

**PRODUCTIVITY VARIATION AMONG TEA
SMALL HOLDERS IN UP COUNTRY
SRI LANKA**

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ABSTRACT

Tea smallholding sector in Sri Lanka plays a vital role in the economy and accounts for 70% of the total tea production. However, tea productivity varies among tea small holders due to many reasons. Objectives of this study were to compare the variation in productivity among the tea small holders, examine contributory factors for productivity variation and suggest appropriate strategies for improving productivity efficiency.

The primary data were collected during the period of May –July 2012 from randomly selected hundred tea smallholders in the Up-country Wet Zone. Maximum likelihood estimates of the stochastic frontier model (using Cobb- Douglas and translog models) were estimated for green leaf output as a function of land extent, family labour, hired labour, fertilizer, chemicals, and Zn. The determinants of technical efficiency such as age of farmer, health condition, experience, education level, occupation, type of tea and practicing intercropping were estimated following the Battese and Coelli (1995) specification.

The results revealed that tea productivity among the smallholders in the study area is highly varied from 72.83 to 2,201.17 kg/ac/yr. According to the results of Cobb-Douglas production function, family labour, hired labour, quantity of fertilizer, chemical and Zn cost showed significant positive impact on output. Technical efficiencies of tea smallholders ranged from as low as 0.033 per cent to as high as 0.953 per cent. Levels of experience, health condition of farmers had a significant positive effect on technical efficiency. Family labour, hired labour, amount of fertilizer, chemical and Zn cost, health condition and experience of the farmers were identified as contributory factors for productivity variation in smallholders in Up Country Sri Lanka. Therefore, more attention should be given on these contributory factors when find the appropriate strategies for improving productivity efficiency in the study area. Awareness programme on adoption of good agricultural practices and knowledge on tea framing should be arranged by the concerned organization to improve production efficiency of the smallholders in the Up Country.

Key words: Productivity, Technical Efficiency, Maximum likelihood estimates, Cobb-Douglas production function.