

Production of Tea in Assam and West Bengal: Technical Inefficiency Effects

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A stochastic frontier production function is defined for panel data on firms in which the non-negative technical inefficiency effects are assumed to be a function of firm-specific variables. The inefficiency effects are assumed to be independently distributed as truncations of normal distributions with constant variance, but with means which are a linear function of observable variables. An empirical application of the model is obtained using up to ten years of data on tea gardens of Assam and West Bengal.

I Introduction

Efficiency is the central issue in every part of life and so it is important in economics. It is significant concept for both free enterprise economy and centrally planned economy. The concept of production efficiency is important in the agricultural as well as industrial and manufacturing sectors in the case of developing and developed economies. Efficiency should be exercised in terms of technology, allocations and scale. Consequences of inefficiency in the production process can be viewed in four ways, i.e.,

1. It reduces the quantity of output for a given set of inputs.
2. Some of the inputs will be either under-utilized or over-utilized.
3. There will be an increase in the cost of production.
4. There will be a loss of profit.

Technical efficiency relates to the producer's behaviour relating to the production of output with a given quantity of inputs. In this paper we have measured technical efficiency with effect model for different tea gardens in Assam and West Bengal. We choose these tea gardens for study because India is the largest producer of tea in the world. She accounts for 30 per cent of world's production. The global tea industry is largely dominated by India- the largest producer and consumer of tea. But in recent time our tea industry is going through a crisis. Its major problems include:

1. Low productivity and high cost of production.

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