MODERN VARIETY TRANSPLANTED AMAN RICE: ADOPTION, PRODUCTION PERFORMANCE AND ITS CONSTRAINTS AT KAPASIA, GAZIPUR

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ABSTRACT

Bangladesh is a densely populated country. Although rice is the principal crop, the country suffers from chronic food deficiency due to over population. T.Aman being the main rice crop covering 45% of the total rice area, the overall food position of the country depends largely on the adoption of MVs as well as good harvest of T.Aman. But till now, less than 50% of the local T.Aman area is cultivated by local rice varieties. Farmers will be ready to cultivate MVs only if it's cultivation is economically profitable. So, the study was undertaken for a comparative economic analysis of local T.Aman rice varieties (LVs) and Modern T.Aman rice varieties (MVs). Attempts were also made to analyse factors influencing adoption of MV T. Aman rice. Data for this study were collected from Targaon union of Kapasia thana under Gazipur district during the T.Aman season, 1996. Tabular technique, probit and logit analysis and Translog cost function model were used for analysis of data to fulfill the objectives of the survey. The average farm size of the farmers was 0.85 hectare. The ratie-ttf male and female force in the study area was 50 percent. In this study, seedlings below 40-days old gave yield in case of both MV and LV T. Aman rice. It was revealed that the per hectare costs of production of MV and LV T.Aman rice : Tk. 17636 and Tk. 13655 on full cost basis, respectively. Per hectare gross return from MV and LV T.Aman rices were Tk. 29747 and Tk. 16061, respectively. Per hectare net Ktoros for the above varieties were Tk. 11951 and Tk. 2407 and net returns (Tk/ton) were Tk. 2716 and Tk.962 on full cost basis, respectively. It was also found that MV T. Aman cultivation is more profitable than that of LV T. Aman rice. Among the factors influencing the adoption of MV T.Aman rice, age, education, land type, rice production training and family members significantly influenced adoption of MV T-Aman. Complementary relationship was found in land-fertilizer pair, animal-seed pair, seed-labour pair and fertilizer-insecticide pair. The best substitute were found in animal-labour pair and animal-fertilizer pair. The major constraint on the adoption of MV T.Aman was lack of late T. Aman varieties followed by turn around time between Aus and T.Aman rice cultivation. Other important constraints were crop disease and high cost of cultivation for modern rice varieties.