CHAPTER X: FINDINGS AND CONCLUSIONS

Tea is the most important plantation crop of India. Production of tea involves both agricultural and industrial operations. India is the largest producer and consumer of tea in the world. India produces both orthodox and CTC tea. More than a million workers are directly employed in Indian tea industry making tea the largest employer in the organized manufacturing sector in India. The discovery of indigenous tea in Assam in 1823 by Robert Bush led to the origin of the tea industry in India. Tea production started in Assam and West Bengal. Subsequently it spread to Tamil Nadu, Kerala and Karnataka. India is one among the largest exporters of tea in the world market. However, the size of the domestic market is very large and expanding in India. Producers are mainly catering to this huge domestic demand and consequently India’s share in world tea export has declined over the years. The most popular channel of primary marketing of tea is the auction mechanism. Presently India has six major tea auction centres- three in northeastern India (Kolkata, Guwahati and Siliguri) and three in southern India (Coimbatore, Coonoor and Cochin). Tea Marketing Controlling Order (TMCO) issued by the Ministry of Commerce, Govt. of India, in 1984, stipulated that 75% of tea (except plantation-packed tea) must be sold through auctions. Later, this restriction in disposal of tea was withdrawn by issuing TMCO 2001 and producers are now free to sell their tea through any way as they like. But, still a significant portion of tea (about 50% of total tea offered for sale) is routed through auctions.

West Bengal is one of the major tea-producing states in India; it accounts for about 25 per cent of total tea produced in India. The area and employment share of West Bengal tea are 21.62 and 23.68 per cent respectively. In West Bengal, tea is produced in Darjeeling, Jalpaiguri and Uttar Dinajpur districts. In Darjeeling district, three hill sub-divisions mainly produce orthodox tea whereas the plain sub-division of Siliguri, a part of the Terai region, produces CTC tea. The Terai region also includes a small tea-producing part of Uttar Dinajpur district. In Jalpaiguri district, tea producing region is known as Dooars and estates here mainly produce CTC tea. In West Bengal, Terai and Dooars together account for 84 per cent area under tea, 94 per cent of production and 80 per cent of
employment out of the total state share.

The core subject of this thesis is to analyse the economies of tea production in West Bengal. In particular, the thesis analyses the level of profit of the estate sector. Profitability of the estate sector became a subject matter for debate following regular incidents of closure/lock-out of estates in West Bengal since early part of this decade. Producers of such closed/locked-out estates alleged that they could not recover cost and were incurring losses for a considerable period of time. However, no data were available in respect of the cost of production, revenue generation or level of profit of the estate sector. This study attempts to address this gap. The study is based on analysis of secondary data as well as primary data collected from 30 CTC-producing sample estates in Terai and Dooars.

This thesis has ten chapters. The first chapter is an introductory chapter. Chapter II presents review of literature on plantation, history of tea plantations in India, production economies of tea and labour in Indian tea plantations. Chapter III provides an overview of state of Indian tea industry. Chapter IV discusses price trends in both international and domestic markets. Chapter V describes the methodology of collection of primary data. Chapter VI presents a preliminary analysis of economics of tea plantations in West Bengal on the basis of primary data. Chapter VII examines the level of profitability of tea plantations and analyses the determinants of variations in profitability across sample plantations. Chapter VIII discusses the emergence of small tea plantations and bought-leaf tea factories in the recent period. The chapter presents case studies of selected small plantations and bought leaf factories. Chapter IX deals with recent changes in tea trading structure and the anomalies of auction mechanism.

It has been argued that there was a fall in auction prices between 1999-00 and 2003-04. However, an analysis of long term price trend showed that this decline came on the back of an unprecedented rise in prices. The trend analysis did not find any long-term declining trend in prices. Tea prices in nominal terms showed stagnant trend between 1960-61 and 1973-74 and thereafter experienced an increasing trend for the period from 1974-75 to 2007-08. In real terms price movement in Indian tea witnessed a decreasing
phase between 1960-61 and 1973-74 and experienced a period of sharp fluctuations without showing any particular trend between 1974-75 and 2007-08 (Section 4.1).

The analysis of price trends in Indian and world tea markets brought about a number of other interesting findings. The data show that there existed a sizable gap between wholesale (auction) and retail prices. The difference between the retail and auction prices widened between 1999-00 and 2007-08. Most of the tea producers did not possess the marketing network to reach the consumers directly. Existence of intermediaries between the wholesale and the retail points explained the high mark-up witnessed in retail tea market (Section 4.2).

Analysis of prices in different regions showed that the average price in north-eastern centres was greater than the average price in southern centres, and these differences increased between 1999-00 and 2007-08 (Section 4.1). The difference between the prices in the north-eastern and the southern auction centres was mainly on account of differences in quality of tea produced and sold in these areas.

Analysis of average price movements in major world auctions revealed that, for the period from 1978-79 to 2007-08, in terms of US dollar, prices in the Colombo auction showed a distinct increasing trend while prices in Jakarta auction experienced moderate decreasing trend. US dollar prices in other major global auctions, namely Mombasa, Limbe and Indian auctions were stagnant during this period. In terms of local currencies, prices in all the major world auctions showed an increasing trend for the period under consideration. All the countries under consideration experienced devaluation of their currencies against US dollar to varying degrees (Section 4.3). An important difference between the Indian auctions and other auctions is that Indian tea is mainly sold in the domestic market. As a result, fluctuations in demand from major tea importing countries do not affect tea prices in Indian markets in the same way as they affect prices in other markets.

The core of this thesis is based on analysis of primary data collected from 30 CTC tea producing estates in Dooars and Terai region of West Bengal. Data were collected with the help of a detailed questionnaire covering information on ownership, agro-climatic
factors, production, employment, cost of production and revenue generation. Further, collection of primary data was supplemented by collection of secondary data from Kolkata and Siliguri auctions. On the basis of these data, a detailed account of profits of sample estates was prepared.

Primary data collected from sample estates showed that the rate of growth of area and production in the sample estates between 1991-92 and 2005-06 was considerably lower than the corresponding rates of growth for area cultivated and production of tea in West Bengal as a whole (Section 6.3). Some agronomic and climatic features of the sample estates are noteworthy. In 2004-05, sample estates in Terai recorded an average rainfall of 230 cms and sample estates in Dooars recorded an average rainfall of 384.5 cms (Section 6.4). Productivity of bushes starts to decline as they grow beyond 50 years of age. In the sample estates in 2004-05, on average, about 34.2 per cent of the bushes were more than 50 years of age. On average, sample estates had a vacancy of 13.2 per cent. Between different sample estates, the extent of vacancy varied from 0.08 per cent to 28 per cent (Section 6.5).

The annual rate of growth of employment in the sample estates, measured in terms of number of workers deployed in the estates was 0.366 per cent for the period 1991-92 to 2005-06. The rate of growth of employment was higher among sample estates in Terai (1.020 per cent per annum) than among sample estates in Dooars (0.245 per cent per annum). Apart from permanent workers, all estates engaged temporary workers to varying degrees. On average, in 2004-05, 32.53 per cent of total labour days used were provided by temporary workers. The disaggregation across activities showed that Out of the total person-days, in 2004-05, 62 per cent of labour days were used in cultivation, 30 per cent of labour days were used in manufacturing (factory operations) and about 6 per cent were used in other activities (Section 6.6).

The analysis of profitability showed that, in 2004-05, 11 estates out of 30 sample estates incurred losses. Average profit was Rs 1.81. However, profit per kg varied significantly across sample estates. The maximum profit was Rs 17.95 and the lowest was a loss of Rs 8.83 (Section 7.3). Econometric analysis of variations in levels of profits showed that
agronomic practices significantly affect the level of profit (both per kg and per hectare) as well as revenue per hectare in sample estates. The determinants of profit per hectare were proportion of bushes below fifty years, managerial tenure and regional differences. The determinants of revenue per hectare are proportion of bushes below fifty years of age, percentage of private sale, overhead cost per hectare, managerial tenure and regional differences. Thus the common factors affecting the profit and revenue per hectare are proportion of bushes below fifty years, managerial turnover and regional differences. Maintenance of appropriate bush-age structure depends on the agronomic practices followed in an estate. Ownership type and other managerial parameters were not found to be significantly related to profit and revenue per hectare (Section 7.3).

Since mid-1980s, there has been a substantial proliferation of small scale tea plantations in West Bengal. These small plantations included household-based plantations (some of which were promoted by large estates in the neighbourhood) and small plantations owned by private-limited companies. A common feature of these new type of plantations was that these did not have their own processing facilities. Along with growth of these small plantations, a new type of Bought-leaf Factories (BLFs) emerged that processed green leaves purchased from such small plantations. Fragmentation of plantation from manufacturing activities helped subvert labour legislation as BLFs were not covered under the Plantation Labour Act and the small plantation were in the unorganised-sector. With little quality control, such small plantations and BLFs mainly produced low quality CTC tea that was aimed at large domestic demand for such tea for mass consumption (Section 8.2). The case studies presented in Chapter VIII showed that because of monopsonistic power over large number of small producers of green tea, Bought-leaf factories were able to depress prices of green leaves to counter decline in prices of made tea in the auctions. Interestingly, over a period of decline in auction prices, profits of Bought-leaf factories increased. Comparison of estate-sector with case-studies of smallholders and BLFs showed that the average cost per kg of made tea for BLFs was significantly lower than the cost of made tea in the sample estates (Section 8.3). As a result, despite a lower revenue per kg of tea (on account of poor quality tea), the profits of BLFs were considerably higher than in the sample estates.
Analysis of market structure in Chapter IX showed that there had been a growing concentration of buyers in Indian auctions since the early nineties. A few international blenders and distributors controlled most of the tea auctioned in major auction centres. On account of large volume of their purchases, major buyers could influence the price for particular qualities and types of tea at auctions. Buyers, who had presence along the entire commodity chain, benefited from lower price realization at auctions during late nineties and early this decade. With integration along the supply chain, few traders could dominate the entire supply network. This took place through financial coordination, vertical integration with local retailers and through mergers and acquisitions. Since the major buyers were also major retailers, concentration at auctions also implied less competition at the retail level (Section 9.1). With increasing integration along the supply chain, the share of branded tea in the total supply of tea increased considerably since the 1990s (Section 9.1).

Also, auction process, as an instrument of primary marketing of tea, was loosing some of its vitality over the last one decade as percentage of tea sold through auctions was showing a declining trend. Certain inherent flaws (like proxy bidding, divisibility of lots, manual auction system, long drawn auction procedure) in auction mechanism were exploited by the big buyers. They were forming cartels among themselves and also with brokers and in the process exploited the existing anomalies of the auction process (Section 9.2).

To sum, this thesis examined economy of tea production in West Bengal. The study examined trends in area and production of tea, in employment generated in tea economy, and in prices of tea. The data show that over the last two decades the area under tea plantations, production of tea and employment have seen very slow growth. Analysis of price data from major auctions in West Bengal showed that there was a substantial rise in prices of tea from 1974-75 onwards. On the back of this steep rising trend of prices came a short spell of fall in auction prices during 1999-00 to 2003-04. Analysis of primary data collected from 30 sample estates in Terai and Dooars region of West Bengal showed that, in 2004-05, there was a substantial variation in profits obtained by different plantations. While 11 plantations made a net loss, the median profit per Kg of tea was Rs 1.81.
Econometric analysis of these data showed that the variations in profit per hectare and revenue per hectare depended more on agronomic factors rather than on ownership types and managerial factors. Among the agronomic factors, age of the tea bush was found to be the most important determinant of profit per hectare and revenue per hectare. Over this period of declining prices, a substantial restructuring of tea production and marketing took place in West Bengal. In particular, a number of small plantations and factories that processed green leaves purchased from these plantations emerged. As these small plantations and bought-leaf factories were able to subvert labour legislation and cut costs, they generated profits that were substantially higher than profits obtained by conventional estates.