CHAPTER II: REVIEW OF LITERATURE AND SIGNIFICANCE OF THE STUDY

This chapter is devoted to the review of literature and discussion on the significance of the present study. Review of literature has been divided into four sections. Section 1 contains review of literature relating to the subject of ‘plantation’ as a whole. Section 2 consists of review of literature related to history of tea plantation in India. Section 3 deals with review of literature related to production economics of tea in India. Section 4 is devoted towards review of literature related to labour in Indian tea plantations. Section 5 points out the gaps in literature and the significance of the present study.

2.1 The plantation literature

Most contemporary studies in the literature have regarded plantations as a category of capitalist agro-industrial enterprise that developed over the colonial era in the tropical or semi-tropical regions. These plantations grow mono-crops on large scale with an international market orientation. Ownership and control of the plantations by foreign capital with the backing of the colonial state and their employment of huge numbers of labourers for doing hard manual work under primitive labour conditions were the other principal characteristics of this system. The use of migrant labour, mobilized and controlled by the producers through both economic and extra-economic measures was supported directly and indirectly by the colonial state. The class structure that resulted from the open as well as concealed use of coercion, created a low wage economy (Bagchi, 1982: 22-3), with sharp contrast between plantation owners, managers and supervisors on the one hand and labour on the other (Bagchi, 1982: 42-4, 77).

Unfreedom of labour under highly authoritarian structures of labour management (De Silva, 1982: 185) was a distinguishing characteristic of the colonial plantation system. This was made possible by the use of non-market power including physical coercion by the planters, as well as the market power they derived from the threat of hunger and denial of employment in prevailing conditions of endemic unemployment. Vast sections of workers faced significant risk of starvation and death (Bagchi 1973, Chakraborty 1976, Bagchi 1988). The exercise of these twin powers deprived plantation labourers of the
freedom to enter or withdraw from the labour process and to bargain over labour conditions such as their working period, work-rhythm or wages. The unfreedom of plantation labour may thus be viewed as a crucial dimension of the class struggle between capital and labour in the plantation context (Corrigan 1977, Patnaik and Dingwanay 1985, Miles 1987, Bremen 1989). Two more features of colonial plantations, namely the maintenance of links between the pre-capitalist subsistence economy and the plantation sector and the externalization of at least part of the cost of reproduction of labour power (Deere, 1979: 133-48, Nichols, 1980: 107-73), originated in and were maintained as a part of the wider colonial economy.

The 19th century plantations in tropical Asia differed in one important respect from the older trans-Atlantic plantations, since they did not have a history of slave-based production. Nevertheless, the main similarity between the two systems lay in the export-oriented nature and industrial organization of plantation agriculture. The 19th century Asian plantations were also similar to their trans-Atlantic counterparts in that both utilised labour transported over a long distance and employed by the plantations under contractually specific conditions. The two most critical aspects were provisions under which breaches of contract resulted in criminal prosecution and widespread penal sanctions were granted to the planters. It was the unfreedom, namely, the inability of the worker to withdraw his/her labour power to bargain over the terms of the contract or for higher wages - that led to it being viewed as a 'new system of slavery' (Tinker 1974, Rodney 1981, Gillion 1962).

Recent literature on this subject (Galenson 1981, Emmer 1986, 1990) had begun to challenge many of these arguments. In contrast to the contentions made by the older school, this revisionist literature underplayed the element of unfreedom and emphasised the economic rationality of a labour recruitment system which was to benefit employers and labourers alike. Galenson maintained that labour migration was essentially a facilitating device that enabled labour to flow from low labour productivity activity to high labour productivity areas. The powerful attraction of economic opportunity was sufficient to prompt many migrants to give up much of their freedom (Galenson 1984:24). Emmer, another leading revisionist, similarly argued that emigration from
India to the overseas colonies was the result of rational and deliberate choice on the part of migrants prompted by the hopes of bettering their future. Such emigration opportunities offered an escape route from social and economic oppression at home (Emmer, 1986: 204).

A point that the revisionists overlooked was that the whole process was designed not so much to provide economic opportunities for the labourers as to secure a labour force for the planters whose wages were determined completely outside the labour market. Nothing illustrates this better than the stagnant nominal wage rate paid to contract labour on both Caribbean and Asian plantations throughout the entire period when the system was in force (Rodney, 1981:34). Low wage labour was utilized effectively to curtail the bargaining power of the free wage labourer and thus functioned to guarantee planters control over the entire labour process (Rodney, 1981: 38). Accordingly, the analogy between slavery and forced migration seems nearer the truth than more recent attempts to equate it with the free emigration of Europeans to America in the nineteenth century. (Emmer 1986, Emmer 1990, Galenson 1984)

Another related aspect of the revisionist argument was regarding the causes given for the decline of this system. Drawing analogy with the debate about the abolition of slavery, the revisionists attributed the end of this system to political rather than economic considerations. Since, according to them, the system benefited all parties concerned, it could not have been in the interest of any to demand its abolition (Emmer, 1986:204-5, Galenson, 1984:25). Transition from this system to free wage labour has not received the attention it deserves from historians of the plantation system partly because nominal change in the legal standing of workers seemed of much less consequence than the continuity of the coercive apparatus of the plantation labour system (Stoler, 1985:45). The assumption of an implicitly unchanging plantation system is however difficult to sustain. Even if the essential production relation did not change with the abolition of forced migration, there were important consequences for both planters and workers. While abolition of the system required the former to resort to other strategies of labour control without the exercise of penal power, it also created the possibility for plantation workers to exercise greater control over their conditions of work and plantation life. In the Assam plantations during the initial period of setting up tea, a labourer fleeing the harsh work regime of an unhealthy tea garden could be arrested even by the ferry man, who was asked to transport him across the rivers of the
Assam valley. After the withdrawal of penal sanction, he stood a much better chance of making that crossing. (Behal and Mohapatra, 1992: 144).

It appears in the end that this system of labour recruitment outlived its purpose largely because of inherent contradictions that made it economically untenable and politically costly to maintain. The system was thus altered substantially when the colonial state had to step in to rationalize the plantation labour system. Gradual dismantling of the system marked the change from a labour system based on physical coercion to one based on more subtle forms of exploitation. Over the period of its existence, forced migration was immensely effective in laying the foundation of the Indian tea industry by stimulating vast expansion in the area under tea. Yet this was achieved at the expense of half a million deaths which in the end proved too much even for a system that had looked at coolie deaths as merely as *depreciation en bloc* (Dowding, 1894).

### 2.2 Plantation history

In India, the capital-labour relation in tea regions encompassing the Brahmaputra and Surma Valleys in Assam, the Jalpaiguri Dooars and the Darjeeling terai in northeastern India developed along similar lines. Cultivation of tea had special requirements with regard to labour (Antrobus 1957, Buchanan 1966: 54-5, Bose 1954, Griffiths 1967: 33-57, Sircar 1986, Guha 1988: 12-13), since it needed the abundant supply of cheap and docile workers capable of performing hard work under very severe conditions. These requirements imposed specific modes on the recruitment, control and authority over plantation labour, under which tea plantation enterprise, despite its capitalist origins, was sustained on the basis of wage labour that was *unfree*.

The regions, where large tracts of cultivable land could be obtained for ownership or rent at relatively low cost, were sparsely populated (Guha 1988: 339). Given the legacy of a semi-tribal, semi-feudal society and the constraining influence of the colonial economy, planters had great difficulty in obtaining adequate labour (Arbuthnot 1904: 2). Also, because of the low wage policy of the planters (plantation wage was lower than the locally prevalent wage) (Guha 1988: 15-16, 43), and the harsh conditions of work and life on the plantations, local peasants and agricultural labourers were averse to plantation
work. Faced with acute labour shortages (Sircar 1986) and the failure of attempts to
deeperntise the tea region in Assam, tea planters had to seek labour from sources located
far away. They thus embarked on organized labour recruitment from tribal/semi-tribal
communities as well as the non-tribal low-caste peasantry inhabiting an extensive area
spread over the Bengal Presidency which included the latter day provinces of Bengal,
Bihar and Orissa, and particularly Chhotanagpur and the Santhal Parganas. Tea labour
was also drawn from the eastern parts of the United Provinces, certain areas of Central
Provinces and the districts of Ganjam and Vishakapatnam in the Madras Presidency.

Originally belonging to diverse peasant, artisan and service groups, these labour recruits
were dominated by using various socioeconomic forces of depeasantisation, deskilling
and proletarianisation. As a result, this extensive recruitment region was reduced to a vast
reservoir of cheap labour or labour catchment area (LCA) (Mohapatra 1985: 259-61). Not
only the men folk, but also the women and children from their families were recruited for
work on the plantations through a politico-legal system based on coercion, where instead
of market mechanisms, the overt and concealed application of force became a crucial
condition for the mobilization of labour. The system of plantation labour recruitment
came to resemble slave running in Africa and the global slave trade (Guha 1988: 45).

2.3 Economies of tea plantations in India

Most of the literature found on economies of tea plantations in India deal with demand-
supply issues, the trade-off between selling at domestic and international markets, supply
responses to changes in price, parameters of productivity, productive efficiencies and
market efficiencies, components of cost of production, process of price formation in the
industry, operation of the auction market etc. Tea is a perennial crop and like other such
crops has some specific characteristics. Many of the less developed countries (LDCs)
depend heavily on perennial crops such as coffee, tea, rubber and coconut for export
revenue, employment and government revenue. Hence it is important to analyze the
impact of different government policies on the supply and the state of perennial crop
sector. Tea is one such perennial crop and with a three to five year lags between planting
and the first economically significant harvest. According to Perera (1995), tea has an
economically viable life of around 50 years. Tea flourishes only in areas, which have well-drained and slightly acidic soils and no extreme cold weather. As the tea shrub is moisture loving, it requires humid air and ample rainfall distributed in such a way over the years that a continuous water supply is assured throughout the growing period. The maintenance of tea plantations requires a large and permanent labour force and a very large amount of land and capital assets which do not have such alternative economic use apart from tea production (Perera, 1995, p 649).

Supply response of a perennial crop differs from that of annual and semi-perennial crops. According to Chiranjeevi (1992) this is basically due to two reasons. First, unlike other crops, perennial crops have gestation periods ranging from 2 to 10 years. Second, they have long economic life, ranging from 15 to 100 years, marked y a multiple age-yield profile, which can be broadly divided into three important phases. During the first phase, as the age of tea plant increases yield increases, during the second phase the yield reaches its peak level and in the third phase it starts declining. Each perennial crop has its own age-yield profile. The ages where these three phases start or the duration of each phase differs from crop to crop. The change from one phase to other may be sudden or gradual depending upon the crop. Because of these typical output characteristics of the perennial crops, the resources in them are locked up for a long-term period and investment or disinvestment decisions are based on long-term expectations. The producer cannot immediately react to the changes in the external factors. Capacity of the producer to react in the short-term is limited to marginal changes in the output. To quote Chiranjeevi (1992) here “Thus while the investment decisions indicate long run responses of a perennial crop, the harvesting decision reflects the short-run responses. Further, while the potential output is determined by the investment decisions, the actual output produced in any period depends on the harvesting decision. The period gap between investment and return is so long that chances for the profit and other conditions to change and for the experience to deviate from expectations are more here than in the case of annual crops” Chiranjeevi T, 1992, p 275).

Initially when industry developed in India in the second half of the nineteenth century a kind of an interlocking of markets could be observed. The industry was not as big as it is
today and ownership concentrated in few hands and they controlled various aspects of production and trade. But unfortunately, overall growth of the industry was not on their agenda. Also the erstwhile proprietary concerns and small companies were systematically amalgamated into larger companies controlled by British managing agencies who had international tea interests, into a vertically integrated system of production, distribution and marketing. Many of these firms formerly engaged in the marketing of tea in Britain and Europe got involved specifically in the planting side of the business because they wanted to gain control over the raw materials supplies and limited investment opportunities at the processing level. In either event they were induced by the prospect of making greater profits in the long run and less variability of profits in the short run. Later, the inter-industry linkages came into play and stimulated further expansion into related fields in order to make other activities more profitable and to secure inter-industry economies. In this vast vertically integrated system, the roles of the producer, banker, insurer, broker, shipper, blender and distributor were inter-related through the device of inter-locking directorships. To quote Tharian & Tharakan (1986) here “The joint stock system provided a means for acquiring more or less complete ownership over separate companies and thereby a small group could retain effective control of all of them. In fact it was the concentration of production of tea that led to the concentration in the related spheres of the tea industry such as brokerage, marketing, shipping and banking by the British companies. Regarding accumulation of profit and its dispersal, very often the British companies distributed high dividends and paid dividends out of reserves during years of heavy losses, which led to depletion of retained profits. A tea bush is a wasting asset. Any payment made in terms of profit without making provision for continued conservation is tantamount to consuming capital” (Tharian George K & Tharakan Michael P K, 1986, p 222-225).

Tharian & Tharakan (1986) further observed that the dividend paid by these companies bore no relation to the profits earned by them, which means that they were not interested in increasing their financial stake in India. The profits made in the Indian tea industry had been either repatriated to Britain or invested in other countries and industries. This considerably affected As a result of that development potential of the industry had been considerably reduced. (Tharian George K & Tharakan Michael P K, 1986, p 228).
Another important area of tea plantation economies is the supply response of tea production. This was discussed in details in literature and subsequently models were formulated. In a paper Barah & Chiranjeevi (1991) had studied the supply response behavior of tea in terms of the area and yield. The results revealed that uprooting had an impact on replanting decisions only, whereas expected prices were found to have significant impact on area newly planted. It was also clear from the analysis that the scope for extension was limited by the availability of suitable land for tea cultivation. Yield per hectare revealed higher response to expected prices as compared to total area. The stability of prices emerged as the crucial factor for maintaining stable growth of tea production. The presence of large number of very old tea bushes adversely affected the potential production. Therefore, in spite of hesitation by the planters due to loss of short-term profit, the new planting and replacement planting would contribute significantly in the long run (Barah B C & Chiranjeevi T, 1991, p 599). In sum, percentage of tea bushes beyond prime productivity period, limited scope in bringing more area under tea plantations and slower pace of rejuvenation of tea bushes had resulted in sub-optimal growth in the production of tea in India. The solution, therefore, for improvement in tea production lies in undertaking quick replanting of older tea bushes and increasing productivity from the younger plants. That apart, the possibility of growing tea in other parts of the country has to be explored. Also, better management of the existing tea gardens holds the key for higher production in the short run (RBI, 1990, p 762).

Presently many of the gardens are having majority of tea bushes over fifty years of age and consequently suffering from low productivity. Production is likely to fall further in future unless firm measures are taken to improve the situation. The government through the Tea Board has so far tried to induce the planters by giving subsidies and low interest loans for improving the conditions of their plantations. These measures have had no effect till now as the wide gap between the targets and the actual performance show. The issue can therefore no longer be overlooked. In this context Bhowmick (1990) observed that the government must find ways to make the planters improve their holdings through measures such as replanting, rejuvenation and in-filling of bushes in vacant patches of the planted area (Bhowmik Sharit, 1990, p 764).
Questions have been raised and quite rightly whether the producer companies are seriously interested in increasing production and productivity. Even if auction prices recorded significant increase in certain years there had indications that the producers were not interested to increase production substantially so as to keep the prices on the higher side. There can be no denying that though there has been much talk of increasing production and productivity very little had been done in this regard (Mukherjee Dhurjati & De Sarkar Patatri, 1990, p 11).

Nevertheless, this rigidity of the industry does not mean that in the short run the price responsiveness of the output is negligible. For example, during a period of higher prices, coarser plucking can increase production. Further greater application of fertilizers and more intensive weeding, pruning and spraying may lead to an increase in output to some extent. Similarly, during a period of lower prices output can be adjusted downwards by finer plucking (Eden, 1965, p 32). Sarkar (1972) argued that a reduction in output could be expected if price depression continued for a long period (Sarkar, 1972, p 68-72, 92). The Indian experience suggested that tea planters responded to price not in terms of area but in terms of yield (Chowdhury and Ram, 1978, p 82). In another study it was revealed that positive price response enhanced the long-term prospects of the tea industry in Sri Lanka. The model could be used to evaluate the impact of changes in wage rates, fertilizer prices, exchange rate and subsidies on tea production in Sri Lanka (Perera, 1995, p 657).

To get the long term trends in area, production and productivity of tea, a trend analysis was carried out by Kumar & Devi (1995) and growth rates of the above parameters were estimated and analyzed. They concluded that the scope of bringing more area under tea cultivation was rather dismal on account of increasing pressure on land. Still some more area could be brought up under tea by popularizing it in non-traditional areas and through reclamation and development of degraded lands. The positive growth rate in yield had offset the negative impact of area in all the periods. In a situation where the chances of horizontal expansion in area were not an easy task, this information was very vital. All efforts should be geared to boost the productivity levels of tea estates by adopting scientific practices (Kumar Ajith P K & Devi Indira P, 1995, p 809).
From a regional perspective, a related study concluded that the age impact on the yield varies from region to region and it is dependent on many other factors such as the soil types of the region. The prices are found to have substantial impact on the short-run changes in yield. In this respect, the responses of both the regions (north-eastern and southern India) conformed to the findings at the aggregate level (Chiranjeevi T, 1992, p 285).

Investment pattern of the tea firms showed positive relationship to the firm size. The input use and the output produced by the small firms and big firms were comparable except for nitrogen fertilizers and chemicals. The low yield of tea was due to low input use and large vacancies in the tea estates. The lack of extension services also affected their input use due to ignorance in the areas where tea cultivation is introduced in recent years. In many cases, wage is too low to attract quality labour (Sharma Ravinder & Moorti TV, 1989, p 120).

India is one of the largest producer as well as consumer of tea in the world. Domestic production has increased over the years but growth of its internal market has outpaced its production increase. Subsequently domestic price rose leading to greater emphasis on selling at domestic market instead of selling overseas. India’s share out of total world export of tea fell steadily. For a long period India is facing this kind of problems. The need for increasing domestic production to avoid the trade-off between selling in domestic market and selling in international market was emphasized by many observer of the industry.

Tea is an important foreign exchange earning commodity in India and better export performance would help reduce the trade deficit. India’s tea export distinctly showed a slow and fluctuating trend and occasionally shrunk sharply due to some internal and external constraints. The advantages of having increased production of tea did not influence the growth rate of export, as rapid increase in domestic consumption due to steady growth of population tended to offset the benefits. Another important determinant of India’s export is the impressive gain in the shares of export by other potentials competitors in recent years. India’s share as a percentage of total world export of tea has
been consistently declining. India should get to the root of the problem by supplying superior quality of tea in the world market. The other associated problems which strain India’s export prospect are low productivity, climatic reverses, high cost of production and paucity of suitable land and lack of capital reinvestment (Bandhopadhyay, S 1982, p 306, 310).

In this regard Hazarika & Subramanian (1999) observed that “Although India holds the leading position in production and export, the current position of tea trade revealed that its share in world production and export has been declining steadily over the past three decades. Export during the last decades remained around 200 million kgs. Though India has doubled its tea production between 1965 and 1991, still it is not sufficient to maintain India’s dominant position in the world tea trade. This necessitates an analysis of production efficiency of the estates to help to formulate policy measures to remove the production constraint in the Indian tea industry. The result obtained from such analysis showed that even under the existing technology, potentials exists for improving the productivity with proper allocation of the existing resources. Hence proper extension strategies need to be taken to educate estate owners about rational use of inputs. The existence of obsolete tea bushes is one of the factors that inhibited the growth of the industry. The high percentage of vacancy and old age bushes weakened the productivity of the plantations. So the estate owners should be educated on the need for undertaking infilling and replacement planting” (Hazarika C & Subramanian S R, 1999, p 201, 210).

For many years India has been the largest single producers and exporter of tea in the world. Because of increasing competition from the newly emerging tea producers, this position is now threatened. This erosion of India’s position in the world market is despite an annual growth of 1.23 per cent in area and 1.95 per cent in production. The fact is that these growth rates are much smaller than those of Kenya where they are 2.50 per cent and 8.74 per cent respectively. For China, production has increased at an annual rate of 7.05 per cent. Moreover the world production itself has been growing at 3.53 per cent per annum. In exports, India’s performance has been even more disappointing. Chiranjeevi in this context remarked that “While total world exports have been growing at 2.15 per cent per annum and those of China and Kenya at 10.89 and 6.96 per cent, respectively, India’s
export declined by 1.39 per cent per annum. Clearly, the decline in our tea exports is more due to internal problems than any lack of external demand. The only positive point in this dismal picture is that our per unit value realization has been higher than that of Kenya” (Chiranjeevi T, 1992, p 264).

The dismal performance of Indian tea industry at the international level and the consequent erosion in its position as the largest single producer and exporter of tea appears to be largely rooted in domestic situation. Despite a steady rise in tea production for the past several years, today a situation has arisen where the output after meeting the domestic demand is not sufficient to meet export requirements. In the same study Chiranjeevi (1992) further observed, “This imbalance between supply and demand is causing a rise in tea prices in domestic market. In order to control the domestic prices the government had to place export curbs from time to time. This uncertainty in meeting the export commitments results in loss of export markets. Besides, given the captive market at home, there could have been some laxity on the part of the producers in exploring the export markets. Whatever the reasons, there has been a stagnation in the level of our exports at around two million tones for the past two decades. In order to increase our exports and meet the challenges imposed by the growing competition in the international market, it is necessary to conceive output expansion plans with emphasis on increased productivity with quality. This could be achieved only by reducing uneconomic use of land in terms of old bushes and large vacancies” (Chiranjeevi T, 1992, p 274-275).

In another paper Kumar Krishna T & Mittal Ashok (1995) observed that “The statistical evidence based on detailed time series data on tea exports of India, suggests the distinct possibility that for all those commodities for which domestic consumption forms a major share of domestic production and for those agricultural commodities which are essential, such as tea and foodgrains, export cannot increase in short and medium term without an increase in production relative to consumption. But such increase in production will take a considerable time. Hence, one must have a cautious policy regarding agricultural exports taking due note of domestic consumption and production response to price changes. The results reported regarding tea prices in domestic and international markets also suggest that by allowing free exports of agricultural commodities we are likely to
raise the domestic price of foodgrains to equal their international prices, which are higher mainly due to devaluation of the domestic currency. Thus, liberalization of agricultural trade is likely to give rise to a rise in domestic prices without a significant increase either in production or in exports" (Kumar & Mittal, 1995, p 3073).

Increase in demand for tea in the internal market is inevitable because of the growing population and rising standard of living. As such, internal consumption of tea is expected to rise further in the years to come. Since at present substantial increase in production of tea is difficult because of some prevailing factors including non-availability of land, sluggish research and development efforts, complicated tax system, disturbances in tea gardens, we need to renew our focus on orthodox quality and value-added items (Roy Sanjib, 1998, p 15).

But as the focus shifts to production of orthodox tea of certain quality for enhancing export, it has its cost repercussions and related issues of export competitiveness are also likely to come up. Profitability of the industry has declined over the years. Growth of small-growers in recent years affected the firm-size distribution of the industry in favour of smaller firms. But in case of smaller firms they face difficulty in realization of economies of scale that is essential for cost-effectiveness and international competitiveness. Along with this issue, the existence of large volume of tea bushes well past their prime productivity period is further aggravating the problems faced by this industry. Tea literature has dealt with these issues quite extensively. Mitra (1986) found that as the price of quality tea rises relative to that of common tea, the large firms switch to the production of quality tea, which gives lower yields as it involves fine plucking. On the other hand, medium and small firms, continue producing common tea having higher yield rate but lower price realization. Thus, we find that the large firms find it profitable to switch to quality tea, though this means a smaller volume of tea produced, while on the contrary the medium and small firms do not. This is indicative of the fact that cost conditions are not identical for the large, medium and small firms. In this situation, if an amalgamation of the small firms is effected then they too can gain the technical efficiency and avail the favourable cost conditions enjoyed by the large firms. One way of bringing about amalgamation would be to form co-operatives. This would help in
getting the tea processed at the co-operative factory and thereby removing cost
disadvantage of the small units. Thus, if the government provides incentives for
amalgamation and in the mean time the small growers are given various types of
assistance to increase productivity, then aggregate production can be stepped up
sufficiently to meet both domestic and international demand (Mitra Neelanjana, 1986, p M-72).

Tea industry in India had faced abrupt price fluctuations earlier also. This was reflected
in the abnormal increase in prices in some years. That situation was a result of a sluggish
increase in production, which was unable to meet the growing demand in the internal
market. Tea exports had been curtailed because any increase here will accelerate the price
rise in the domestic market. Exports have thus remained static at around 200m kg for the
last five years. The rapid increase in domestic consumption underlined the urgency for
higher levels of tea production. The Tea Board attributed the failure to meet the
production targets to adverse weather conditions (meaning drought or low rainfall). In
other words, production could increase if the weather was favourable. This again was not
totally correct because alongside good weather the industry also required healthy bushes
for increasing production. Till the end of 1987, 44 per cent of the area under tea had
bushes beyond the economic age of 50 years. The industry had clearly shown no
inclination to rectify the situation. Only 6.3 per cent of the total area had new bushes
below five years old (Bhowmik Sharit K, 1991, p 1789).

Tharian (1984) earlier contended, “The profitability of tea plantations all over country is
declining. Stagnant or declining auction prices and cost escalations are mainly
responsible for this. If we examine the trends in auction prices and in retail prices (for
both loose tea and packaged tea in the domestic and foreign markets), it is evident that
the loss from plantation operations is more than made up by the margins in the retail
marketing earned by companies which are vertically integrated” (Tharian George K,
1984, p 495). About 56 per cent of the tea bushes in tea plantations in Kerala were in the
uneconomic age-group in 1981. The ratio of over aged bushes was the highest among the
estates having more than 400 hectare. There was also a positive correlation between the
size of the tea estates and yield per hectare up to the size-group of 200-400 hectare, with
productivity increasing with increase in the size of estates. However for over 400 hectare the relationship between size and productivity broke down. Further increase in area was accompanied by decline in yield per hectare. This could be explained primarily in terms of the existence of large area under uneconomic bushes in the above 400-hectare size-groups. These estates, in the recent past, were controlled by old British companies with no systematic programme of uprooting and replanting. The main interest of these companies was repatriation of funds (Tharian George K, 1984, p 495).

The managerial aspect of the industry is another important aspect. As already noted, tea is a very old industry and the vacuum created by the departure of British planters during 1930s to 1950s, was filled in by indigenous management of the sterling companies and partly by indigenous mercantile capital (Bhowmik Sharit, 1982, p 74). The former, had by and large, kept up the gardens, and invested in them, thus maintaining their viability though with declining profitability. But in most cases of indigenous mercantile capital, a certain speculative attitude had undermined the viability of the industry. An idea of negligence in the last 20 years could be formed from the fact that only 7.6 per cent of the land under tea had been planted in the last five years, 7.9 per cent in the last 10 years and 15.5 per cent in the last 20 years (Tea Board, 1982, p 23). Thus the new managerial incumbents have been drawing their yields primarily from old bushes with little investment in new bushes (Sen, 1986, p M-74).

Another difficulty faced by the tea industry is that its cost structure is somewhat rigid and is independent of price formation mechanism. In other words, cost of production and price formation are not related. While discussing cost structure and price formation in the tea industry Mukherjee (1978) remarked, "In the post-independent period, entire cost structure was made rigid downwards due to various measures aimed at improving the living conditions and increasing the wages of the labourers. The breakdown of costs shows that labour cost is the biggest element comprising more than 50 per cent (taking cultivation and manufacturing together) of total cost. This upward trend in cost structure occurred simultaneously with a downward trend in the price of tea. One peculiarity of tea is that it caters to a buyers' market. As a result of this, price of manufactured tea does not depend on its cost. Before 1930, all the tea produced was exported and a few British tea
broker firms, who acted on behalf of both the buyers and sellers, controlled marketing of tea. Each year's intake of tea by the buyers depended on the expected sale for the year and the opening stock. In such a situation, the smaller tea growers had to face severe competition since demand became very sensitive to price. After 1930 however the importance of the home market was felt, with nearly 45 per cent of total tea produced in India being sold in the internal market (this is estimated on the assumption that tea sold for retention in India is fully consumed in the country). But growers had no marketing mechanism or authorized agency. The growers did not know whether the actual price would cover their cost or not. Earlier when the prices showed a downward tendency the flexible cost structure helped the growers to adjust the cost by reducing production cost. Unfortunately, now the cost structure is so rigid that it is impossible to adjust expenditure downward to meet the declining prices" (Mukherjee S, 1978, p 61-62).

A commodity, with significant qualitative variations and a wide range of consumers, tea is best sold through auctions. Auction prices closely reflect the prevailing supply-demand conditions for the commodity. Prior to the Second World War, London was the major international market for tea and tea prices registered on the London auctions could be looked upon as the world prices. In the post-war period, however, it is difficult to speak of a world price of tea. The importance of two far-eastern auction markets—Calcutta and Colombo—has increased significantly in comparison with London. Understandably, tea prices exhibited a marked association with inventory variations—a period of high prices being generally one of low stocks and vice versa. There was remarkable retail price stability in tea and up to a certain point changes in wholesale prices did not lead to changes in retail prices (Sarkar G K, 1966, p 298-299, 308).

2.4 Labour in the Indian plantations

The initial process of recruitment in tea plantations in India involved diverse extra-legal forms of market as well as non-market power. Poverty-stricken potential migrant workers, who included poor peasants, agricultural labourers and ruined artisans, were given loans by the garden sardars to clear out their debts to zamindars and sahukars. Through this, they entered into the grip of the sardars. It would thus hardly be
meaningful to consider the transformation of this class of workers into tea labour as an optimising decisions made by the free choice by the people who were faced with the alternative prospect of persistent unemployment - disguised or open – as well as starvation (Chakraborty 1978: 264-6).

Apart from the labour shortages they initially faced, the early planters had also been confronted by labour protests that took the form of desertion or assault, as well as informal collective bargaining and occasional strikes (Guha, 1981). In response to this, penal provisions were introduced as a measure of legal coercion, following the model of labour recruitment in colonial sugar plantations of West Indies, Mauritius and Fiji. The Workmen’s Breach of Contract Act 1959, reinforced by the by section 492 of the Indian Penal Code, introduced provisions for arrest and punishment by the government under civil laws of workers considered responsible for any breach of contract. The Inland Emigration Act of 1882, while introducing free emigration and unlicenced labour recruitment, also strengthened the penal provisions by making deserting or absconding workers criminally punishable, but also giving planters the power to arrest such workers without any warrant (Das 1931, Bose 1954:54, Guha 1988: 16-17, Dasgupta 1981, Chatterjee 1987). Contemporary accounts testified the ruthlessness with which this power was exercised by the planters (Ganguli, 1972). The amending legislations of 1893 and 1901 retained this penal system along with the powers earlier conferred on planters, and the planters’ private power of arrest was only abolished in 1908. Even time-expired labourers whose term of contract was over were frequently induced under duress to re-engage themselves. All these reduced wage labour employed on plantation to forced labour or unfree wage labour.

It was only in 1926, after growing nationalist criticism and labour protests in various forms including individual and mass desertion such as the Chargola exodus of 1921 (Guha 1988: 129-33), evasion of assigned tasks, litigation, strikes and assaults on planters (Guha 1981:87, Guha 1988: 133-4, Behal 1985: 20), that the 1859 Act was finally abolished. Thus, both legal and extra-legal sanctions and coercive power were in widespread use in colonial India in general and in the tea plantations in particular. It was because of the various extra-legal non-market mechanisms that even labourers who were
legally free were subjected to diverse forms of bondage (Arbuthnot 1904: 2, 4-5, Dasgupta 1993:65-9).

Certain features relating to plantation wages must also be taken into account for complete understanding of labour systems in the tea plantations of north-eastern India. Plantation workers were traditionally paid below-subsistence wages resulting in high mortality and low fertility (Behal and Mohapatra 1992). The fixing of low wage levels was the primary mechanism that compelled entire families, including children of four and five years, to work in the plantations (RCLI 1931: 415). Even then, the total earnings of the entire plantation family amounted to 62 to 78 percent of the family expenditure (ALECR 1921-22: 123-37) and were not adequate to meet the requirements of labour reproduction. Under such circumstances where plantation workers also had to depend on the non-capitalist subsistence sectors outside the wage economy, the plantation system thus encompassed two different but closely interrelated sectors, namely the dominant capitalist plantation sector and the subsidiary non-capitalist subsistence sector.

These sectoral interlinkages had several distinctive components. Elements of tenancy and subsistence farming emerged for the first time in the Assam, Dooars and Darjeeling terai and hill regions where no significant peasant economy had evolved previously. Although a fairly large proportion of plantation workers were given plots of land by the planters to cultivate paddy and vegetables, not all workers held paddy-lands and were usually given cultivable land in miniscule plots amounting to no more than two-thirds of an acre. The paddy raised on these garden plots was thus insufficient to meet the deficits in the cereal budget of a worker-family that arose from low wage income. Nevertheless, the practice of allotting garden plots served as another non-market constraint on the freedom of plantation workers to enter and withdraw from the labour market (Dasgupta 1986, Guha 1981) by further tying and disciplining labour. Since extremely low wages and the need to supplement them led workers to accept the arrangement, the “willingness” among the workers to accept this tie-in land allotment was not independent of the state of the labour market, where the necessity for survival constrained all their choices (Bagchi, 1973: 1507).
The British annexation of Assam in 1826 partly expressed the East India Company's need to sustain its tea trade following loss of its trade monopoly with China, and the Assam Company was formed in London in 1839 with capital of 500,000 pounds sterling. The colonial government provided British capital with vast tracts of land on extremely easy terms with special rules on land grants being introduced from time to time (Behal, 1983: 8-12). However till 1860, only six companies had been registered owning 51 tea gardens. Thereafter a highly speculative boom, which was triggered by the doubling of tea prices and soaring profits, lasted till 1865, leading to registration of another 86 tea companies (Griffith, 1967:61-99).

Subsequent growth in the Indian tea industry had three distinctive features. The first of these was organisational rationalisation through increasing transfer of the management of tea plantations to British managing agency houses. The process was initiated when the Assam Company placed its gardens under the management of Schoene, Kilburn & Co. Efficient operation of large tea companies stimulated further amalgamation of small plantation units into large-scale enterprises under the control of these managing agents. By the end of the 19th century, seven major agency houses were managing nearly 61 percent of the Indian plantations (Behal and Mohapatra 1992:145). Second, after 1870, expansion of the Indian tea industry was financed principally from rupee investments by British residents in India and by reinvestment of undistributed surpluses and dividends by tea companies that were already in existence, rather than by capital raised from Britain's home savings (Bagchi 1972:161-2,176, Gladstone, 1910:93-4). Third, in contrast to the speculative character of expansion till 1865, subsequent expansion in the tea industry till the turn of the century took place against steadily falling prices. Between 1880 and 1900, tea prices fell by half (Gol, 1901). These features had important implications on the methods of labour recruitment and on the structure of the plantation labour system.

Around the same time that cultivation of tea was launched in Assam, tea, coffee and rubber plantations were introduced in southern India. The specific plantation sites were located in sparsely populated hill and forest tracts, even though these were part of a densely populated region spreading over both British India and the princely states of Mysore, Travancore and Cochin. Political geography had an important bearing on the
formation of the plantation labour force, given the relative proximity of the southern Indian plantations to their labour catchment areas (LCAs) (Dasgupta 1992). The majority of workers were from low Hindu castes, drawn from landless or land-poor and oppressed agricultural labour groups (RCLIR 355-6, Das 1941: 28-32, Chatterjee 1987: 245-74). In South India, most plantation labourers came from the Tamil districts of Madras Presidency (LICR 1943: 128). As in north-eastern India, the tea and coffee plantations in southern India employed entire families while the rubber estates mostly employed single males.

The United Planters Association of South India [UPASI] engaged from time to time in protracted negotiations with the Governments of Madras and India to work out effective modalities for enforcing labour contracts. The 1903 Madras Planters’ Act, which resulted from such negotiations, strengthened the system of penal contract primarily as a threat to recalcitrant workers (Chatterjee 1987: 261-7). Since the LCAs of plantations in southern India had also become catchment areas for the plantations in Sri Lanka, Malaya and Myanmar, the early years of 20th century witnessed increased competition to gather labour from these countries. The relatively short distance between the plantations and their labour recruitment grounds made strict application of the forced migration system difficult. It was probably due to these factors that forced migration was of lesser importance and its abuses were less blatant in the southern than in north-eastern India (Dasgupta 1992).

In these relatively less coercive conditions, a variant of debt bondage enforced by the planters through the kanganies came to play a critical role in the mobilisation and disciplining of labour. The kanganies or labour contractors were often drawn from the ranks of plantation workers but they did not, however, work as labourers. Many of them belonged to castes higher than those of the labourers (George, 1988: 210). The kanganies mobilised labourers by giving them cash advances. Once the labourers had accepted an advance, they became permanently tied for all practical purposes to the recruiting estate. The hold on workers was also maintained through various coercive devices resorted to by kanganies with the support of planters, including striking off the names of recalcitrant workers, underscoring the weight of leaf plucked, beating, kicking and other forms of
corporal abuse as well as sexual violence against women workers (RCLI 7(1) 201). The nearly universal practice of paying labour wages through kanganies and of withholding wage payments as a mode of coercion were particularly effective methods of intensifying dependence and disciplining labour. Moreover, as was done in Assam and the Dooars, labourers were kept segregated and outsiders were prevented from making any contact with them (RCLI 7(1): 248). This interplay of indebtedness, caste hierarchy, personal dependency relations and administrative support from the colonial government kept the plantation workers under permanent control and in a state of perpetual fear, significantly restricting free operation of the labour market.

Thus the functioning of plantations in all parts of colonial India was based on economic and extra-economic compulsions on labour and unfreedom that resulted because of it. It also depended on the maintenance of a peculiar relationship between the capitalist sector and the non-capitalist subsistence economy that never freed labourers from significant dependence on the latter.

2.5: Gaps in literature and rationale for the study

With reference to the research areas mentioned above, relatively little literature was found on the economics of Indian tea plantations and those available mainly covered the organization of plantation work. A number of technical studies emanating from industry-related sources such as the Tea Research Association at Tocklai dealt with the agronomy of tea and the physical and biological environments within which it is grown. The production and marketing economics of Indian tea are not covered holistically in these literatures. Occasional studies from the ILO (e.g. Sivaram 2000) covered work-related aspects pertaining to plantation labour. Despite this deficit in published material, a plethora of tea-related data and information exists in the periodic reports and newsletters of the Tea Board and professional planters' bodies like the Indian Tea Association (ITA), the Coordination Committee of Plantation Workers' (CCPW) and UPASI. Both national and international tea data are published annually in statistical compendiums released by major tea brokers such J. Thomas & Co. Besides these data sources, occasional information on the state of the Indian tea industry is also provided in the annual reports of
major tea corporates and in journalistic literature. Another important source of
information on the production and organizational aspects of Indian tea is located within
the legislative acts that relate to tea and periodic orders issued in this respect by the
Ministry of Commerce, Government of India. While no study has been found that
comprehensively utilizes these sources to investigate the production and marketing of
Indian tea, partial investigations are found in the reports of government committees and
in a few doctoral dissertations on tea that have been submitted to various Universities.
Considering this to be an important gap within the literature, the present study proposes
to collate these diverse and scattered materials and data in a wide-ranging investigation of
the prevailing production, price and labour situation of the tea industry in India in general
and West Bengal in particular.

As discussed earlier, tea plantation in India was a colonial endeavour and system of
production for one and a half centuries evolved around the capitalist model of separation
between labour and the means of production but adhered to pre-capitalist modes of labour
organization. For this system to work efficiently, the size of the plantation had to be
large with substantial deployment of plantation labour. While studying the current
production economics of the Indian tea industry, the study will examine the economic
relationships that exist between plantation-size, worker-productivity and product-pricing
with a view to assessing the present viability of the plantation model.

In the present context traditional tea gardens are suffering from sharp decline in
profitability. Some estates are presently incurring losses. To improve profitability most of
them are presently trying to reduce cost of production. Manpower cost is the most
dominant item in the existing cost structure and also producers of tea do not have
sufficient bargaining power in other markets relating to the cost structure. So these
gardens are trying hard to economize on manpower cost. But estate gardens are
constrained by the fact that they have permanent labour force and wages and deployment
of permanent labour are not flexible. This is because estates are supposed to pay wages
determined in an industry-wise tripartite manner. Also they can not adjust their labour
deployment according to the needs as any worker willing to work at the appointed time
and date must be given work. Traditional planters believe this is causing rigidity in the
cost structure and is responsible for declining competitiveness in international tea markets.

On the other hand, small growers-bought-leaf factory combine have a cost structure, which is relatively more flexible. They don’t have permanent labour force and deploy labour as and when necessary. Wages paid in such cases are lower compared to that of the traditional tea gardens. Minimum wage regulation does not apply here. They often use piece rate contracts whereby labour engaged in tea plucking are paid a certain share of the value of their harvested leaves so that the changes in the price of leaves are immediately reflected in downward adjustment in wage costs. As a result cost structure becomes flexible. Thus this combine is better placed to react to market signals.

Cost structures of these two modes of production are different leading to different pricing and profitability conditions. Apparently even if price realization is low at auctions, smallholder-BLF system of production may earn sizable profit because of advantages in cost situations. In similar situation traditional system of tea production will be finding it difficult to reap even the working capital. In recent times a few gardens even closed down in Assam and West Bengal because of their failure to recover even the variable cost. Some other gardens are, though recovering variable cost but still not being able to compensate total cost incurred. They may continue operation in the short run but their sustainability in the long run is uncertain. This whole issue of cost structure, pricing and profitability of traditional plantation system of production vis-à-vis that of the independent plantation-bought-leaf factories combine can only be analysed if a comparative study is carried out. This can be attempted through collection of data relating to cost, pricing and profitability of both systems of production. Cost of production data are not available in general (except few aggregated average data relating to traditional plantations). Thus such information needs to be collected through primary survey of both systems of production. The objective is to address the question whether small plantation-bought-leaf factories are more flexible cost-wise and are better equipped in a competitive market compared that of traditional estate system of production.