ECONOMIC ASPECTS OF DATE-PALM BASED AGROFORESTRY SYSTEM IN JESSORE DISTRICT

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Abstract

Forest resources of Bangladesh are decreasing rapidly because of over exploitation. As a result, serious imbalances have already been created in the ecosystems. Still now, conversion of forest areas into agricultural uses for growing food to feed the burgeoning population of Bangladesh are being continuing. Agroforestry has the potential to maintain the ecological balance while producing crops at the same time. This study attempts to assess the profitability of Date-palm based agroforestry system in selected sites of Jessore district. Three villages namely Gadighat of Bagherpara thana, Panchbaria and Gaherpur of Sadar thana of Jessore District were selected for this study. This study includes 24, 21, and 15 Date-palm based agroforestry practicing fanners from Gadighat, Panchbaria and Gaherpur villages, respectively. Five major cropping patterns namely: Aus-Fallow-Lentil, Fallow-Aman-Boro, Aus-Aman-Mustard, Aus-Fallow-Wheat and Jute-Aman-Lentil were identified in the study areas. In terms of economic viability, Aus-Aman-Mustard pattern appeared to have the greatest potential followed by Aus-Fallow-Wheat, Jute-Aman-Lentil, Aus-Fallow-Lentil and Fallow-Aman-Boro pattern. Aus-Aman-Mustard pattern had the highest net returns of Tk.49496.99/ha in Date-palm based agroforestry and Tk.39916.16/ha in non-agroforestry systems. Per tree net return from Date-palm was the highest (Tk. 202.41)in Jute-Aman-Lentil pattern, but per ha net return from Date-palm alone was the highest in Aus-Fallow-Wheat pattern. This study indicated that the Date-palm based agroforestry system was more profitable than without agroforestry in each patterns. Intertemporal budgeting for Date-palm in agroforestry system showed higher discounted benefit-cost ratio (3.89), a large net present value of benefits (Tk. 103770) and a high internal rate of return (138%), which clearly indicated a high profitability of Date-palm in agroforestry system. In addition to financial benefit, some socio-economic and environmental benefits have been recorded from the Date-palm based agroforestry practices. The study identified some production, marketing and other social and institutional constraints associated with the Date-palm based agroforestry practices and suggest some policies to mitigate these constraints.