ROLE OF MICROCREDIT IN RICE AND ONION PRODUCTION: A STUDY IN SELECTED VILLAGES IN GOPALGANJ DISTRICT OF BANGLADESH

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BY

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CERTIFICATE

This is to certify that thesis entitled, "ROLE OF MICROCREDIT IN RICE AND ONION PRODUCTION: A STUDY IN SELECTED VILLAGES IN GOPALGANJ DISTRICT OF BANGLADESH" submitted to Sher-e-Bangla Agricultural University, Dhaka-1207, in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE IN DEVELOPMENT AND POVERTY STUDIES, embodies the result of a piece of bona fide research work carried out SABUJ MANDAL, Registration No. 15-06760 under my supervision and guidance. No part of the thesis has been submitted for any other degree or diploma.

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

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Dedicated to

My Beloved Family

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LIST OF ACCRONYMS AND ABBREVIATIONS

ACCRONYMS		ABBREVIATION	
%	=	Percentage	
AEZ	=	Agro-Ecological Zone	
BBS	=	Bangladesh Bureau of Statistics	
et al.	=	And others	
etc.	=	Etcetera	
FAO	=	Food and Agriculture Organization	
IGAs	=	Income Generating Activities	
MFIs	=	Micro-Financial Institutions	
NBFIs	=	Non-Bank Financial Institutions	
NGO	=	Non-Governmental Organization	
No.	=	Number	
P	=	Probability	
PPP	=	Public Private Partnership	
PSM	=	Propensity Score Matching	
RMC	=	Rural Microcredit	
SAU	=	Sher-e-Bangla Agricultural University	
Tk	=	Taka	
UN	=	United Nations	
WHO	=	World Health Organization	

ABSTRACT

This study examines the purposes of microcredit use and it's role in income generating activities in selected villages of the Gopalgani district in Bangladesh. The research objectives include exploring the socio-demographic status of microcredit users, identifying the purposes of microcredit use, and calculating the role of microcredit in income generation. Primary data was collected within January to June of 2022 from 90 rural households using a structured interview schedule, focusing on the utilization of microcredit in the onion and rice sectors. The findings reveal that microcredit was predominantly used for onion cultivation and rice production, indicating its significant support for agricultural activities. The benefit cost ratio (BCR) analysis demonstrates that onion farming yielded higher profitability compared to rice farming. Therefore, the study concludes that both rice and onion farming sectors are profitable. Farmers using microcredit in onion farming are being the most profitable. Recommendations include encouraging farmers to use microcredit for onion production, lowering the interest rates of microcredit to enhance benefits for borrowers, and improving the financial management skills of microcredit recipients through training and skill development activities. Overall, this study underscores the positive impact of microcredit in enabling income generation and improving livelihoods in the study area.

CHAPTER I

INTRODUCTION

1.1. Background

Bangladesh is one of the most densely populated countries in the world with an estimated 165 million people living in an area of 147,570 square kilometers (BBS, 2022). In Bangladesh, 66% of people live in rural areas (World Bank, 2015). Bangladesh employs approximately 50% of its population primarily through agriculture, with more than 70% of its land dedicated to crop cultivation, with rice, jute, wheat, tea, pulses, oil-seed, vegetables, and fruits being the most important crops (FAO, 2015). In addition, large numbers of small and marginal farms with low financial resources make up Bangladesh's agricultural sector (Wadud, 2013). A number of negative circumstances, such as adverse climatic conditions, low agricultural productivity, and poverty, have a negative impact on local agricultural production. These factors are likely to contribute to widespread food insecurity among the population (FAO, 2015). Socioeconomic progress and stability are also impacted by food insecurity.

The national poverty line of Bangladesh according the government of Bangladesh declaration is who earns below USD 1.25 a day (Zohir, 2010). They have only basic level of education and some people don't have any minimum level of education. Their main income comes from agricultural business like farming, harvesting, fishing, cultivating, gardening, livestock, and forestry and also non-agricultural business like small departmental store, scrap collector, village restaurant, making handicrafts etc. Highly effective microcredit programs can provide financial services to these poor people without collateral to engage themselves into income generating activities for reducing their poverty level.

Microcredit is the extension of very small loans (micro loans) to poor borrowers who typically lack collateral, steady employment and a verifiable credit history. It is designed to spur entrepreneurship, increase incomes, alleviate poverty and often also to empower women. Microcredit is a part of microfinance, which is the provision of a wider range of financial services, in particular savings, to the poor. As of 2009 it was estimated that there were 74 million recipients of microcredit with a total of \$38

billion in outstanding loans. Modern microcredit is generally considered to have originated with the Grameen Bank founded in Bangladesh in 1983. Many traditional banks subsequently introduced microcredit, even though they had earlier on discounted its likelihood of success. As of 2012, microcredit is widely used in developing countries and it is presented as having "enormous potential as a tool for poverty alleviation." The United Nations had declared 2005 as the International Year of Microcredit (Kuhinuar, 2009)

Microcredit small amounts of collateral-free institutional loans extended to jointly liable group members for self-employment was first introduced by the Grameen Bank of Bangladesh in the mid-1970s (Rahman, 2019). The program was launched to provide small loans to the poor and those people who were generally excluded from formal financial services. The program soon gained widespread recognition. Since then, it has been in function. However, impact of this program has drawn much controversy over the years. Advocates of this program argue that it reduces poverty, creates employment and generates income. They say, the program eventually results in improved nutrition and improved education of the borrowers' children, and empowerment of the women. Moreover, it is argued that microcredit program has continued to benefit the poor by raising household welfare (Khandker and Samad, 2014). Usually, people who take part in microcredit program require necessary training and entrepreneurship skills so that they can use the borrowed money in a meaningful way. But many poor populations lack such skills. This is why it is said that any successes may be temporary for them. On top of that, high interest rates have also been found to impoverish clients (Peprah and Koomson, 2014).

The primary goal of microcredit programs in developing countries is to enhance the socio-economic status of the population. Microcredit has long been recognized as a grassroots development strategy that can involve unemployed stakeholders to facilitate sustainable rural development (Stevens and Morris, 2001). Rural employment generation is a top priority in the Government of Bangladesh's (GoB's) developmental agenda. Microcredit places emphasis on macroeconomic stability and economic liberalization. Bangladesh has received a sizable amount of foreign assistance (48 billion USD) from a number of international aid agencies (1991–2008), which has supported the creation of a number of local and international NGO microcredit programs that focus on rehabilitation and reconstruction (Quibria, 2010).

Over the past three decades, these interventions have made a significant contribution to the improvement of the lives and livelihoods of people at both household and community levels.

The formal financial sectors in developing countries typically serve no more than 20% of the total population (Greuning et al., 1998). They fail to serve the poor people of the society due to their unfavorable loan qualification criteria. For getting loan facilities they require collateral, minimum level of education, acceptable level of income source and living standard which cannot be fulfilled by the poor people. To overcome these limitations and open the door of financial services for the poor people a new type of loan was first introduced in 1976 by Muhammad Yunus in Bangladesh called Micro Credit. Core principle of this loan is to provide loan to individuals within a group where each individual of this group is mutually responsible for everybody's repayment. This social collateral replaces the physical collateral which poor people have lacked. Micro credit program is mainly directed towards women. It is a small amount of capital for the poor that can be used for their existing income generating activities or establishes a new entity in developing countries (Nawaz, 2010). It is designed in such a way that covers those poor people who are left out of the formal financial systems (Mahjabeen, 2008). Micro finance is described as banking for the poor (Mejeha and Nwachukwu, 2008). United Nations World Summit Outcome Document, 2005 states that "We recognize the need for access to financial services, in particular for the poor, including through microfinance and microcredit".

The origin of microcredit in its current incarnation in Bangladesh can be linked to several non-governmental organizations (NGOs), including Grameen Bank, BRAC and ASA. In the NGO sector, there were an increasing number of outstanding loans between 2006 and 2009 (InM and CDF, 2009). The Association for the Integrated Development-Comilla (AID-Comilla) is an NGO that has worked in Bangladesh and provided several development programs, including microcredit, since 1992. The GoB also provides a major proportion of microcredit via several organizations operating under different ministries. The Bangladesh Rural Development Board (BRDB) is a GO that has delivered several sustainable social development programs against poverty to uplift their socio-economic status by developing different sectors like agriculture, livestock, fisheries, small and medium business, including microcredit, to the rural poor since 1982. Over 1000 institutions operate microcredit programs

nationwide in Bangladesh, which differ greatly in terms of their rules, impacting on the ultimate success of microcredit programs (Hirut *et al.*, 2012).

Since 1970, microcredit has gained in significance as a tool for eradicating poverty and improving food security in Bangladesh. In addition to the immediate decrease of poverty, microcredit helped its borrowers to build assets that contributed to long-term sustainability. As an experimental effort, the Grameen Bank launched microcredit programs in Bangladesh in 1976 and micro-credit was initiated by Bangladeshi banking innovator Professor Dr. Muhammad Yunus. The majority of non-governmental organizations (NGOs) that offer micro credit are non-bank financial institutions (NBFIs). Large microfinance operations are supported by a number of government ministries or divisions, and a number of commercial banks have set up windows for microloan applications (Mazumder et al., 2014). Today more than 3000 NGOs, commercial banks, and specialized financial institutions operate programs, with poor rural women serving as their primary target market.

NGOs and MFIs are playing an active role to reach the credit facilities to the poor in Bangladesh than the formal financial institutions. They help to create rural employment generation, reduce poverty of these poor people who are taking micro credit facilities and utilize it properly. It will improve their living standard and help to fulfill basic needs for their family members by making them micro entrepreneur (Peprah and Koomson, 2014). Micro credit programs employ two tiered approach in poverty alleviation. They provide credit to the poor for purchasing capital inputs to make them become self employed and also provide non credit services such as vocational training, civil responsibilities and rights and other social services (Mckernan, 2002). Micro credit programs help to create rural employment and alleviating poverty after adopting more economic activities.

Even though the government has provided social safety net programs, 30 percent of population of Bangladesh was impoverished as of June 2020, rising from 21 percent in June 2019 (FAO, 2021). The present social safety nets and social protection initiatives (such as old age allowance, widowed allowance, educational stipend for the disabled students, and Vulnerable Group Feeding (VGF)) are insufficient to help the rural poor in Bangladesh (Ali, 2017). Some moneylenders in rural areas of Bangladesh are taking full advantage of this restriction by providing loans to the

underprivileged at high rates of interest with limited repayment periods. Such actions prevent the poor from making investments in production and service-related firms that could grow into income activities (Haque, 2017). For instance, small-scale initiatives have been created that focus on the rural poor, the disadvantaged, and the vulnerable to increase food security (Chilimba, 2020).

Efficient and rapid agriculture growth is a tool for the achievement of socio economic objectives of farmer communities (Simanowitz et al., 2000). One element of an effective strategy for poverty reduction is to promote the productive use of farm inputs. This can be done by creating opportunities for raising agricultural productivity among small and marginal farmers. It is well documented that for many small scale farmers, lack of access to financial services is a critical constraint for the establishment or expansion of viable agricultural enterprises. In this case microcredit can play an important role in agricultural development (Nosiru et al., 2010). Many efforts have been made and a continuous search for sustainable intervention through credit schemes is being introduced to enhance the living conditions and quality of community farmers in rural communities (Barkat et al., 2010). Microfinance or microcredit is the extension of small loans to individuals who are too poor to qualify for traditional bank loans, as they have no assets to be offered as guarantee (Menon, 2005). Microfinance is the provision of financial services to low income clients, including consumers and the self employed, which traditionally lack access to banking and related services (Christen et al., 2004). Microfinance can play a critical role in poverty reduction. Adequate access and efficient provision of microfinance services can enable the poor to manage their consumption level and risks better, build their assets gradually, develop their microenterprises, enhance their income earning capacity, and enjoy an improved quality of life.

1.2. Justification of the Study

Microcredit plays a vital role on changing respondents' lifestyle. Microcredit brings hope to respondents' life when they become frustrated on their financial condition. NGOs serve the microcredit mostly in the rural area. This study was conducted on the performance of microcredit in the selected areas of Gopalganj district, Bangladesh. The region is very important for our agricultural production and most of the people are related with agriculture. Their economic and social status is not so developed and

they mostly depend on credit. A number of NGOs are working in those areas. So it is important to observe the relative change in those areas due to credit given by different NGOs.

Justifying this study involves highlighting the relevance and importance of examining the socio-demographic status of microcredit users, identifying the purposes of microcredit uses, and calculating microcredit's role in income generating activities. Understanding the socio-demographic characteristics of individuals utilizing microcredit is crucial for several reasons. It provides insights into the target population, their backgrounds, and the contexts in which they operate. Examining factors such as age, education, occupation, and household size helps in assessing the diversity and specific needs of microcredit users. Investigating the different purposes for which microcredit is utilized sheds light on the specific needs and priorities of borrowers. Understanding how microcredit loans are employed, whether it is for agricultural investments, business expansion, education, or other purposes, helps in evaluating the effectiveness and impact of microcredit programs. Assessing the contribution of microcredit in income generating activities is crucial to evaluate its effectiveness as a poverty reduction strategy. By quantifying the impact of microcredit on income generation, researchers can determine its role in uplifting the economic well-being of borrowers.

Overall, this study justifies its significance by aiming to provide a comprehensive understanding of microcredit users' socio-demographic status, the purposes for which microcredit is used, and its role in income generating activities. The findings from this study can contribute to the improvement of microcredit programs, policy formulation, and the design of targeted interventions that align with the needs and aspirations of microcredit borrowers in Gopalganj District, Bangladesh.

1.3. Objectives

It was assumed that the microcredit intervention would boost the purchasing power of micro-credit borrowers. The specific objectives of the study are as follows:

- (a) To explore the socio-demographic status of microcredit users;
- (b) To identify the purposes of microcredit uses; and
- (c) To calculate microcredit's role in income generating activities.

1.4. Organization of the Thesis

The rest of the thesis is structured as follows: A review of the literature is presented in Chapter 2. Methodology is provided in Chapter 3. Socio-demographic characteristics of the respondents are outlined in Chapter 4. Purposes of microcredit uses in the study area are presented in chapter 5. Microcredit's role in income generating activities are presented in chapter 6. Problems of getting microcredit and repayment of microcredit are presented in chapter 7. The summery, conclusion and recommendation are provided in Chapter 8.

CHAPTER II

REVIEW OF LITERATURE

The primary goal of this chapter is to review several related studies in relation to the current investigation. Some of these researches might not be totally relevant to the current topic, but their analytical methods, conclusion and suggestions have a significant impact on it. The following discussion provides a review of several recent research studies that are relevant to the current study.

Haque (2021) conducted research on economically disadvantaged women in rural areas of Bangladesh who utilized microcredit to enhance their living conditions. The primary objective of the study was to assess the impact of microcredit on the food security of these women living in poverty. Primary data was collected from borrowers who had limited or no land ownership, as well as those with small land holdings, specifically from Gazipur and Mymensingh districts in Bangladesh. The sampling technique employed was simple random sampling, and the analysis involved the application of the Propensity Score Matching (PSM) method. By utilizing binary logistic regression, the study examined the perspectives of borrowers regarding the contribution of microcredit in improving their food security status. The findings revealed that the utilization of microcredit led to a significant increase in household food expenditures. It is worth noting that the study solely focused on female agricultural workers.

Patil (2012) conducted a study to investigate the socio-economic effects of microfinance through Self-Help Groups (SHGs) in Karnataka. The findings revealed that the loan assistance provided by banks and other agencies had a positive impact on SHGs and their members. The study highlighted significant improvements in the life, economic, and social activities of SHG members. Notably, there was an increase in investment in fixed assets and notable improvements in infrastructure, including lighting, storage, and transportation among the SHG members. The standard of living of the SHG members improved, and there was an overall increase in their income levels.

Ali et al. (2017) on their study explored the utilization of microcredit as a means of promoting development and reducing poverty in rural areas of Bangladesh. The

qualitative research aimed to assess the effectiveness of microfinance programs and understand the factors contributing to high poverty levels among microfinance recipients in the Bogura district of Bangladesh. The findings indicated that impoverished women experienced physical and verbal harassment, while the microfinance programs themselves exhibited inefficiencies. These inefficiencies were attributed to factors such as excessive interest rates, inadequate loan amounts, unproductive use of loans, corruption among staff members, limited skills among borrowers, and demanding weekly repayment schedules. The study also revealed that persistent poverty was influenced by various factors, including limited employment opportunities, lack of access to education and healthcare, absence of social safety nets, occurrences of natural disasters, the dowry system, and rising prices of essential daily necessities.

Kuhinur and Rokonuzzaman (2009) conducted a study on the impact of Grameen Bank microcredit on the livelihood status of women beneficiaries in the Comilla district of Bangladesh. The study employed t-tests to analyze changes in livelihood status across three dimensions: "change of farm and household materials," "change of housing, health, and sanitation," and "change of annual family income." The results of the t-tests indicated that the changes in livelihood status before and after involvement with microcredit were highly significant in all three dimensions.

Islam et al. (2016) comducted a study on the impact of microcredit on various indicators of food security. These indicators included household calorie availability, dietary diversity measures, and the anthropometric status of women and children aged 15 to 49. The study found that participation in microcredit programs positively affected calorie availability both in terms of quantity and coverage. However, there was no significant improvement observed in dietary diversity indicators or anthropometric measurements. The authors suggested that the relationship between microcredit participation and food security might not follow a linear pattern. Initially, microcredit might have minimal impact on food security, but over time, it could lead to improvements. These findings helped to shed light on why short-term evaluations of microcredit often fail to demonstrate positive effects.

Mazumder et al. (2014) conducted a study on the effects of microcredit on basic rights and living standards. The study involved surveying approximately 300 individuals

who received microloans and 200 control group respondents. Various analytical methods were employed, including propensity score matching, multiple regression, factor analysis, descriptive statistics, and treatment effect models. The findings revealed that microfinance had a positive impact on expanding the fundamental rights of the respondents and improving their quality of life. Notably, individuals who received microloans from non-governmental organizations consistently experienced more favorable outcomes compared to those who did not.

Suresh (2008) conducted a study to examine the impact of microfinance on the income and employment of rural women through dairy enterprise in the tank management project area of north Karnataka. The findings indicated a significant increase in the number of days of employment for the beneficiaries after receiving microfinance for engaging in dairy enterprise. Specifically, there was a percentage change of 142.41% and 153.43% in Haveri and Bellary districts, respectively. Moreover, the study revealed notable changes in income for the beneficiaries involved in dairying. The percentage change in income from before to after engaging in dairy enterprise was 41.12% and 94.90% in Haveri and Bellary districts, respectively. Additionally, there were significant improvements in the asset position of the beneficiaries, with a percentage change of 101.35% in Haveri district and an astonishing 980.52% in Bellary district. The study also highlighted substantial increases in savings among the beneficiaries, with a percentage change of 378.94% in Haveri district and 393.76% in Bellary district. Furthermore, there were considerable percentage changes in milk consumption, with an increase of 440.55% and 422.55% in Haveri and Bellary districts, respectively. These findings emphasize the positive effects of microfinance on the income, employment, assets, savings, and milk consumption of rural women engaged in dairy enterprise.

Haque et al. (2017) conducted a study to assess the impact of microfinance on household income, expenditures, and savings. The focus was on borrowers who had successfully completed a minimum of three loan cycles. The researchers conducted a household-level survey involving 3,000 respondents who had received microcredit from ASA, one of the largest non-governmental organizations (NGOs) in Bangladesh. Using multiple regression analysis, the authors discovered that the microcredit program implemented by ASA had a significant positive effect on household income, expenditures, and savings. Furthermore, the study highlighted the significance of

education levels in influencing household income, spending, and savings. Consequently, the microcredit program offered by ASA played a crucial role in enabling disadvantaged households in both rural and urban areas of Bangladesh to enhance their competitiveness and improve their living standards.

Banerjee et al. (2015) shared the results of a randomized evaluation of a group lending microcredit program conducted in Hyderabad, India. The study involved a lender operating in 52 communities randomly selected for the program, resulting in an 8.4 percentage point increase in microcredit usage. While there was no significant increase in overall consumption, the study observed an improvement in small business investments and current business profits. Additionally, there was an increase in spending on durable goods, but a decrease in spending on "temptation goods". However, no substantial changes were observed in areas related to women's empowerment, education, or health.

Chilimba et al. (2020) conducted a study to investigate the impact of participation in microfinance programs on household food security in Malawi. Micro activities, including microfinance, that specifically target individuals who are poor, vulnerable, and marginalized, have gained importance in development agendas. Therefore, it was crucial to assess how these micro activities, such as microfinance programs, affect welfare measures such as food security. The study utilized cross-sectional data from Malawi(2010-2011) third Integrated Household Survey. Through the use of the Heckman selection model, the findings indicated that participation in microcredit had a positive influence on food security.

Berg et al. (2020) conducted a study to investigate the effects of microfinance membership on households' ability to cope with the seasonal famine called Monga. The researchers employed the Instrumental Variable estimation technique to mitigate biases in their analysis. The evidence presented demonstrated that participation in microfinance programs improved food security, particularly for the poorest households who were struggling to survive during Monga. However, the study found that the improvements in food security were not primarily driven by higher income. Microcredit did not significantly facilitate job relocation or reduce dependence on forced labor sales. Instead, the findings suggested that consumption smoothing, or the ability to manage and maintain stable levels of consumption, played a crucial role in

enhancing food security for households involved with microfinance institutions during the famine season.

Khanom (2014) conducted a study to evaluate the impact of Rural Micro-credit (RMC) on poverty alleviation. The study involved surveying 68 households benefiting from RMC across 18 Unions in five Districts. The survey findings indicated a minimal increase in income levels among the participants. Surprisingly, despite being a requirement of the program, slightly over half of the participants did not receive any training in the necessary skills for engaging in income-generating activities (IGAs). Additionally, the study revealed that beneficiaries were dissatisfied with the interest rates, with a majority of RMC participants agreeing that the rates were too high and should be reduced. However, the survey results did indicate that RMC had succeeded in improving food intake and alleviating poverty.

Mounirou et al. (2022) conducted an evaluation to assess the impact of microcredit on food security in Benin, West Africa. The data for the study were obtained from the Comprehensive Food Security and Vulnerability Analysis (CFSVA) of Benin. Two indicators were used to measure household food security: food consumption classes (poor, acceptable, and within limits) and food security classes (severe, moderate, within limits, and food security). Due to the ordered nature of these indicators and the potential presence of selection bias in accessing microcredit (where unobservable factors could influence financial inclusion), the authors employed an extended ordered probit regression analysis. The results indicated that access to microcredit had a positive impact on the categories of food consumption, reducing the risk of households consuming minimal amounts of food or consuming food of poor quality. However, access to microcredit had a negative impact on the categories of food security. Furthermore, the utilization of microcredit for food purchases was found to have a favorable effect on food consumption, but it did not significantly impact food security.

Hussain et al. (2017) conducted an evaluation to assess the effectiveness of microfinance institutions (MFIs) and the socioeconomic impacts of microcredit initiatives. The study utilized panel data from over 2,500 households and employed descriptive statistics for analysis. The findings indicated that the microcredit program had been successful in empowering households to create job opportunities and

increase their income potential, ultimately contributing to poverty reduction. Although there was no direct link observed between the microcredit program and non-labor income sources such as remittances, the impact of participation in the program was more evident on household labor income than on total household income. Additionally, the study revealed that households at the lower end of the income distribution appeared to benefit more from microcredit programs compared to those at the higher end. This suggests that microcredit initiatives have an equalizing effect, helping to reduce income disparities among participating households.

Wadud (2013) conducted a study to examine the impact of microcredit on farm productivity, output, and food security. The research utilized farm-level survey data collected from Rangpur, Dinajpur, Bogra, and Rajshahi districts in Bangladesh. A total of 682 farms were surveyed, with 450 farms being recipients of microcredit and the remaining 232 farms serving as non-recipients. To evaluate the effects of microcredit on farm performance, output, and food security, several methodologies were employed, including the Cobb-Douglas stochastic frontier, data envelopment analysis (DEA), inefficiency effects model, and propensity score matching (PSM). The findings of the study demonstrated that microcredit had a positive impact on agricultural income, which in turn could contribute to poverty reduction and increased food security. Specifically, the average income of farms that received microcredit was found to be 9.46% higher than the average revenue of non-recipient farmers. This suggests that microcredit plays a significant role in improving farm-level performance and ultimately enhancing the economic well-being of farmers, thereby contributing to overall food security.

Josily (2006) conducted a study focusing on women empowerment through microfinance in the Dindigul district of Tamil Nadu. The study revealed various positive outcomes for the respondents after joining Self-Help Groups (SHGs). There was a significant increase in income (45.99%), investment (20.09%), assets (53.43%), consumption (25.85%), employment days (112.48%), and savings (264.70%) among the participants. Importantly, the calculated t-values for these changes were found to be significant at a 1% level, indicating a strong statistical significance in the observed improvements. This study underscores the positive impact of microfinance and SHG participation on the economic aspects of women's lives, leading to increased income, savings, assets, employment opportunities, and overall improved standards of living.

Ramakrishnappa and Jagannath (2006) conducted a study on emerging microfinance issues in dairy development in Karnataka. The study aimed to analyze the various aspects of the microfinance scheme known as New Swarnima, which was implemented by KBCDC (Karnataka Backward Classes Development Corporation). The researchers specifically focused on assessing the implementation of the New Swarnima Scheme at the micro level, selecting 18 beneficiaries from the landless laborers, marginal farmers, and small farmers in Kolar district, Karnataka. The findings of the study indicated that the microfinance scheme had a positive impact on income and employment generation among the beneficiaries. Additionally, it was observed that the scheme had improved the options for natural resource management. This study sheds light on the effectiveness of the New Swarnima microfinance scheme in promoting dairy development and contributing to the socio-economic well-being of backward communities in Karnataka.

Rais et al. (2007) conducted a study to assess the impact of dairy farming on the livelihoods of women participating in the Grameen Bank (GB) program in selected villages of Rangpur District, Bangladesh. The findings of the study demonstrated that the income generated from the dairy sector experienced the highest increase. On average, there was a notable 87.51% increase in the total income per family. The study also indicated that households experienced a significant increase in rented-in land (113.33%) after becoming members of the Grameen Bank program and owning a dairy cow. These results highlight the positive influence of dairy farming, facilitated by the Grameen Bank, on the economic well-being of participating women and their families in the Rangpur District.

Devi et al. (2007) conducted a study to examine the impact of training programs on women's Self Help Groups (SHGs) in the Cuddalore district of Tamil Nadu, India. The study found that various entities such as commercial banks, NGOs, and government agencies provided training to the SHG members. The technological training programs attended by the women resulted in an increase in their employment opportunities and improved their asset positions. The SHGs played a significant role in facilitating non-farm employment for the respondents. The study emphasized the need for continuous evaluation of such programs by policy planners to ensure the success of SHGs. Furthermore, the authors suggested that efforts should be made to

provide the necessary training to SHG members for engaging in new ventures that have been identified.

CHAPTER III

METHODOLOGY

Any research study's methodology is both a crucial and indispensable component. Without a suitable approach very often leads to poor results. The technique of the study is used in a variety of ways to choose the optimal approach for achieving the specified research objectives. This chapter provides a thorough explanation of the study area, how it was chosen, how respondents were chosen, how the data was collected, and the analytical methods used.

This chapter represents the methodology of the study. Methodology outlines the way in which research to be taken and identify the methods and describes the identifying methods for calculating specific result. This study was carried out by using primary data collected from selected areas of Bangladesh. A chronological description of the methodology for the study is presented below.

3.1. Selection of the Study Area

In any statistical study, choosing the study area is an important step. This site was suitable for the study's specific objective and the potential for respondent cooperation.

This study was conducted at the areas of two unions namely Mochna and Vabrashur under Muksudpur upazila of Gopalgonj district where microcredit programs have been operating. Those two unions were selected because microcredit activities among the study areas were more concentrated in these unions in comparison with the other unions of Muksudpur upazila. There were 452 credit borrowers in these unions. For clear of understanding, one map of Gopalgonj district showing Muksudpur upazila showing the study area have been presented in Fig. 3.1.

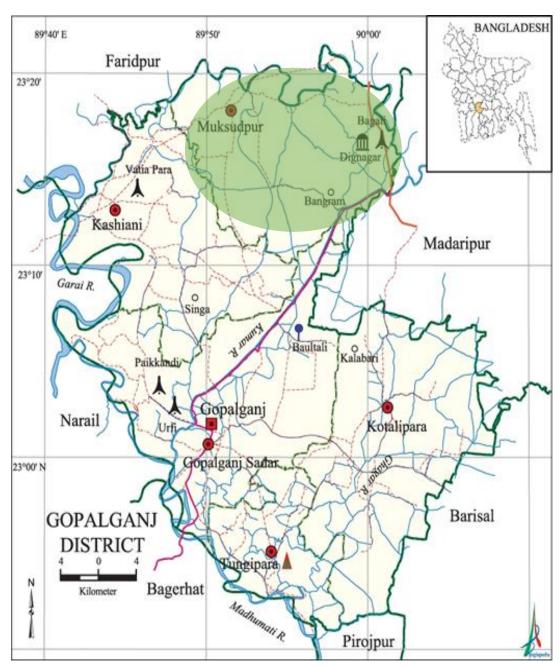


Fig. 3.1 A map of Gopalgonj District showing Muksudpur upazila (Source: Banglapedia)

3.2. Sampling Technique and Sample Size

The study used multistage sampling technique. First, one district namely Gopalganj were selected considering the time, budget, and accessibility of the researcher. Second, two unions namely Mochna and Vabrashur under Muksudpur upazila of Gopalgonj district were selected due to availability of microcredit borrowers. A total of 90 respondents were surveyed. The data was collected from January to June of 2022.

Table 3.1. Sample Distribution

District	Upazilla	Union	Village	Total no. of beneficiaries	Sample (no. of respondents)
Gopalganj	Muksudpur	Mochna	Satiani	260	52
		Vabrashur	Kalinagar	192	38
Total			452	90	

An updated list of all the respondents in the study area involved with microcredit program of the selected unions were collected with the help of local credit supervisors. Two unions out of thirteen were selected purposely for the study. Data for this study were collected from a sample rather than the whole population. Out of 452 beneficiaries, a sample of 90 respondents were selected by simple random sampling technique. The distribution of the population and the sample size are presented in Table 3.1.

3.3. Data Collection

Any study's outcome depends on the correctness and dependability of the data collected, which is a crucial stage. Data collection techniques have a big impact on the accuracy and dependability of the data. The primary source of data for the study was a set of field-level primary data that was gathered from the chosen participants using interviewing protocols that had been thoroughly tested. Through direct interviews done by the researcher himself with the chosen respondents, field level primary data were obtained. Each chosen respondent was interviewed independently after creating the schedule. Each respondent received a brief introduction on the scope and goals of the study prior to the start of the actual interview. Then the inquiries were made in a straightforward order. The answers were immediately noted on the interview schedules. The researcher had to rely on the respondents' meager memories because, in general, the respondents at the grass roots level do not retain written records of

their various activities. The interviewer used a systematic approach to questioning and provided explanations as needed. To ensure that the answers had been accurately recorded, the schedule was checked and validated after each interview. 90 Data were gathered in local units to save time and make it easier to interpret. Data collecting is viewed as an important aspect of a survey since it has a substantial influence on the quality of the findings. Given its significance, the following precautions were taken throughout the development of the questionnaire as a data gathering tool. The data was collected from January to June of 2022.

In this study, primary data was collected through face to face interviews using a structured interview schedule. Primary data were collected in terms of respondents' demographic profile, asset ownership, the number of earning members in the household, training, technology adoption, household income, expenditure, remittance, credit management, distance from highway, and level of food consumption. The collected data was entered into an Excel spreadsheet.

3.3.1 Survey for the Research

The researcher himself collected essential data through personal interview with the individual respondents. An introductory visit to the respondents' house was made. During the visit the aims and objectives of the study were explained to most of the respondents. This helped the researcher to have a friendly orientation to the group members. Before going to the respondents for interview, advanced information was taken with the help of field supervisors of credit lending organization. Brief information regarding the nature and purpose of the study was given to the respondents before actual interview with the help of a local leader.

Necessary correction, addition and alternation were made in the interview schedule based on the pre-test results. After correction, the interview schedule was finalized for the data collection. Questions were asked systematically and explanations were made whenever it was necessary. The information was duly checked in order to minimize errors. Some data were recorded in local unit. These were subsequently converted to appropriate standard units. The respondents were interviewed at their leisure time so that they could give accurate information in a cool mind. The investigator faced no serious problems.

3.3.2 Secondary Sources

Reviewing previous studies on microcredit program in Bangladesh provided a good background for understanding these programs; their impact assessment techniques; and the kinds and content of surveys and questionnaires used in research of this nature.

3.3.3. Questionnaire Design

A questionnaire is an effective tool for gathering data since it ask questions with multiple dimensions. Without a clear objective and purpose, a questionnaire would always overlook important subjects and make respondents and enumerators waste their time by answering pointless questions. To the best of our ability, we took into account each of these concerns when creating the survey questionnaire.

3.3.4. Pre-testing the Questionnaire

The questionnaire was pre-tested to determine the amount of time required to complete the interview, its reliability (i.e., if it caught the information sought), and its consistency (i.e., whether the information acquired was relevant to the survey's overall goal). The test also aimed to assess the logistics necessary for the survey's effective operation. Pre- testing was conducted in Muksudpur Upazila in Gopalganj District in 2022 before to the survey to assure the optimal performance of the questionnaire in terms of data collecting, processing, and analyzing.

3.3.5. Finalization of the Questionnaire and Method of Data Collection

The questionnaire was sent to my supervisor and co-supervisor after addressing all the adjustments based on the pre-test suggestions. With the permission, the questionnaire was finalized. Following the questionnaire, a face-to face interview was conducted.

3.3.6. Data Editing and Coding

Other critical aspects of the survey included data editing and coding, both of which were required for data processing. Prior to data processing, it should be finished. In the instance of this survey, coding was done concurrently with questionnaire construction so that the enumerator could mark the correct responses quickly and precisely. The process of verifying and cleaning data that had previously been obtained from the field was referred to as data editing.

3.4 Measurement of Different Attributes

3.4.1 Measurement of Socio-demographic Attributes

Nine selected characteristics of the rural credit debtors are considered as independent variables.

(a) Age

Age of a respondent was measured on the basis of time from his/her birth to the time of interview. 1 (one) was assigned for each year of age.

(b) Education

A respondent in educational institutions measured the education on the basis of completed years of schooling. One (1) was assigned for each completed year of schooling. If a respondent does not know reading and writing his/her score was zero (0). A score of 0.5 was assigned to a respondent who only could sign his/her name.

(c) Occupation

Occupation of the respondents was measured by asking them as their main activities of household income.

(d) Family Size

Family size of a respondent was measured on the basis of the actual of number of member in his/her family. The family members included himself, wife/husband, children and other dependent members who jointly lived and ate together up to the time of interview. The actual number of members was considered as the family size score of a respondent. For example, if a respondent had five members in the family, then family size score was given as 5.

(e) Farm Size

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

$$FS = A_1 + A_2 + \frac{1}{2}(A_3 + A_4)$$

Where, A_1 = Homestead area, A_2 = Cultivated area owned by a respondent, A_3 = Land taken from others on borga, A_4 = Land given to others on borga.

(f) Annual household income

Annual income referred to the total financial return of a household from farm (Crops, livestock, poultry and fish) and nonfarm sources (business, job, remittance and others) in one year. It was expressed in Taka. In measuring this variable, total earning in Taka of a respondent was converted into score. A score of one was given for every 1000 Taka.

(g) Credit Received

It refers to the amount of money received by a respondent as loan from any institutional score. It was expressed in Taka. The total credits were calculated by adding all the split credit together. The total credit in Taka was converted into credit-received score. A score of 1 was assigned for each thousand Taka ('000' TK.).

(h) Utilization of Credit

Initially, utilization of credit was divided into three categories, fully in assigned purpose, partially in assign purpose and fully in other than assigned purpose. A single credit was supposed to be utilized by a borrower in any one of the above three ways. Weights were assigned in the following approach:

3.4.2 Analysing Purposes of Microcredit Uses

This particular geographic region has experienced the application and utilization of microcredit for diverse objectives. For instance, microcredit loans have allowed farmers to invest in agricultural resources, acquire livestock, and enhance their farming methods. The availability of microcredit has also supported the establishment and expansion of small enterprises, such as convenience stores and small-scale manufacturing ventures. Additionally, microcredit loans have been employed to fund educational costs, encompassing school fees, educational materials, and vocational training. A total number of 90 respondents maximum 27 respondents are engaged with onion cultivation, 21 respondents are engaged with rice production, 14 respondents are involved in livestock, 7 respondents are involved in small business, 9 respondents involved in fisheries and 12 respondents are involved in other activities.

3.5 Evaluation of Cost

The cost of inputs is an important factor that influences the production. Farmers are bearing the cost of inputs through the capital. In the study area, the respondents used some purchased inputs as well as some household inputs. In the calculation, the cost of purchased inputs and household inputs were not calculated separately. The costs of inputs of rice and were classified into two broad categories:

- A. Variable Cost
- B. Fixed Cost

A. Variable Cost

The variable costs of rice and onion production were converted into hectare per units. There were various variable costs such as:

- (a) The labor cost
- (b) The land preparation cost
- (c) The cost of seed
- (d) The cost of manure
- (e) The cost of fertilizer
- (f) The cost of insecticide & herbicide
- (g) The cost of irrigation
- (h) The cost of threshing
- (i) Interest on operating capital

B. Fixed Cost

The leasing cost of land was the fixed cost for rice and onion production. The lease cost was formulated for one year. Here, the cost was calculated for season (six month) per hectare.

3.6 Evaluation of Returns

There were two return items such as i) selling of product, ii) selling of by-product.

3.7 Net Return

To determine the net return of rice and onion production, the total cost is deducted from the gross return. The formula is-

Gross return = price * quantity

Total cost = total variable cost + total fixed cost

Net return = Gross return- Total cost of production

3.8 BCR (Benefit Cost Ratio)

BCR is the ratio of present worth of benefit and present worth of cost. It indicates the benefit of per unit cost at present worth. BCR was calculated by using the following formula-

CHAPTER IV

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

4.1.Introduction

In this chapter, researcher discuss about the socio-demographic characteristics of the respondents like age distribution, educational status, occupations, household size, farm size, annual income etc.

4.2. Age Distribution of the Respondents

The age of the respondents varied from 18 to 65 years with an average of 36.96. The distribution of the respondents in accordance of their age is presented in Table 4.1.

Table.4.1. Distribution of Respondent Based on Their Age

Basis of age	Observed	Field crop producers		Average age
categorization	range	Number	Percent	
18-35 years		33	36.67	
36-50 years	24-64	44	48.89	36.96
> 50 years		13	14.44	
Total		90	100.00	

Source: Field Survey, 2022

Table 4.1 revels that out of the total sample, 36.67 percent belonged to the age group of 18-35 years, 48.89 percent belonged to the age group of 36-50 years and 14.44 percent belonged to the age group of over 50 years.

4.3. Educational Status of the Respondents

The level of education of the borrower ranged from 0 to 18 years with an average of 5.44 years. Based on education years, the respondents were classified into four categories arbitrarily in Table 4.2.

Table.4.2. Distribution of the Crop Producers According to their Level of Education

Category	Basis categorization (in years schooling)	of of	Observed ranged (years)	Borrower fa	Percent	Average years of schooling
Illiterate	0			5	5.56	
Primary education	1-5			53	58.88	
Secondary education	6-10		0-14	18	20.00	5.44
Tertiary education	>10			14	15.56	
	Total		1	90	100.00	

Source: Field Survey, 2022

Table 4.2 shows that the people in primary education category constitute the highest proportion (58.88 %) followed by above tertiary (15.56 %), secondary (20 %) and illiterate (5.56 %).

4.4. Occupation of the Respondents

The Respondents occupation is presented in Figure 4.1.

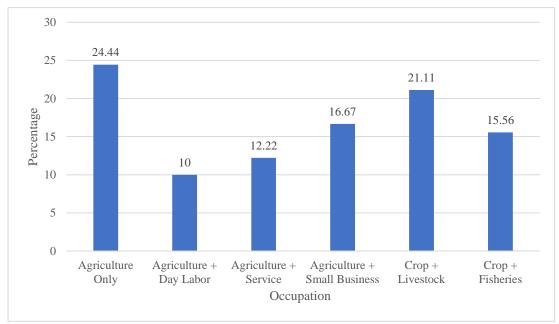


Figure 4.1: Respondents Occupation Showing in Bar Diagram

Source: Field Survey, 2022

In this study area, people were working on different types of activities. It was noted that, as a major source of income 24.44% respondents were engaged in agriculture only, 10% respondents were engaged in agriculture with day labor, 12.22% respondents were engaged in agriculture with service, 16.67% respondents were engaged in agriculture with small business, 21.11% respondents were engaged in crop with livestock, 15.56% were engaged in crop with fisheries.

4.5. Household Size of the Respondents

Household size of the respondents ranged from 2 to 9 members with an average of 4.33. The distribution of the respondents according to their household size is presented in Table 4.3.

Table.4.3. Distribution of Respondents Based on Their Household Size

	Basis of	Observed	Respon	dents	Average
Categories	categorization	Ranged of			Household
0	(No. of	Household	Numbers	Percent	Size
	household size)	Size			
Small	Up to 4		48	53.33	
family					
Medium	5-6		32	35.56	
family					4.33
Large	Above 6	2-9	10	11.11	
family					
	Total	1	90	100.00	

Source: Field Survey, 2022

Table 4.3 showed that the small family which have 1-4 members constituted the highest proportion (53.33%) followed by the family holding 5-6 members (35.56%) and above 6 members (11.11%).

4.6. Farm Size of the Respondents

Farm size of the respondents observed ranged from 0.01 to 3.50 with the average farm size is 0.99. The distribution of the respondents according to their farm size is presented in Table 4.4.

Table.4.4. Distribution of Respondents Based on Their Farm Size

	Basis of	Observed	Respondents		Average
Categories	categorization	Range	Numbers	Percent	Farm Size
	(ha)	Tunge			
Landless	< 0.02		7	7.78	
Marginal	0.21 to 0.50		14	15.56	
farmer					
Small	0.51 to 1.00		42	46.67	
farmer		0.01-3.50			0.99
Medium	1.01 to 2.00		16	17.78	
farmer				2,,,,	
Large	More than 2.00		11	12.22	
farmer					
	Total		90	100.00	

Source: Field Survey, 2022

Table 4.4 showed that, small farmer which having 0.51-1.00 ha of land constituted the highest 46.67% of total farmer, marginal farmer which having 0.21-0.50 ha of land constituted 15.56% of total farmer, landless farmer having 7.78%, medium farmer having 17.78% and large farmer having 12.22% of total farmer. All households were grouped into five farm categories according to size of land holdings (Abedin et al. 1988).

4.7. Annual Household Income of the Respondents

Annual household income of the respondents observed ranged from 24 to 260 with the average household income is 144.70 thousands. The distribution of the respondents according to their household income is presented in Table 4.5.

Table.4.5. Distribution of Respondents Based on Their Annual Household Income

		Observed	Respon	dents	Average
	Basis of	Ranged of			Annual
Categories	categorization	Annual	.		Household
	('000' Tk)	Household	Numbers Percent		Income(in
		Income			thousands)
Low	Up to 100		27	30	
Income		54.260			
Medium	101 to 200	54-260	41	45.56	
Income					144.70
High	Above 200		22	24.44	
Income					
	Total		90	100.00	

Source: Field Survey, 2022

Table 4.5 showed that the medium income group having the highest 45.56% of respondents, high income group having 24.44% of respondents, low income group having 30% of respondents. This income groups are categorized by own observation of data presented in questionnaire. By identifying essential needs and prioritizing them, such as housing, food, and healthcare, respondents can allocate their limited income more effectively while the primary income may be insufficient, respondents can explore opportunities to supplement their earnings.

4.8. Training Period of the Respondents

Training period of the respondents observed ranged from 0 to 7 days with the average training period is 1.30. The distribution of the respondents according to their training period is presented in Table 4.6.

Table 4.6. Distribution of Respondents Based on Their Training Period

Basis of	Observed	Respondents		Average Training
categorization	range	Number	Percent	period
No training		22	24.44	
1-2 days		50	55.56	
3-4 days	0-7 days	13	14.44	1.30
>5 days		5	5.56	
Total		90	100.00	

Source: Field Survey, 2022

Table 4.6 showed that the respondents which having 1-2 days of training is the highest 55.56% participated, no training have 24.44%, 3-4 days of training have 14.44%, more than 5 days having 5.56% of respondents. Results showed that the increased in the days of training will decrease the participated respondents.

4. 9. Amount of Credit Received by the Respondents

Credit received of the respondents ranged from 5 to 100 thousand Taka having average of 24.70 thousand Taka.

Table 4.7 Distribution of the Farmers According to Credit Received

Categories	Basis categorization	of	Respor	ndents	Average Credit Received
Categories	(Tk. '000')		Numbers	Percent	(Tk. '000')
Small	Up to 10		40	44.44	
Medium	11 – 30		33	36.67	24.70
Large	Above 30		17	18.89	
	Total		90	100.00	

Source: Field Survey, 2022

Results presented in Table 4.7 showed that 44.44 percent of the respondents were small credit (up to 10 thousand taka) recipient while 36.67 percent were medium credit (up to 11 - 30 thousand taka) recipient and 18.89 percent were large credit (above 30 thousand taka) recipient.

Findings of the study indicated that majority (81.11%) of the respondents were medium to small credit recipients. It concluded that they could not maintain large credit or might be they had less access to credit as no government credit programs was available to them.

4.10. Credit Utilization of the Respondents

Credit utilization of the respondents presented in Figure 4.2.

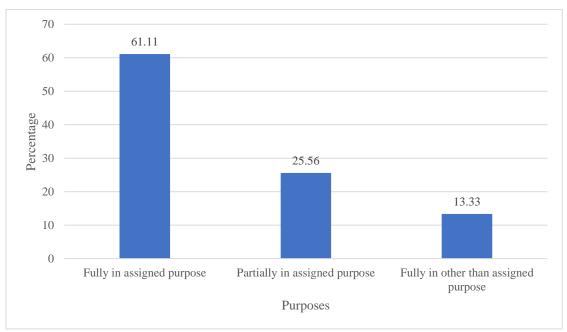


Figure 4.2: Respondents Credit Utilization Showing in Bar Diagram

Source: Field Survey, 2022

Results presented in Figure 4.2 shows that 61.11 percent respondents of the study area used credit fully in assigned purpose while 25.56 percent used partially in assigned purpose and 13.33 percent used fully other than assigned purpose.

Findings of the study indicated that highest portion (86.67%) of the respondents used partially and fully in assigned purpose. It concluded that some amounts of credit were used for food consumption and other purposes.

4.11. Duration of Involvement with Credit Programs

Duration of involvement of the respondents ranged from 1 to 18 years having average of 6.26 years.

Table 4.8 Distribution of the Respondents According to Duration of Involvement with Credit Programs

	Basis of	Respondents		Average
Categories	categorization (years)	Numbers	Percent	Duration (years)
Short term	0-2	22	24.44	
Medium term	3-8	36	40.00	6.26
Long term	Above 8	32	35.56	
	Total	90	100.00	

Source: Field Survey, 2022

Results presented in Table 4.8 showed that 40.00 percent of the respondents had medium duration of involvement with credit programs while 24.44 percent had short duration and 35.56 percent had long duration of involvement with credit programs. Findings of the study indicated that majority (75.56%) of the respondents were involved with credit for medium to long period of time. This credit groups are categorized by own observation from previous thesis.

CHAPTER V

PURPOSES OF MICROCREDIT USES IN THE STUDY AREA

5.1. Introduction

In this chapter, researcher discuss about the purposes of microcredit uses in different sectors like onion, rice, small business, livestock, fisheries and others.

5.2. Purposes of Microcredit Uses

Microcredit refers to the provision of small loans, typically to individuals or small groups, who do not have access to traditional banking services. This study area is a region that has witnessed the implementation and utilization of microcredit for various purposes like; microcredit loans have enabled farmers to invest in agricultural inputs, purchase livestock, improve farming techniques, microcredit has facilitated the establishment and growth of small businesses, such as grocery stores and small-scale manufacturing, microcredit loans have been utilized to finance educational expenses, including school fees, books, and vocational training. From this study area researcher found that respondents are mostly used their microcredit in onion cultivation and rice production. So that researcher focused on these onion and rice sector.

Table 5.1. Distribution of Respondents Based on Their Microcredit Uses

Sl No.	Purpose of use	Respondents	Percentage (%)
1	Onion	27	30.00
2	Rice	21	23.33
3	Small business	7	7.78
4	Livestock	14	15.56
5	Fisheries	9	10.00
6	Others	12	13.33
Total		90	100.00

Source: Field Survey, 2022

Results presented in Table 5.1 showed that 30.00% of the respondents had used their credit in onion cultivation, 23.33% of the respondents had used their credit in rice production, 7.78% of the respondents had used their credit in small business operation, 15.56% of the respondents had used their credit in livestock sector, 10.00%

of the respondents had used their credit in fisheries sector and 13.33% of the respondents had used their credit in others sector. Findings of the study indicated that majority (30%) and (23.33%) of the respondents were involved with onion and rice sector respectively.

CHAPTER VI

MICROCREDIT'S ROLE IN INCOME GENERATING ACTIVITIES

6.1. Introduction

Microcredit works as a source of capital for smallholder farmers. They use microcredit for different purposes. Various level of returns is being generated from these activities. In the study area, I found that respondents used microcredit mostly for onion and rice farming. In this chapter, an attempt is taken to show the comparative return from these two broad sectors of microcredit uses in the study area.

6.2. Comparative Profitability of Onion and Rice Production by the Microcredit Users in the Study Area

6.2.1 Input Use Pattern and Average Yield of Rice and Onion

The average yield of rice and onion, application of production inputs is presented in Table 6.1. It can be noticed that 48 respondents were involved in rice and onion production (Table 5.1). Among the respondents, 23.33% respondents were involved in rice production whereas 30% respondents were involved in onion production using their available microcredit (Table 5.1). Due to availability of credit, the farmers had required capital in hand and used required doses of inputs. Thus, they obtained higher yield of rice and onion per unit of land.

Table 6.1. Input Use Pattern and Average Yield of Rice and Onion Per Hectare for Microcredit Users

Particulars	Rice	Onion
Labor (men days/ha)	106.24	112.40
Land Preparation (Tk./ha)	3020.60	4810.40
Seed (kg/ha)	22.42	9.36
Manure (kg/ha)	5326.63	5024.00
Fertilizer (kg/ha)	525.45	483.74
Insecticide and Herbicide (Tk./ha)	2520.25	5010.36
Irrigation (Tk./ha)	6305.80	7046.50
Yield (kg/ha)	7210.36	16032.20

6.3. Benefit Cost Ratio Analysis

The benefit cost ratio analysis is presented in Table 6.3. For estimating BCR ratio, the total cost, gross return and net return are discussed below regarding Table 6.1 and 6.2.

Table 6.2. Cost of Production for Rice and Onion

Cost item	Rice	% of total	Onion	% of total
	production	production	production	production
	cost (Tk/ha)	cost	cost (Tk/ha)	cost
Leasing	4710.26	6.11	5360.40	5.86
Land preparation	3020.60	3.92	4810.40	5.26
Labor	43495.00	56.46	52177.90	57.01
Seed	705.70	0.92	1272.60	1.39
Manure	6036.24	7.84	5800.75	6.34
Fertilizer	4054.25	5.26	3572.80	3.90
Insecticide and herbicide	2520.25	3.27	2110.36	2.31
Irrigation	6305.80	8.19	7046.50	7.70
Post-harvest operation	2520.25	3.27	5010.36	5.47
Interest on Operating	3668.42	4.76	4358.10	4.76
Gross Cost	77036.77	100.00	91520.17	100.00

6.3.1 Cost Required for Leasing Land

Leasing cost means the lease value of land. The lease value is calculated in Taka. The land, whether rented from others or owned, have the utility value. The total average lease cost of land for the respondents were considered at existing rate of study area. The total average lease cost was 6.11 and 5.86 percent of total production cost for rice and onion, respectively (Table 6.2).

6.3.2 Cost Required for Land Preparation

Land preparation cost for rice and onion is the cost of power tiller use and post operation of tillage. It was almost fixed for a season. Tillage operations depend on types of cropping. Total cost for land preparation for rice and onion were 3020.60 and

4810.40 Tk./ha, respectively which were 3.92 and 5.26 percent of total production cost, respectively (Table 6.2).

6.3.3 Cost Required for Labor

Labor is one of the most important production inputs. For Boro rice production, a large portion of production cost was covered by labor. The total average labor cost was Tk. 43495.00 and 52177.90 per hectare for rice and onion production, respectively. The labor costs were 56.46 and 57.01 percent of total production cost, respectively (Table 6.2).

6.3.4 Cost Required for Seed

Seed is an important input in rice and onion production. The production quantity and quality depend on good quality of seed. Two types of seedlings exist in local areas; one is broadcasting and another is transplanting. In rice and onion production, transplanting process is mostly followed by farmers. The average seed cost of rice and onion per hectare was Tk. 705.70 and 1272.60, respectively which were 0.92 and 1.39 percent of total production cost per hectare (Table 6.2).

6.3.5 Cost Required for Manure

Manure is the organic fertilizer for production. It increases the land fertility. Cow dung is largely used as manure. The average values of manure for rice and onion production were Tk. 6036.24 and 5800.75, respectively per hectare basis which was 7.84 and 6.34 percent of total production cost, respectively (Table 6.2).

6.3.6 Cost Required for Fertilizer

The most important input is fertilizer. The fertilizers such as Urea, TSP, MP and Gypsum were used in rice and onion production. Among all these, urea was used in a large quantity. Table 6.2 shows that the respondents of microcredit receiver spent Tk. 4054.25 and 3572.80 for rice and onion production, respectively which were 5.26 and 3.90 percent of total production cost, respectively.

6.3.7 Cost Required for Insecticide and Herbicide

Almost all farmers used insecticide and herbicide to control insects and weeds including manual operations both in rice and onion production. Per hectare basis, the average insecticide and herbicide cost for rice and onion production were Tk. 2520.25

and 2110.36, respectively which contributed 3.27 and 2.31 percent to total production cost, respectively (Table 6.2).

6.3.8 Irrigation Cost

To obtain higher rice and onion yield, farmers need a huge amount of water. For this reason, supplementary irrigation was arranged through motor pump run by electricity. The irrigation contributes a major part of production cost. It was 8.19 and 7.70 percent of total production cost for rice and onion production, respectively (Table 6.2).

6.3.9 Post-harvest Operating Cost

Threshing, cleaning or other postharvest operation costs were incurred after harvest of rice or onion. It covered 3.27 and 5.47 percent of total production cost rice and onion, respectively (Table 6.2).

6.3.10 Interest on Operating Capital

Interest on operating capital was estimated at Tk. 3668.42 and 4358.10 which stood at 4.76 and 4.76 percent of total production cost for rice and onion production, respectively (Table 6.2).

6.3.11 Total Cost of Production

Gross cost of production is incurred by the summation of all cost items of production. Here, Tk. 77036.77 and 91520.17 were the gross cost for rice and onion production, respectively (Table 6.2).

6.4. Benefit Cost Ratio Calculation

6.4.1 Gross Return

Gross return is the money value of total output. In this study, gross return was calculated by summing up all the returns earned from selling the products that were produced in the field. The total returns from selling of paddy with its by product and onion bulb were estimated at Tk. 108155.40 and 240483.00 for rice and onion, respectively (Table 6.3).

6.4.2 Net Return

Net return is calculated by deducting total cost from gross return. Net return from rice and onion production is presented in Table 6.3 The net returns were Tk. 31118.63 and 148962.83 for rice and onion, respectively.

6.4.3 Benefit Cost Ratio (BCR)

Benefit cost ratio is estimated as the ratio of gross return and total cost of all observations. The benefit cost ratio of rice and onion were found 1.40 and 2.63, respectively (Table 6.3). Comparison between rice and onion production and return analysis shows that the benefit cost ratio of onion was greater than rice.

Table 6.3. Gross Return, Net Returns and BCR (Benefit Cost Ratio) for Onion and Rice Production

Particulars	Comparison between onion and rice			
1 articulars	Onion	Rice		
Total cost of production	91520.17	77036.77		
Gross return	240483.00	108155.40		
Net return	148962.83	31118.63		
BCR	2.63	1.40		

The foregoing discussion indicates that the respondents of the study area were benefited using microcredit in rice and onion production which might be the cause of available inputs for rice and onion cultivation. The higher BCR from rice and onion production shows the evidence of this statement.

CHAPTER VII

PROBLEMS OF GETTING MICROCREDIT AND REPAYMENT OF MICROCREDIT

7.1. Introduction

This chapter is described on the basis of reviewing some related papers. The problems of getting microcredit and problems of repayment of microcredit both problems are not included in questionnaire that's why it is discussed below with a help of some related papers.

7.2. Problems of Getting Microcredit

(a) Limited Financial Literacy

A study by Khandker et al. (2012) indicates that limited financial literacy among potential borrowers is a significant challenge in accessing microcredit in Bangladesh. Many individuals, particularly those from marginalized communities, may not be familiar with the terms and conditions of microcredit, leading to difficulties in understanding repayment obligations and financial management.

(b) Over-indebtedness

Over-indebtedness is a concern in microcredit programs in Bangladesh. According to Kabeer et al. (2012), some borrowers may take loans from multiple microcredit institutions to meet their financial needs, leading to a cycle of debt and challenges in loan repayment. Over-indebtedness can hinder the intended positive impacts of microcredit on poverty reduction.

7.3. Problems of Repayment of Microcredit

(a) High Interest Rates

High interest rates charged by microcredit institutions in Bangladesh can make it challenging for borrowers to repay their loans. Research conducted by Rahman et al. (2019) highlights that these high interest rates can sometimes be excessive, especially for low-income individuals, resulting in difficulties in loan repayment.

(b) Limited Income Generation

Microcredit borrowers in Bangladesh often engage in small-scale or informal businesses with limited income-generating opportunities. A study by Khandker et al. (2012) points out that the low income earned by borrowers can make it difficult for them to generate sufficient funds to repay their microcredit loans on time.

(c) Seasonal Income Variability

Many borrowers in Bangladesh rely on agriculture as their primary source of income, which is subject to seasonal variations. The fluctuating nature of agricultural income can pose challenges in loan repayment, as highlighted by Khandker et al. (2012). In periods of low agricultural productivity or income, borrowers may struggle to meet their repayment obligations.

(d) Lack of Financial Management Skills

Limited financial management skills among microcredit borrowers can contribute to repayment challenges. According to Kabeer et al. (2012), some borrowers in Bangladesh lack the necessary knowledge and skills to effectively manage their finances and allocate resources for loan repayment, leading to difficulties in meeting repayment schedules.

CHAPTER VIII

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter presents the summary of findings, conclusions, and recommendations of the study. The summary of the study shows the findings briefly. By conclusion, the main points of the report can be identified quickly. Recommendation draws the attention of the respective policymakers to implement some strategy for improving the situation of micro-credit borrower to attain quality of life.

8.1. Summary

This study analyzed the purposes of microcredit uses and its role in income generating activities. Bangladesh is a developing country and about 50% people are primarily employed in agriculture. Gopalganj districts were selected as the study area due to availability of Microcredit borrower and different purposes of microcredit uses.

This study based on primary data collected from 90 rural households were used as representative sample frame. Two union such as Mochna and Vabrashur in Gopalganj district were selected for conducting field level survey from January to June, 2022. A structured interview schedule was used for data collection. The focus of this study was on the utilization of microcredit in the onion and rice sectors. The findings, as presented in Table 5.1, revealed that a significant portion of the respondents utilized their microcredit in onion cultivation (30%) and rice production (23.33%). Other sectors where microcredit was utilized include small business operations (7.78%), livestock (15.56%), fisheries (10.00%), and other sectors (13.33%).

These findings highlight the importance of microcredit in supporting agricultural activities, particularly in the onion and rice sectors. The study emphasizes the significant role of microcredit in enabling farmers to engage in productive activities and improve their livelihoods in the study area.

The benefit cost ratio (BCR) is a measure of the profitability of an investment, calculated by dividing the gross return by the total cost. In this study, the BCR for rice production was found to be 1.40, while for onion production, it was 2.63 (Table 6.3). The comparison between rice and onion production and return analysis revealed that the BCR for onion was higher than that of rice.

From the preceding discussion, it can be inferred that the respondents in the study area derived benefits from utilizing microcredit in rice and onion production. This

could be attributed to the availability of inputs specifically tailored for rice and onion cultivation. The higher BCR observed in rice and onion production further supports this notion, indicating the positive impact of microcredit on the profitability of these agricultural activities.

8.2. Conclusion

This study was conducted in Gopalganj district of Bangladesh to study the purpose of microcredit uses and its contribution to income generation. Based on the finding a comparison was made to see in which sector of microcredit uses was the most profitable one. Based on the findings of the study, it can be concluded that both rice and onion farming sector are profitable for using microcredit. However, onion farming sector was the most profitable sector for microcredit use. For that reason, most of the microcredit recipient of the study area used their loan for the cultivation of onion.

8.3. Recommendations

(a) Farmers should be encouraged to use their microcredit towards onion production.

Onion sector is more profitable than rice sector by using microcredit. Therefore, farmers can be encouraged to produce onion with microcredit as it is profitable.

(b) Interest rate of microcredit should be lowered to enhance the benefits of the respondents.

Suggested that lowering the interest rate of microcredit enhancing farmers' access to credit facilities easily and this credit apply for the further operations.

(c) Microcredit receivers' financial management skill should be improved through training or skill development activities.

Enhancing the financial management abilities of microcredit recipients has assisted them in effectively handling their financial endeavors.

8.4. Limitations

Microcredit programs are available in all divisions of Bangladesh. However, due to time and financial constraints, data for this study was only gathered from Gopalganj districts. Future studies could include more study areas that take into account socioeconomic and regional factors in order to generalize the accurate findings.

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APPENDIX

DEPARTMENT OF DEVELOPMENT AND POVERTY STUDIES

Sher-e-Bangla Agricultural University Sher-e-Bangla Nagar, Dhaka-1207 An Interview Schedule for the Study Entitled

PURPOSES OF MICROCREDIT USES AND IT'S ROLE IN INCOME GENERATING ACTIVITIES: A STUDY IN SELECTED VILLAGES IN GOPALGANJ DISTRICT OF BANGLADESH

Serial number:	Date:
Dear respondent,	
All of your information will be kept confider purposes only.Please provide the following in	
A. General information	
a) Name of the respondents:	
b) Village:	
c) Upazila:	
d) District	
e) Mobile no.;	
B. Socio-economic information	
1. Age of respondent; years	
2. Year of schooling:years	
3. Primary occupation(use code)	
(crop farming=1, livestock rearing=2, Fish farm Business=6, others=7)	ning=3, day labour=4 ,Service=5,
4. Secondary occupation(use code	
(crop farming=1, livestock rearing=2, Fish farm Business=6, others=7)	ning=3, day labour=4 ,Service=5,

a) Own cultivated land (dc):	
b) Leased/Sharecropping Managed in	out
6. Annual household income:	
Income sources	Amount (Tk.)
a)Agriculture	
b)Salary/wage/Both	
c)Business	
d)Gift and Assistance	
e)Raising cows/goat/duck and poultry	
f)Others (please specify)	
Total	
Total 7. Monthly expenditure pattern:	
	Amount (Monthly/Tk.)
7. Monthly expenditure pattern:	Amount (Monthly/Tk.)
7. Monthly expenditure pattern: Items of expenditure	Amount (Monthly/Tk.) Amount (Yearly/Tk.)
7. Monthly expenditure pattern: Items of expenditure a. Food	•
7. Monthly expenditure pattern: Items of expenditure a. Food b. Non- food:	•
7. Monthly expenditure pattern: Items of expenditure a. Food b. Non- food: i. Education	•
7. Monthly expenditure pattern: Items of expenditure a. Food b. Non- food: i. Education ii.Health	•
7. Monthly expenditure pattern: Items of expenditure a. Food b. Non- food: i. Education ii.Health iii.Farming	•
7. Monthly expenditure pattern: Items of expenditure a. Food b. Non- food: i. Education ii.Health iii.Farming iv.Clothing	•

5. Land ownership pattern:

8. Duration of Involvement with microcredit uses (years):

9. Source current loan(s):

SL. No.	Sources of credit	Amount of loan(tk)
a	Govt. credit	
b	Bank	
С	NGO	
d	Local Somity	
е	Money lender	
f	Others	
	Total	

10. Utilization of credit in different purposes:

SL. NO.	Uses of credit	Amount of credit used (tk)	Total cost of this activity(tk)
a	Agriculture		
b	Small business		
С	Poultry farming		
d	Fisheries		
e	Dairy /Beef fattening		
f	Household expenditure		
g	Repay Loan		
h	Other		

11. Cost item of Rice Farming/ vegetables/agriculture/poultry/fishing/cow rearing/business:

Cost item	Amount	Price per unit	Total price
a)Labors			
b)Ploughing			
c)Leveling			
d)Seed/ Seedling			
e)Marketing			
f)Irrigation			
g)Fertilizer			
h)Pesticide			
i)Harvesting			
j)Vaccine			
k)Feed			
1)Shed			
m)			
n)			
0)			
p)			
q)Others			

12. Income from of Rice Farming/ vegetables/agriculture/poultry/fishing/cow rearing/business:

Name of the product	Amount (unit)	Price per unit (Tk)	Total return (Tk)
a)Main product			
(Marketing)			
b)By product			
c)Self consumption			
d)Gift			
e)Others			
Total			