

Title: Economic Aspects of Different Agroforestry Practices in Tangail District

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Abstract

The present study was carried out on agroforestry at Madhupur upazilla under Tangail district to identify the different agroforestry practices and determine the profitability of mostly practiced agroforestry system. Primary data were collected from 120 farmers from four villages under Madhupur Upazilla of Tangail district. The study was conducted during the period from April, 2012 to September, 2012 through interview schedule and discussion with the concerned experienced farmers. Different type of community lived together in the study area. Most of them were Bengali people (60 percent) and rests of them were Garo (25 percent) and Coach (15 percent) People. The average number of family members of the respondents was 5.29 and most of them were middle aged people. Literacy percent of study area (76 percent) was higher than national average. Agriculture was the main occupation of the respondents in the study area and the top-ranked three agroforestry systems were Akashmoni- Pineapple- ginger practice (21.6 percent), Akashmoni- Pineapple-Aroid practice (19.2 percent) and Jackfruit-Pineapple-Aroid practice (14 percent). The net return from Akashmoni-Pineapple-Ginger agroforestry system was higher than other agroforestry system. Compounding of cost, return, gross margin of other components of different agroforestry systems for 10 years were necessary to include the product of tree species in calculation. After compounding, the net return from Akashmoni-Pineapple-Ginger agroforestry system was also higher than other agroforestry system. The net return from Jackfruit-Pineapple-Aroid agroforestry systems was higher than Akashmoni-Pineapple-aroid agroforestry system before compounding but it was lower after Bounding, because of the log value of jackfruit is less compare to Akashmoni and the shade of jackfruit tree also deteriorate the quality of pineapple. In spite of the extra product (fruit) of jackfruit farmer are interested to practice Akashmoni based agroforestry system because of less log value of Jackfruit as well as shade problem of jackfruit tree. On the other hand disease and insect are more susceptible to Jackfruit tree than Akashmoni tree. Considering the comparison of return of mostly practiced three agroforestry system, per hectare total return was the highest in case of Akashmoni-Pineapple-Ginger practice Tk. 695801 followed by Jackfruit-Pineapple-Aroid practice Tk. 688250 and Akashmoni- Pineapple-Aroid practice Tk. 589930. After

compounding, per hectare total return was the highest in case of Akashmoni- Pineapple- Ginger practice Tk. 3446300 followed by Akashmoni- Pineapple-Aroid practice Tk. 3180400 and Jackfruit-Pineapple-Aroid practice Tk. 2470790. Inter temporal budget for Jackfruit-Pineapple-Aroid agroforestry production system for 20 years explained that the cash flow in the 1st year was negative but it became positive from second year and it continued in subsequent years. Benefit cost ratio (BCR) of Jackfruit-Pineapple-Aroid production for 20 year at 12% discounted rate was 1.02 and NPV at 12% discounted rate was Tk. 49516.7 per hectare. Sensibility Analysis shows that Jackfruit- Pineapple- Aroid agroforestry system for 20 years was sensible to increment and reduction of cost and gross returns. On the basis of farmers' opinion, the major problems for different agroforestry systems were jackfruit borer, low price of pineapple, high price of inputs, attack of bat and squirrel on jackfruit and hedgehog on pineapple.