Role of women in the homestead aforestation activities of Mymensingh district

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Abstract: The study was carried out to determine the role of rural women in homestead aforestation activities and to explore the relationships between the selected characteristics of the rural women and their role in homestead aforestation activities. Data were obtained from 90 randomly selected women practicing homestead aforestation activities in three selected unions of sadar upazila under Mymensingh district. Data were collected by using an interview schedule during May 7 to July 4, 2009. The role of women in aforestation activities was measured by using a 4 point rating scale. The highest proportion (84 percent) of the rural women performed medium role in homestead aforestation activities while 12 percent and 4 percent had low and high role performance, respectively. Age, educational qualification, family size, family farm size, family annual income, knowledge about homestead afforestation and training exposure of the women had significant positive relationship with their role performance. Lack of quality seeds and seedlings, inadequate land, poor knowledge about nursing, lack of credit, inadequate training facilities and unavailability of information in proper time were the major problems faced by the women in practicing homestead aforestation activities.
Key words: Role, women, aforestation, homestead.

Introduction

Homestead has a special significance in the context of Bangladesh. In a typical homestead threshing ground, cow shed, pond, vegetable and cash crop garden etc. are shared by surrounding families. Traditionally people are growing trees, shrubs, herbs and vegetables as a mixed crop in their homestead based on their generation old experiences and manifold needs. The special arrangement of different tree species around the house, taking into account needs for wind breaks, shade, family enclosures and open spaces as the distribution of different shrubs and annual vegetables in different microfiches are quite appropriate and time proven. Homestead is considered as the unique source of income generation for landless and marginal farmers. However, this important resource has been depleted rapidly day by day at an alarming rate due to deforestation. Therefore, in this case, aforestation is needed. Forests are known as the world's natural air-conditioner and the earth's blanket. Without forests, this world would be an inhospitable place to live in. Human diet, fodder for animals, timber, fuelwood, poles, agricultural implements etc. can be obtained from forests. It helps in reducing the impact of green house effects and converts carbon dioxide to oxygen. It improves the resilience of land to drought, flood and fire. Forests conserve wild life. So forests are essential for human survival and sustainable development of all the ecosystems. Bangladesh is one of the poorest but most densely populated countries in the world. It is bearing 11.4 million of people in her 147570 sq. km. of area (BBS, 1997). But due to continuous expansion of population the available per capita area is decreasing. Forests are deforested gradually to meet up the demand of the increasing population. This is causing the serious ecological imbalance resulting recurrent forest and environment degradation. Aforestaion needed in this situation. As land also degraded day by day, afforestation can be practiced in the homestead area. Homestead is the dwelling place. According to Ninaz (1998) homestead refers to home and adjoining land occupied by a family for the purposes like small scale agricultural production home up keeping, health, sanitation and nutrition. In the homestead aforestation, women can play an important role as well as men. Women are the key operators of household activities. Their involvement in homestead agriculture started from time immemorial. In addition to their daily activities, the rural women do some productive activities including agriculture and non-agricultural works within the homestead. (Halim and Mc.Carthy, 1985). Women are considered, as untapped national resources and society would benefit more if were given the opportunity to use their talents. The activities of women are mainly restricted with the household more particularly in taking care of children and family members, preparing and serving food to members of the households and maintaining houses. Rural women are mostly underutilized though they contribute significantly to agricultural and non-agricultural activities. From the above discussion, we can easily understand that women can keep a great contribution in aforestation activities in their surrounding area of homestead. There is a need to find out working areas for intensifying their participation in aforestation. In a country like Bangladesh, more involvement of women in agriculture particularly aforestation becomes mandatory to combat the overall food shortage, malnutrition and to boost up economic development of the country. Therefore, it is necessary to know the role of women in the aforestation activities especially in homestead areas.

Materials and Methods

Data were collected from the women during May 7 to July 4, 2009 by using an interview schedule. The selected characteristics of the women such as age, level of education, family size, farm size, family annual income, knowledge about homestead agroforestry and training exposure were considered as independent variables of the study. However, the role of women in homestead aforestation activities was considered as the dependent variable. A 4-point rating scale was used to measure the role of women in homestead aforestation activities. The role of women was measured in terms of extent of their participation in homestead aforestation and as such 16 items scale was constructed. The weights assigned 3 for high participation, 2 for medium, 1 for low and 0 for no participation in aforestation activities. The summation of obtained scores against 16 questions represented the role of women in homestead aforestation activities. Thus, the role performance score of a respondent could range from 0

to 48 where 0 indicating no role and 48 as high role performance.

Descriptive statistics such as percentage, distribution, mean, standard deviation etc. and coefficient of correlation for exploring the relationships between dependent and independent variables were used in interpreting the findings.

Results and Discussion

Selected characteristics of the rural women: The selected characteristics included age, education, family size, farm size, family annual income, knowledge about homestead agroforestry, training exposure of the women. The age of the respondents ranged from 20 to 60 years with the mean and standard deviation of 34.30 and 7.59 respectively. On the basis of age group, the respondents were classified into three categories such as young (up to 30 years), middle age (31 to 45 years), and old age (>45 years) which is presented in Table 1. The Table 1 indicates that the majorities (59 percent) of the respondents were middle aged compared to 36 percent young and only 5 percent were old women. It was found that the highest proportion (53 percent) of the respondents had secondary level of education, while 13 percent had no schooling or illiterate and 34 percent had primary level of education. The average score of education level of women were 6.14 and a standard deviation of 3.62.

Family size of the women ranged from 02 to 11 members with an average of 5.94 having standard deviation 2.20. The information of Table 1 indicates that 58 percent of the women belonged to medium size family while 30 percent and 12 percent belonged to small family and large family, respectively. The farm size of women varied from 0.045 to 5.174 (ha) with the mean of 1.27 and standard deviation of

1.04. It was found that the majority (83 percent) of women possessed small and medium farm size, while 10 percent marginal and 7 percent were large farms. Annual income of the women ranged from Tk.24 thousand to Tk.300 thousand with the mean and standard deviation of 113.06 and 65.96 respectively. The highest proportion (74 percent) of the rural women belonged to high income group while 12 percent in medium income group and the rest (14 percent) in low income group. Highest proportion (85 percent) of the respondent had medium knowledge on homestead agroforestry, compared to 4 percent in high and 11 percent women had to poor knowledge. Akanda (1994) found that agricultural knowledge of the rural women had positive relationship with their participation in the cultivation of fruit trees. But there was no significant difference in the participation of rural women in homestead vegetable cultivation and non-farm household activities because of their differences in education.

The computed training exposure scores of women ranged from 0 to 3 with an average of 0.467 and a standard deviation 0.796. The highest proportion (70 percent) of the rural women had no participation in training compared to 3 percent having medium and 27 percent had low training exposure. None of the rural women had high training exposure on farming activities. It was found that almost all (30 percent) of the rural women in the study area belongs to medium to low training exposure category. Parveen (1993) recommended that knowledge had played a vital role in farming favorable attitudes towards the homestead agricultural production. The knowledge about homestead agricultural production activities should be offered through training. Training facilities should be made available for the women regarding homestead agricultural production activities.

Table 1. Characteristic profile of the women (N = 90)

Sl. No	Characteristics	Category	Percent	Mean	Standard deviation
01.	Age	Young age (up to 30 years)	36		
		Middle age (31 to 45 years)	59	34.30	7.59
		Old age (>45 years)	05		
02.	Education	Illiterate (No schooling)	13		
		Can sign only	00	6.14	3.62
		Primary level (I-V)	34		
		Secondary level (VI-XII)	53		
03.	Family size	Small (up to 4 member)	30		
		Medium (5 to 8 members)	58	5.94	2.20
		Large (>8 members)	12		
04.	Farm size (ha)	Marginal (up to 0.2)	10		
		Small (0.21-1.0)	40	1.27	1.04
		Medium (1.1 – 3.0)	43		
		Large (Above 3.0)	07		
05.	Annual income	Low (up to 40)	14		
		Medium (41-70)	12	113.06	65.96
		High (Above 70)	74		
06.	Training exposure	No participants (0)	70		
		Low participant (Up to 2)	27	0.467	0.796
		Medium participation (3 to 5)	3		
		High participation (>5)	0		
07.	Knowledge of agroforestry	Poor (up to 10)	11		
		Medium (11-20)	85	15.53	3.01
		High knowledge (Above 20)	04		

Role of rural women in homestead aforestation activities: The observed score regarding role of rural women in homestead aforestation activities ranged from 16 to 26 against the possible range of 0 to 30. The average role in homestead aforestation activities of the rural women was 20.38 with a standard deviation of 2.29. Based on their performed score, the respondents were classified into three categories: low (up to 17), medium (18-24) and high (above 24) shown in Table 2. The highest proportion of the rural women (84 percent) were found to have medium role in homestead aforestation activities whereas 4 percent had high and 12 percent of them had low role in homestead aforestation activities (Table 2). In rural areas of Bangladesh, women generally perform major functions inside the homestead. This finding has conformity with the general assumption of performance of women in homestead activities.

Table 2. Distribution of women according to their role in homestead aforestation activities

Role of women	Respondents		
	Percentage	Mean	Standard deviation
Low (Up to 17)	12		
Medium (18 to 24)	84	20.38	2.29
High (Above 24)	04		
Total	100		

It was found that among the independent variables education, family size, farm size, family annual income, knowledge about agroforestry were positively significant at 5 percent level and, age and training exposure were non significant (Table 3).

Table 3. Relationship between the selected characteristics of women and their role of homestead agroforestry (N = 90)

Sl. No.	Characteristics	Observed 'r' value	Tabulated values with (N-2) df at	
			0.05 level	0.01 level
1.	Age	0.0387 NS		
2.	Education	0.225*		
3.	Family size	0.216*		
4.	Farm size	0.219*	±0.205	±0.267
5.	Annual income	0.207*		
6.	Knowledge of agroforestry	0.212*		
7.	Training exposure	0.0747 NS		

* Correlation significant at the 0.05 level, NS = Not significant

Problem faced by the women in homestead aforestation activities: There was an open-ended question in the interview schedule about problems faced by the women performing homestead aforestation activities. Rural women of the study area mentioned ten problems being encountered that are given in Table 4 with number of citation in descending order. Table 4 showed that lack of quality seeds and seedlings was the most important problem faced by the women. As number of citation for all most all of the problems not low, it could be concluded that all these were important problems in general and needed particular attention.

Table 4. Problem faced by the rural women

Sl. No.	Problems	Number of citation
1.	Lack of quality seeds and seedlings	67
2.	Infestation of insects, diseases, pests etc.	55
3.	Poor knowledge about nursing	58
4.	Poor knowledge about homestead agroforestry	65
5.	Inadequate land	55
6.	Lack of credit	52
7.	Poor extension service	54
8.	Lack of information in proper time	53
9.	Inadequate training facilities	50
10.	Criticism from others/social barrier	49

Probable solutions of the problems: During interviewing the women were asked to suggest the probable solutions to problems they have identified. It could be concluded from Table 5 that supply of seeds, providing sufficient training facilities were critical to solving problems faced by the women in homestead aforestation activities. In addition,

others could be instrumental for the widespread performance of women in homestead aforestation activities.

Table 5. Probable solutions the problems in relation to perform in homestead aforestation activities

Sl. No.	Solutions	Number of citation
1.	Supply of healthy seeds from GOs or NGOs	46
2.	Providing sufficient training facilities	40
3.	Poor criticism in social system	37
4.	Provide sufficient extension service	33
5.	Distribution of agricultural credit on easy conditions and low interest	29
6.	Proper knowledge provided by different GOs and NGOs workers	30
7.	Availability of insecticides and pesticides	21

Academic qualification, farm size and family size had significant positive relationship with their participation in homestead aforestation activities. It is assumed that more the number of family members, more in the opportunity in participation in homestead aforestation activities. Family annual income had contributed in accelerating the participation in homestead aforestation. That means, sufficient income may encourage women towards participation in their activities. Knowledge about homestead agroforestry of rural women was related to their role in homestead aforestation activities. Age and training participation were not related with their participation in homestead aforestation activities. But they may influence in participation of women in homestead aforestation activities

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