

ESTIMATION OF FACTOR DEMAND AND OUTPUT SUPPLY OF CARP PRODUCTION IN MYMENSINGH DISTRICT

Major Professor: M. Kamruzzaman

Name of the author: Muhammad Anisur Rahman

Reg. No.:2003-05-1175

Year: 2005

Abstract

The present study was undertaken to find out the socio-economic characteristics, carp fish farming practices, cost and return analysis and to estimate different elasticities of derived demand of carp production in the study area. Mymensingh district was selected purposively for the present study. The respondents from Bhaluka, Muktagacha and Mymensingh Sadar thana constituted the sample and carp fish farmers of those thanas were the population of the study. Fifty nine carp farmers were selected randomly from the population. In the study area, most of the farmers were in secondary level (52.5 percent) of education. Majority of selected farmers (49.2 %) of the study area were engaged in agriculture as their main occupation. Average family size of all farmers was 5.19 members. Average annual income of the selected carp producing household was Taka 219513. The mean size of ponds of the sample carp farmers was 161.30 decimals. The average per hectare total cost of carp production was Tk. 230231. Average per hectare cost for small, medium and large farmers were found to be Tk. 241670, Tk. 225091 and Tk. 221008 respectively. On the return side, per hectare net returns for small, medium and large farmers were calculated at Tk. 2,28,195, Tk. 2,19,723 and Tk. 1,83,902 respectively. Overall net return per hectare was found to be Tk. 2,16,059. The benefit cost ratio for carp farmers was 1.94. Employing the translog cost function, elasticities of derived demand was determined. The mean level of own price elasticity of derived demand of electricity and irrigation was 0.7224. It was followed by feeds (0.3095), fingerlings stocking (0.2932), human labour (0.2703) and medicine & fertilizer (0.1809) for all farm. Fingerlings stocking and labour, fingerling stocking and feeds, fingerling stocking and medicine, labour and feeds, labour and medicine & fertilizer, feeds and medicine and medicine and electricity were found to complement each other whereas fingerlings stocking and electricity, labour and electricity and feeds and electricity substituted each other. The results indicated that labour was the best substitute for electricity followed by feeds for electricity. High price of inputs, limited market, lack of capital, lack of scientific knowledge and technique, lack of water in dry season, multiple ownership and theft of fish were the major problems of carp production. The possible steps suggested to remove the problems and constraints included provision of training to producers from the proper authority, application of scientific methods in fish farming, simplification of lending procedures of institutional credits, availability of credit at a low interest rate, judicious price policy for inputs, political stability etc.