AGRICULTURAL BENEFITS OBTAINED BY DIPSHIKHA BENEFICIARIES THROUGH GROUP BASED APPROACH

NANDO GOPAL KUNDU

Examination Roll No00463
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BY
NANDO GOPAL KUNDU

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Approved by:

Prof. Mohammad Hossain Bhuiyan **Co- supervisor**	**Dr. Md. Sekender Ali** **Supervisor**

Prof. Dr. Md. Rafiquel Islam
Chairman
Dept. of Agricultural
Extension & Info. System
& Examination Committee

Dedication

To

My Beloved Parents

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Place: Dhaka *The Author*
Dated: --------

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ABSTRACT

The purpose of the study was to: i) assess the benefits obtained from Dipshikha intervention as perceived by the beneficiaries; ii) assess some selected characteristics of Dipshikha beneficiaries; and iii) explore the relationships between the selected characteristics of the beneficiaries and the benefits obtained from Dipshikha intervention as perceived by them. Data were collected from randomly selected 111 group members of Dipshikha Birol and Kaharol upazillas during the period from December, 2008 to January, 2009. It was found that overwhelming majority (92.8%) of the beneficiaries had received low to high benefits from Dipshikha. Pearson's Product Moment Co-efficient of Co-relation (r) was computed to test the relationship of the selected characteristics of the beneficiaries with the benefits obtained from Dipshikha intervention as perceived by them. Findings revealed that among the ten selected characteristics of the beneficiaries, only six, namely age, land possession, loan utilization, training exposure, involvement with Dipshikha and adoption of innovation of the beneficiaries had significant positive relationship with their obtained agricultural benefits. Other variables namely education, family size, family annual income and wealth possession of the beneficiaries had no significant relationship with their obtained benefits.

CHAPTER 1

INTRODUCTION

1.1 General Background

Bangladesh is one of the developing countries of the South Asia comprising of total area of 1, 47,570 sq km. Agriculture is the back bone of the economy of Bangladesh. The major portion of its population live in the villages and about two third of the labor forces (59.2 percent) are engaged in agriculture (BBS, 2007). Like most of the developing countries of the world, Bangladesh has been engaged in economic and social development programs, so as to pull the masses of people out of the circle of poverty and ignorance. Bangladesh is one of the most densely populated countries in the world with a population of over 141.8 million with a growing rate 1.48% per annum (BBS, 2007). About 40% of its population of 141.8 million still live below poverty level (World Bank, 2007) as measured by income, consumption and ability to meet basic human needs. The average per capita income of its population is only US$ 470 while the average per capital income of South Asia US$ 590 (World Bank, 2007).

Poor people of Bangladesh tend to have low level of education (44.9%, World Bank, 2002) and limited access to land and hold low paying, physically demanding, and socially unattractive occupation like casual wage labor. More than three-fourths (76.61%) of its population live in rural areas. In the development process, particularly of the less development countries, rural

sector plays a vital role because most of the people in these countries live in rural areas.

Most of the rural people (85%) are deprived of many of the amenities that have largely associated with urban people like education, electricity, water supply, housing, health facilities etc. In this situation poverty has become as a vital issue for the government, Non Government Organizations (NGOs) and the donor agencies as well. The NGOs hand in hand with government have been implementing a wide range of development activities in order to develop socio economic condition of the poor.

Many successful models in poverty reduction, microfinance, non-formal education and primary health care are developed by different NGOs. The NGOs are known worldwide for their innovative approach. Dipshikha like other NGOs is working in Bangladesh in order to develop the socio economic condition of the poor.

Sustainable development is considered as economic and social development and also environmental protection which balances the fulfillment of human needs. Inspired by the organizational vision and mission, Dipshika opted to work with the families as its development partner. Coming from diversified culture these families ensure participation as development partner to alleviate poverty through various planned interventions. Achievement here is to be indicated that the positive changes of livelihood condition of the target beneficiary families.

Dipshikha started its activits in a simple and modest village Rudrapur, Dinajpur and gradually its activities were expanded into 13 Upazillas of 2 districts in northern Bangladesh during last 25 years. Dipshikha helps people in such a way that they can proceed forward from ignorant to knowledge and wisdom, from illiteracy to literacy, from conservation to modernity, and from narrowness to broadness. Thus, Dipshikha has commitment of mass education, leadership development, democracy, economic emancipation, social empowerment, and so forth.

Dipshikha initiated their work through group based approach which targets mostly the women and one person from each poor family. By social custom Bangladesh women are dominated by men in all spheres of their lives. The majorities of the women in Bangladesh work for long hours compared to men and contribute significantly to agricultural production on and family income, although this fact is not generally recognized and hence is not reflect in official statistics.

From this point of view, Dipshikha involves 17000 rural people of Bangladesh with them through this approach. Group based approach is a development process where the NGOs organized the poor people specially the people into small groups at the village level for carryout their development activities in order to reduce poverty. Dipshikha developed a group consisting of 20-25 poor people in every village to promote unity and solidarity for economic emancipation as well as to get rid of social injustice. All the interventions from

Dipshikha including credit activities were provided through group for its member only. Other family members were not allowed to get any intervention from Dipshikha. Dipshikha has long experience in rural development activities through Group Based Approach.

To achieve self-reliance of individual through group activities Dipshikha found that group approach could not respect to develop the entire family of the group members. Ullah and Routray (2003) stated in their book "NGOs and Development-Alleviating Rural Poverty in Bangladesh" that today the group based approach seems to limit the magnitude of contribution of the NGO programmes has to improve poverty situation.

In this research, the researcher tried to find out the benefits that receive Dipshikha beneficiaries through group based approach which may provide guideline for researchers, planners, policy makers of Government and Non-government organizations especially for Dipshikha programme development in order to reduce poverty.

1.2 Statement of the Problem

In present, a large number of Non Governmental Organizations are working in Bangladesh against poverty by giving several facilities and benefits through different approaches. For sustainable development of rural people, NGOs started a new approach known as "target group" approach by organizing the poor people into small groups at the village level. Dipshikha was also working

with group based approach (GBA) in different areas of Bangladesh for sustainable development of rural people. They arranged adult literacy program provided necessary training and arranged regular discussion on different social issues. Credit was disbursed among the members to develop their income generation activities. The poor people especially women and children brought under NGOs' health activities. Thus, it is necessary to know what activities Dipshikha offers in field level to develop rural peoples' life standard through GBA. In this regard it is pertinent to know the answer of the following questions:

- How much benefits were obtained by the beneficiaries of the Dipshikha?
- What were the natures of the selected characteristics of the Dipshikha beneficiaries?
- Which characteristics could influence the benefits obtained by the beneficiaries from Dipshikha?

In view of the above questions, the researcher undertook a study entitled "Agricultural benefits Obtained by Dipshikha beneficiaries through Group Based Approach".

1.3 Specific Objectives of the Study

In order to give proper direction of the study, the following specific objectives were formulated

1. To assess the agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries
2. To assess the following selected characteristics of Dipshikha beneficiaries
    - Age
    - Education
    - Family Size
    - Land Possession
    - Annual family Income
    - Loan utilization
    - Training exposure
    - Involvement with Dipshikha
    - Wealth Possession
    - Adoption of innovation
3. To explore the relationships between the selected characteristics of the beneficiaries and the perceived agricultural benefits obtained by them from Dipshikha intervention.

1.4 Assumption of the Study

An assumption has been defined as the supposition that an apparent fact or principle is true in the light of the available evidences (Goode, 1945).

The following assumptions were in mind of the researcher at the time of conducting the study:

1. The respondents included in the sample for GBA were competent enough to satisfy the quarries designed by the researcher.

2. The responses furnished by the respondents were reliable.
3. The respondents included in the sample were representative of the population of Dipshika beneficiaries under group based approach in the selected study areas.
4. The researcher who acted as interviewer was well-adjusted to the social environment of the study area.
5. The data collected from the respondents were free from bias. The independent and the dependent variables of this study were normally and independently distributed with their respective means and standard deviation.

1.5 Limitations of the Study

The present study was undertaken with a view to assess the benefits obtained by Dipshikha beneficiaries and its relationships with their selected characteristics. However, in order to make the study manageable and meaningful from the view point of research, it was necessary to abide by some limitations as noted below:

1. The study was confined in two project areas of Dipshikha namely Birol and Kaharol Upazillas of Dinajpur district.
2. There were many landless poor families in the study areas, but only the rural families involved with Dipshikha through group based approach were considered for this study.

3. Characteristics of the rural people were many and varied. But only 10 characteristics for each approach were selected for investigation in this study.
4. For information about the study, the researcher depended on data as furnished by the selected respondents during collection of data.
5. In a preasant economy like Bangladesh where rural people are mostly illiterate, it is quite difficult to find accurate information with respect to their activities on production, income and so on. So, some of the information had to be based on their statements.
6. Only 111 people beneficiaries of Dipshikha were considered as the respondents for the survey.
7. The social and economical characteristics of two study areas were to some extent diverse.

Findings of the study would be applicable to the beneficiaries of Dipshikha of two areas project namely Birol and Kaharol Upazillas of Dinajpur district in particularly but in general it would be applicable to others areas of Bangladesh where the physical, social-economic and cultural conditions do not differ much from those of the areas. Thus the findings are expected to be useful to the researchers, planners and policy makers, extension workers and beneficiaries of Dipshikha and similar NGOs and other organizations and personnel for promoting rural development.

1.6 Definition of the Terms

Important terms concerned with the study are defined and interpreted below for clarity of understanding.

Dipshikha

Dipshikha is one of the renowned non-governmental organization emerged in 1984 with a view to reduce poverty, establish a peaceful and just society in the rural area through various activities like agriculture, education for children, health services, different income generating education and training as well as credit services for the poor people. It started work in the northern part of Bangladesh.

Group based approach

Group based approach is a development process where the NGOs organize the poor people specially the women into small groups at the village level for carry out their development activities in order to reduce poverty.

Beneficiaries

Beneficiaries are those who receive benefits or facilities from Dipshikha directly. Poor rural people especially rural women involved in different activities with Dipshikha may be termed as Dipshikha beneficiaries.

Rural women

Rural women refer to the women living in the villages and engaged in Dipshikha activities.

Age

Age of the respondent was defined as the period of time in years from his/her birth to the time of interview.

Education

Education was the production of desirable change in human behavior, that is, change in knowledge, change in skill and change in attitude of an individual through reading, writing and observation of activities. In this study the level of education was measured on the basis of grades passed by an individual in formal school.

Family size

Family size refers to the actual number of member in the family of the respondent including himself, spouse, children, father, mother, brothers, sisters and any other permanent dependants those live and eat together with him/her.

Land possession

Land possession refers to the cultivated area either owned by the people including the homestead on which the family carries on farming operation.

Family annual Income

Family annual income refers to the actual amount of annual income of a respondent and his/her family earned from agricultural activities and other socially acceptable regular means, such as fisheries, livestock, business, service, etc. during a year.

Loan utilization

Loan was defined as the amount of money received by the clients of Dipshikha for some specific purposes at a certain rate of interest generally repayable in a year. Loan utilization was defined as the pattern of utilization of loan or credit by the Dipshikha beneficiaries.

Training exposure

It refers to the total number of days attended by the respondent in his/her life to the training on various subject matter.

Involvement with Dipshikha

Involvement with Dipshikha of a respondent was measured by the nature and duration of involvement with Dipshikha organized group.

Wealth possession

Wealth possession means possession of valuable materials. In this study, household articles, livestock, crops, trees, furniture etc together considered as wealth.

Adoption of innovation

Adoption is an individual decision-making process. It is the implementation of a decision to continue the use of an innovation i.e. New technologies. Dipshikha introduced a number of agricultural innovations .So, adoption of innovation refers to the degree of adoption by the respondent of different agricultural innovation.

Agricultural benefits obtained by Dipshikha beneficiaries

Dipshikha is one of the renowned non-governmental organizations of Bangladesh. The target population of Dipshikha is mostly the rural people of poor families. Dipshilha take various project and program to develop their target people. Such as, functional and life oriented education, cultural

awareness, health, sanitation, food & nutrition, income generation support, women capacity building, credit, human rights etc. As the rural people especially poor rural women receive most of the benefits and support from Dipshikha, they are considered as beneficiaries. Dipshikha beneficiaries obtained several support and service from Dipshikha through which they could improve their present life standard. The benefits which received by Dipshikha beneficiaries also influenced by different characteristics of the beneficiaries. Dipshikha provided several agricultural imputes and machineries to their targets beneficiaries as lone, with subsidies rate or free of cost. In the present study, these agricultural benefits were taken into consideration.

CHAPTER 2

REVIEW OF LITERATURE

This chapter deals with a brief review of previous research studies relating the present study and to formulate and construct a framework that would be fitting for accurate understanding of the research studies pertaining to the socio economic development of beneficiaries participating in Dipshikha.

The researcher tried his best to called needful information through searching relevant studies. There was no previous study about benefits obtained by Dipshikha beneficiaries through group based approach. Therefore, researcher tried to review literatures related to general review of benefits obtained by beneficiaries and relationships between dependent and independent variables. Finally, the researcher drawn a conceptual frame work of the study presented in this chapter.

2.1 Studies Related to Agricultural Benefits Obtained by Dipshikha Beneficiaries

No previous literature was found directly to benefits obtained by the beneficiaries but some literature was found related to satisfaction of the beneficiaries by some Government Organizations, Non-Government Organizations or private extension providers. On these considerations some

literature related to satisfaction or beneficial of some GOs and NGOs are reviewed here.

Alam (1990) attempted to evaluate the performances of some government and non government organizations like RDRS, GB, BRAC, Proshika and BRDB. The findings indicated that both NGOs and GOs had substantial positive impact to increase income and reduce poverty of the rural people. Those organizations made significant positive impact on education, health, sanitation, family planning and nutritional status of the group members. Both GOs/NGOs were found to have been successful in enhancing the skills, economic capabilities, income and productive employment of poor rural women. He also carried out a study to find out a relationship between GOs/NGOs. It was revealed that both target oriented NGOs and growth oriented GOs were important for the overall development of the rural society. NGOs are providing services for better nutrition, health care, housing, sanitation, income etc.

Hussain (1988) in his study revealed that family members especially wife husband and children participated in varying percentage in the post-harvest activities, fruit and vegetable production in the homestead. The participation of wife was highest followed by husband and children in seed/seedling collection, seed storage, water management and fruit processing when husband had more participation than wife and children in land preparation, tree plantation, propagation, fertility management, pest management, weeding harvesting and selling the fruit and vegetable etc, irrespective of farm categories.

Rahaman and Khandaker (1994) carried out a study on impact of NGOs activities in respect of employment and income especially for women. The finding indicated that credit programme of BARC, BRDB and Grameen Bank had been successful in expending self employment opportunities among rural women.

2.2 Studies Relating to Relationships between Dependent and Independent Variables

2.2.1 Age and agricultural benefits obtained by Dipshikha beneficiaries

Akanda (1994) reported from his study that age of the rural women had significant positive relationship with their (i) participation in homestead vegetable cultivation and (ii) participation in the cultivation of fruit trees.

Ali (2003) found that there was positive and significant relationship between age of the respondents and their change in income and in housing environment but non-significant relationship was found between age and their change in food consumption.

Khan (2006) found his study on Impact of Dipshikha Rural Development Activities as perceived by the participating women that age of the respondents under Dipshikha had no significant relationship with their impact of participation of Dipshikha rural Development activities.

Seema (1985) reveals from her study that the nature of farm activities participated by women varied with their age participation in sowing, harvesting and storage activities.

2.2.2 Education and agricultural benefits obtained by Dipshikha beneficiaries

Akanda (1994) stated that education of rural women had significant positive relationship with their participation in the cultivation of fruit trees.

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

Hasan *et al.* (1994) found that education had positive impact on members household endowment. They also observed that the female category of RDP households appeared systematically better endowment according to education level in comparison with their male counter parts.

Hasan (1995) found that the largest contribution on wealth accumulation was made by the education scores.

Kaur (1998) observed that education influenced on opinion of the women about the project activities, adoption of vegetable gardening, animal husbandry etc.

2.2.3 Family size and agricultural benefits obtained by Dipshikha beneficiaries

Family size and agricultural benefits obtained by Dipshikha beneficiaries related research study was not found. However family size and adoption or participation related literatures are cited here.

Akanda (1994) mentioned that family size of the rural woman had significant positive relationship with their participation in the plantation of fruit trees.

Ali (2003) found that the relationship between family size of the respondents and their change in income change in food consumption and change in housing environment was non-significant.

Shadeque (1995) observed that there was significant relationship between family size and adoption of poly bag planning method of water melon and fish-rice culture.

2.2.4 Land possession and agricultural benefits obtained by Dipshika beneficiaries

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

Kaur (1998) found in their study that size of land holdings was found to be correlated negatively and significantly with participation in harvesting, transplanting, winnowing and weeding.

Rahman (1995) found that land possession of the farmer had a significant negative influence on their faced constraints in cotton cultivation.

2.2.5 Annual family income and agricultural benefits obtained by Dipshkha beneficiaries

Akanda (1994) observed in is study that family income had significant positive relationship with their participation in the plantation of fruit trees and non-farm household activities but not with homestead vegetable cultivation.

Khan (2006) stated that the annual income of the respondents under Dipshikha had significant positive relationship with their impact of participation in Dipshikha rural development activities.

Khandaker *et al.* (1995) observed that family income of the rural women had positive significant influence on their improvement of household well being.

Quadir (1981) found that income earning activities had positive impact on women status and their family welfare. The author recommended for the expansion of women's participation in traditional agricultural activities.

Research and Evaluation Division, BARC (1995) reported that family income of the rural women had significant effect on their decision making power, status in the family and mobility.

Shaha (1997) found positively significant relationship between participation of the rural youth in agricultural activities, income earning activities and their preference towards the selected agricultural and non-agricultural activities.

2.2.6 Loan utilization and agricultural benefits obtained by Dipshikha beneficiaries

Khan (2006) found in his study that utilization of credit by the respondents had significant positive relationship with their impact of participation of Dipshikha rural Development activities.

Uddin *et al.* (1999) in a study found that loan were utilized in capital expenditure (45.33%), current farm expenditure (16%), investment in business (24%) house construction (2.67%), and others (12%) from institutional source.

Ullah and Routary (2003) stated on their books "NGOs and Development Alleviation Rural Poverty in Bangladesh" that the difference between the purpose of taking loan and using loan was significantly high. It means that the NGO beneficiaries used their loan for the beneficial purposes.

Zakaira (2000) found no relationship between credit utilization of the women beneficiaries and their attitude towards BRDB credit Programme. Such finding was supported by Islam (2001).

2.2.7 Wealth possession and agricultural benefits obtained by Dipshikha beneficiaries

No relevant study was found even after massive searches in different libraries Internet and journals. But some related matters are cited below;

Sarker (1996) concluded that wealth ownership of the farmers had no significant relationship with effectiveness of agricultural information disseminated through agricultural radio programme.

2.2.8 Training exposure and agricultural benefits obtained by Dipshikha beneficiaries

Estep (1985) reported that having more technical knowledge and a desire to seek actively for new information on improved practices were important factors in relation to adoption of improved farm practices.

Greenly *et al.* (1992) found in their study that knowledge about BARC of rural women had significant positive correlation with their living conditions.

Khan (2006) found in his study that training received by the respondents had significant positive relationship with their impact of participation of Dipshikha rural Development activities.

Research and Evaluation Division, BRAC (1996) revealed that knowledge of BARC activities had significant positive correlation with participation in BARC activities.

Samad (2004) reported that the agricultural knowledge of the respondents had positive significant relationship with their poverty reduction.

Verma *et al.* (1989) found that there was significant change in attitude of rural women from before training to after training in improved home making tasks. They said that due to gain in knowledge the attitude had become more favorable.

2.2.9 Involvement with Dipshikha and agricultural benefits obtained by Dipshikha beneficiaries

Khan (2006) found in his study on Impact of Dipshikha Rural Development Activities as perceived by the participating women that attitude of the respondents towards Dipshikha had significant positive relationship with their impact of participation of Dipshikha rural Development activities.

Research and evaluation division, BRAC (1995) reported that BARC Individual contacts of the rural women had significant influence on their improvement of knowledge, attitude and skills.

Seema (1985) found that attitude of young women towards the technology and their extent of participation in implementing decisions was positively correlated.

2.2.10 Adoption of innovation and agricultural benefits obtained by Dipshikha beneficiaries

Aurangozeb (2002) observed that there was significant relationship between innovativeness of the farmers and their adoption of integrated homestead farming technology.

Moulik *et al.* (1995) found a significant positive relationship between agricultural knowledge and adoption of nitrogenous fertilizers among cultivators.

2.3 Conceptual Framework of the Study

The scientific research problem selection and measurement of variables constitutes an important task. The hypothesis of a research while constructed property contains at least two important elements variable. A dependent variable is that factor which appears disappears or varies as the researcher induces removes or varies the independent variable.

An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationships to an observed phenomenon. The agricultural benefits through group based approach of Dipshikha beneficiaries might have influenced by their various characterize. The selected characteristics were considered as age, education, family size, land possession, annual family income, loan utilization, wealth possession, training exposure, involvement with Dipshikha and adoption of innovation. On these considerations the following conceptual framework was constructed for the study.

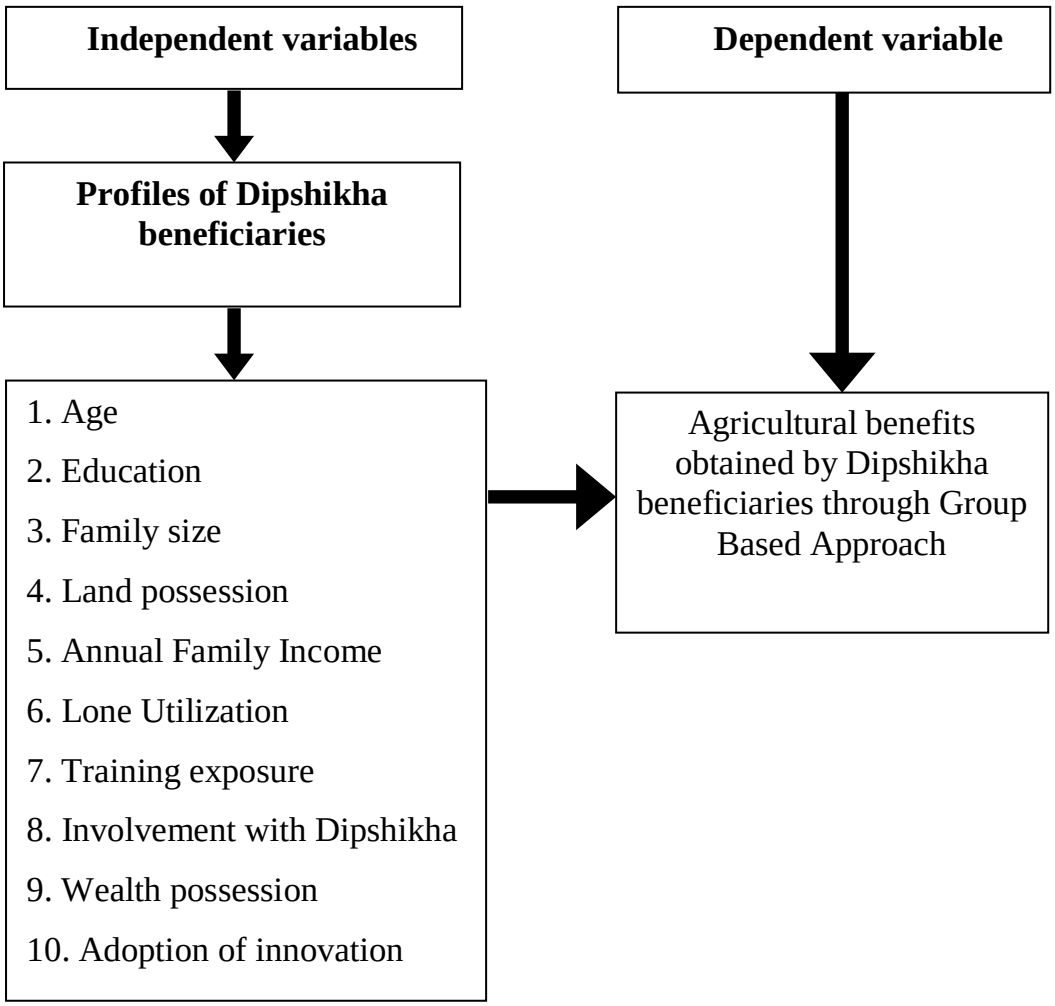

Figure: 2.1 Conceptual framework of the study

CHAPTER 3

METHODOLOGY

A researcher work should be very careful in formulating methods and procedures. Methodology gives clear direction to a researcher about his works and activities during the whole period of the study. Appropriate procedure for collecting data should be taken by the researcher to collect valid and reliable information. Method of analysis should be appropriate to arrive at correct conclusion. Various methods, tools and techniques were used during different stages of this research work and compilation of data. The purpose of this chapter is to describe the setting, methods and procedures used in conducting this study.

3.1 Locale and Population of the Study

Dipshikha is working in five upazillas under Dinajpur district namely Birol, Kaharol, Bochagonj, Bironj and Ghoraghat. Among these five upazillas, Dipshikha work with group based approach in Birol and Kaharol with 2782 group members. So these two upazillas were selected purposively as the study area. All these group members of these two upazillas were constituted the population of the study. For better understanding a map of Bangladesh showing Dinajpur district and a map of Dinajpur disrtrict showing Birol and Kaharol Upazillas are presented in Figure 3.1 and 3.2 respectively.

Figure 3.1. A map of Bangladesh Showing Dinajpur district

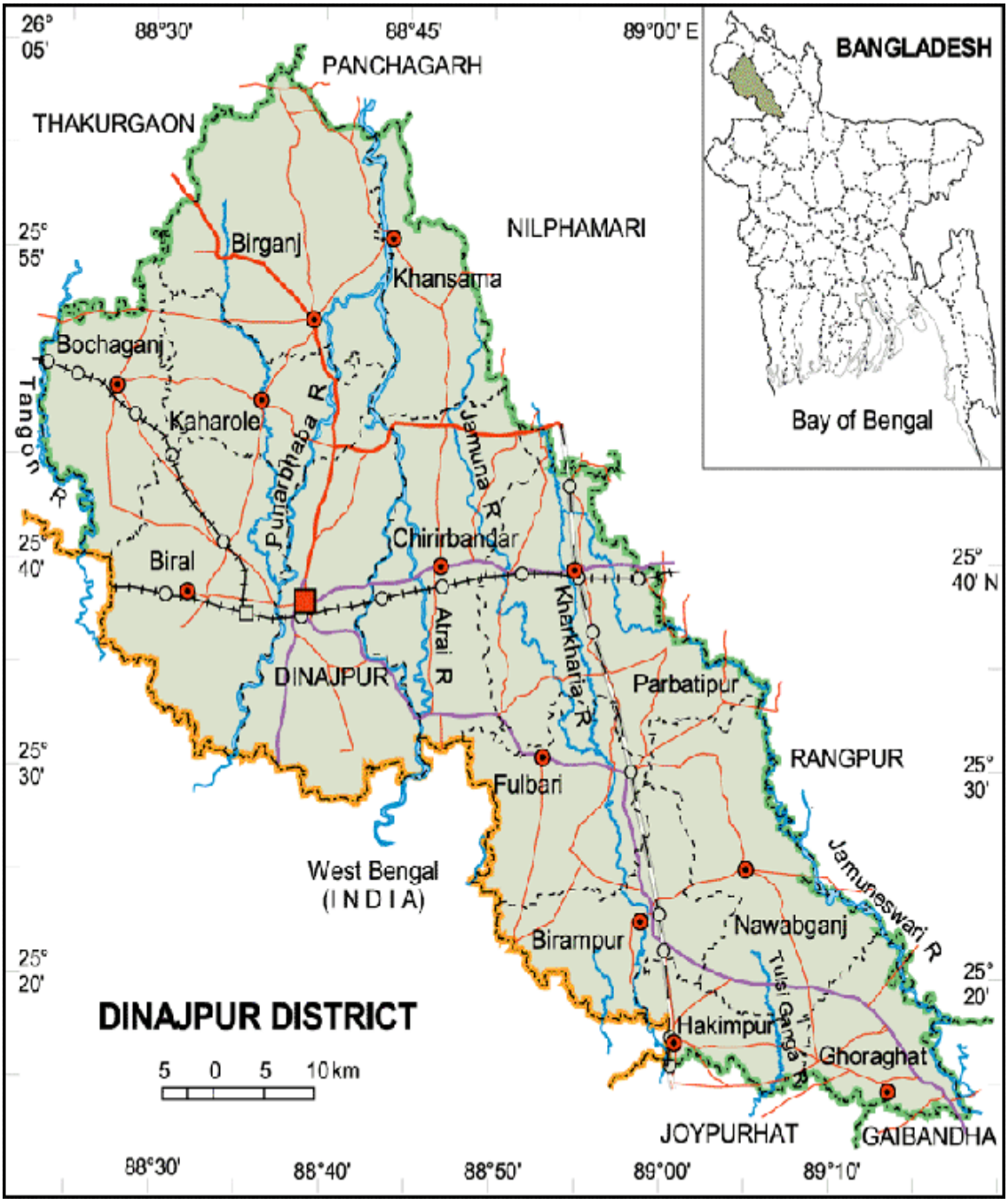

Figure 3.2. A map of Dinajpur District Showing Birol and Khaharol Upazillas

3.2 Sampling Procedures

Data were collected from the sample of the population rather than the whole population. Out of the 2782 group members 111 were selected as the sample of the study by taking 4% of the population. In addition to the sample of the study, a reserve list of 11 group members also prepared by taking further 0.4% of the population of the main sample (10% of the sample) randomly for use in case of unavailability of the respondents of the main sample for any reason.

3.3 Design of the Study

A descriptive survey design was used in this study. It was designed to describe the general characteristics of group members and to assess the benefits obtained by Dipshikha beneficiaries. The study also explores the relationship between benefits obtained by Dipshikha beneficiaries and selected characteristics of the beneficiaries.

3.4 Instruments for Collection of Data

An interview schedule was prepared for collection of relevant data in accordance with the objectives of the study. Both closed form and open form of questions were included in the schedule for collection of data. The interview schedule was pretested before using the same for final collection of data. Necessary corrections, additions and adjustments were made in the interview schedule on the basis of the result of the pretest. The interview schedule was then printed and multiplied in the final form for collection of data.

3.5 Data Collection

For this study data were collected by the researcher himself from 111 respondents of two upazillas under Dinajpur district. To get valid and relevant information from primary sources, the researcher made all possible efforts to explain the purpose of the study to the respondents. Appointments with the interviewees were made in advance with the help of Dipshikha officials. The researcher took all possible efforts to establish desired rapport with the respondents so that the respondents did not feel any hesitation to furnish proper information. Questions were asked systematically and explanation was made whenever it was felt necessary. The information supplied by the respondents was recorded directly on the interview schedule. The information was duly checked in order to minimize errors**.** Data collection took a period of 2 months from December, 2008 to January, 2009.

3.6 Variables of the Study

In a descriptive research, the selection and measurement of variables constitute an important task. The hypothesis of a research, constructed properly, contains at least two important variables viz., independent and dependent variables. A dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or varies the independent variable. An independent variable is that factor which is manipulated by the researcher in his/ her attempt to ascertain its relationship to an observed phenomenon.

To determine the extent of benefits of Dipshikha was the main focus of this study. ‘Reasonably, it constituted the dependent variable. A variety of factors might influence the extent of benefits of group based approach of Dipshikha. It is vary difficult to deal with all the factors in a single study. It was therefore, necessary to limit the independent variables. As the study was conducted to ‘‘Agricultural Benefits Obtained by Dipshikha beneficiaries through Group Based Approach”, so the characteristics of rural people in some cases were different

For the selection of independent variables, the researcher went through the past studies as far as available and also discussed with teachers, experts, supervisory officers and field related extension personnel. The researcher carefully considered the various characteristics of the Dipshikha beneficiaries. Time, money and other resources available to the researcher were also kept in view. Ultimately, the researcher selected 10 characteristics of the Dipshikha beneficiaries as independent variables. These were: age, education, family Size, land possession, annual family income, loan utilization, training exposure, involvement with Dishikha, Wealth possession and Adoption of innovation.

Dipshikha provides several service or benefits to the rural people. A thorough understanding of the benefits obtained by the rural people is also essential in order to formulate programmers, policies and methods for effective involvement of the beneficiaries with Dipshikha. Therefore, the benefits

obtained from Dipshikha intervention as perceived by the beneficiaries was the dependent variable of this study.

3.7 Measurements of Independent Variables

For conducting the study in accordance with the objectives it was necessary to measure the independent variables. Ten characteristics of the Dipshikha beneficiaries namely age, education, family size, land possession, family annual income, loan utilization, training exposure, involvement with Dipshikha Wealth possession and adoption of innovation were the independent variables of the study. Procedures for measuring these variables are described below:

3.7.1 Age

Age of a respondent was measured as the period from his/her birth to the time of interview. It was measured in terms of complete years on the basis of his/her response. The information regarding age of each respondent was obtained in response to question no.1 in the interview schedule (Appendix-A). A score of one (1) was assigned for each year of age.

3.7.2 Education

Education was measured on the basis of respondents' years of schooling in school, college or other educational institutes. One (1) score was given for one year of formal education.

3.7.3 Family size

The family size was measured by the total number of members in the family of a respondent. The family members included the respondent his/herself, spouse, children and other dependents who jointly live and eat together during interview time. It was measured by computing total number of member in the family.

3.7.4 Land possession

The land possession of a respondent referred to the total area of land on which family carried out farming operation including homestead area. It was calculated by using the following formula and was expressed in terms of hectares.

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

LP =Land possession

A_1 = Homestead area

A_2 = Cultivated area under own cultivation.

A_3 = Cultivated area taken from others on lease.

A_4 = Land taken from others on Borga

A_5 = Land given to other on Borga

3.7.5 Family annual income

Family annual income of a respondent was measured in thousand taka on the basis of total yearly earnings from agriculture and other sources of his/her family. Data obtained in response of item no. 5 of the interview schedule were used to determine the family annual income of the respondents. The method of ascertaining income from agriculture and other sources like service, business etc. were determined by asking direct question. Yearly earnings of all the members of the family from agriculture and other sources were added together to calculate the actual amount of family annual income of the respondent. A score of 1 (one) was assigned for the income of one thousand taka.

3.7.6 Loan utilization

The utilization of lone by the respondent was measured on the basis of percentage of the amount of credit spent for the specific assigned purpose out of the total credit received.

$$\text{Loan Utilization} = \frac{\text{Amount of credit spent in assigned purpose}}{\text{Total loan received}} \text{ X } 100$$

Thus, the score of lone utilization was ranged from 0-100, where‘0’ indicated no use of loan and ‘100’ indicated cent percent use of received loan for the assigned purpose.

3.7.7 Training exposure

It was operationalized by the number of days that a respondent had received training in his or her entire life. It was measured by the total number of days of training received by a respondent under different training programs.

3.7.8 Involvement with Dipshikha

Involvement with Dipshikha of a respondent was measured by the nature and duration of involvement with Dipshikha organized group. It was measured by using the following scoring system;

Nature of involvement	Score
One year as ordinary member	1
One year as executive member	2
One year as executive officer	3

Finally, score for involvement with Dipshikha of a respondent was obtained by adding his/her as ordinary members, executive members, and effective officers.

3.7.9 Wealth possession

Wealth possession refers to the possession of valuable item of the respondent's family. In this study, possession of household articles, live stock, crops, trees, furniture's, etc, together considered as wealth possession. Wealth of a particular item was measured by multiplication of the unit number with the unit value of that item. Then all the price of all items were added together to determine the wealth possession of the respondent. It was expressed in '000' (thousand) Taka.

3.7.10 Adoption of innovation

Dipshikha introduced a number of agricultural innovations. Adoption of these innovations of a respondent was measured on the basis of the degree of adoption of 14 improved agricultural technologies. Scores were assigned for adoption of each of the innovation by an individual in the following manner:

Degree of adoption	Assigned score
No adoption	0
Low adoption	1
Medium adoption	2
High adoption	3

Adoption of innovation score of a respondent was obtained by adding his/her scores for adoption of all 14 improved agricultural technologies. Adoption score of a respondent could range from 0 to 42, where '0' indicating no adoption of new technologies and '42' indicating high adoption of new technologies.

3.8 Measurement of Dependent Variable

The benefits obtained from Dipshikha intervention as perceived by the beneficiaries was the dependent variable of this study. Dipshikha provided several benefits to their target population. They provided agricultural inputs and machineries to their beneficiaries in three systems such as: i) free of cost, ii) with subsidized rate and iii) as loan. Five items of agricultural inputs and machineries were considered for this study. Respondents were asked to mention their agricultural benefits obtained from Dipshikha for each of these 5

items with 4 alternative responses and weights were assigned to these responses as follow;

Alternative responses	Assigned score
Free of cost	3
With subsidized rate	2
As loan	1
No benefits obtained	0

Scores of all five items were added together to get the total agricultural benefits score of each respondent. Thus, the possible range of agricultural benefits score of a respondent could range from 0 to 15, where '0' indicated no benefit obtained and '15' indicated highest benefits obtained.

3.9 Hypotheses of the study

As defined by Goode and Hatt (1952), a hypothesis is a proposition which can be put to a test to determine its validity. It may seem contrary to or in accordance with common sense. It may prove to be correct or incorrect. In any event, however, it leads to an empirical test.

The following research hypotheses were put forward to test the relationship of 10 selected characteristics of the beneficiaries. Each of the 10 selected characteristics (age, education, family size, land possessions, family annual income, loan utilization, training exposure, involvement with Dipshikha, wealth possession and adoption of innovation) of the beneficiaries is related to agricultural benefits obtained by them from Dipshikha.

However, for statistical testing, the following null hypothesis was formulated in this study.

“There are no relationships between the selected characteristics of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them”.

3.10 Data Processing and Analysis

Collected data were coded, categorized and analyzed in accordance of the study. All the individual responses to the questions of the interview schedule were transferred to a master sheet to facilitate tabulation. Tabulation and categorization were done by the researcher herself. Qualitative data were converted into qualitative ones by means of suitable scoring method wherever necessary.

3.11 Categorization of Respondents

In order to describe the independent and dependent variables, the respondents were classified into appropriate categories. The investigator was guided by the nature of data and general considerations prevailing in the social system. The procedures for categorization have been discussed while describing the variables in Chapter 4.

3.12 Statistical Procedure

The statistical measures such as possible and observed range, number and percent distribution, mean, and standard deviation were used to describe both the independent and dependent variables. Tables were also used in presenting data for clarify of understanding. To find out the relationship between the

selected characteristics of the Dipshikha beneficiaries and the agricultural benefits obtained from Dipshikha intervention as perceived by them, Pearson's Product Moment Co-efficient of Co-relation (r) was used. Correlation matrix was computed to determine the inter correlation among the variables. Throughout the study, at least 5% level of probability was used as a basis of rejecting any null hypothesis.

CHAPTER 4

RESULTS AND DISCUSSION

Data obtained from the respondents were measured, analyzed, tabulated and statistically treated according to the objectives of the study, which is altogether called result and discussion. The result and discussion is the man alternation of any research work. Logical argument, appropriate interpretation and to the point explanation make the research findings understandable and unanimously admitted. Following the conventional rules, results and discussion of this study were made. The results and discussion has been presented under the following sub headings:

(I) Selected characteristics of Dipshikha beneficiaries

(ii) Agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries,

(iv) Relationships between selected characteristics of Dipshikha beneficiaries with the agricultural benefits obtained from Dipshikha intervention as perceived by them.

4.1 Selected Characteristics of the Dipshikha Beneficiaries

There were several characteristics of Dipshikha beneficiaries that influenced the Agricultural benefits obtained from Dipshikha intervention as perceived by them. In the present study, ten characteristics of Dipshikha beneficiaries were selected as independent variables, which included age, education, family size, land possession, family annual income, loan utilization, training exposure,

involvement with Dipshikha, wealth possession and adoption of innovation. A summary profile of the characteristics of Dipshikha beneficiaries is given in Table 4.1 and described bellow;

Table 4.1 Statistical measures for selected characteristics of Dipshikha beneficiaries

Characteristics	**Measuring unit**	**Possible range**	**Observed range**	**Mean**	**Standard Deviation**
Age	No. of years	Unknown	20 to 70	38.86	10.70
Education	Years of schooling	Unknown	0 to 12	2.86	3.00
Family size	Number of family Members	Unknown	2 to 10	4.81	1.41
Land possession	(ha) land	Unknown	0 to 1.715	0.498	0.433
Annual Family income	('000' Taka)	Unknown	30 to 240	99.50	45.95
Loan utilization	% of use	0 to 100%	8%to 100%	96.77	14.72
Training exposure	No. of days	Unknown	0 to 90	9.32	15.37
Involvement with Dipshikha	Score	Unknown	1 to 23	15.30	5.36
Wealth possession	Score	Unknown	16 to248	87.79	43.46
Adoption of innovation	Score	0 to 42	0 to 39	11.07	8.05

4.1.1 Age

Age of the respondents was ranged from 20 to 70 with an average of 38.86 and standard deviation of 10.70. The beneficiaries were classified into three categories on the basis of their age. The categories and distribution of the respondents on the basis of their age have been shown in the Table 4.2.

Table 4.2 Distribution of beneficiaries according to their age

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
Young	Up to 30 years	42	37.8
Middle	31 to 45 years	54	48.7
Old	46 to 70 years	15	13.5
Total		**111**	**100**

Data indicated that highest proportion (48.7%) of the respondents were found to be the middle aged while 37.8 percent and 13.5 percent were young and old aged respectively. Thus, majority (86.5%) of the beneficiaries were young to middle aged. Old aged people don't interest to join with any NGO because of risk. But young and middle aged respondents want changes in their production and other aspects. So, they were involved with Dipshikha and received benefits for improvement.

4.1.2 Education

The scores of education of the respondents ranged from 0 to 12 with an average of 2.86 and standard deviation of 3.00. Based on their level of education scores, the respondents were classified into four categories. The categories and

distribution of the respondents on the bases of their education have been shown in the Table 4.3.

Table 4.3 Distribution of beneficiaries according to their education

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
Illiterate	0 score	42	37.8
Primary Education	1 to 5 score	54	48.7
Secondary Education	6 to 10 score	14	12.6
Higher Education	Above 10 score	1	0.9
Total		**111**	**100**

The highest proportion (48.7%) of the respondent had primary education while 12.6 percent and 0.9 percent had secondary and higher education respectively. But a large portion (37.8%) of the respondents was illiterate. Data indicate that majority (61.3%) of the beneficiaries were educated from primary to secondary level.

4.1.3 Family size

The family size scores of the beneficiaries ranged from 2 to 10. The mean was 4.81 with a standard deviation of 1.41. The categories and distribution of the respondents according to their family size have been shown in the Table 4.4.

Table 4.4 Distribution of beneficiaries according to their family size

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
Small family	Up to 4 members	50	45
Medium family	5 to 7 members	56	50.5
Large family	Above 7 members	5	4.5
Total		**111**	**100**

Data contained in Table 4.4 revealed that half (50.5%) of the respondent had medium family compared to 45 percent small family and 4.5 percent large family size. Data indicated that highest proportion (95.5%) of the respondents had small to medium family.

4.1.4 Land possession

Land possession score of the respondents ranged from 0 to 1.715 hectare with an average of 0.498 and standard deviation of 0.433. The beneficiaries were classified into three categories on the basis of their land possession. The categories and distribution of the respondents on the basis of their land possession have been shown in the Table 4.5.

Table 4.5 Distribution of beneficiaries according to their land possession categories

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
Landless	Up to 0.020 ha	30	27.0
Small farmer	Above 0.020 ha to 1.00ha	62	55.9
Medium farmer	Above 1.00ha	19	17.1
Total		**68**	**100**

Data indicated that highest proportion (55.9%) of the respondents had small land possession. Data also indicates that only 17.1 percent of the respondents had medium land possession and 10.8 percent of the respondents were landless. Dipshikha targets poor rural people to develop them by giving benefits. So, that most of the respondent (82.9%) were land less or small farmer.

4.1.5 Annual family income

Annual family income score of the respondents ranged from 30 to 240. The mean value was 99.50 with the standard deviation of 45.95. The beneficiaries were classified into three categories on the basis of their annual family income. The categories and distribution of the respondents according to their annual family income have been shown in the Table 4.6

Table 4.6 Distribution of beneficiaries according to their annual family income categories

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
Low	Up to 60 thousands	11	18.9
Medium	61 to 120 thousands	63	56.8
High	Above 120 thousands	37	24.3
Total		**111**	**100**

Data in the Table 4.6 indicated that the highest proportion (56.8%) of the respondents had medium annual family income, while 24.3 percent and 18.9 percent had high and low annual family income respectively.

4.1.6 Loan utilization

Loan utilization score of the respondents ranged from 6 to 23 percent against the possible range 0 to 24 with an average of 13.54 and standard deviation of 3.365. The beneficiaries were classified into two categories on the basis of their lone utilization behavior. The categories and distribution of the respondents on the basis of their lone utilization have been shown in the Table 4.7.

Table 4.7 Distribution of beneficiaries according to their loan utilization

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
Partial utilization	Below 100% utilization	6	5.4
Full utilization	100% utilization	105	94.6
Total		**111**	**100**

Data indicated that over whiling majority (94.6) of the respondents utilize fully of their received loan for assigned purpose. Only 5.4% of the respondent's use partially of the loan. After providing loan to their beneficiaries Dipshikha local staffs keep continuous observation on them. Dipshikha also give direction to the beneficiaries that how they can use their loan properly in productive purposes. So, majority of the beneficiaries were full utilizing their loan.

4.1.7 Training exposure

Training exposure score of the beneficiaries ranged from 0 lo 90 with the mean of 9.32 and standard deviation of 15.37. The beneficiaries were classified into four categories on the basis of their training exposure. The categories and distribution of the respondents on the basis of their training exposure have been shown in the Table 4.8

Table 4.8 Distribution of beneficiaries according to their training exposure

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
No training	0 days	15	13.5
Low training	1 to 7 days	59	53.2
Medium training	8 to 15 days	27	24.3
High training	Above15 days	10	9
Total		**111**	**100**

Data indicated that the highest proportion (53.2%) of the respondents received low training while 24.3 percent received medium training and 9 percent received high training. But 13.5 percent of the respondents didn't receive any training which was essential for their active farm activities. Dipshikha provided different training on various issues to the beneficiaries**.** Though duration of training was short but they gave training which increase the skill of the beneficiaries on farm activities. So, over whiling majority (86.5%) of the respondents were received training of different duration from Dipshikha.

4.1.8 Involvement with Dipshikha

The score of involvement with Dipshikha of the respondents ranged from 1to 23 with the mean of 15.30 and standard deviation of 5.36. The beneficiaries were classified into three categories on the basis of their involvement with Dipshikha. The categories and distribution of the respondents on the basis of their involvement with Dipshikha have been shown in the Table 4.9.

Table 4.9 Distribution of' beneficiaries according to their involvement with Dipshikha

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
Low involvement	1 to 8 score	24	21.6
Medium involvement	9 to 16 score	31	27.9
High involvement	Above 16 score	56	50.5
Total		**111**	**100**

Data indicated that more than half (50.5%) of the respondents had high involvement with Dipshikha while 21.6 percent had low and 27.9 percent had

medium involvement with Dipshikha. This means that all the respondents were involve with Dipshikha organized group.

4.1.9 Wealth possession

Wealth possession score of the respondents ranged from 16 to 248 with the mean of 87.79 and standard deviation of 43.46. The beneficiaries were classified into three categories on the basis of their wealth possession. The categories and distribution of the respondents on the basis of their wealth possession have been shown in the Table 4.10

Table 4.10 Distribution of' beneficiaries according to their wealth possession

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
Low wealth possession	16 to 100 score	78	70.3
Medium wealth possession	Above 100 to 200 score	31	27.9
High wealth possession	Above 200 score	2	1.8
Total		**111**	**100**

Data indicated that the highest proportion (70.3%) of the respondents had low wealth possession while 24.4 percent had medium and 1.8 percent had high wealth possession change. Dipshikha provided several facilities and services to develop present situation of the poor rural people. From the finding it may be said that Dipshikha need to continue its efforts to increase the wealth possession of their beneficiaries.

4.1.10 Adoption of innovation

Adoption of innovation score of the respondents ranged from 0 to 39 against the possible range 0 to 42 with the mean of 11.07 and standard deviation of

8.05. The beneficiaries were classified into four categories on the basis of their adoption of innovation. The categories and distribution of the respondents on the basis of their adoption of innovation have been shown in the Table 4.11.

Table 4.11 Distribution of' beneficiaries according to their adoption of innovation

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
No adoption	0 score	10	9
Low adoption	11 to 14 score	75	67.6
Medium adoption	Above 15 to 28 score	20	18
High adoption	Above 28 score	6	5.4
Total		**111**	**100**

Data indicated that the highest proportion (67.6%) of the respondents had low adoption of innovation while 18 percent had medium adoption and 5.4 percent had high adoption of innovation. But 9 percent of the respondent had no adoption of innovation. Data also indicated that over whiling majority (91%) of the beneficiaries were adopted new technologies provided by Dipshikha but these efforts of Dipshikha should be continue for more adoption of innovation by the beneficiaries.

4.2 Agricultural Benefits obtained from Dipshikha Intervention as Perceived by the Beneficiaries

Agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was the dependent variable of the study. The scores of agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries ranged from 0 to 13 against the possible range of 0 to 15with an average of

4.53 and standard deviation of 2.67. On the basis of their agricultural benefits obtained from Dipshikha scores, the beneficiaries were classified into four categories. The categories and distribution of the respondents have been shown in the Table 4.12.

Table 4.12 Distribution of' categories of beneficiaries according to benefits obtained from Dipshikha intervention as perceived by them

Categories	Basis of categorization	Beneficiaries	
		Number	Percent
No benefit	0 score	8	7.2
Low benefit	1 to 5 score	69	62.2
Medium benefit	6 to 10 score	31	27.9
High benefit	Above 11 to 15 score	3	2.7
Total		**111**	**100**

Data contained in Table 4.12 indicated that the highest portion of the beneficiaries (62.2%) had obtained low benefit while 27.9 percent of them had obtained medium benefits 2.7 percent had obtained high benefit. But 7.2 percent of them had not obtained any benefit i.e. they did not receive any benefits from Dipshikha. Thus, overwhelming majority (92.8%) of the beneficiaries had received low to high benefits from Dipshikha and the efforts of Dipshikha should be continuing to provide more benefits to their client system.

4.3 Relationships of Selected Characteristics of Beneficiaries with Agricultural Benefits Obtained from Dipshikha Intervention as Perceived by them

As mentioned earlier, the 10 selected characteristics of the beneficiaries were the independent variables of the study. The variables were age, education, family size, land possession, family annual income, loan utilization, training exposure, involvement with Dipshikha, wealth possession and adoption of innovation. The dependent variable was agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries.. The purpose of this section is to examine the relationship of each of the independent variables with the dependent variable. Person's Product Moment co-efficient of correlation (r) was used to test the null hypotheses concerning relationship of each of independent variable with dependent variable. Throughout the study 5% level of probability has been used as the basis for rejecting of any null hypothesis.

Intercorelation among all the variables has been shown in a correlation matrix in Appendix B. Relationships of each of the 10 selected independent variables with the agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries have been shown in Table 4.13 and describe below;

Table 4.13 Result of Person's Product Moment Co-efficient of Correlation (r) of each of 10 independent variables with the agricultural benefits obtained from Dipshikha by the beneficiaries

Dependent variable	Independent variables	Co-efficient of correlation "r"	Tabulated value with 109 df	
			At 5% level	At 1% level
Agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries	Age	0.211*	**0.187**	**0.246**
	Education	0.020 NS		
	Family size	0.114 NS		
	Land possession	0.321**		
	Family annual income	- 0.050 NS		
	Loan utilization	0.202*		
	Training exposure	0.203*		
	Involvement with Dipshikhs	0.199*		
	Wealth possession	0.166 NS		
	Adoption of innovation	0.387**		

NS Not Significant
* Significant at the 0.05 level
** Significant at the 0.01 level

4.3.1 Age and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between age and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there is no relationships between age of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (0.211) was greater than the tabulated value (0.187) at 0.05 level of significance with 109 degrees of freedom. It means that the relationship between age and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was statistically significant. Hence, the null hypothesis could be rejected (Table 4.13).It means that aged beneficiaries obtained more benefits than younger. It is quit logical that aged beneficiaries had higher involvement with Dipshikha with longer duration. As a result they obtained more benefit from Dipshika.

4.3.2 Education and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between education and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis “there is no relationships between education of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them”.

The calculated value of r (0.020) was smaller than the tabulated value (0.187) at 0.05 level of significance with 109 degrees of freedom. There was a positive insignificant correlation between education and benefits obtained from Dipshikha intervention as perceived by the beneficiaries. Hence, the null hypothesis was accepted.

4.3.3 Family size and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between family size and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there is no relationships between family size of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (0.114) was smaller than the tabulated value (0.187) at 0.05 level of significance with 109 degrees of freedom. It means that the relationship between family size and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was not statistically significant. Hence, the null hypothesis could not be rejected (Table 4.13)

4.3.4 Land possession and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between land possession and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there is no relationships between land possession of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (0.321) was greater than the tabulated value (0.246) at 0.01 level of significance with 109 degrees of freedom. It means that the relationship between land possession and agricultural benefits obtained from

Dipshikha intervention as perceived by the beneficiaries was positively significant. Hence, the null hypothesis was rejected. It was due to that the individuals obtained more benefit from Dipshikha could increase their land possession.

4.3.5 Family annual income and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between family annual income and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there was no relationships between family annual income of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (- 0.050) was smaller than the tabulated value (0.187) at 0.05 level of significance with 109 degrees of freedom. It means that the relationship between family annual income and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was not statistically significant. Hence, the null hypothesis was accepted (Table 4.13).

4.3.6 Loan utilization and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between loan utilization and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there is no relationships between loan utilization of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (0.202) was greater than the tabulated value (0.187) at 0.05 level of significance with 109 degrees of freedom. It means that the relationship between loan utilization and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was statistically significant. Hence the null hypothesis was rejected (Table 4.13). The individuals who used fully their loan an assigned proposes could get more benefits. For this reason such kind o relationship was found.

4.3.7 Training exposure and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between training exposure and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there is no relationships between training exposure of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (0.203) was greater than the tabulated value (0.187) at 0.05 level of significance with 109 degrees of freedom. It means that the relationship between training exposure and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was statistically significant. Hence, the null hypothesis could not be accepted (Table 4.13). Training makes a man perfect to perform his job properly. Therefore, it is quite logical that individuals having higher training exposure could get higher benefits from Dipshikha.

4.3.8 Involvement with Dipshikha and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between involvement with Dipshikha and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there is no relationships between individual with Dipshikha of the beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (0.199) was greater than the tabulated value (0.187) at 0.05 level of significance with 109 degrees of freedom. It means that the relationship between involvement with Dipshikha and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was positively significant. Hence the null hypothesis could be rejected (Table 4.13). It is quite logical that persons having more involvement with Dipshikha could get more benefits form Dipshikha.

4.3.9 Wealth possession and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between wealth possession and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there is no relationships between wealth possession of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (0.166) was smaller than the tabulated value (0.187) at 0.05 level of significance with 109 degrees of freedom. It means that the

relationship between wealth possession and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was not statistically significant. Hence, the null hypothesis could not be rejected (Table 4.13)

4.3.10 Adoption of innovation and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The relationship between adoption of innovation and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries were examined by testing the null hypothesis "there is no relationships between adoption of innovation of Dipshikha beneficiaries and agricultural benefits obtained from Dipshikha intervention as perceived by them".

The calculated value of r (0.387) was greater than the tabulated value (0.246) at 0.01 level of significance with 109 degrees of freedom. It means that the relationship between adoption of innovation and agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was positively significant. Hence, the null hypothesis was rejected (Table 4.13) It is quite logical that the individuals having more adoption of agricultural innovation, had get more agricultural benefits from Dipshikha.

CHAPTER 5

SUMMATY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

5.1.1 Introduction

In Bangladesh more than three-fourth (76.61%) of the population live in rural areas. In the development process, particularly of the less development countries, rural sector plays a vital role because most of the people in these countries live in rural areas. The NGOs hand in hand with government have been implementing a wide range of development activities in order to develop socio economic condition of the poor.

Sustainable development is considered as economic and social development and also environmental protection which balances the fulfillment of human needs. Inspired by the organizational vision and mission, Dipshika opted to work with the families as its development partner. Coming from diversified culture these families ensure participation as development partner to alleviate poverty through various planned interventions. Achievement here is to be indicated that the positive changes of livelihood condition of the target beneficiary families.

Dipshikha initiated their work through group based approach which targets mostly the women and one person from each poor family. By social custom Bangladesh women are dominated by men in all spheres of their lives. The

majorities of the women in Bangladesh work for long hours compared to men and contribute significantly to agricultural production on and family income, although this fact is not generally recognized and hence is not reflected in official statistics.

Beneficiaries are the centre of all activities of Dipshikha. So, it was felt that there was an urgent need to undertake a research especially with a view to evaluate the condition of the beneficiaries after involve with Dipshikha. The above facts made the researcher interested to assess the agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries. For a clearer understanding, this study also examined the relationships between the selected characteristics of the beneficiaries and the agricultural benefits obtained from Dipshikha intervention as perceived by them.

5.1.2 Specific objectives of the study

In order to give proper direction of the study, the following specific objectives war formulated

1. To assess the agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries
2. To assess the following selected characteristics of Dipshikha beneficiaries
    - Age
    - Education
    - Family Size
    - Land Possession
    - Annual family Income
    - Loan utilization
    - Training exposure
    - Involvement with Dipshikha
    - Wealth possession
    - Adoption of innovation

3. To explore the relationships between the selected characteristics of the beneficiaries and the perceived agricultural benefits obtained by them from Dipshikha intervention.

5.1.3 Methodology

Dipshikha is working in five Upazillas under Dinajpur district namely Birol, Kaharol, Bochagonj and Ghoraghat. Among these five Upazillas Birol and Kaharol were selected purposively as the study area becouse Dipshikha work with Group Based Approach in these two upazellas. There were 2782 group members in these two upazillas which constituted the population of the study. A total 111 group members from GBA were selected as the sample of the study by random sampling method by taking 4% from population. In additional to the preparation of the sample list, a reserve list of 11 group members also prepared by taking further 4% (10% of the sample) of the population randomly for use in case of unavailability of the respondents for any reason. Data were collected personally by the researcher himself with the help of a pretested interview schedule during December, 2008 to January, 2009. Data obtained from the Dipshikha beneficiaries were first coded, transferred to a master sheet and then complied, tabulated, analyzed and categorized according to the objectives of the study. The agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries was the dependent variable of the study. ten selected characteristics of the beneficiaries such as age, education, family size, land possession , family annual income, and loan utilization, training exposure, involvement with Dipshikha, wealth possession and adoption of innovation

were the independent variables of the study. All these variables were measured by computing appropriate scores. The statistical measures such as possible and observed range, number and percent distribution, mean and standard deviation were used to describe both the independent and dependent variables. Tables were also used in presenting data for clarify of understanding. To find out the relationships between the selected characteristics of the beneficiaries and the agricultural benefits obtained from Dipshikha intervention as perceived by them, Person's Product Moment correlation co-efficient was used. Five percent level of significance was used as the basis of rejection of any null hypothesis.

5.1.4 Findings

5.1.4.1. Selected characteristics of the Dipshikha beneficiaries

The highest proportion (48.7%) of the respondents were found in the middle aged category while 37.8 percent and 13.5 percent in young and old aged categories respectively.

The highest proportion (48.7%) of the respondent had primary education while 12.6 percent and o.9 percent had secondary and higher education respectively. But 37.8% of the respondents were illiterate.

Half of the respondent had "medium family" compared to 45 % "small family" and 4.5 % "large family".

The highest portion (55.9%) of the respondents had small farm while 27 percent of the respondents had landless. Only 17.1 % of the respondents were medium.

The highest portion (56.8%) of the respondents perceived that they had medium annual income, while 24.3 percent and 18.9 % had high and low annual income respectively.

Most of the respondents (94.6%) utilize fully of their received loan. Only 5.4% of the respondent's use partially of the loan.

The highest proportion (53.2) of the respondents received low training while 24.3 percent received medium training and 9 percent received high training. But 13.5 % of the respondents didn't receive any training.

The highest proportion (50.5%) of the respondents had high involvement with Dipshikha while 27.9 percent had medium participation and 21.6% had low participation.

The highest proportion (70.3%) of the respondents had low change in wealth possession while 27.9 percent had medium change and 1.8 percent had high change.

The highest proportion (67.6%) of the respondents had low adoption of innovation while 18 percent had medium adoption of innovation and 5.4 percent had high adoption of innovation. But 9 percent of the respondent had no adoption of innovation.

5.1.4.2 Agricultural Benefits obtained from Dipshikha intervention as perceived by the beneficiaries

The scores of benefits obtained from Dipshikha intervention as perceived by the beneficiaries ranged from 0 to 13 with an average of 4.53 and standard deviation of 2.67. The highest portion of the beneficiaries (47.8%) had medium benefit while 38.7 percent of them had low and 6.3 percent had high benefit. But 7.2 percent of them had no benefit.

5.1.4.3 Relationships of selected characteristics of beneficiaries with agricultural benefits obtained from Dipshikha intervention as perceived by them

Among the ten selected characteristics of the beneficiaries, only six, namely age, land possession, loan utilization, training exposure, involvement with Dipshikha and adoption of innovation of the beneficiaries had significant positive relationship with their obtained agricultural benefits. Other variables namely education, family size, family annual income and wealth possession of the beneficiaries had no significant relationship with their obtained benefits.

5.2 Conclusions

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

1. The highest proportion of the beneficiaries (62.2%) got low agricultural benefit while 27.9 percent of them get medium and 2.7 percent get high benefit. Therefore it may be concluded that most of the beneficiaries (92.8%) were benefited from Dipshikha.

2. Overwhelming majority (86.5%) of the beneficiaries were young to middle aged. On the other hand age of the respondents had significant positive relationship with agricultural benefits obtained by them. So, it may be concluded that young and middle aged respondents were more interested to involve with Dipshikha but old aged respondent got more agricultural benefits from Dipshikha.

3. Overwhelming majority proportion (82.9%) of the respondents were land less or small farmer. On the other hand, land possession of the respondents had significant relationship with agricultural benefits obtained by them. Worked for the landless and small farmer and the beneficiaries could increase their land possession by getting more benefits from Dipshikha.

4. Overwhelming majority (94.6%) of the respondents utilize fully of their received loan in assigned purpose. On the other hand, lone utilization of the respondents had significant relationship with agricultural benefits obtained

by them. Therefore, it may be in assigned purpose, could get more agricultural benefits.

5. Overwhelming majority (86.5%) of the respondents received training from Dipshikha. On the other hand, training exposure of the respondents had significant relationship with agricultural benefits obtained by them. So, it may be concluded that Dipshikha tried to provide training to all beneficiaries with their own capabilities and individual having more agricultural benefits from Dipshikha.

6. The respondents were involved with Dipshikha from involvement level. On the other hand, it was found that involvement with Dipshikha of the respondent had significant relationship with agricultural benefits obtained by them. So, it may be concluded that respondents having more involvement with Dipshikha could get more agricultural benefits from Dipshikha.

7. Overwhelming majority (91%) of the respondents had low to high adoption of innovation. On the other hand, adoption of innovation of the respondent had significant relationship with agricultural benefits obtained by them. Therefore, it the respondent having more adoption of innovation could get more benefits from Dipshikha.

5.3 Recommendations

5.3.1 Recommendations for policy implications

Recommendations of a study help modify and improve existing policies and procedures as well as to formulate new once. Recommendations emanate from a careful consideration of the findings and conclusions. Recommendations formulate on the basis of the findings and conclusions of this study are presented below:

1. Highest portion (62.2%) of the beneficiaries gets low agricultural benefit while 27.9 percent of them get medium and 2.7 percent get high agricultural benefit. Therefore, it may be recommended that adequate steps should be taken by Dipshikha to ensure high level of agricultural benefit to the beneficiaries. For achieving this, policy and procedure in respect of field extension, supervision, guidance, counseling and training of the beneficiaries will need a very careful consideration and modification according to necessity.

2. Overwhelming majority (86.5%) of the respondents was young or middle aged and age of the respondent had significant positive relationship with agricultural benefits obtained by them. Therefore, it may be recommended that steps should be taken by Dipshikha to provide more agricultural imputed, machineries and technical supports to the young and middle aged beneficiaries to ensure more agricultural benefits for them.

3. Overwhelming majority (82.9%) of the respondents was landless and small farmer. Land possession of the respondents had significant relationship with agricultural benefits obtained by them. Therefore, it may be recommended that necessary steps should be taken by Dipshikha to provide more agricultural impute and machineries to landless and small farmers free of cost or with subsidized rate.

4. Significant positive relationship between loan utilization in assigned purposes of Dipshikha beneficiaries and agricultural benefits obtained by them was found. Therefore, it may be recommended that Dipshikha supervisory activities should be increased so that the beneficiaries could use their loan in assigned purposes.

5. There was a significant positive relationship between training exposure of Dipshikha beneficiaries and agricultural benefits obtained by them. Therefore, it may be recommended that for improvement of technical skill of the benefiaries, the Dipshikha personnel should have arranged adequate training facilities for their beneficiaries.

6. Significant positive relationship between involvement with Dipshikha of the beneficiaries and agricultural benefits obtained by them was found. This finding leads to the recommendation that Dipshikha authority should provide more facilities by arranging to visit other villages, unions, upazillas, districts so that the rural poor could get more opportunity to involve with Dipshikha which will in turn help them to get more agricultural benefits.

7. A positive relationship has been observed between adoption of innovation of the beneficiaries and agricultural benefits obtained by them. This means that more adoption of new technologies the more benefits obtained by them. Therefore, it may be recommended that Dipshikha authority should be introduced new technologies for the beneficiaries and also create appropriate congenial atmosphere so that the beneficiaries can adopt those technologies.

5.3.2 Recommendations for further study

Based on the significant and limitations of the present study and some observation, the following recommendations are made for further study –

1. The present study was restricted to agricultural benefits obtained from Dipshikha intervention as perceived by the beneficiaries. It is, therefore, necessary that further studies should be undertaken for an understanding of different categories and different situations of obtaining benefits by the beneficiaries' from Dipshikha.

2. Findings indicated that there was no relationship of education, family size, family annual income and wealth possession of the beneficiaries with agricultural benefits obtained from Dipshikha intervention as perceived by them. Further research is necessary to verify such relationships.

3. The present study was conducted only two working area of Dipshikha. . Further research is necessary in other Dipshikha working areas.

4. The present investigation explored the relationships of 10 selected characteristics of the Dipshikha beneficiaries with agricultural benefits obtained from Dipshikha intervention as perceived by them. But besides these characteristics, there might be several other characteristics and situational factors which might have influence on obtaining benefits from Dipshikha intervention. Therefore, there is further need for exploring the relationships of other characteristics of the Dipshikha benefiaries with the benefits obtained from Dipshikha.

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APPENDIX – A

English version of Interview schedule for collection of data
On
"Benefits obtained by Dipshikha beneficiaries through Group based approach"

Sl. No……
Name of respondent: ……..
Village: ……..
Union: ……
Thana: …….
Districts: …….

(Please answer the following question. Provided information will be kept confidentially and will be used only for research purpose.)

1. Age

What is your age?

---------- Years

2. Level of Education

Please mention your educational attainment

a) Don't know how to read or write ( )

b) Can sign only ( )

c) I passed ……class

3. Family Size

Including yourself, how many members belong to your family?

…… persons.

4. Land possession

Please indicate the area of land in your possession

Sl. No.	**Type of land use**	**Area**	
		Local Unit	**Hectare**
1	Homestead area		
2	Own land under own cultivation		
3	Land taken from others on lease		
4	Land taken from others on borga		
5	Own land given to others on borga		
	Total		

5. Family Annual Income

Please indicate your family annual income (in Taka)

Source of Income	**Amount of Income (in Taka)**
a) Agriculture	
b) Cattle, goat etc.	
c) Duck, poultry etc.	
d) Fisheries	
e) Service	
f) Business	
g) Others	
Total	

6. Loan utilization

Please mention your loan utilization behavior for the assigned purpose

Sl. No.	Purpose of loan	Amount of loan received (TK)	Amount of loan used for the assigned purpose (TK)	% of loan used for the assigned purpose
1	Crop cultivation			
2	Vegetable and fruit production			
3	Poultry rearing			
4	Livestock			
5	Fish culture			
6	Food processing			
7	Support for business capital			
	Total			

7. Training Exposure

Did you receive any training from Dipshikha or other organization?

Yes ☐ **No** ☐

If answer is yes, mention the followings

Sl. No.	Name of Training Course/ Subject matter	Duration of training (days)	Name of Organization	Training place
a.				
b.				
c.				
d.				
Total				

8. Involvement with DIPSHIKHA

Please mention your nature of involvement with DIPSHIKHA

Sl. No.	Nature of involvement	Duration (Years)
1.	Ordinary Members	
2.	Executive Members	
3.	Executive Officers	

9. Wealth possession

Please mention the value of wealth under your possession

Sl. No.	Name of Wealth	Number	Unit Value (Tk)	Total Value (Tk)
1.	Power tiller			
2.	Shallow Machine			
3.	Plough			
4.	Cattle			
5.	Goat			
6.	Poultry			
7.	Trees			
8.	Rickshaw/ van			
9.	Sew machine			
10.	Tube-well			
11.	House			
12.	Radio/ Cassette			
13.	Television			
14.	Mobile phone			
15.	Other furniture			
16.	Jewelry			
17.	Utensils			
	Total			

10. Adoption of Innovation

Please mention the degree of your adoption of the following agricultural innovations

Sl. No.	Name of Innovations	Degree of adoption			
		High adoption	**Medium adoption**	**Low adoption**	**No adoption**
1.	Cultivation of modern wheat varieties Satabdi/Progoti/Bijoy/Prodip				
2.	Wheat seed production & preservation				
3.	Gardening of Apple kul/BAU kul				
4.	Gardening of Guava				
5.	Gardening of Litchi				
6.	Tree plantation				
7.	Adoption of improve crop rotation				
8.	Cultivation of high yielding potato varieties				
9.	Cultivation of Tori-7 variety of Mustard				
10.	Cultivation of Dhoincha				
11.	Cultivation of BARI-mug 5/6				
12.	Maize cultivation				
13.	Liming in the soil				
14.	Soil test				

11. Benefits obtained from Dipshikha by their beneficiaries

Please mention the benefits obtained from Dipshikha as beneficiary by putting tick (✓) any one of the four responses

Sl. No.	Items	Degree of Benefits			
		Not received	**Received As loan**	**Received with subsidized rate**	**Received Free of cost**
1.	Improved seeds/seedlings				
2.	Fertilizers/ pesticide				
3.	Irrigation equipments/agricultural machineries				
4.	Cattle/goat / poultry birds				
5.	Inputs/ machineries for cattle/ goat/poultry birds rearing				

Thank you for your co-operation.

_____

Signature of interviewer

Date:

Appendix-B. Correlation matrix of the dependent and independent variables

Variable	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	Y_1
X_1	1.000										
X_2	-0.321**	1.000									
X_3	0.391**	-0.266**	1.000								
X_4	0.184	0.170	0.159	1.000							
X_5	-0.095	0.178	0.021	-0.005	1.000						
X_6	0.028	0.037	-0.012	-0.060	0.144	1.000					
X_7	0.053	-0.141	0.074	0.014	-0.134	0.100	1.000				
X_8	0.324**	-0.266**	0.254**	0.169	0.088	0.190*	0.028	1.000			
X_9	0.084	-0.077	0.333**	0.276**	0.230*	0.014	0.037	0.310**	1.000		
X_{10}	0.141	-0.191*	0.113	0.182	0.018	0.062	0.262**	0.113	0.171	1.000	
Y_1	0.211*	0.020	0.114	0.321**	-0.050	0.202*	0.203*	0.199*	0.166	0.387*	1.000

** Significant at 0.01 level of probability

* Significant at 0.05 level of probability

X_1 = Age

X_2 = Education X_5 = Annual family income

X_3 = Family size

X_4 = Land possession

X_5 = Annual family income

X_6 = Loan utilization

X_7 = Training exposure

X_8 = Involvement with Dipshikha

X_9 = Wealth possession

X_{10} = Adoption of innovation

Y_1 = Benefit