COMPARATIVE ANALYSIS OF ECONOMIC EFFICIENCY OF
SORGHUM PRODUCTION IN MAHARASHTRA AND
KARNATAKA STATE OF INDIA

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ABSTRACT

This study analyzed and compared the technical, allocative and economic efficiency of sorghum production in Maharashtra and Karnataka States of India. Data were collected through the administration of 200 copies of questionnaires to selected sorghum farmers (100 from each of the two states of sorghum production) using simple random sampling and purposive sampling technique. The result of the stochastic frontier production function analysis shows that the variance parameters, that is the sigma squared (\(\delta^2\)) and the gamma (\(\gamma\)) were statistically significant at 1 \% level each for both states of sorghum production. The coefficient of farm size, labour, fertilizer and chemicals were positive for Maharashtra and significant while farm size, labour and seed were positive and significant in Karnataka. Profit level can be increased in Maharashtra by increasing the amount of farm size, labour, fertilizer and chemicals and decreasing the use of seed while Profit level can be increased in Karnataka by increasing the amount of farm size, labour and seed and decreasing the use of fertilizer and chemical. Mean technical, allocative, economic efficiencies were (0.6774, 0.6312, 0.5445) and (0.6128, 0.3729, 0.4008) for Maharashtra and Karnataka respectively. Farmers operate at (32\%, 37\%, 45\%) and (39\%, 63\%, 60\%) for Maharashtra and Karnataka respectively below frontier level due to variation in technical, allocative and economic efficiencies respectively. The inefficiency model shows that the coefficient of Age and Literacy Level was negative a priori sign and in consonance with the a priori expectation. It can be concluded that the farmers in the Karnataka state are more efficient than the farmers in Maharashtra state.

KEYWORDS: Technical Efficiency, Allocative Efficiency, Economic Efficiency, Sorghum Maharashtra, Karnataka