

**TECHNICAL EFFICIENCY OF ORGANIC TEA
SMALLHOLDERS IN DIYATHALWA**

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By

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ABSTRACT

Sri Lanka pioneered the organic tea cultivation and was the third largest organic tea producers. Today the society is moving to the sustainable agriculture where the major concern of the consumers are health benefits and environment pollution. Therefore the production of organic tea plays a major role in tea industry. In the Uva the highest number of organic tea smallholders are in Diyathalawa and their productivity is varied. Hence this research aims to find the determinants of the technical inefficiency of the organic tea smallholders and to find whether technical efficiency is sensitive to the functional form used. The organic tea production of organic tea smallholders were analyzed using stochastic frontier production model and technical efficiency was estimated for the month of October in 2018. Stratified sampling method was used to obtain the data. Maximum likelihood estimation of stochastic frontier model were estimated for yield as a function of cultivated extent, labours, and amount of organic fertilizer using Cobb-Douglas and translog models. These determinants are largely significant on the yield of organic tea smallholders. Mean technical efficiency of organic tea smallholders from Cobb-Douglas was 24.7%. Age, experience, gender of the farmer, livestock availability, other crops cultivation, duration of organic tea, education level up to OL and OL passed shows a significant influence to the technical efficiency of organic tea smallholders. Mean technical efficiency using translog model was 27.8%, indicating that functional form specified is not influenced to the technical efficiency.

Keywords: Organic tea smallholders, Diyathalawa, Stochastic frontier, technical efficiency