

Relationship between socio-economic characteristics of farmer and their total crop production

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ABSTRACT

The main purpose of the study was to explore the relationship between some socio-economic characteristics of the respondents and their total crop production. Mithapukur and Sadar upazilas of the Rangpur District were the locality of the study. Sixty respondents were selected as the sample for the study by using simple random sampling technique. Data were collected with help of an interview schedule. Correlation analysis indicated that education, farming experience, farm size, total duration of participation, contact with extension media and attitude of the respondents had significant ($p < 0.01$) relationship to their total crop production after involvement with food security project. High price of inputs, lack of quality seeds and diseases and insects infestation were identified as major problems of crop production.

Introduction

Bangladesh since independence has made significant achievements in improving the health of the people and services of its ever-growing population but malnutrition is still an important public health problem in the country. Regarding the nutrition related programme of the government of the Bangladesh, one of the remarkable and significant project is Special Program for Food Security (SPFS). The SPFS pilot phase started in July 1999 in Bangladesh. Now it is operating in 21 upazillas of 16 districts in Bangladesh. It is therefore an urgent need to conduct a study on Food Security Project regarding its performance to achieve sustainable food security of the project beneficiaries. Therefore the present study was undertaken to explore the relationship between the selected characteristics of the respondents and their total crop production after involvement with Food Security Project and to identify the constraints faced by the respondents under the Food Security Project areas. The findings of the study showed a comprehensive picture as to how the project activities were changing the socio-economic status of the beneficiaries in the study areas. The findings of this study were expected to be useful to the researchers, planners and policy makers, extension workers and beneficiaries of the Food Security Project. It was also expected that the findings of the study would be particularly applicable to the rural poor beneficiaries of two upazillas of Rangpur district.

Materials and methods

Study area and sampling

The study was conducted in two upazilas (Askorpur of Mithapukur upazila and Abhirampur of Sadar upazila) of Rangpur district from June 25 to July 24, 2007. Sixty respondents were randomly selected from the study areas which covered about 14% of the total population. A simple and pretested questionnaire was used to collect information targeting the study aims and objectives. The unit of analysis of the study was the project beneficiaries who were involved in development activities. Data were collected through face to face interview by the researcher himself. To get valid and relevant information the researcher made all possible efforts to explain the purpose of the study to the respondents. Appointments with the interviewers were made in advanced. In case of failure to collect information from the respondents due to their other business, revisit was made with prior appointments.

Data collection and analysis

Age, education, farming experience, family size, farm size, training exposure, contact with extension media, attitude towards food security project and problems for crop production were collected as described by Alam et al. (2016). To find out the relationship between the selected characteristics of the respondents and their total crop production after involvement with Food Security Project, correlation of co-efficient was used. Paired t-test was used to identify the differences on the changes of crop production by the respondents between after and before involvement with Food Security Project.

Result and discussion

Relationship between characteristics of the respondents and their crop production

Correlation analysis indicated that education, farming experience, farm size, total duration of participation, contact with extension media and attitude of the respondents had significant relationship ($p < 0.01$) to their total crop production after involvement with food security project (Table 1). On the other hand age and family size do not showed significant relationship with their total crop production after involvement with Food Security Project.

Education and total crop production

The results demonstrated that there was significant relationship between education and total crop production ($p < 0.01$) indicating that education of the farmers had significant effect on food security project. The result was supported by the findings of Alam (1998), Khalil (1998), Roy (1997), Kashem and Hossain (1992).

Farming experience and total crop production

There was a significant ($p < 0.01$) relationship between the farming experience of the respondents and their total crop production. The result was supported by the finding of Ali (2006).

Farm size and total crop production

The relationship between farm size and their total crop production after involvement with Food Security Project was significant ($p < 0.05$). So the null hypothesis was rejected and concluded that their total crop production after Food Security Project varies on farm size of the respondent. It means that higher the farm size, the higher the crop production. The result was supported by the findings of Alam (1997) and Mottalab (1995).

Table 1. Relationship between selected characteristics and their total crop production after involvement with Food Security Project.

Categories	Correlation Co-efficient (r value)	
Dependent variable	Age	0.078 NS
	Education	0.493(**)
	Farming Experience	0.383(**)
Total crop production	Family size	0.072 NS
	Farm size	0.770(**)
Project	Training exposure	0.791(**)
	Contact with extension media	0.805(**)
	Attitude towards Food Security Project	0.777(**)

**= Significant at 0.01 level of probability; NS= Non Significant

Table 2. Rank order of the problems cited by the respondents according to their number of the responses.

Problems	Respondents (N=60)		Ranks order
	Number	Percent	
High price of inputs such as seeds, fertilizer, pesticides etc	45	75	1 st
Lack of quality seeds	42	70	2 nd
Diseases and insects infestation	40	67	3 rd
Marketing problems of the products	38	63	4 th
Lack of storage facilities	36	60	5 th
Lack of NGO's collaboration	35	58	6 th
Bureaucratic convolusion	32	53	7 th

Training exposure and total crop production

There was a significant relationship between training exposure and their total crop production after rood Security Project (Table 1) indicating that training exposure influenced strongly on total crop production after involvement. The result was supported by tile findings of Hossain (2001), Mannan (2001), Rayapareddy and Jayaramalah.

Extension contact with media and total crop production

The relationship between extension contact with media and their total crop production after involvement with Food Security Project was found to be significant ($p < 0.01$). The result was supported by the findings of Nurzaman el al., (2001). These facts might be the reasons that extension contact varies crop production of the respondents.

Attitude towards Food Security Project and total crop production

The attitude of the respondents showed significant relationship with their total crop production. This findings indicated that attitude towards Food Security Project of the respondents had a greater control on crop production. The findings also suggested that the more positive and favorable attitude towards Food Security Project helped to increase crop production of the respondents. The result was supported by the findings of Chouhan (1984), Das (19G9) and Islam (1998).

Problems faced by the farmers for crop production

The purpose of this section was to find out the problems for crop production. Respondents were asked to mention tile problems they laced. After compiling their responses, seven major problems were identified. Rank order of their problems had been furnished in Table 2.

Data contained in Table 2 indicated that among seven major problems, high price of inputs ranked first. Farmers need to purchase the required inputs. The price of agricultural inputs was high and sometimes input dealers and agencies embittered the farmers by taking higher price for inputs. Lack of quality seeds came next in rank order second. Farmers always need quality seeds for their crop production but lack of knowledge on quality seed production and preservation; they lost their money and crops because of buying low quality seeds. Diseases and insects infestation came next in rank order third. The framers had not enough knowledge to control the diseases and insects management.

Marketing problems of the products were tile fourth problem according to rank order. Respondents sold their products in the local market due to high transportation cost. As a result respondents were deprived of getting fair prize. Other problems namely, lake of storage facilities, lack of NGO's collaboration and bureaucratic convolusion were also identified.

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