

The Factors Affecting the Cost of Production of Rice in Sri Lanka

(Case of Ampara and Batticaloa Districts)

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ABSTRACT

This study attempted to analyze the factors affecting the cost of production. Specifically the study also investigated the ways and means to reduce the cost of production while increasing the paddy production and to measure the technical efficiency of paddy farming in the Ampara and Batticaloa districts. Both primary and secondary data were used in this study. The primary data were gathered through personal interviews from 200 farmers from both districts for Yala 2001 (irrigated paddy) and Maha 2001/2002 (rainfed paddy).

The analysis of the cost of production (COP) indicated that there is a significant variation in the COP between the two districts. The COP in Ampara and Batticaloa districts was Rs. 14,765/= and Rs. 10,885/= per acre in Yala and Rs. 15,076/= and Rs. 12,777/= per acre in Maha respectively. Out of the total cost, labour accounted the highest percentage (37%) and machinery cost (25%) was the second. The agro-chemicals and seed paddy costs accounted for 13% and 11% respectively. The Ampara farmers produced relatively higher yield than the Batticaloa farmers (Maha 1829 kg/ac Vs 1608kg/ac and Yala 1608kg/ac Vs 1268 kg/ac). The cost of production of paddy in Ampara was Rs. 8/= and Rs. 9/= and in Batticaloa was Rs. 6.75/= and Rs. 10/= during the Yala and Maha seasons respectively per kg. the yield gap was also calculated for both districts and found the gap in Batticaloa is larger than that in the Ampara district (971.5 kg/ac Vs 105.35 kg/ac in Yala and 833.6 kg/ac Vs 146.55 kg/ac in Maha). This implied that the production of paddy in Batticaloa district need more emphasis than the Ampara district.

A Frontier Production Function Analysis was employed to estimate the technical efficiency of paddy production for Ampara and Batticaloa districts, and found the efficiency value was 0.64 and 0.82 respectively. On this basis, paddy production is more efficient in the Batticaloa than the Ampara district. The total cost and the average yield were higher in the Ampara than Batticaloa district, low efficiency implied that the production factors were not used in an efficient manner. The lack of credit facilities, improper water management, poor participation in farmer organizations and traditional believe in farming practices also had a significant influence on the technical efficiency among low performing farmers in both districts. There is a necessity to keep the farmers fully aware of the new technological information through an efficient extension network.

Multiple regression models were also fitted to study the effects of various production factors on the level of paddy yield. The land size had a positive significant field impact on increasing production in all areas. The agro-chemical cost had a negative significant effect in Ampara and a positive effect in Batticaloa district in Yala on paddy yield. The quantity of fertilizer had also a significant positive effect on paddy yield in Batticaloa in Yala.

In regards to reducing cost of production in both irrigated and rainfed cultivations in both districts three means were identified: (i) reduce the overuse or unnecessary use of inputs (ii) increase the total production per unit of land area so that the cost of production can be reduced and (iii) strengthen the institutional arrangements to support the farmers to increase their production to obtain reasonable price and to reduce the overall total cost of production.