

SMALL SCALE IRRIGATION MANAGEMENT: IMPACT ON FARM PRODUCTIVITY AND LIVELIHOOD OF THE RURAL PEOPLE

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ABSTRACT

The present study was undertaken to examine the effect of minor irrigation on crop production between irrigated and non-irrigated farms and technical efficiency among irrigated farms. Irrigation affects production by influencing the demand for water in the production process. The study was undertaken to know the consequence of minor irrigation management on farm productivity and livelihood of rural people, in this study, 462 irrigated farms (228 STWDF and 234 STWNDF) and 256 non-irrigated (Control) farms from six districts Sylhet, Sunamganj, Habiganj, Moulavibazar, Kishorganj and Netrokana were selected purposively. Tabular as well as statistical techniques were used wherever necessary to analyze the data. To assess the profitability level of demonstrated and non-demonstrated cultivators simple tabular form was used and benefit cost ratio (BCR) was computed. The results of the analysis indicate that there was significant differences existed between per hectare costs and returns of crop production in irrigated and non-irrigated plots. Among all individual crops under study, HYV Boro, an irrigated crop, had an edge over other crops with respect to the per hectare net returns and labour employment. The findings of study also reveal that annual income of irrigated farms from one hectare of irrigated were significantly higher than control farms. The higher income in irrigated plots was mostly due to the HYV Boro paddy. In order measure the Technical efficiency of HYV Boro rice production under irrigated system, stochastic frontier production function model is considered appropriate for technical efficiency measures through the computer package Frontier 4.1. It was found that out of all the explanatory variables considered, two variables out of eight had insignificant impact on yield rate of HYV Boro paddy. These were land cost and interest on operating capital. This is indication of over use of inefficient use of these variables. An attempt has been made to assess the changes that might have occurred in the life style of the beneficiary farmers because of improved condition economic achieved through participation in the project. Due to increased production and better quality of crops, marketing facility is needed. The farmers' incomes from sales proceeds have increased much. Now they are financially well off and their standard of living has increased and their children are getting better food, clothing, more health care facilities and also the project beneficiaries are surging their children to school for their education. The study further reflects that, minor irrigation could judge as a very vital role to overcome the yield efficiency through adoption modern crop varieties package in production process. Economic as well as social statuses of the irrigated farmers have expectedly been improved due to irrigation facilities in the study areas. The study suggest for more minor irrigation facilities and even distribution among all farms according to demand for more technological improvement and reduction of yield gap among all the category of farms.