

**EVALUATION OF THE EFFECT OF FERTILIZER
SUBSIDY PROGRAM ON TECHNICAL EFFICIENCY:
THE CASE OF RICE PRODUCTION IN SRI LANKA**

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By
**HETTI MUDIYANSELAGE LIHINI MADUMALIKA
HANSANI NAWARATHNA**

**Export Agriculture Degree Programme
Faculty of Animal Science and Export Agriculture
Uva Wellassa University of Sri Lanka**

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ABSTRACT

Paddy is the single most extensively cultivated crop in Sri Lanka as it is the staple food of the country. Literature reveals about different factors that affect on the efficiency of paddy production. The measure, which determines whether output has reached its optimal level in production process, is known as “technical efficiency”. This study attempted to analyze the technical efficiency with respect to the fertilizer subsidy. Anuradhapura, Polonnaruwa, Hambanthota, Kurunegala, Kandy and Kalutara districts were selected as the sample districts. Cost of cultivation data in the given districts from 1991 to 2015 was used as secondary data. Stochastic Frontier Analysis and Inefficiency Model were used to accomplish the objectives of the study. The average technical efficiency of districts were as follow, Anuradhapura 90%, Polonnaruwa 92%, Hambanthota 91%, Kurunegala 91%, Kandy 90% and Kalutara 88%. Among the determinants of technical efficiency cultivation in Yala season was more efficient than in Maha season. The results of the study confirmed production of Polonnaruwa district was highly technically efficient where actual yields were closer to predicted yields. But Kalutara district was less efficient in production. Furthermore, technical efficiency was not influenced by fertilizer subsidy, cultivated extent and family labour ratio.

Key words: Paddy production, fertilizer subsidy, technical efficiency, stochastic frontier analysis, inefficiency model