EVALUATION OF FERTILIZER SUPPLY, MARKETING SYSTEM AND UTILIZATION AT FARM LEVEL IN BORO SEASON

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ABSTRACT

This study was undertaken to assess the fertilizer supply situation, to analyze the fertilizer marketing system and the efficiency of fertilizer traders, and to examine the fertilizing behavior of the farmers in Boro season. For this purpose, secondary data on fertilizer supply during the period of 1981-82 to 1998-99 was collected from publications of different institutions including BBS, and primary data on fertilizer marketing and fertilizing behavior was collected respectively from 30 fertilizer traders and 35 randomly selected Boro growing farmers of Gazipur district. The exponential growth model was used to assess the growth rate of total fertilizer supply. The analysis revealed that the supply of fertilizer grew at a significantly high rate (8.20%) during the study period, but the growth of TSP declined. The growth rate of SSP for recent few years was significant and alarming (42.59%). The marketing channel was derived based on the data collected from fertilizer traders. The intermediaries of the marketing channel were factories/importers, wholesaler-I, wholesaler-II, retailer-I and retailer-II. Shepherd marketing efficiency and allocative efficiency were used to determine their marketing efficiency. According to the Shepherd marketing efficiency, the marketing efficiency for different traders ranged from 90.20 to 93.79 percent. The retailers were comparatively more efficient than the wholesalers. But in terms of allocative efficiency, the more efficient in earning profit. To find out the degree of fertilizer use to their recommended dose, the adequacy fertilizer use was calculated for different categories of farmers. It was found that for small farmers was the lowest compared to large and medium together, the adequacy index was 87% for Urea, 80% for TSP, and .je adequacy index of total fertilizer use was 82%. The farmers' response to fall in fertilizer price (i.e., the expected elasticity) was inelastic for urea and elastic for TSP and MP. The price responsiveness on the utilization of fertilizers was for small farmers. To identify the factors influencing the level of fertilizer use, a double-log form of function was fitted separately for urea, TSP, MP and also for total fertilizers. The coefficient of fertilizer price had negative sign in all the cases, which was consistent with the demand theory. But the magnitude of its coefficient was not statistically significant possibly due to low variation in the observed price of fertilizer. Farm size was a significant factor except in TSP model and the ratio of land under higher yielding to total Boro cultivated land was also a significant factor except in urea model. Irrigation cost was significant in all the cases indicating that it was the most important factor influencing the demand for fertilizer. Thus both price and non-price factors influenced the utilization of fertilizers by farmers in Boro season.