm activities. These forms are simple in calculation, widely accepted and used, also easy to understand. Descriptive statistics like sum, ratio and percentage and graphical statistics like bar-diagram, pie chart, etc. are used to elaborate the results of the present study.

3.9 Problem Faced in Data Collection

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

i. Most of the farmers in the study area were illiterate and they had no idea about a research and it was therefore difficult to explain the purposes of this research to convince them;
ii. The farmers did not keep records of their farming business. Therefore, the author had depended upon their memory;
iii. On many occasions farmers were not available at home and in such cases, the author had to give extra-effort and time to collect the information from them;
iv. During the gender data collection, most of the cases female's contribution were not acknowledged by the counter partner. It is because they cannot identify female's role in decision making or they think that if they acknowledge female's contribution that will abolish their superiority in the household and also in the society; and
v. The most important problem faced in data collection was to adjust time as they were really very busy during data collection period.

3.10 Conclusion

A systematic research depends to a great extent on the appropriate methodology used in the research. Unsuitable methodology may come up with faulty results. The researcher gave a careful consideration to follow a scientific and logical methodology for carrying out this research.

CHAPTER 4

SOCIOECONOMIC PROFILE OF THE SAMPLE RESPONDENTS

4.1 Introduction

Socioeconomic background and characteristics of the sample respondents have a vital role in agricultural and non-agricultural activities to a great extent. It is a reflection of individual's positive or negative qualities. Persons differ from one another in many respects. Behavior of a person is determined by his/her characteristics. A number of socio-economic aspects of the sample households were considered in the present study. The key socioeconomic variables such as family size and composition, age and sex distribution, occupation, level of education, farm experience, leisure time of the families etc. have been discussed in this chapter.

4.2. Age Distribution

Age is one of the most important elements of demographic studies and these two attributes largely influence individual's role in society. It is quite likely that the age of a person plays a critical role in determining various facts of his/her livelihood. For example, male and young person enjoys better livelihood compare to female and old aged. The respondents that were interviewed for this study aged from 18 to 64 years. For the purpose of the study, age was divided into five age cohort likely 18-30, 31-40, 41-50, 51-60 and 61 and above years of age. Figure 4.1 shows the age distribution of the total respondents.

The survey results presented in Figure 4.1 reveals that the highest proportion of the respondents belonged to the age group 18-30, accounts 37 percent of the respondents and lowest proportion of the respondents belonged to the age group of above 61 years.

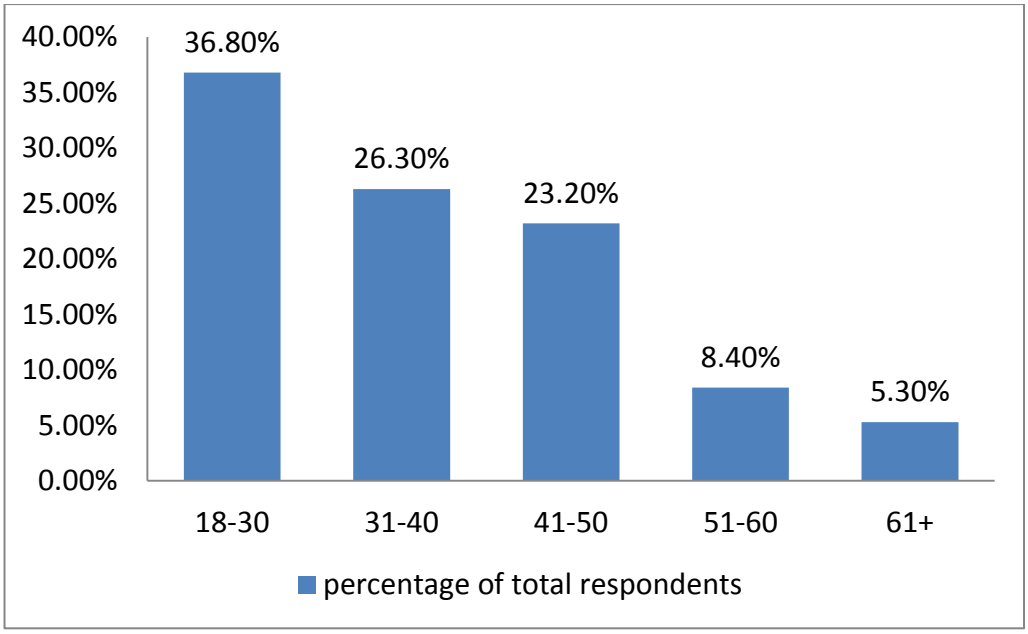


Figure 4.1: Age distribution

4.3 Level of Literacy

Table 4.1 Distribution of respondents by education

Education Level	All respondents	
	Number	Percent
Illiterate	23	20.17
Primary	39	34.21
Below SSC	25	21.93
SSC	12	10.53
HSC	10	8.77
Graduate	5	4.39
Total	114	100

Source: Field survey, 2018.

Education is an important factor to generate income. Table 4.1 shows that 20.17 percent respondents are illiterate. About 34.21 percent are belonging to primary school level education and only 4.39 percent are belong to graduate level. In the

study, it was found that in the rural areas of Bangladesh the literacy rate is not so high. From a total of 114 people, only 91 people are literate at minimum level and a number of 23 are illiterate. The level of literacy should be increased through different govt. initiatives. It is well recognized that the problem of literacy in Bangladesh is more acute for female members than male members of the family. Literacy is defined as the ability of an individual to read and write. The Government and other organizations placed due emphasis on education and provide special facilities (i.e., free education, stipend, etc.) for increasing the rate of literacy.

According to UNESCO the literacy rate in Bangladesh is 72.76 percent which is largely similar with the study though the area has more literacy rate than the result by UNESCO. Possible reason may UNESCO conducted the survey throughout the country and this may be the reason for the variation.

4.3 Marital Status

The distribution of respondents according to marital status is meaningful for the study as if the respondent is married, he will be able to give information about men's and women's roles, responsibility and decision making in a household. Most of the respondents under observation were married. When conducting the survey, it was found that the most of the rural men got married in approximately in twenty years old.

Table 4.2 Marital status of the respondents

Marital Status	No. of respondent	Percent
Married	112	98.25
Unmarried	2	1.75
All	114	100

Source: field survey, 2018.

From the Table 4.2, it can be seen that about 98.25 percent of the respondents were married. Poor families also feel that investing in their education will not bring them

any returns since soon after they enter into their marital life they feel the responsibilities of various agricultural and non-agricultural activities.

4.4 Main Occupation of Respondents

Occupation means "a person's usual or principal work or business, especially as a means of earning a living or any activity in which a person is engaged." The main occupation of the rural Bangladesh is agriculture for male, and female stay at home as a housewife and do homestead work like cooking, cleaning, washing, looking after child and elderly etc. and very few of them do any job. But it is not true for all; the poor women go out for work along with their male partners to increase the overall family income. In middle and higher class households, female usually do sewing and handy craft as a hobby and they did not consider it as an occupation. Usually in farming, one need not to work all the year round and in some cases not even the whole day and after sunset there have nothing to do. From the field survey, it is seen that some of the members of selected households are engaged in multiple occupations. Most of the selected households have agriculture as their main occupation. Some of them also have subsidiary occupations. Besides agriculture, some farmers were engaged in business, services, some are in driving and some worked as day laborers.

In the sample households, women were mainly involved with their household activities but few of them were engaged in subsidiary occupations like day labor, soil digging under government project, sewing, etc. But a large number of household heads were found to be engaged in different subsidiary occupations.

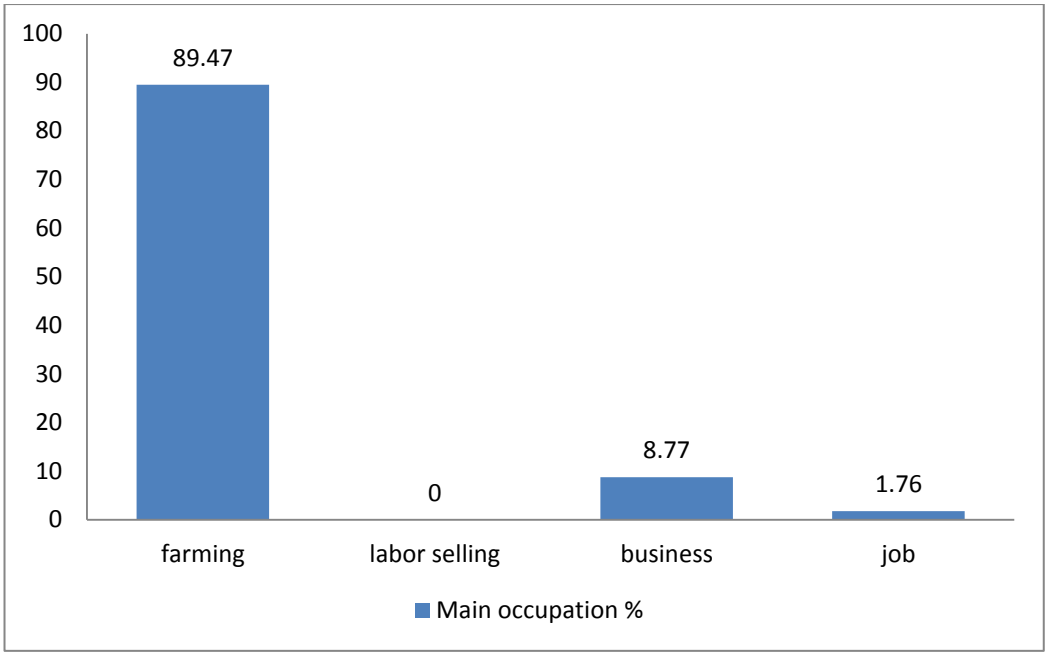


Figure 4.2 Distribution of occupation of the respondents

Out of 114 samples of respondents, 102 respondents are involved in farming, 10 respondents are involved in business activities and 2 respondents are involved in doing job. So, the percentage shares of main occupation of the respondents are showed in Figure 4.2 which indicates that the main occupation of the respondents is farming and about 89.47 percent of the respondents are involved in farming occupation. About 8.77 percent of the respondents are involved in various businesses and 1.76 percent of the respondents are involved in doing job as their main occupation.

4.5 Farm Experience (Years)

In Table 4.3, farm experiences of all respondents were divided in five groups such as 0-15 years, 16-25 years, 26-35 years, 36-45 years and above of 45 years. Out of 114 respondents, 34 respondents were included in 0-15 years' experience group and their percentage is 29.82 which is highest than other groups. There were 24 respondents in 16-25 years' experience group, 30 in 26-35 years' experience group, 20 in 36-45 years' experience group and 6 in above 45 years' experience group. So, the lowest percentage of respondents is 5.26 who were under the maximum years of experience group. In number, only six respondents have the farm experience of more than forty

five years. In the study area, the average farm experience of the respondents is 45.54 years.

Table 4.3: Farm Experience (Years)

Farm Experience	Number of Respondents	Percent
0-15	34	29.82
16-25	24	21.05
26-35	30	26.32
36-45	20	17.54
>45	6	5.26
Total	114	100

Source: Field survey, 2018.

4.6 Family Size and Composition

In this study, a family has been defined as a unit in which a number of persons live together under the administration of one family head and take meal from the same kitchen. It includes wife, children, brother, sister and parents. If any person of a family is employed outside but takes meals from the same kitchen while at home and shares income and expenditure of the family, he or she has been considered to be a family member. Persons employed in a household works like servants, caretaker etc. excluded from the definition of the family.

It is evident from Table 4.4 that average family size for the study area was 4.95. All aspects were dominated by the male as usual and dependency ratio is higher among female. Working members and working members in agriculture was found 1.85 and 1.60 respectively. The average number of earning and dependent member in a family was found to be 1.85 and 1.61 respectively. The dependency ratio for male was 0.64 while it was 5.76 for female and total dependency ratio was 1.61.

Table 4.4: Family size and composition

Sex	Family size	Working members	Working in agriculture	School going	Dependency ratio
Male	2.58	1.50	1.33	0.67	0.64
Female	2.37	0.35	0.27	0.52	5.76
Total	4.95	1.85	1.60	1.18	1.61

Source: Field survey, 2018.

4.7 Leisure Period Enjoyed by the Men and Women

The study of leisure and rural women is getting importance all over the world, especially in developing countries. The majority of Bangladeshi women live in villages. Leisure among rural women in Bangladesh is virtually an unexplored field of study (Khan, 1997).

But leisure is needed for every person for a healthier life. In our country the women and men get hardly any opportunity to take rest and same here in the selected area. All of the 114 respondents of this study were asked about their leisure period but their replies were very unsatisfactory regarding enjoying leisure time.

Table 4.5 Leisure period enjoyed by women and men in the selected area

Leisure period (Per day)	No. of respondent	% of total response about leisure of men	No. of respondent	% of total response about leisure of women
Less than 2 hour	72	63.15	91	79.82
More than 2 hour	42	36.85	23	20.18
Total	114	100	114	100

Source: Field survey, 2018.

During field survey, 63.15 percent men of total respondents said that they have time less than two hours for leisure and 36.85 percent men of respondents said that they sometimes get opportunity to have some leisure period more than two hours.

According to the respondents, 79.82 percent women have time less than two hours and only 20.18 percent women have time more than two hours (Table 4.5).

4.3 Conclusion

In this chapter socioeconomic characteristics of the respondents as well as the households have been discussed on the aspects like educational level and occupation for individual respondents, family size and composition, leisure period and marital status, etc. It was found that the socioeconomic characteristics of the sample women and men differ based on their gender identity. This chapter revealed a clear and essential picture of some basic socioeconomic characteristics of women and men involved in agricultural and non-agricultural activities in the study area which is useful to understand their socioeconomic dynamics.

CHAPTER 5

GENDER DIFFERENTIATED ROLES AND RESPONSIBILITIESIN FARM AND NON-FARM ACTIVITIES

5.1 Introduction

In almost any country, women and men have different roles and responsibilities in farm and non-farm activities and varying power to make choices that affect their lives, as a consequence of the state of gender relations that exists in a given society. This chapter reveals differences in terms of roles, responsibilities and participation between men and women in farm and non-farm activities in rural areas of Rajshahi and Chapai Nawabgonj district.

5.2 Gender Differentiated Role in Farm Activities

Out of 114 samples of respondents, they all are involved in agricultural activities such as preparation of seedbed and land, planting seedlings, weeding, spraying fertilizers and pesticides, harvesting, threshing, drying, seed storage, managing by-products and selling products. The role of men and women in farm activities is examined by their participation in different agricultural activities. The differences in participation between men and women in different farm activities are shown in Table 5.1.

Table 5.1 Percentage share of men's and women's participation in agricultural activities

Type of Work	Percentage Share of Male	Percentage Share of Female	Total
Seedbed Preparation	87.91	12.09	100
Land Preparation	90.58	9.42	100
Planting Seedlings	59.33	40.67	100
Weeding	69.37	30.63	100
Fertilizer	90.41	9.59	100
Spraying	90.41	9.59	100
Irrigation	90.16	9.84	100
Harvesting	74.5	25.5	100
Threshing	73.33	26.67	100
Seed Selection	65.25	34.75	100
Storage	44.18	55.82	100
Drying	32.67	67.33	100
Managing By-Products	73	27	100
Selling	89.57	10.43	100

Source: Field survey, 2018.

From the above table, it can be seen that men are more engaged in agricultural activities than women. The average percentage share of men is higher in field agricultural activities than women. In some pre-plantation and post-harvest activities, women are more engaged than men such as seed storage (55.82 percent) and drying (67.33 percent) in the study area which means that home-based agricultural activities were mostly done by women. In various activities such as land and seedbed preparation, spraying fertilizers, irrigation and selling products, the average percentage of men is much more than women which indicate that men were more involved in field agricultural activities than women. The percentage share of

men's and women's participation in different agricultural activities are showed in the Figure 5.1 where green column indicates the percentage share of men and red column indicates the percentage share of women in various agricultural activities.

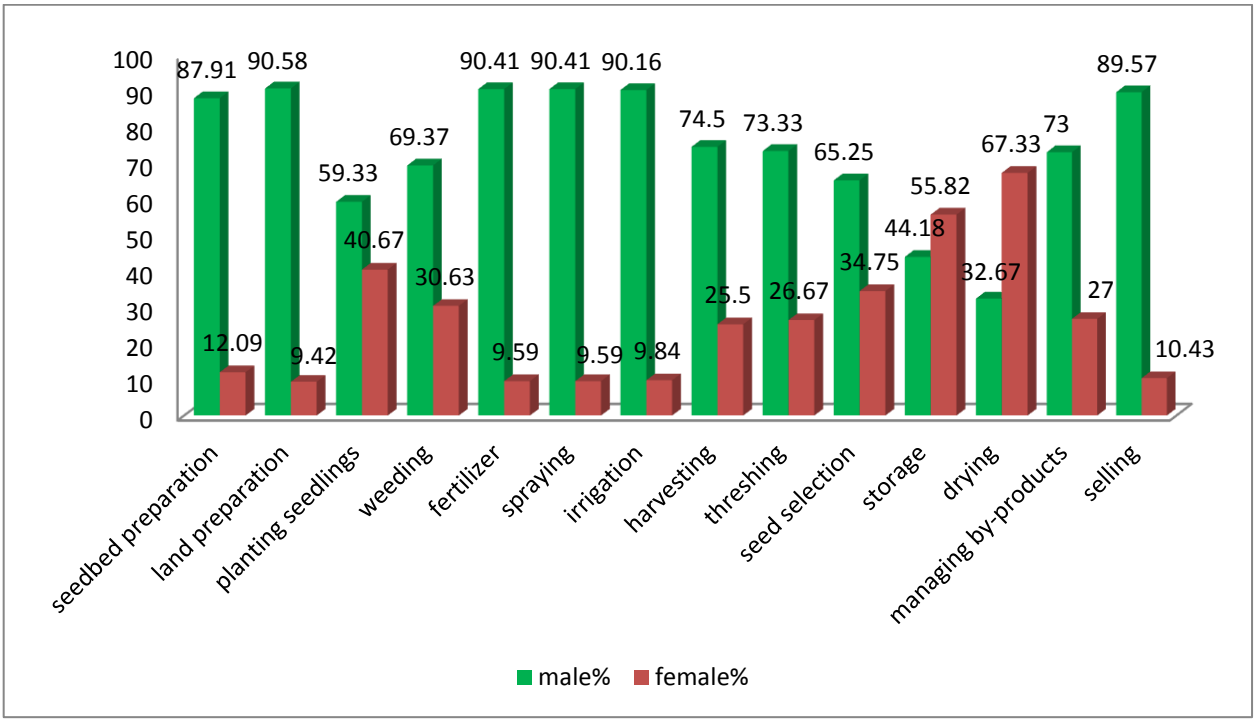


Figure 5.1: Percentage share of gender differentiated participation in agricultural activities.

5.3 Gender Differentiated Responsibility in Farm Activities

The responsibility of men and women is predicted by their time spent in farm activities, and thereby, the total time devoted by men and women for different farm activities have been analyzed in this section. Farm activities covered production and post-harvest operations of various crops production, livestock operation etc. The average distribution of productive men and women work units (hours/day) were considered in the following tables. From the Table 5.2, we can see that the average time spent by men and women in agricultural works in field is 4.25 hours per day and 0.66 hours per day, respectively. The average time spent by men and women in home-based agricultural works is 1.35 hours per day and 1.32 hours per day, respectively. The average time spent by men and women in livestock operation is 1.36 and 1.80 hours per day, respectively. The total time spent by men and women in

farm activities is 6.96 and 3.78 hours per day, respectively. However, these results are mainly based on the men's perception. If more women respondents can be interviewed, the difference between men's and women's perception could be revealed.

Table 5.2 Time spent by men and women in different farm activities

Farm activities	Time spent by men	Time spent by women
Field agricultural works	4.25	0.66
home-based agricultural work	1.35	1.32
Livestock operation	1.36	1.80
Total	6.96	3.78

Source: Field survey, 2018.

From the above statistics, we can derive some figures that show the percentage of men's and women's contribution in farm activities in terms of time spent by them. These percentage shares of men's and women's contribution are shown in the following figures (Figure 5.2 and 5.3).

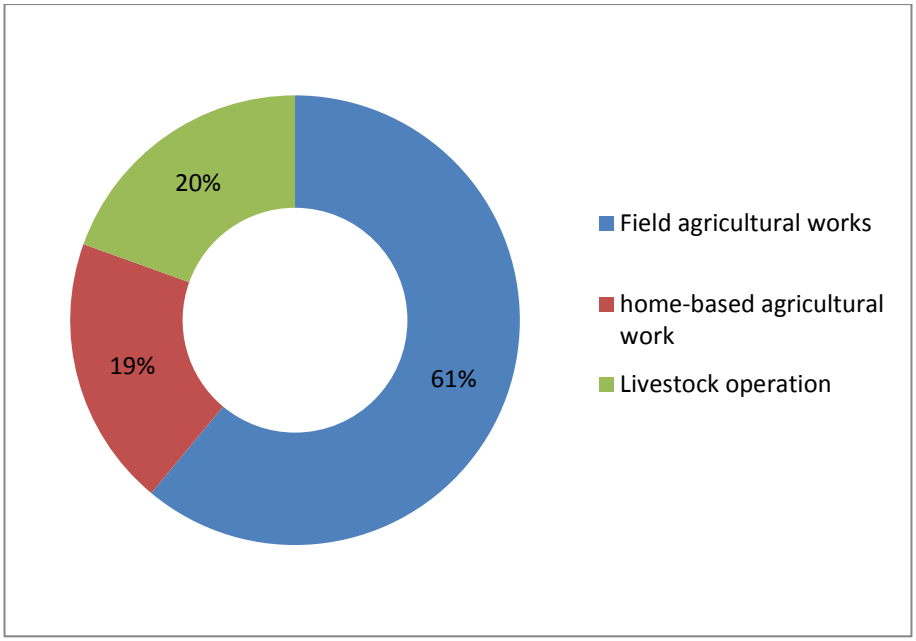


Figure 5.2 Men's time spent in farm activities

From the above figure, we can observe that 20 percent of livestock operations, 61percent of agricultural works in field and 19 percent of home-based agricultural works were done by men in the study area.

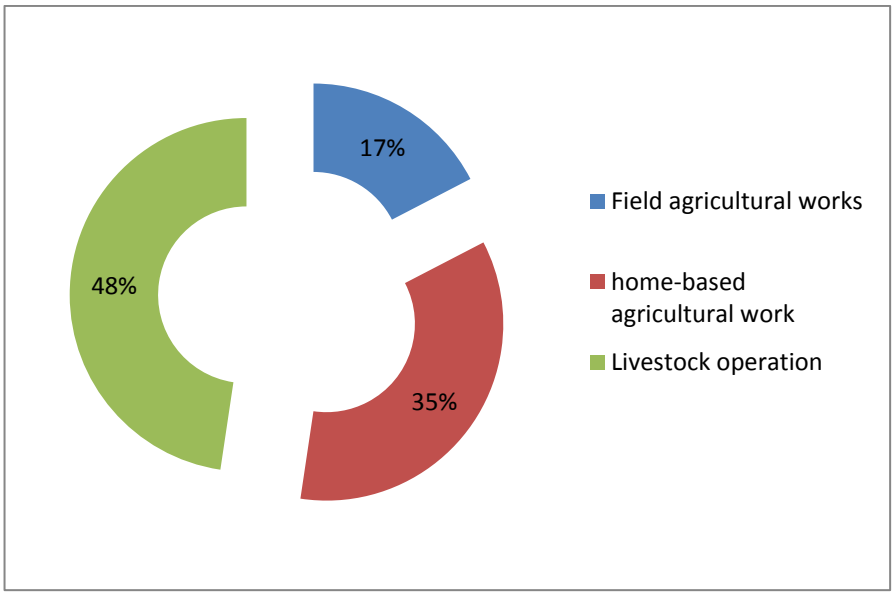


Figure 5.3 Women's time spent in farm activities

The above figure shows that 48 percent of livestock operations, 35 percent of home-based agricultural works, 17 percent of agricultural works in field are done by

women in study area. So, men are spending most of their time in agricultural works in field than women in farm activities. Women are spending their most of their time in livestock operations and home-based agricultural works than men in the study area.

5.4 Gender Differentiated Role in Non-farm Activities

Gender differentiated role of men and women in non-farm activities is examined by their participation in non-farm activities. Out of 114 samples of respondents, most of them are involved in non-agricultural activities such as household work (cooking, cleaning, taking care of children and elderly people), collection of drinking water, livestock operation etc. Table 5.3 presents the percentage share of men's and women's participation in various non-farm activities.

Table 5.3: Percentage share of men's and women's participation in non-agricultural activities

Type of work	Percentage share of male	Percentage share of female	Total
Cleaning	21.37	78.63	100
Cooking	10.45	89.55	100
Taking care of children and elderly people	17.77	82.23	100
Collection of drinking water	32.88	67.12	100
Buying household asset	81.56	18.44	100
Buying food items	89.67	10.33	100
Buying non-food items	91.27	8.73	100
Community work	83.23	16.77	100
Recreational work	69.9	30.1	100

Source: Field survey, 2018.

There are nine non-agricultural activities mentioned in the Table 5.3. In this table, we can see that women have more participation than men in various non-agricultural activities such as cleaning (78.63 percent), cooking (89.55 percent), taking care of

children and elderly people (82.23 percent) and collection of drinking water (67.12 percent).The non-agricultural works that need to be done outside of the house, men have more participation than women such as buying food items (89.67 percent), buying non-food items (91.27 percent), community work (83.23 percent) etc. Now, the graphical representation of Table 5.3 on participation percentage of men and women in these nine non-agricultural activities can be seen in Figure 5.4. In the following figure, blue color indicates the percentage share of male and green color indicates the percentage share of female. From the following bar diagram, we can see the percentage share of men's and women's role in non-agricultural activities.

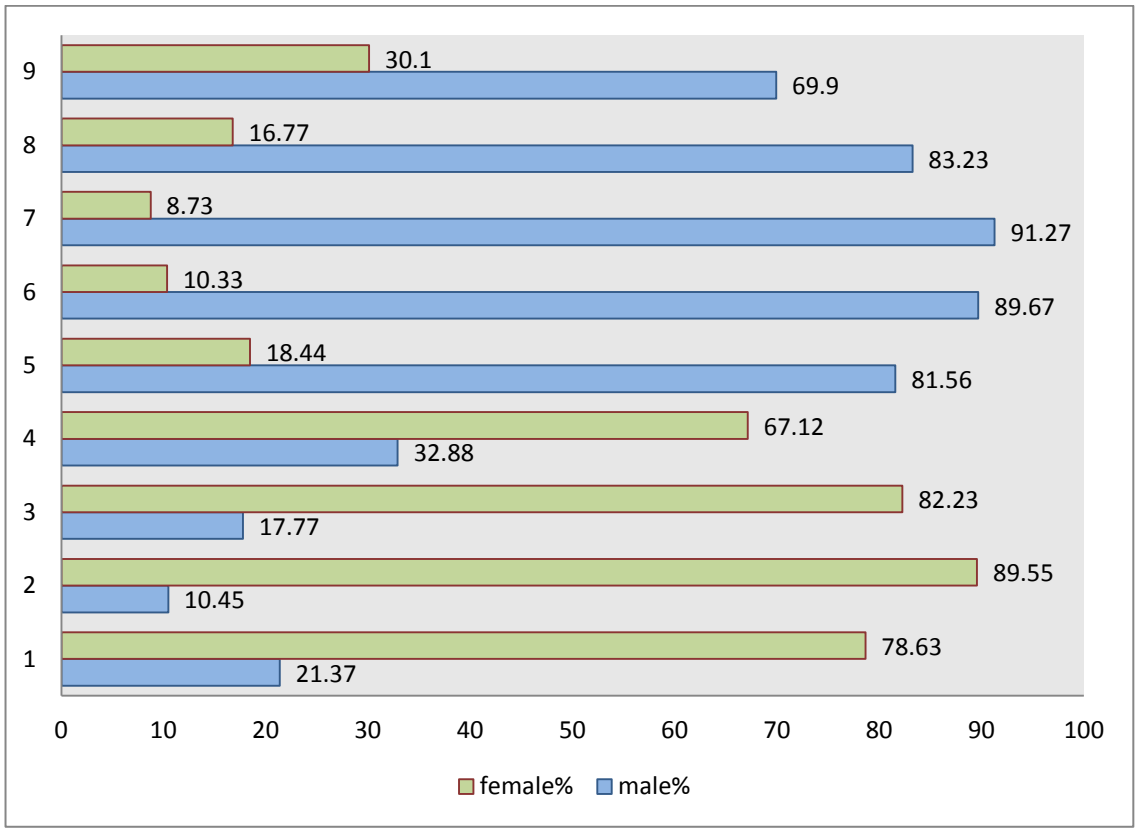


Figure 5.4 Percentage share of men's and women's participation in non-agricultural activities.

5.5 Gender Differentiated Responsibility in Non-farm Activities

The responsibility of men and women in non-farm activities is examined by their time spent in non-farm activities. The total time devoted by men and women for different non-farm activities have been analyzed in this section. Non-farm activities covered household works like cooking, cleaning, taking, care of children and elderly people, collection of drinking water, community work and recreational works etc. From Table5.4, we can see that the average time spent by men and women in household works is 1.21 hours per day and 5.54 hours per day, respectively. The average time spent by men and women in collection of drinking water is 0.19 hours per day and 0.39 hours per day, respectively. The average time spent by men and women in community works is 1.52 and 0.56 hours per day, respectively. The average time spent by men and women in recreational works is 2.43 and 1.84 hours per day, respectively.

Table 5.4 Time spent by men and women in non-farm activities

Non-farm Activities	Time spent by men	Time spent by women
Household works	1.21	5.54
Collection of drinking water	0.19	0.39
Community work	1.52	0.56
Recreational work	2.43	1.84
Total	5.35	8.33

Source: Field survey, 2018.

The total time spent by men and women in non-farm activities is 5.35 and 8.33 hours per day, respectively. Therefore, we can say that the total time spent by women in farm activities is greater than men in the study area.

From the above table, we can estimate the percentage of men's and women's contribution in non-farm activities by measuring the time spent by them. These

percentage shares of men's and women's time spent are showed in the following figures (Figure 5.5 and 5.6).

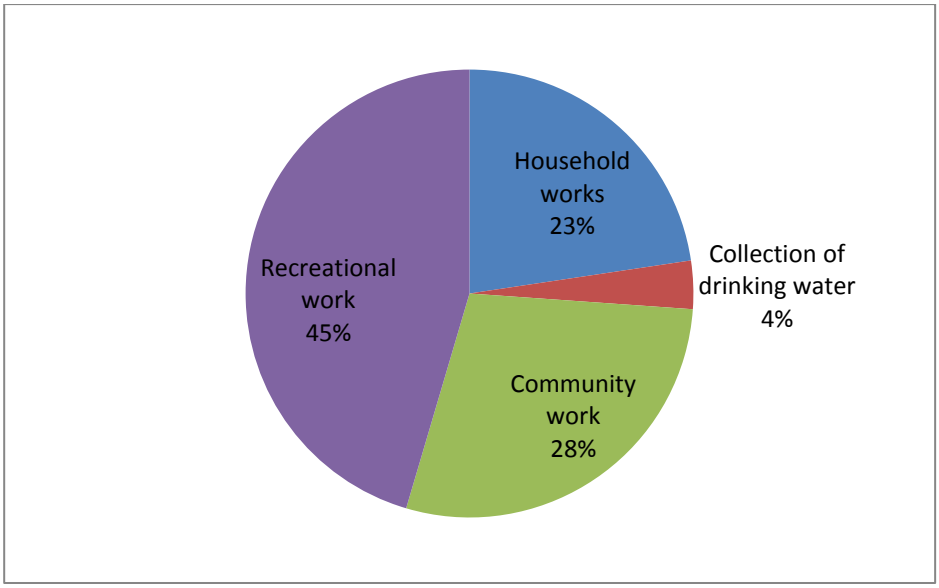


Figure 5.5: Men's time spent in non-farm activities

From the above figure, we can observe that 45 percent of recreational works, 28 percent of community works, 4 percent of collection of drinking water and 23 percent of household works were done by men in the study area.

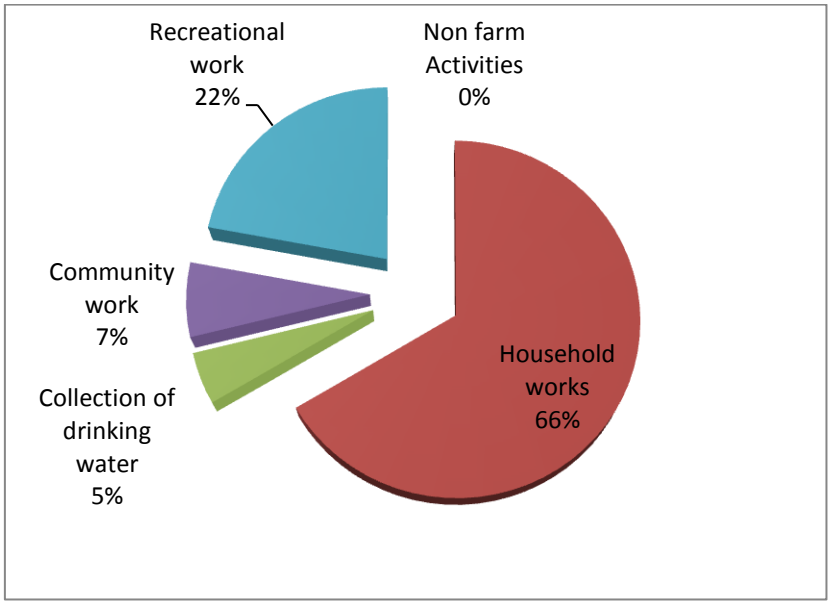


Figure 5.6: Women's time spent in non-farm activities

From the above figure, we can observe that 22 percent of recreational works, 7 percent of community works, 5 percent of collection of drinking water and 66 percent of household works were done by women in the study area. We can make this conclusion that men are spending most of their time in recreational works and community works than women in non-farm activities. Women are spending most of their time in household works than men in the study area. Therefore, the gender difference is very prominent in terms of men's and women's responsibility distributed in various non-farm activities.

5.6 Conclusion

Men and women play a great role in farm and non-farm activities to diversify their livelihood. The findings of this chapter support that men roles and responsibilities in farm activities is higher than women. On the other hand, total time spent by men in non-farm activities is lower than women. Therefore, it can be said that women's roles and responsibility is higher than men in non-farm activities. So, this chapter shows the overall picture of men's and women's roles and responsibilities in farm and non-farm activities in the study area.

CHAPTER 6
GENDER POWER DIMENSIONS IN RURAL FARM AND NON-FARM ACTIVITIES

6.1 Introduction

Gender shapes power relations at all levels of society. In fact, the set of roles, behaviors and attitudes that societies define as appropriate for men and women ('gender') may well be the most persistent cause, consequence and mechanism of power relations from the intimate sphere of the household to the highest levels of political decision-making. At household level, gender power can be described by men's and women's differentiated access and control over resources and the power of decision making on different farm and non-farm activities. This chapter therefore presents an overall scenario of gender power in the study area by examining their access and control over different resources and their decision make power in various farm and non-farm activities.

"Smart decisions are the triumphs of judgment while bad decisions are opportunities to learn from and rectify our strategy. The way to get better decisions is learning from experience and not repeating the same mistakes again." -Life Positive Way

6.2 Access and Control over Resources by Gender

In any society, there are some resources such as natural, physical, human, institutional, and financial. The access and control of men and women in these resources explain their position and power in their household. Therefore, this section examines the men's and women's access and control over different resources which are considered as significant resources for a rural livelihood. Table 6.1 presents the percentage share of men's and women's access and control over resources.

Table 6.1 Percentage share of men's and women's access and control over resources in sample households

Variable	Access / control						Total	
	Male		Female		Both			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Agricultural extension services and inputs	35	58	0	0	25	42	60	100
Access to common water resources	12	67	0	0	6	33	18	100
House	61	53.5	4	3.5	49	43	114	100
Electricity	5	4	0	0	109	96	114	100
Sanitation	0	0	0	0	114	100	114	100
Tube-well	0	0	0	0	40	100	40	100
Cooking Fuel	1	**1**	35	**31**	78	**68**	**114**	**100**

The survey statistics indicated that, out of 114 samples of respondents' households, in 58 percent households, men had access to and control over improved seeds, pesticides, and extension services. No household was found where only women had this facility but in 42 percent households both men and women enjoyed this facility (Table 6.1).The agricultural extension services that men and women use or access in the study area are mainly improved seeds, pesticides/insecticides, and extension education and training services.

Although few women have owned farmland, most of them mentioned that they do not have access to and control over these agricultural extension services because of many different obstacles such as household headship, household property ownership and collateral, poverty, illiteracy and institutional top-down extension systems. Household wives of the study area have been playing a great role in post-harvest and livestock activities, but they mostly missed the participation in

agricultural extension services. Even female-headed households faced these obstacles of access to agricultural extension services in the study area. In most cases, they missed from benefiting and participating in extension services either because of not yet identified as heads of household as long as their husbands died or ignorance from extension organizations. Hence, women have less access to agricultural extension services as compared to men in the study area.

Out of 114 samples of respondents' households, the percentage share of households where only men have access to and control over common water resources was 67 percent while there was no household found where only women had access to this resources. But about 33 percent households were found where both men and women jointly had access and control over common water resources.

In case of ownership of houses in most households (53.5 percent), men got the ownership though in a few households (3.5 percent) women got the ownership. In 43 percent households, both men and women got the house ownership. The households who had electricity facility, both men and women had access to this as they live in same household. The same logic applied for sanitation facility. There was 40 sample households were found who have tube-wells and both husband and wife can enjoy this facility which is quite natural. In case of cooking fuel, women had more access and control on it as it is their duty to collect cooking fuel for cooking.

6.3 Farm Based Decision Making by Gender

The strategy to triumph is to make a right decision at the right time but making right decision is crucial at every level. For agriculture, right decision at right time is definitely the most important and crucial task as agricultural goods are highly perishable and a small mistake can turn all efforts into ashes.

In Bangladesh, women are often less concerned in decision making process even at the family level. In traditional agriculture, practically all agricultural and non-agricultural decisions are predominantly made by male members. In this section, an attempt was made to analyze the pattern of men's and women's participation in farm and non-farm decision making process.

On the basis of gender participation in decision making process, three categories are use in this study: Decision made by men, Decision made by women and Decision made by both. In the category of men, only male members take part in decision making process. Under the category of women, only female take part in decision making process in different aspects and under category both, men and women jointly take part in taking decision on a specific matter.

6.3.1 Participation of men and women in decision making process in farm activities

In order to measure the degree of participation in farm activities, 17 variables were considered. These are:

a) Selection of land;
b) Selection of crop;
c) Time of tillage;
d) Time of planting;
e) Time of weeding;
f) Selection of fertilizer;
g) Selection of pesticides;
h) Time of irrigation;
i) No. of irrigation;
j) Time of harvesting;
k) Method of threshing;
l) Seed storage;
m) Seed buying decision;
a) Fertilizer buying decision;
b) Pesticides, insecticides and herbicide buying decision;
c) Product selling decision; and
d) By-product selling decision.

The opinion of respondents about participation in decision making is presented in Table 6.2. The participation of men and women in decision making process is

presented according to farm and non-farm activities and each decision aspect has three categories.

Table 6.2 shows that male solely carry out most of the agriculture related decision. The proportion of women's participation in decision making was lower (0.82 percent) in various farm activities, compared to other categories (Table 6.2). From Table 6.2, it reveals that in case of crop selection, tillage and planting time, fertilizer selection, threshing method, seed buying and fertilizer buying decision, women decision making percentage were zero. Men's overall decision making percentage in the above aspects was 58.90 percent which is much higher than women's decision making participation (0.82 percent). In about 40 percent households, both men and women take decision on farm activities.

Table 6.2 Participation in decision making process by gender

Decision type	**Man (%)**	**Woman (%)**	**Both (%)**	**Total (%)**
Selection of land	55.26	1	43.74	100
Selection of crop	69.30	0	30.70	100
Time of tillage	68.42	0	31.58	100
Time of planting	69.30	0	30.70	100
Time of weeding	69.30	1	29.70	100
Selection of fertilizer	70.18	0	29.82	100
Selection of pesticides	68.42	1	30.82	100
Time of irrigation	70.18	1	28.82	100
No. of irrigation	57.02	0	42.98	100
Time of harvesting	44.74	2	53.26	100
Method of threshing	57.02	0	42.98	100
Seed storage	44.74	2	53.26	100
Seed buying decision	46	0	54	100
Fertilizer buying decision	57.44	0	42.56	100
Pesticides, insecticides and herbicide buying decision	57.74	1	41.26	100
Product selling decision	48.25	1	50.75	100
By-product selling decision	48.25	4	47.75	100
Total	58.90	0.82	40.28	100

Source: Field survey, 2018.

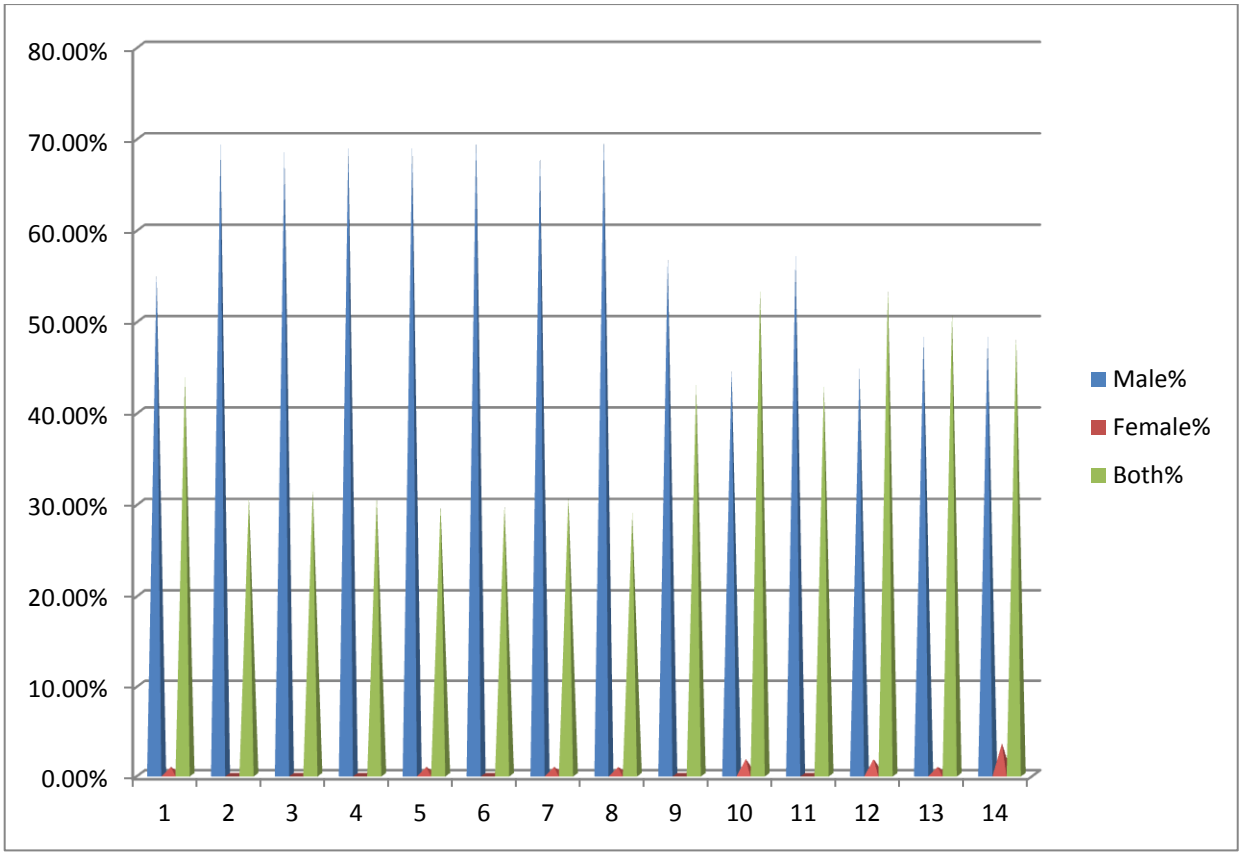


Figure 6.1: Gender based decision making process regarding different farm activities

Figure 6.1 is a graphical presentation of Table 6.2 which portrays the men's dominancy in decision making process of farm activities in the study area and this is a common scenario for rural Bangladesh.

6.3.2 Participation of men's and women's in decision making process in non-farm activities

In order to measure the degree of participation in non-farm activities, 12 variables were considered. These are:

a) Buying household assets;

b) Buying food items;

c) Buying non-food items;

d) Buying land;

e) Buying farm assets;

f) Family planning;

g) Children's education;

h) Medical treatment;

i) Choosing credit institution;

j) Join to social club;

k) Voting in the election; and

l) Migration.

Table 6.3 shows that men and women jointly took most of the non-agricultural decision (91 percent). The proportion of sole women's participation in decision making was lower (0.66 percent) in various non-farm activities, compared to men (8.34 percent). From table 6.3, it reveals that in case of buying farm assets men have a higher decision making power (21 percent). But, overall the results in Table 6.3 is a much deviation from results of Table 6.2. It can be said that, though in farm activities men mostly practice their power by taking major decisions, in case of non-farm activities there is a power balance exists. Here, both men and women take decision together on their non-farm activities and in some extend we can say that there is a power balance between men and women in this category.

Table 6.3 Decision making process regarding different non-farm activities, (based on main respondents)

Type of activity	**Man**	**Woman**	**Both**	**Total**
Buying household assets	7 (6.14)	0 (0)	107 (93.86)	114(100)
Buying food items	10 (8.37)	3 (2.63)	101(89)	114(100)
Buying non-food items	5 (4.25)	2(1.75)	107(94)	114(100)
Buying land	7(6)	0(0)	107(94)	114(100)
Buying farm assets	24(21)	0(0)	90(79)	114(100)
Family planning	4(3.50)	3(2.63)	107(93.87)	114(100)
Children's education	3(3)	0(0)	111(97)	114(100)
Medical treatment	3(3)	0(0)	111(97)	114(100)
Choosing credit institution	15(13)	0(0)	99(87)	114(100)
Join to social club	24(21)	0(0)	90(79)	114(100)
Voting in the election	3(3)	0(0)	111(97)	114(100)
Migration	8(7)	0(0)	106(93)	114(100)
Total	113(8.34)	8(0.66)	1247(91)	1368(100)

Source: Field survey, 2018.
*Figure in parenthesis is percentages.

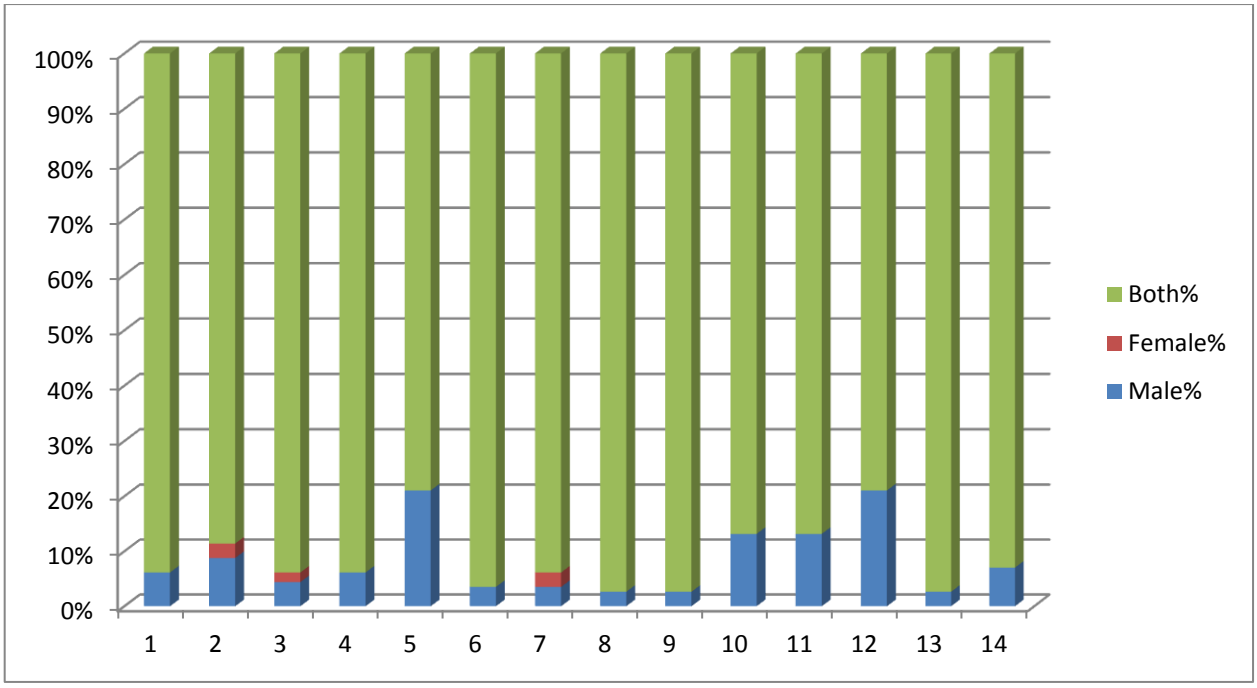


Figure 6.2: Gender based decision making process regarding different non-farm activities

Figure 6.2 is a graphical representation of Table 6.3 where we can see that both men and women jointly take decision in most non-farm activities and this is definitely a positive indication for gender power balance.

6.4 Conclusion

To conclude, it appears that women in the study area do not enjoy a high degree of autonomy in decision making in farming activities. Only in some aspects such as selection of crop, pesticides, post-harvest activities etc. women can give their own decisions. In non-farm activities, men and women jointly take part in decision making process. The movement of women outside home is also restricted. Thus, the patriarchic forms of decision making and dominance over women still continue in the study area, especially decision related to farm. Also, women enjoy less access and control over different resources, especially related to farm resources. Since, more women are now getting involved in farm practices, these attitudes have to undergo a change before women are able to fully enjoy the autonomy as an individual. Education and improvement in their economic independence will help in increasing women's involvement in decision-making in family.

CHAPTER 7
SUMMARY AND CONCLUSION

7.1 Introduction

This chapter presents summary, conclusion and recommendations of the study which is generated from the results that are presented in the previous chapters. In representing the summary the contents from different chapters are discussed in brief and a conclusion is drawn based on the research findings. Finally, some policy recommendations are presented followed by the limitations of the study and further research scope.

7.2 Summary of the Study

The present study was undertaken to determine the gender differences, participation and decision making process in agricultural and non-agricultural activities in Barind areas of Rajshahi region. The focus of the study was to examine the socio-economic status of the sample farmers, gender differentiated roles and responsibilities of men and women in farm and non-farm activities. It also covered the gender power dimensions through access and control over resources and decision making process in farm and non-farm activities.

7.3 Summary of the Findings for Objective 1

In case of socioeconomic characteristics, it was found that average family size for the study area was 4.95. All aspects were dominated by the male as usual and dependency ratio is higher among female. Working members and working members in agriculture was found 1.85 and 1.60 respectively. The average number of earning and dependent member in a family was found to be 1.85 and 1.61 respectively. The dependency ratio for male was 0.64 while it was 5.76 for female and total dependency ratio was 1.61.

From the field survey, it is seen that some of the members of selected households are engaged in multiple occupations. Most of the selected households have agriculture

as their main occupation. Some of them also have subsidiary occupations. Besides agriculture, some farmers were engaged in business, services, some are in driving and some worked as day laborers. Women were mainly involved with their household activities but few of them were engaged in subsidiary occupations like day labor, soil digging under government project, sewing, etc. But a large number of household heads were found to be engaged in different subsidiary occupations. Out of 114 samples of respondents, 102 respondents are involved in farming, 10 respondents are involved in business activities and 2 respondents are involved in doing job.

Most of the respondents under observation were married. When conducting the survey, it was found that the most of the rural men got married in approximately in twenty years old. About 98.25 percent of the respondents were married. Poor families also feel that investing in their education will not bring them any returns since soon after they enter into their marital life they feel the responsibilities of various agricultural and non-agricultural activities.

The highest proportion of the respondents belonged to the age group 18-30, accounts 37 percent of the respondents and lowest proportion of the respondents belonged to the age group of above 61 years. The larger number of respondents were included in 0-15 years' experience group and their percentage is 29.82 which is highest than other groups.

About 20.17 percent respondents are illiterate in the study area. About 34.21 percent are belonging to primary school level education and only 4.39 percent are belong to graduate level. In the study, it was found that in the rural areas of Bangladesh the literacy rate is not so high. From a total of 114 people, only 91 people are literate at minimum level and a number of 23 are illiterate.

During field survey, 63.15 percent men of total respondents said that they have time less than two hours for leisure and 36.85 percent men of respondents said that they sometimes get opportunity to have some leisure period more than two hours. On the

other side, result shows that 79.82 percent women have time less than two hours and only 20.18 percent women have time more than two hours.

7.4 Summary of the Findings for Objective 2

The study shows that men have more access and control over agricultural activities than women. The average percentage share of men is higher in field agricultural activities than women. Women have only more access and control in some activities like seed storage (55.82 percent) and drying (67.33 percent) than men in the study area which means that home-based agricultural activities were mostly done by women. In various activities like land and seedbed preparation, spraying fertilizers, irrigation and selling products, the average percentage of men is much more than men which indicate that men were more involved in field agricultural activities than women.

Women have more access and control than men in some non-agricultural activities such as cleaning (78.63 percent), cooking (89.55 percent), taking care of children and elderly people (82.23 percent) and collection of drinking water (67.12 percent). In the case of other non-agricultural activities, men have more access and control then women.

Out of 114 samples of respondents, the percentage share for men who have access to and control over common water resources were 67 percent while women were null out of the total surveyed households. But in 33 percent households, men and women jointly had access and control over common water resources. Men and women both have access to tube-well for the daily work. Similarly, men and women share electricity, houses equally. The average time spent by men and women in agricultural works in field is 4.25 hours per day and 0.66 hours per day respectively. The average time spent by men and women in home-based agricultural works is 1.35 hours per day and 1.32 hours per day respectively. The average time spent by men and women in livestock operation is 1.36 and 1.80 hours per day respectively. The total time spent by men and women in farm activities is 6.96 and 3.78 hours per day.

So we can say that the total time spent by men in farm activities is greater than women.

Result also shows that 48 percent of livestock operations, 35 percent of home-based agricultural works, 17 percent of agricultural works in field are done by women in study area. So, men are spending most of their time in agricultural works in field than women in farm activities. Women are spending their most of their time in livestock operations and home-based agricultural works than men in the study area.

The average time spent in hour per day in non-farm activities. The average time spent by men and women in household works is 1.21 hours per day and 5.54 hours per day respectively. The average time spent by men and women in collection of drinking water is 0.19 hours per day and 0.39 hours per day respectively. The average time spent by men and women in community works is 1.52 and 0.56 hours per day respectively. The average time spent by men and women in recreational works is 2.43 and 1.84 hours per day respectively. The total time spent by men and women in non-farm activities is 5.35 and 8.33 hours per day. So we can say that the total time spent by women in farm activities is greater than men in the study area. About 45 percent of recreational works, 28 percent of community works, 4 percent of collection of drinking water and 23 percent of household works were done by men in the study area. About 22 percent of recreational works, 7 percent of community works, 5 percent of collection of drinking water and 66 percent of household works were done by women in the study area. So, men are spending most of their time in recreational works and community works than women in non-farm activities. Women are spending their most of their time in household works than men in the study area.

7.5 Summary of the Findings for Objective 3

The survey statistics indicated that, out of 114 samples of respondents' households, in 58 percent households, men had access to and control over improved seeds, pesticides, and extension services. No household was found where only women had this facility but in 42 percent households both men and women enjoyed this facility.

The agricultural extension services that men and women use or access in the study area are mainly improved seeds, pesticides/insecticides, and extension education and training services.

Although few women have owned farmland, most of them mentioned that they do not have access to and control over these agricultural extension services because of many different obstacles such as household headship, household property ownership and collateral, poverty, illiteracy and institutional top-down extension systems. Household wives of the study area have been playing a great role in post-harvest and livestock activities, but they mostly missed the participation in agricultural extension services. Even female-headed households faced these obstacles of access to agricultural extension services in the study area. In most cases, they missed from benefiting and participating in extension services either because of not yet identified as heads of household as long as their husbands died or ignorance from extension organizations. Hence, women have less access to agricultural extension services as compared to men in the study area.

Out of 114 samples of respondents' households, the percentage share of households where only men have access to and control over common water resources was 67 percent while there was no household found where only women had access to this resources. But about 33 percent households were found where both men and women jointly had access and control over common water resources.

In case of ownership of houses in most households (53.5 percent), men got the ownership though in a few households (3.5 percent) women got the ownership. In 43 percent households, both men and women got the house ownership. The households who had electricity facility, both men and women had access to this as they live in same household. The same logic applied for sanitation facility. There was 40 sample households were found who have tube-wells and both husband and wife can enjoy this facility which is quite natural. In case of cooking fuel, women had more access and control on it as it is their duty to collect cooking fuel for cooking.

The participation of men and women in decision making process is presented according to farm and non-farm activities and each decision aspect has three

categories. This study shows that male solely carry out most of the agriculture related decision. The proportion of women's participation in decision making was lower (0.82 percent) in various farm activities, compared to other categories. From the study, it reveals that in case of crop selection, tillage and planting time, fertilizer selection, threshing method, seed buying and fertilizer buying decision, women decision making percentage were zero. Men's overall decision making percentage in the above aspects was 58.90 percent which is much higher than women's decision making participation (0.82 percent). In about 40 percent households, both men and women take decision on farm activities.

This study shows that men and women jointly took most of the non-agricultural decision (91 percent). The proportion of sole women's participation in decision making was lower (0.66 percent) in various non-farm activities, compared to men (8.34 percent). From the study, it reveals that in case of buying farm assets men have a higher decision making power (21 percent). It can be said that, though in farm activities men mostly practice their power by taking major decisions, in case of non-farm activities there is a power balance exists. Here, both men and women take decision together on their non-farm activities and in some extend we can say that there is a power balance between men and women in this category.

7.6 Recommendations for Improved Gender Balance

This section presents some recommendation for the improvement of gender equity in the study area. The recommendations were derived both from the respondents' suggestions and researcher's observation from the results. The selected recommendations are presented below:

I. Social attitude towards the men and women should be changed. For poverty alleviation in rural areas, various income generating projects may be introduced, particularly for women.

II. Salary of the female workers should have to be increased like as male workers. Discrimination in wages of males and females should be checked

through intervention by the Government and Non-government Organizations.

III. The government can play important role in reducing miserable condition of women of rural areas by distributing more dairy cattle at free of cost or with lower cost including limited or no interest.

IV. Facilities for skill development training to villagers should be provided. For long-run national interest free educational materials as well as other supports may be provided to the children of poor families so that they can go to school rather than work in the fields.

V. Lack of adequate inputs is one of the key challenges facing farmers in the study area. The respondents in this study identified shortage of inputs as one of their main constraints to effective agricultural production. All the participants, including the village leaders and the extension officers, lamented about the soaring costs of inputs, especially fertilizer.

7.7 Limitation of the Study

There are some limitations that sometimes make research a challenging chore. All the researches face some limitations in terms of time, money, management and knowledge. The present study has some limitations too. Some of these limitations that faced by the researcher are given below:

- Collection of primary data from any rural area is not an easy task when most of the respondents have no written document or specified answer of their business.
- In the period of data collection, some respondents were not intended to provide data and showed their repulsion as they do not get any support from government and non-government organizations to improve their situation. Data collected from the respondents may not ensure cent percent authentication as respondent provides response based on their memories.
- The study was conducted in specific areas of Bangladesh with only 114 samples due to time and resource limitations. Therefore, the scope of evaluation was very

limited and findings of the study may not represent the actual scenario of other regions of the country.

- For gender study, it would be nice to have 50-50 participants from each gender but it could not happen due to gender barrier in the community.
- This kind of study requires extensive time to fully capture the experiences and perspectives of the issue but for MS thesis time allocation is for 6 months which can be considered as time constraint. Completion of all tasks within these short periods of time, it is hard to claim for the best results.

7.8 Conclusion

In the developing countries, there is an imperative part of agricultural sector which can hasten the growth of the economy. Though the researcher had tried to provide some valuable information in present study for policy makers and researchers, some essential issues could not be addressed here due to limitation of resources and time.

From the study it can be conclude that women in the study area do not enjoy a high degree of autonomy in decision making in farming activities. The movement of women outside home is also restricted. Thus, the patriarchic forms of decision making and dominance over women still continue in the study area, especially decision related to farm. Also, women enjoy less access and control over different resources, especially related to farm resources. Since, more women are now getting involved in farm practices, these attitudes have to undergo a change before women are able to fully enjoy the autonomy as an individual.

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