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Socio-Economic Impact of Rice-Cum-Fish Culture in Bangladesh

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Abstract

This study examines the impact of the rice-cum-fish culture and the rice monoculture on the rural households at Muktaghachha Upazila of Mymensingh district, Bangladesh. Five villages were selected for this study. A stratified random sampling technique was followed in this study. Data were collected from 100 farmers of the selected villages through field survey by using pre-designed questionnaire. Activity budgets were calculated and statistical comparisons computed. The benefit-cost ratio was calculated. Multiple regression analysis was used to determine the impact of different independent variables on total household income.

The major findings of the study were that both the rice-cum-fish culture and the rice monoculture were profitable business for the farmers. However, farmers were making about 3 times higher profit from the rice-cum-fish culture than from the rice monoculture. Per hectare, net return of the rice-cum-fish culture and the rice monoculture were Tk 10230.00 and Tk 3593.00, respectively. The rice yield was increased by 11.4% in the integrated rice-cum-fish culture compared to the rice monoculture. Fish consumption was increased by 14.5% with the rice-cum-fish culture compared to rice monoculture. Total cost was also increased by about 49% in the rice-cum-fish culture above the costs in the rice monoculture mainly due to fingerlings purchasing. Human labour employment was increased by 9.4% in the rice-cum-fish culture compared to the rice monoculture. The study clearly indicates that the rice-cum-fish culture provides greater scope for returns (1.6:1) and employment opportunities (1.1:1) than the rice monoculture. This study also found that the farmers are practising the rice-cum-fish culture technology without using any pesticides, so this system is ecologically sound and environmentally friendly. Although there are some constraints in the rice-cum-fish culture system like diseases, unexplained mortality of fish and so on, farmers are interested in practising this system to improve their socio-economic condition. Government, policy makers and extension workers should encourage the farmers to practice the rice-cum-fish culture system by providing the necessary information and financial assistance.

Keywords: Bangladesh, rice-cum-fish, socio-economics