

Abstract

The present study is an attempt to measure and analyse the growth and instability of area, production and yield of both kharif and rabi paddy in Assam for a period from 1951-52 to 1996-97. It also decomposes the growth in the total value of output of both kharif and rabi paddy into its different components such as area, yield, price and cropping pattern. Then the impact of different factors such as fertilizer, irrigation, high yielding varieties, rainfall, flood, etc., in the yield of both kharif and rabi paddy are estimated. Finally, estimation of the demand for rice and ultimately for paddy along with the future supply of paddy for the state have been made to calculate the future demand-supply gap. Suitable policy measures for attaining the level of self-sufficiency in production of paddy have been suggested at the end.

From the analysis, it is found that the high yielding varieties of kharif paddy enhanced the production and yield of kharif paddy during the green and post-green revolution periods whereas, in case of rabi paddy, this effect was more prominent during the post-green revolution period. The instability of yield was more during pre-green revolution and green revolution periods, which got reduced during post-green revolution period. In the average annual growth in total value of output of kharif paddy, farm harvest price played the leading role. The influence of yield was also quite prominent. Similarly, the effect of cropping pattern was prominent in enhancing the growth rate of rabi paddy. After analysing the effect of different factors, it is found that the impact of fertilizer in both kharif as well as rabi paddy was positive. In contrast, the effect of proportion of irrigated area in the yield was negative. Flood proved to be a major limiting factor in the yield of kharif paddy in the state.

Estimating the future demand and supply of paddy, with the assumption that the present growth rate of population and state income will continue, it is found that the demand for paddy in the state will maintain its increasing trend in the coming decade. And, although the supply of paddy will continue to increase by almost the same rate in future, this rate of increase is not sufficient to meet the rate of increase in demand. This ultimately will result in an increasing demand-supply gap of paddy for the projected period. The only viable option, to come out from this situation, is to revive agriculture and to give more emphasis on the factors crucial for enhancing production.

Key Words: *Self-Sufficiency, Green Revolution, Paddy, and Demand-Supply Gap.*