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## **An Assessment of the Relationship Between the Selected Characteristics of Farm Forestry Practitioners and Their Opinion on its Effectiveness**

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**Abstract:** To meet the optimum requirement of forest cover, the farm forestry was realized as a complete tool that ensures the maximum utilization of land and vertical expansion of agriculture too. Thus, the relationship between the characteristics of the farmers and their opinion on its effectiveness are crucial to be identified based on the magnitude of significance. The study examined the relationships among the 14 selected characteristics and the farmer's opinion on effectiveness of farm forestry towards Sustainable Agricultural Development. A total of 120 respondents were randomly interviewed from the eight villages of two sub-districts. The findings of the study indicated that the most of the socio-demographic characteristics of the farmers had significantly positive relationship. Based on the results of the study, the significant characteristics are recommended to be considered for further improvement and sufficient support.

**Key words:** Farm forestry, sustainable agricultural development, farmers knowledge

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### **INTRODUCTION**

The survival of human civilization depends to a great extent on the existence of adequate forest cover on earth. Plants are important not only because they much needed food fodder, fuel materials, shelter, medicine, timber and other plant products, but also for the development and maintenance of a sustainable ecosystem.

The forest is now facing severe threat. According to experts, for perpetual socio-economic subsistence and a better environment a country should have 25% of its total landmass in forest cover. The forest of Bangladesh have been recorded to cover 35% in 1919 and 25% in 1936, but this has shrunk to 17% of either forest or potential land, while consolidated forestland is only 7% of the total land area<sup>[1]</sup>. Current per capita forestland is only 0.024 ha<sup>[2]</sup>. Estimated present wood demand of our country is about 13.2 million m<sup>3</sup> with per capita consumption of 0.12 m<sup>3</sup> per annum. The targeted annual development growth rate of the Government in Gross Domestic Products (GDP) is about 5%. To support this target, the consumption by 2003 is estimated at about 1607 million m<sup>3</sup><sup>[3]</sup>.

Farm forestry has been practicing by the people since the primitive human beings started production of fruits and crops in the prehistoric age. At least 7.8% of total land under tree cover in Bangladesh while opportunity it should be at least 25%<sup>[4]</sup>. In view of the foregoing discussion the present study was undertaken to measure the opinion of farmers on effectiveness of farm forestry towards sustainable agricultural development.

### **MATERIALS AND METHODS**

**Location and population of the study:** Four villages from each upazila Raigonj and Kamarkhanda under Sirajgonj district where purposively selected on the basis of the practicing of farm forestry. The farmers of the eight villages constitute population for this study. A sample of 20% farm families was selected following the stratified random sapling method (considering the adoption of farmers to farm forestry in eight villages). Thus a total of 120 farmers constituted the samples for this study.

**Measurement of the variable:** Opinion of farmers on effectiveness of farm forestry towards sustainable agricultural development was the dependent variable of the study and the selected farmers characteristics were age education, farm size, annual income, communication exposure, cosmopolitaness, organizational participation, training attended, innovativeness, farming experiences, fatalism, perception of sustainable agricultural development, knowledge of farm forestry and awareness on environment. The farmers were asked to give their opinion on 26 statements related to effectiveness of farm forestry towards sustainable agricultural development. Among the statements 15 were positive and 11 were negative. A five point Likert-type scale such as 4 for strongly agree, 3 for agree, 2 for undecided, 1 for disagree and 0 for strongly disagree were used to measure the level of agreement of the farmers towards the positive and negative effect of farm forestry on the sustainable

agricultural development. While for negative responses, the scores were counted in a reverse way.

### RESULTS AND DISCUSSION

By adding the assigned scores of 26 statements of a respondent together, the opinion of a farmer on the effect of farm forestry was obtained. The computed effectiveness of farm forestry scores of the respondents ranged from 34 to 99 against the possible range 0 to 104. The mean and standard deviation were 70.94 and 15.17, respectively. Based on these scores the farmers were classified into three categories (Fig. 1).

Figure 1 shows that 70% of the farmers belonged to "highly positive effect" category, 18.33 and 11.67% were "moderately positive effect" and "less positive effect," respectively. Thus, 88% of the farmers opined that farm forestry had moderately positive to highly positive effect on sustainable agricultural development highly positive effect towards sustainable agricultural development.

Significant relationship as determined by co-efficient of correlation test 'r' has been examined. A null hypothesis rejected when the observed 'r' value was greater than the tabulated value of 'r' at 0.05% of probability with 118 degrees of freedom. Out of 14 correlations, 9 of were statistically significant. The relationship with education, farm size, annual income, communication exposure, cosmopolitaness, innovativeness, perception of sustainable agricultural development, knowledge of farm forestry and awareness on effectiveness of farm forestry

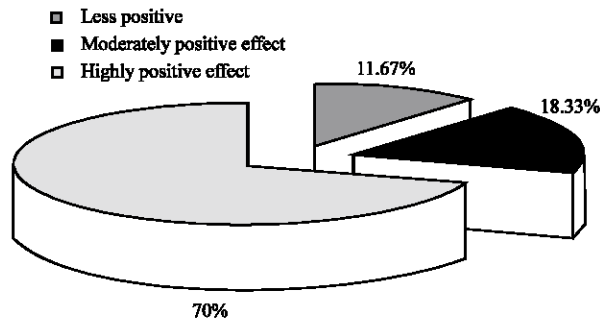


Fig. 1: Farmer's opinion on effectiveness of farm forestry towards sustainable agricultural development

on environment and opinion were statistically significant and the relationship with age, organizational participation, training attended, farming experiences, fatalism and opinion were not statistically significant.

### CONCLUSION

The opinion of the individual farmers on farm forestry is crucial to the success of farm forestry programme. Farmer's opinion on the role the system will play in their farm production system and will determine the extent and durability of adoption farm forestry programme. Local scarcity of wood products is as might be expected a key of motivation in adopting nontraditional farm forestry systems.

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