Bangladesh Journal of Extension Education *ISSN 1011-3916*
Volume 25, No. 1&2, 2013: 9-15 *Research Article*

Participation in Farm Decision-Making by the Sharecroppers in a Selected Upazila of Mymensingh District

M.K. Dey[1], M.H. Rahman[2] and M.Z. Rahman[2]

Abstract

The purposes of the study were to determine the extent of participation in farm decision-making by the sharecroppers and to explore the relationships between sharecroppers' participation in farm decision-making and their selected characteristics. Data were collected by using interview schedule from a sample of 240 sharecroppers selected through multistage random sampling procedure from eight blocks of Phulpur upazila of Mymensingh district during May 2012 to August 2012. Participation was measured on the basis of two dimensions namely; type of participation and pattern of participation on four aspects of farm decision-making, finally an overall participation index was calculated. The participation in farm decision-making by the sharecroppers was comparatively high in the aspect land preparation, sowing and transplanting and the mean overall participation index was 64.19 with a standard deviation of 7.70. Correlation test was used to ascertain the relationships between each of the concerned variables and participation. Out of the sixteen selected characteristics of the sharecroppers opinion leadership, agricultural knowledge, dependency on crop farming, extension contact, organizational participation and farm size showed significant positive relationships whereas, landowner relation showed negative significant relationship with their participation in farm decision-making.

Keywords: Sharecropper, participation, farm decision-making.

Introduction

The economy of Bangladesh mainly depends on agriculture. Out of total land of 14.76 million hectares the total cultivated area of the country is 7.81 million hectares. Agricultural land is decreasing every year due to various causes. However, owing to the limitations lying with horizontal expansion, emphasis should be given on replacing its traditional agricultural practices by using modern technologies such as modern seeds, fertilizer, irrigation, pesticides and cultural practices etc. The decisions to use such technologies depend on the farmers' economic, social and psychological conditions and attachment to land. Sharecropping is a significant form of tenancy. Historically, sharecropping has been favoured as a means of putting large holdings into production without the risk and administrative problems of hiring wage labour. The advantage of using sharecropping arrangements, for both landowner and sharecropper, is that a minimum of cash (for either hiring wage labour or paying cash rent) is required. In its most basic form, sharecropping is an agreement to produce agricultural products, where the landowner provides the land (sometimes the other inputs) and the sharecropper provides the labour and all other inputs. At the end of the agricultural cycle the harvest is divided between the parties on a pre-agreed basis. These types of arrangements allow both the land-poor and

[1]Senior Assistant Director, National Agricultural Training Academy (NATA), Gazipur-1701 & [2&3]Professor, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh, Bangladesh

cash-poor (whether landowner or not) to farm (FAO, 2001). Sharecropping is one of the most important and complex institutions in rural Bangladesh. Participation in farm decision-making implies the execution of power and control to the farm land. For better production it is desirable that the tenants should take farm decisions because they are directly involved with the farm activities. A few field level studies have been done to determine sharecroppers' participation in decision-making on sharecropped land. So, it was important to find out the facts in present situation.

Methodology

The study was conducted at Phulpur upazila of Mymensingh district. Sharecroppers (with at least five years involvement with sharecropping) of the eight selected blocks of Phulpur upazila was the population of the study. The study was conducted with those sharecroppers who cultivated a definite piece of land for a crop year and shared the total output after the harvest with his landowners. In the whole study all the respondents were asked to consider his that landowner who was the owner of the largest land shared in by him. Multi-stage random sampling procedure was followed to obtain the desired sample. Firstly, Phulpur upazila was selected purposively. Then eight unions of the upazila were selected at random. Finally, eight blocks were selected from the unions randomly (one block from each of the unions). A list of the sharecroppers of the selected blocks was prepared. Then 10% of the sharecroppers were selected randomly from the list which was 240 in number. Participation of the sharecroppers in farm decision-making on sharecropped land was the dependent variable of the study. It was measured on the basis of the participation of sharecroppers in farm decision-making on four selected aspects of farm activities, namely i) selection of crop and variety ii) land preparation, sowing and transplanting iii) fertilizer and water management iv) crop protection, harvesting and post-harvest activities. Each of the aspects was determined by asking several items in relation to decision-making. Participation score for each of the items was measured according to the type and pattern of participation. The extent of participation was ascertained in three stages. Firstly, participation score for individual items under a specific aspect was determined. Secondly, aspect wise participation index was computed. Finally, the overall participation index was ascertained.

For computing this item wise participation score the following formula was used:

$$P_{ij} = T_{ij} \times F_{ij}$$

Where,

P_{ij} = Participation score of i^{th} item of j^{th} aspect

T_{ij} = Type of participation score of i^{th} item of j^{th} aspect

F_{ij} = Pattern of participation score of i^{th} item of j^{th} aspect

Type of participation score was assigned in the following manner

Type of participation	Score
1. Self	2
2. Jointly with landowner	1
3. By landowner	0

Pattern of participation score was assigned in the following manner:

Pattern of participation	Score
1. Regularly	3
2. Occasionally	2
3. Rarely	1
4. Not at all	0

Therefore, Aspect-wise participation index was computed in the following manner:

$$PI_j = \frac{\sum_{i=1}^{n_j} P_{ij}}{M_j}$$

Where,

PI_j = Participation index of j^{th} aspect

P_{ij} = Participation score of i^{th} item of j^{th} aspect

n_j = No. of items under j^{th} aspect

M_j = Maximum possible score for all the items in j^{th} aspect

= Maximum score assigned for type of participation (i.e. 2) x Maximum possible score assigned for pattern of participation (i.e. 3) x No. of items under j^{th} aspect

Therefore,

$M_j = 2 \times 3 \times n_j$

$= 6 \times n_j$

Finally, an overall participation index was computed on the basis of each of the four aspects consisting of different farm activities. The computation of overall participation index was done with the following formula:

$$OPI = \frac{\sum_{j=1}^{N} PIj}{N} \times 100$$

Where,

OPI= Overall participation index

PI_j = Participation index of j^{th} aspect

N = No. of aspects

The above calculation for overall participation index was done for each of the respondents. Sixteen selected personal, economic, social and psychological characteristics of the sharecroppers were selected as the independent variables of the study. These are: age, education, household size, agricultural knowledge, training experience, farm size, area under sharecropping, annual income, dependency on crop farming, dependency on sharecropping, extension contact, organizational participation, opinion leadership, risk orientation, landowner relation and commitment to sharecropping. An interview schedule was prepared to collect necessary and relevant information from the respondents. Both open ended and closed form of questions were included in the interview schedule. Data were collected by face to face interview by the researcher himself during May 2012 to August 2012. Data collected for this study from the respondents were complied, tabulated, coded and analyzed according to the objectives of the study. For exploring relationships between any two variables Pearson product moment correlation (r) was used.

Findings and Discussion

Aspect wise participation in farm decision-making

Participation of the sharecroppers in farm decision-making on sharecropped land was the main focus of the study. The participation index in any aspect of participation could range from 0 to 1. The respondents were grouped into three categories on the basis of their observed participation indices in any one of the aspects as shown below:

Categories	Participation indices
Low participation	Up to 0.33
Medium participation	From 0.34 to 0.66
High participation	Above 0.66

Table 1 revealed that the observed mean participation indices of land preparation, sowing and transplanting was relatively higher than other three aspects and obtained the first position in rank. Items in this aspect deal mainly with direct field operations. The sharecropper is the main executive of these operations. The landowner more or less depends on the sharecropper's decision on this aspect. As a result, the sharecropper can take decision independently. Knowledge on farming and commitment to sharecropping plays a vital role to take decisions independently. For these reason, the mean indices concerning the aspect may have been 0.72, leaning to the maximum.

Table 1 Aspect wise categorization of the respondents on the basis of their participation index

Aspect of farm decision-making	Extent of participation			Mean	SD	Rank
	Category	Frequency (N= 240)	Per cent			
Selection of crop and variety	Low participation	2	0.83	0.56	0.13	4
	Medium participation	171	71.25			
	High participation	67	27.92			
Land preparation, sowing and transplanting	Low participation	-	-	0.72	0.12	1
	Medium participation	69	28.75			
	High participation	171	71.25			
Fertilizer and water management	Low participation	-	-	0.61	0.10	3
	Medium participation	178	74.17			
	High participation	62	25.83			
Crop protection, harvesting and post-harvest activities	Low participation	-	-	0.67	0.11	2
	Medium participation	102	42.50			
	High participation	138	57.50			

Overall participation of the sharecroppers in farm decision-making

Possible range of the overall participation indices could range from 0 to 100. However, the computed overall participation indices of the four selected aspects ranged from 48.17 to 87.26 with an average of 64.19 and standard deviation of 7.70. The sharecroppers were classified into only two categories on the basis of their observed overall participation indices. Data furnished in the Table 2 indicate that a large proportion of the sharecroppers (58.70 per cent) had medium participation in decision-making while 41.30 per cent had high participation.

Table 2 Distribution of the sharecroppers according to their overall participation indices for decision-making on all the four selected farming aspects

Categories according to overall participation indices	Sharecroppers		Mean	Standard deviation	C.V. (%)
	Number	Per cent			
Medium participation	141	58.70	64.19	7.70	12.00
High participation	99	41.30			
Total	240	100			

Landowners were more or less dependent on their sharecroppers for utilizing their farm lands. Commonly, if they do not share inputs then they do not bother to take part on decision-making on them. May be, for this reason there is no low participation category and all the sharecroppers fell in medium and high participation categories. The findings go along the expectation that the sharecroppers should have to make the farm decisions and should play a dominant role over their landowner in farm decision-making. Hasan (2006) in his study with conventional organic farmers found the similar result on male farmers' participation on farming activities.

Relationships between selected characteristics of the sharecroppers and their extent of participation in farm decision-making

Out of sixteen selected characteristics agricultural knowledge, farm size, dependency on crop farming, extension contact, organizational participation and opinion leadership were positively correlated with their extent of participation in farm decision-making and presented in Table 3. But only landowner relation was negatively correlated with their extent of participation in farm decision-making. On the other hand, nine characteristics namely age, education, household size, training experience, annual income, area under sharecropping, dependency on sharecropping, risk orientation and commitment to sharecropping had no significant relationship with their extent participation in farm decision-making.

Table 3 Relationship between selected characteristics of the sharecroppers and their participation in farm decision-making (N=240)

Dependent variable	Independent variables	Coefficient of correlation (r)
Participation of the sharecroppers in farm decision-making	Age	-.004
	Education	.105
	Household size	.117
	Agricultural knowledge	.277**
	Training experience	.048
	Farm size	.276**
	Annual income	.013
	Area under sharecropping	.047
	Dependency on sharecropping	.060
	Dependency on crop farming	.239**
	Extension contact	.267**
	Organizational participation	.228**
	Opinion leadership	.368**
	Risk orientation	.044
	Landowner relation	-.171**
	Commitment to sharecropping	-.042

** *Significant at .01 level pf probability*

Farmers having higher level of agricultural knowledge are likely to be able to take quick decisions. Sharecroppers with high agricultural knowledge could easily and

actively participate in farm decision-making. This might be the reason for agricultural knowledge having the positive relationship with participation of the sharecroppers in farm decision-making. The findings were in agreement with the study of Hoque (2009). Large farm size makes a sharecropper to do farm practices more, which enables him to make participation in farm decision-making. This might be the reason for farm size of the sharecroppers having a positive significant relationship with their participation in farm decision-making. Hoque (2009) found a positive significant relationship between farm size and participation in farming activities in their respective studies. Sharecroppers with high dependency on crop farming pay more importance on farming and frequently take farm decisions. This might be the reason for dependency on crop farming having the positive relationship with participation of the sharecroppers in farm decision-making. Sharecroppers having more contact with different extension media are aware of different agricultural technologies and it might be an effective factor for participation in farm decision-making. This might be the reason for extension contact of the sharecroppers having the positive and significant relationship with their participation in farm decision-making. Rashid (2006), Rahman (2010) and Zaman (2010) also observed the similar findings between extension contact and participation in their respective studies. Participation in different organizations enables a sharecropper to take part in various discussions and get opportunity to exchange information, ideas, feelings, views and experiences with other participatory members of the organizations. Thus, the sharecropper with high organizational participation develops his capabilities to attract the attention of his landowner and can influence him to make the farm decisions by himself. This might be the reason for organizational participation having the positive relationship with the extent of participation in farm decision-making. Khatun (2003) and Rahman (2008) in their respective studies observed the similar result. A sharecropper with higher opinion leadership ability feels more confident to bias his landowner in farm decision-making and could take more part in decision-making. This might be the reason for opinion leadership having the positive relationship with participation of the sharecroppers in farm decision-making. In fact, the sharecroppers are not only land poor but poor in almost every aspects of life status in comparison to his landowner. Due to these social differences landowner often directly or indirectly tries to dominate upon his sharecropper. As a result, the landowners are likely to make farm decisions. If the relation between them is not well enough the sharecropper often does not seek his landowner's consent in farm decision-making. These might be the reason for landowner relation of the sharecropper having a negative significant relationship with their participation in farm decision-making.

Conclusion

A reasonable and justified sharecropping arrangement like one third-two third sharecropping arrangement should be established between landowners and sharecroppers. This will lead to equitable distribution of farm produces between the actors. The extension service providers including NGOs should employ sustainable

and rational strategy which could empower sharecroppers in making farm decision jointly and independently as per requirement of the situation. The prominent characteristics of the sharecroppers having significant relationship with their farm decision making should be taken into consideration in conducting extension work.

References

FAO. 2001. *Good Practice Guide lines For Agricultural Leasing Arrangements.* FAO Land Tenure Studies 2. Rome: Food and Agriculture Organization of the United Nations.

Hasan, M. K. 2006. Participation in Farming Activities by Conventional and Organic Farmers. *M.S. (Ag.Ext.Ed.) Thesis,* Department of Agricultural Extension Education. Bangladesh Agricultural University. Mymensingh.

Hoque, K. A. 2009. Participation of School Dropouts in farming and Non-Farming Activities for Their Livelihood Maintainance. *Ph.D. Dissertation,* Department of Agricultural Extension Education. Bangladesh Agricultural University. Mymensingh.

Khatun, F. 2003. Participation of Rural Women in Homestead Management Activities. *M.S.(Ag.Ext.Ed.) Thesis,* Department of Agricultural Extension Education. Bangladesh Agricultural University. Mymensingh.

Rahman, M. M. 2010. Participation of Rural Youth in Fish Farming Activities. *M.Sc.(Ag.Ext.Ed.) Thesis,* Department of Agricultural Extension Education. Bangladesh Agricultural University. Mymensingh.

Rahman, M. Z. 2008. Peoples Participation in Coastal Biodiversity Management Activities In St. Martin's Island under CWBMP. *M.Sc.(Ag.Ext.Ed.) Thesis,* Department of Agricultural Extension Education. Bangladesh Agricultural University. Mymensingh.

Rashid, M. H. 2006. Participation of The Garo Farmers of Modhupur Garh Forest in Agricultural Activities., *Ph.D. Dissertation,* Department of Agricultural Extension Education. Bangladesh Agricultural University. Mymensingh.

Zaman, N. 2010. Participation of Rural Women in Homestead Fruit Cultivation. *M.S.(Ag.Ext.Ed.) Thesis,* Department of Agricultural Extension Education. Bangladesh Agricultural University. Mymensingh.