## ANALYSIS OF THE RESOURCES USE EFFICIENCY

## IN TEA SMALL HOLDINGS

BY

## MUDIYANSELAGE ANURA LOKU BANDARA HERATH B.Sc. (Agric.) Sri Lanka

Thesis

Submitted in partial fulfilment of the requirements

for the degree of

MASTER OF PHILOSOPHY

in

Agriculture

·in the

POSTGRADUATE INSTITUTE OF AGRICULTURE

of the

UNIVERSITY OF PERADENTYA, SRT LANKA

Approved.

Chiquetalale

15 Smawera

Examination Committee.

March 1985.

C 338.1 H21 388769

AGRICULTURE LIBRARY
UNIVERSITY OF PERADUNIYA

388769

## ABSTRACT

The tea small holding sector plays an important role in the tea industry in Sri Lanka in terms of green tea leaf production and employment generation. There are about 49,000 ha under tea small holdings which are owned by 129,000 small holders. The land extent under tea small holdings is about 21% of the total tea land in the country. These small holdings are maintained as pure and mixed stands. The other predominant crops grown in mixed stands are coffee, pepper and clove.

Irrespective of the stand type, these tea small holdings have a very low productivity when compared with the productivity of the tea estate sector. An attempt was made to find out the reasons for this low productivity, and to investigate the resource use efficiency in both types of small holdings. The green tea leaf marketing structure was also studied.

A sample of 70 small holders, 39 pure holdings and 31 mixed holdings, in Doruwadeniya Grama Sevaka division in Kotmale A.G.A.'s division of Nuwara Eliya district was used to obtain the required data for this study. A Cobb-Douglas production function was used to ascertain the allocative efficiencies and elasticities of response of the inputs.

The most efficient frontier production function was estimated from the C-D production function and then the Timmer technical efficiency measure was calculated using the frontier

The study revealed that almost all the management practices were improperly executed irrespective of the stand type. Except land, all the other inputs viz. plucking labour, fertilizer, weeding labour and soil conservation measures were inefficiently allocated.

The resources use efficiency in mixed and pure stands of tea was not significantly different. The Timmer technical efficiency measure showed that half of the tea small holders in the sample were at least 50% efficient in green tea leaf production.

Green tea leaf marketing structure in Doruwadeniya consists of 4 sub-sectors viz. bought-leaf-factories, major leaf collectors, middlemen and small holders. The major leaf collectors play a monopolistic role and therefore have a fair amount of market power.

The small holders in the sample have so far not obtained the benefits of the government assistance schemes given to the tea small holding sector.

Based on the findings of this study certain policy measures and a package development programme for the tea small holders have been suggested.