EXPORT PERFORMANCE OF TEA INDUSTRY IN SOUTH INDIA IN THE CONTEXT OF ECONOMIC LIBERALIZATION

BY

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THESIS

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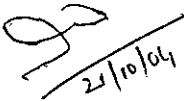
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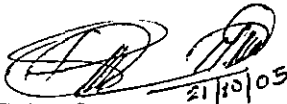
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Dedicated to the lotus feet of

Bhagwan Sri Maha Ganapathy

&

My role model poet

*Mahakavi Subhramanya
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Introduction

1. INTRODUCTION

Water is Life

Milk is Food

Tea is Happiness

- *North African Saying*

Tea, scientifically known as *Camellia sinensis,* is the mother of all kinds of drinks in the history of mankind. The flavour and fragrance of tea had a magic spell in human civilisation and culture. The story of tea began in ancient China over five thousand years ago. Ever since its arrival in India in the year 1774 from China, the tea industry is regarded as one of the most important agro-based industries in India and became the flavour of India in a very short time. Its popularity cut across the barriers of caste, age, gender and region. The popularity of tea soared and it made inroads into virtually every household. As a result, the demand for tea also kept increasing at a steady rate and tea plantations became one of the lucrative business options. Slowly and surely, tea gardens were set up to grow the indigenous variety, local tea markets came up and tea companies were formed. Soon India emerged as the world's largest producer and supplier of tea and came to be known as the 'The Tea Country' (Rawat, 2003a). Tea thus has historical and geographical significance besides trade importance.

1.1 Significance of the study

The global economy as a whole has been undergoing unprecedented changes since 1990s against the backdrop of the liberalisation of economic policies and the resultant globalisation of economic activities cutting across geographical and ideological boundaries. The growing process of market integration in the context of the globalisation of economic activities is very often justified on the logical premise that the economic reforms invariably lead to a more efficient use of world resources by reforming a highly distorted world trade and reorienting the organisation of production.

The beginning of nineties witnessed the initiation of far reaching reforms in the Indian economic policy framework as well, following the introduction of the macro economic stabilization measures and structural adjustment programmes. This reform process

also encompassed with it, the liberalisation of external trade. The process of economic liberalisation has left, practically no sector of the economy unaffected. As a result, agriculture also was brought under its purview.

Liberalisation in agricultural trade has been sought in the Uruguay Round Agreement to establish a fair and market oriented agricultural trading system so that the comparative advantage that the country enjoys in the production of agricultural commodities can be translated into trade opportunities and there would be improvement in market access. The agreement covers several other areas like public stock holding for food security purposes, Trade Related Intellectual Property Rights (TRIPS) and Sanitary and Phytosanitary (SPS) measures. The Intellectual Property Rights (IPR) aim at extending patent or a patent like protection to agriculture, while SPS measures focus on strict health and safety regulations. The agreement has long term objectives such as substantial progressive reduction in agricultural support, correction and prevention of restrictions and distortions in world agricultural markets.

With many countries embarked into the process of trade liberalisation and domestic policy reforms, there occurred changes, which had an impact on the world market, and consequently on the growth of the domestic economy (Mukherjee and Vashistha, 1996). Potential contribution of trade orientation for economic development of a country has been debated after the emergence of World Trade Organisation (WTO). It was perceived that international trade would provide some significant benefits to the farmers of the developing countries as they would capitalise the comparative advantage and lead to a more efficient use of resources resulting in high productivity and efficiency gains. On the other hand, trade openness in agricultural commodities is likely to have an adverse impact on the developing countries like India, on output and employment. It is also pointed out that the characteristic features of a developing country like India, namely, labour intensiveness, deteriorating terms of trade, instability in demand of export and paucity of financial capital may hinder export gains.

Currently, India is in the process of adjusting its own trade regime in the light of the new rules established by the Uruguay Round Agreement on Agriculture. Agricultural trade in India has been freed inorder to comply with the commitments set out by the trade agreement, to encourage export-oriented production, to improve market access for the

agricultural products and to create a more competitive environment in the economy as a means to improve productivity and efficiency. The major trade liberalisation measures were initiated from 1991 onwards which included decanalisation of the imports of agricultural commodities, removal of quantitative restrictions on all agricultural products and reduction in tariff rates aiming at correcting the anti-agriculture bias in trade policies. Earlier empirical studies (Chand, 1998) have attempted to analyse the impact of these liberalized measures on Indian economy, particularly on agricultural sector.

With its characteristic outward orientation of high value plantation crops, the agricultural sector in India is supposed to be more prone to world market situations. The changes in national policies, especially liberalisation in agricultural trade, and the approach of Commodity Boards, are expected to have major implications, on the country's agricultural sector. The liberalisation package and its impact vary significantly between crops and across regions depending upon the mix of crops in which each region tends to specialise. Therefore, the results of various studies on one crop or region may not be applicable to another crop or region. This calls for detailed crop specific and region specific studies on the process of economic liberalisation.

1.2 Statement of the problem

The nearly two-century-old tea plantations in South India (SI) are passing through the worst ever crisis. Fluctuation in production or price is not an unknown feature for tea, for that matter any agricultural produce, but never have the tea plantations in SI faced such a grim scenario as the one witnessed now. The South Indian and country's tea industry as a whole, at both domestic and international levels, is facing not a few challenges these days on account of the depressed price, ever increasing cost of production leading to uncompetitive price of our tea in the international market, availability of cheap imported tea in the country and decreasing patronage of the State. It has also taken a beating on the export front and is fast losing her reputation as the producer and exporter of world's finest teas. One of the major factors that have affected the export performance of Indian tea is the shift in the tea preferences in the Russian market. The Russians, who were earlier buying the Crush, Tear and Curl (CTC) tea, have shifted to orthodox tea. In the last three years, export of tea to the Russian Federation has declined by over 20 per cent (Rawat, 2003a). Despite this, it remains as the single largest importer of Indian tea. To add to this the exports to other traditional

markets such as UK, Germany, Poland, Turkey, and Japan have also seen a slide. The exports to Iraq, another major market have also taken a hit following the war. Faced with stiff challenges from the other tea producing nations like Kenya, Vietnam and Sri Lanka, Indian tea needs to be price competitive. However, quality tea produced by India are not price competitive. This has resulted in plainer varieties forming bulk of the exports, thereby damaging India's reputation as a source of quality tea.

The emerging trends in the world tea economy indicate the limitations of the producing countries like India in absorbing the shocks and responding to the challenges due to the high degree of dependence on the export markets and the resultant vulnerability of prices, negligible value addition in the producing countries and inherent constraints of the small holdings sector in adapting and adjusting to the changes. In spite of the optimistic projections on the tea prices and its frequent revisions, the future scenario is likely to be indicated by comparative competitiveness in cost of production, quality and value addition. Keeping these in view, the basic problem of the present study can be stated as an analysis of the export performance of South Indian tea industry in the changing environment of economic liberalisation. In this context, this study aims to analyse the area, production, productivity, export, import, price movement and trade competitiveness of South Indian tea during pre and post liberalisation regime.

1.3 Objectives of the study

The objectives of the study are:

(i)   to analyse the export performance of tea industry in SI during pre and post liberalisation period in terms of volume and direction; and

(ii)   to examine the adequacy of policies, financial and other institutional supports in order to comply with the liberalisation agreements regarding Indian tea industry.

1.4 Utility, Scope and Limitations of the study

The beginning of the nineties marked a significant shift in the policy of the Government of India by liberalising and opening up of the economy to the outside world. The Agreement on Agriculture (AOA) under the WTO regime brought agriculture also under the purview of liberalised trade system. Until then, export orientation of the agricultural

commodities had not been the essential feature of Indian economy. As part of the liberalisation process, a paradigm shift has taken place in the Foreign Trade Policy (FTP) by opening up of the economy in a big way to the forces of the world market rather than import substitution and positive trade balance.

The indiscriminate protection by the developed countries to their industries including agriculture has made it difficult for developing economies to have easier market access. These protectionist measures have denied the comparative advantages of agricultural trade enjoyed by developing economies like India in the world market. The total agricultural export, which was 13.5 per cent of the national exports in 2000-01, came down to 11.9 per cent in 2002-03, while agricultural imports increased from 3.7 per cent to 4.3 per cent during the same period. Thus, the expected positive impact of liberalisation on agricultural exports of developing countries is yet to be proved. (GOI, 2003)

Indian tea being a traditional export item seems to be the engine of growth in our country's agricultural exports. The exports from a country are highly dependent on production and export prices. Among the agricultural exports from India, tea was the single product category in which she could claim leadership at the global level. India accounted for 20 per cent of the total area under tea cultivation, 28 per cent of world production, 22 per cent of global tea consumption and 14 per cent of total tea exports. Although there was considerable growth in the acreage under cultivation (0.6%) and production (2%) in the last five years, a negative growth rate was recorded in export volume (-1%) and export value (-9%). By accounting for 20.7 per cent, tea ranked number one among the agricultural exports till 1987–88, but thereafter it started declining and occupied the third position by contributing 8.8 per cent of the total agricultural exports. Similarly, its contribution to Gross Domestic Product declined from 1.24 per cent in 1950-51 to 0.33 percent in 2000-01. (Boriah, 2002)

The domestic demand for tea is stagnating on the one hand and India's position in the world market is also under severe threat. Further the growers of major tea producing States in India like Assam (50.7%), West Bengal (22.1%), Tamil Nadu (15.9%) and Kerala (8.3%) are experiencing losses due to depressed prices and increasing cost of production. (Chhibber, 2002) The increased supply of low priced tea from Sri Lanka, Vietnam and Indonesia has aggravated the problems of tea growers in SI. Hence a study on the export performance of the tea industry in the context of liberalisation would be significant not only to the tea

growers of Kerala and SI, but also to more than three million people who derive their livelihood through direct employment and from ancillary activities associated with production, value addition and marketing of tea. (Boriah, 2002)

In the context of liberalisation and WTO agreements, the export scenario of the Indian tea is faced with stiff competition from other producing countries. Consistency in quantities for export has been pointed out by experts as one of the measures to utilise the full benefits of WTO. Therefore, an examination of the provisions of AOA and other relevant clauses of the WTO agreement, as applicable to agriculture in general and specifically to tea, their compliance and adequacy of policies and institutional arrangements in India will bring to light, the factors that have influenced the industry. Based on these, strategies can be adopted by the policymakers for increasing the export of tea both in volume and in value as envisaged in the Tenth Five Year Plan.

Secondary data has been the main source of data for the study. Time series data have been collected from various publications of Tea Board for the period 1981-82 and 2002-03. Since data on imports to SI specifically are not available, analysis of import of tea has been done with the all India data. The EXIM policies are subject to change in the short run as well as in the long run and this would have implications on structure of exports and imports of agricultural commodities. In the present study, an attempt has been made to analyse the competitiveness of South Indian tea in the context of WTO. Due to the limited number of years of operation of WTO Agreement, its initial impact on competitiveness could only be measured.

Due to financial and time constraints only informal discussions with the exporters of Coimbatore Tea Trade Association could be done for supplementing the examination of the adequacy of policies and institutional supports to them, and the problems faced by them.

1.5 Organisation of the thesis

The report of the study has been spread out under five chapters. The first chapter deals with the significance of the study, statement of the problem, objectives of the study, utility, scope and limitations. The second chapter delves in to the review of literature relevant to the topic of study. The third chapter gives a description about the methodology adopted in

the process of investigation. The fourth chapter is earmarked for results and discussion of the study undertaken. The last chapter highlights the summary of findings and the conclusion of the study followed by references, appendices and abstract of the thesis.

Review of Literature

2. REVIEW OF LITERATURE

The performance of tea industry with respect to production, productivity, cost of production, price competitiveness, export promotion, quality maintenance and related issues has been the concern of academicians and policy makers since very long time. Hence studies on tea industry are not scanty. The objective of this chapter is to develop the conceptual framework for the study on the basis of the review of the studies already done. This would help in deciding the variables to be included, data to be collected and summarising what is already known regarding the problem under investigation. Further, the knowledge of these studies would in turn help the investigator to give an appropriate direction to the study on hand. With these objectives, certain studies that are not related to tea, but relevant for finalising the methodologies of the proposed study are also reviewed.

In accordance with the specific objectives of the study undertaken, the review is presented under the following heads:

2.1 Export performance

2.2 Industry performance in India and abroad

2.3 Price behaviour

2.4 International trade and liberalisation

2.5 Policy issues and Government initiatives

2.6 Problems and prospects of tea industry

2.1 EXPORT PERFORMANCE

Export performance is regarded as the barometer of a country's economic development because it ensures a nation greater stability and growth. Unless competitive strength of this vital sector is enhanced and diversified, the country's dream of self-sustained growth can never be a living reality.

London (1968) in his study on export of tea emphasised that one of the greatest anomalies in India's export policy was the imposition of export duties particularly on

commodities, which have to face continuous and forceful external competition. He pointed out the example of tea, which was chosen for the infliction of an excise duty in addition to a straight export duty.

Sarkar (1968) used the Hirschman index to measure the concentration of tea export markets and observed that there was a high degree of concentration of world tea exports. However, he felt that the concentration decreased over the period owing to increased diversification of tea markets.

Goswami (1969) while analysing the measures for tea export promotion stated that India has to produce good quality tea at reasonable cost in order to face successfully the growing competition in the international market and to develop as quickly as possible our internal market. Several factors like cost of cultivation, manufacturing and marketing, central and State Government taxes, commission to marketing agents and the profit to share holders will have to be taken into account while fixing tea prices in the market. He added that Government of India had given various concessions to the tea industry for improving its export performance.

Bandyopadhyay (1982) found that the growth rates of India's share in world tea exports declined constantly during the period 1964-65 to 1978-79. The reasons attributed were low productivity, high demand for tea in the domestic market, high cost of production and keen competition in the world market.

Harmans (1984) studied export price instability and producer price instability based on the variance of income and the terms of trade followed, and the results clearly indicated that export prices were more fluctuating than the producer prices especially for African countries.

Kavoussi (1984) argued that in a large and heterogeneous sample of developing countries, higher rates of economic growth were associated with higher rates of export growth and growth rates of exports and Gross National Product were positively correlated in these economies.

Boyce (1986) developed a kinked exponential model for the calculation of growth rate and suggested that it provided a better analysis than conventional estimates for inter

temporal and cross sectional growth rate comparison. He used this model to compare the estimates of growth rates of agricultural output in Bangladesh and West Bengal before and after the advent of the new seed-fertilizer technology in the mid 1960s.

Rao (1987) opined that tea, spices, cereals, fruits and vegetables constituted a considerable share of India's exports to the U.A.E. However, to meet the fierce competition in the international market, and to expand India's market share, our exporters should strictly adhere to the agreed delivery schedules.

Kaur and Singhal (1988) found that traditional exports showed the highest degree of instability followed by non-traditionals and iron- ores and concentrates during the period 1970-71 to 1979-80. In the case of jute manufacturers, tea and iron ore and concentrates, the fluctuations in export earnings were caused primarily by prices while in cashew kernels, volume was the source of instability.

Chand (1989) in his study on growth and instability of exports and imports of agricultural commodities in India observed that for most of the agricultural commodities, exports showed less instability than the imports. The growth in exports as well as imports of the agricultural sector was much lower than the growth in total merchandise trade. The trade deficit of the agricultural sector was small and it was not rising in contrast to that of non-agricultural commodities.

In a study conducted by Pal and Ray (1989) on export instability and economic growth in India, it was found that there was consistency in the magnitude of instability obtained by the four measures of instability namely, instability index calculated by moving averages, coefficient of variation, corrected coefficient of variation and average percentage deviation from the trend. All the measures in general showed that export instability was considerably higher for the individual agricultural products than for manufactured products. However, export diversification had a strong stabilisation effect on the total export earnings from agriculture.

Tilekar (1989) examined the trends in total value of agricultural exports as well as the value of individual agricultural commodity export, along with change in export commodity complex, during 1976-77 to 1989-90. The results indicated that there had

been a consistent increase in the total value of exports at current prices. Consistency was also observed in the trend in export of agricultural commodities during the period under study. But the share of the total value of agricultural exports in total exports declined between 1976-77 and 1983-84. Export commodity basket of major agricultural commodities in India did not show any significant change during the period under study.

Das (1990) found that an increase in domestic demand and absence of substantial increase in production to meet the demand at home were the factors retarding the growth of tea exports.

Kumar *et al.* (1990) observed that there is a change in the pattern of India's exports from traditional to non-traditional items like consumer products and processed food items, which present a number of hurdles for increasing the exports. It was pointed out that Japan and Asia Pacific, which are areas of high potentialities have not yet received adequate attention in our export strategy.

After evaluating the growth and instability of Indian exports and imports of agricultural commodities, Chand and Tewari (1991) commented that India's share in world exports was fluctuating in the case of the agricultural commodities with the exception of fish and fisheries products, coffee, tea and cocoa which were showing remarkable performance. They estimated the growth rate and instability indices of imports and exports by fitting an exponential time trend function.

Reddy (1991) analysed the growth rate of tea exports for various countries during the period 1974-75 to 1988-89. He concluded that the tea exports in India and Sri Lanka were stagnant, whereas in China and Kenya it increased sharply to the extent of 8.66 and 6.97 per cent per annum respectively.

Pal (1992) analysed the magnitude of growth and instability in agricultural exports of India during the period 1970-71 to 1989-90 using coefficient of variation. The study revealed that exports of agricultural products were constrained by the increasing domestic demand and the volatile world prices. Policy changes have induced a very high degree of instability in the export earnings from important agricultural products. However, the total

earnings from both agricultural and non-agricultural exports were fairly stable primarily due to the stabilisation effect of export diversification.

Ratna and Narayanan (1992) attempted to examine the performance of India's agricultural exports during the past two and a half decades (1960-61 to 1985-86) and found that even though the share of agricultural exports had been declining over the period, our trade policies made us to depend on traditional export crops like tea and tobacco. This was mainly due to internal factors like production and per capita availability rather than external factors like prices and foreign exchange rate, which appeared less important.

An attempt was made by Jeromi and Ramanathan (1993) to examine the growth and instability of world pepper trade. To estimate decade-wise growth rate, kinked exponential function was used. The study revealed that though India's export performance had substantially improved during the first half of eighties, it started declining since 1987-88. The direction of India's export showed that the share of the market economies has declined over the years and that of non-market economies has increased.

Venkatachalam (1993) examined the trends in tea production and exports in India, and also looked at the markets in other countries, including Kenya, Malawi and Sri Lanka. The study revealed that Indian exports of tea have not increased because prices were too high and uncompetitive; a strong domestic demand and the security of the Russian market meant that new markets were not to be explored; the industry became indifferent to quality; India had been an unreliable source; and producers and buyers never interacted. He stressed that marketing efforts should be made continuous and sellers should be in touch with buyers. Suggestions to raise the level of tea exports included restraining domestic demand for goods and services, phasing out import restrictions, simplifying trade-related procedures and making agricultural and industrial products more competitive.

Dass et al. (1994) examined the comparative advantage, quantity, unit value, terms of trade and major factors influencing the exportable surplus of Indian tea exports using time-series data for 1970-71 to 1992-93. They revealed that India generally has a

comparative advantage in tea exports; but inspite of the improvement in terms of trade, tea exports declined during the period 1980-81 to 1992-93 due to insufficient domestic production in relation to increasing income and population growth.

Misra (1994) argued that the failure of Indian salesmanship was responsible for the stagnation of tea export and the adoption of national promotional scheme would be more appropriate in the present circumstances. He also suggested that rationalisation of different estates should be adopted which might increase productivity and reduce average cost of production.

Das (1995) projected India's farm exports for the year 2005-06 and found that the largest contribution to the value of agricultural exports have been made by tea and mate followed by fish and fish preparations and oilcakes. The value of principal items of farm exports from 2000-01 to 2004-05 shows that except for tea and mate, the quantities and value of all other items of farm exports are positive.

Kainth (1995) examined the trends in the growth of Indian tea production and exports in the light of the emerging trade policy environment. He found that since the early 1990s, Indian tea exports have been adversely affected by several developments in world markets such as the cash crisis faced by Iran and Russia, Sri Lankan inroads into Commonwealth of Independent States (CIS) markets, Poland's move to buying cheaper Kenyan teas and over-supply of inferior teas leading to a price fall.

According to Prabirjit (1995), the growth in exports in the liberalisation period was actually a continuation of that of the earlier period. There was nothing in the export behaviour in the earlier period that called for a change of regime. There was no direct evidence that the exchange rate behaviour exerted any influence on the dollar value of exports and imports during the period of liberalisation.

Thakur *et al.* (1995) studied export potential of Indian tea in the changing economic environment with respect to growth in global acreage, production and productivity of tea; percentage share of Indian tea in world tea exports and export earnings; consumption and exports of Indian tea by importing country; and trends in tea

prices in exporting and importing countries. The study revealed that Indian acreage, production of tea as a percentage of the world total, and percentage share of tea in total trade earnings declined during 1960-61 to 1990-91. During the period 1984-88 India received higher prices for tea than other exporting countries.

Kumar and Kumar (1996) analysed performance and constraints of the Indian tea exports from 1971-72 to 1991-92, dividing into two periods namely, 1971-90 and 1991-92, to allow for the impact of the disintegration of the Union of Soviet Socialist Republics (U.S.S.R). They concluded that Indian tea is losing its market share because of supply constraints. Production is unable to keep pace with rising domestic as well as external demand.

Damodaran (1998) examined the importance of geographic appellations in the marketing and international trade of products, with examples of Darjeeling tea and Malabar pepper, both from India. He also noted the relevance of the biodiversity convention, and concluded that geographic origin is important to both the biodiversity convention and appellation legislations.

According to Prakash (1998) export of agricultural commodities can be boosted by proper co-ordination between national and international trade agencies, raising the outlay for research and development of exportable crops, investment in agriculture sector and providing brand status to the items, incentives for export and publicity.

In order to increase the tea exports, Damodaran (1999a) suggested a marketing approach of creating a new classification scheme of global tea. It would tackle the changing global scenario and form the basis for Indian tea in international tea markets taking into consideration the changing preferences for tea in the beverage segment of the global market.

Dattatreyulu (2000) found that although agricultural exports over the years increased in value terms, their share in total exports declined since 1960-61.

Kumar (2000) found that although agriculture and allied products in general have shown a high growth rate, rice and coffee came up as the most promising exportable commodities during the period 1990-91 to 1997-98.

According to Sundar (2000) an increase in tea exports could take place only through an aggressive marketing of quality tea, mostly in new centers.

While analysing the production and export performance of tea industry in India, Guledagudda *et al.* (2002) came up with the finding that tea is a potential foreign exchange earner for India, contributing roughly 21 per cent of the total net export. India was the largest producer accounting for 27.45 per cent of the world tea production (1999-2000). The consumption of tea in India increased from 130 million kg in 1960-61 to 651 million kg in 2000-01.

The review of the studies on export performance have identified low productivity, increased internal demand, fluctuating trade policies and increased cost of production leading to uncompetitive prices in the international market as the main constraints in the export of agricultural products in general and specifically of tea. Many authors have emphasised the necessity of having stability in the trade policies of the State with respect to agricultural commodities. Among the different methodologies for assessing the growth and instability of exports, the authors have widely used kinked exponential function and coefficient of variation respectively.

2.2 INDUSTRY PERFORMANCE IN INDIA AND ABROAD

The record of the industry's export trade is a reflection of the Indian tea industry's production achievement. This must be judged independently as production and export trade are separate functions performed by two different classes. The promotional measures for production may vary from country to country, which will also finally decide the performance of the industry.

Achoth (1980) estimated the cost of production for different size groups based on the area under tea situated in two elevations, high and low. It was found that the large estates in both the elevations had high cost of production, since they converted the leaf into tea. The returns per acre were lower in smaller groups in both the elevations despite the return per rupee of investment being high.

In a study on the agricultural performance in Kerala during the period 1962-63 to 1985-86, Kannan and Pushpangadan (1988) used second-degree exponential function and kinked exponential function to find out the growth rates of area, production and productivity of important crops. They found that agricultural sector in Kerala showed stagnation in production during the study period.

Khanna *et al.* (1990) noted that the tea sector had vital role in the development of national economy from the angle of its contribution to foreign exchange earning and employment generation. However, the small tea gardens did not perform well mainly because of non-availability of required financial support.

Mohanasundaram (1990) found that in tea cultivation, the input-output relationship revealed sub-optimal level of resource use in general and their further use would enhance production except in the case of manures and fertilizers on large farms, which were being overutilised.

In their study on the performance of Taiwan's tea industry, Etherington and Forster (1991) opined that Taiwan experienced phases of rapid growth, relative stability and dramatic decline. The downturn in exports since the 1970s saw a switch to the domestic market. The very high elasticity of demand in a relatively high-income country suggested that there has been a change in comparative advantage and a fundamental change in tastes. Further, high tea prices in Taiwan were the most worrying aspect of the industry, with their potentially serious implications for tea farmers, if the domestic market opened to international competition.

Mitra (1991) argued that the absolute yield of large farms was much higher than that of small farms due to better package of practices adopted in large farm sector in tea cultivation.

Sengupta (1993) examined the consumption, consumption habits, attitudes and preferences of tea drinkers in India. The study pointed out that India's tea consumption was nearly eight times that of the world average. The developments in the consumption of tea in other tea-drinking cultures provided some insights on how tea-drinking habits may change in India. It was revealed by the study that value-added teas, such as ready-to-

drink, instant and flavoured teas were becoming increasingly important in some of the Indian markets.

The trends in area, production and productivity of tea during 1965-66 to 1989-90 were analysed by Ajithkumar and Devi (1995) by dividing the time period into three sub periods. They observed that the growth rate of area under tea was negative in all the three sub periods under study. The growth rate of production was positive except in the first period. But the overall growth rate was positive during the entire period. There was a remarkable improvement in production of tea in 1980s when compared to sixties and seventies.

Thakur *et al.* (1995) analysed that the demand for tea by the consuming countries had increased continuously; but supply was not proportionate to their demand, which indicated the shortage of tea. Efforts were to be made to improve the quality of the product and to identify the potential tea consuming markets in order to arrest the decreasing trend of tea prices.

Gazi and Saha (1996) studied the comparative progress of Bangladesh tea industry during pre and post liberation period. The rate of increase in yield during the post-liberation period was significantly higher than that in the pre-liberation period, inspite of a significantly lower growth rate of area under tea in the post-liberation period. The higher rate of growth in the tea industry in the post-liberation period might be due to technological revolution in tea culture in the form of adoption and introduction of high yielding vegetative clones, intensive cultivation of tea, higher efficiency of management and increase in technical knowledge of planters.

Sahewalla and Talukdar (1996) examined the growth and stability of the quantity of tea auctioned and the prices of CTC and orthodox tea at Guwahati and Calcutta Auction Centers (GTAC and CTAC) over the period 1978-79 to 1993-94. The results showed that the CTC market at GTAC was more prominent than at CTAC. Orthodox tea showed a declining trend in terms of quantity auctioned at both the auction centres, but the rate of decline was higher at GTAC. The magnitude of instability was relatively higher for prices than the quantity auctioned at both the auction centers.

Ali *et al.* (1997) in their study on Sri Lanka's tea industry viewed that the industry was released from the ties of State control and was in a position to make important strategic moves to restore its competitive ability in the global market. They stated that this might require heavy investment and also an understanding of future consumer demand trends. It was recommended that the industry must move away from mass marketing strategies to more focused strategies of differentiation and positioning. The authors concluded that the role of the Government must be to develop critical resources for high levels of productivity, and firms within the tea industry should assist Government in shaping policy and should support constructive Government programmes.

Bhuyan and Hazarika (1997) analysed the pattern and instability of tea production in Assam. Time series data for the period 1950-51 to 1990-91 were used to study the trend in area, production and productivity. Exponential and semi-log quadratic trend equations were fitted. The source of production instability was studied through variance decomposition method. The study revealed that area under tea in Assam had increased significantly at an increasing rate. A deceleration in trend was observed in the case of yield.

George (1997) while studying the status of plantation crops in India during 1956-57 to 1994-95 has stated that the area, production and productivity of Indian tea were showing an upward trend. The CAGR of area worked out for the five-year period was positive and significant up to the period 1980-85 and thereafter it was negative. But the CAGR of production and productivity was positive and mostly significant throughout.

M'Imwere (1997) in his study on achievements, problems and prospects of tea production in the smallholder sector in Kenya opined that the development of the smallholder tea sector has been achieved through intensive tea expansion, in-filling, provision of fertilizer credit facility, supply of vegetatively propagated materials, programmes and deliberate efforts to attain set targets, and transfer of appropriate technology through extension service. He listed the factors that hindered the faster development of smallholder communities as centering on cultural practices of different smallholder communities, land tenure policies, unfavourable weather patterns, labour shortages, and lack of adequate development capital for smallholders. He suggested

counter veiling measures for future improvement through provision of better extension services, improved green leaf production and collection, improved tea roads, factory processing capacities, marketing services and green leaf payment methods in Kenya's liberalised economy.

Bhanu (1998) overviewed acreage and production of tea in Karnataka State. She opined that if the suggested productivity-enhancing crop management activities, including replanting, were successfully adopted, Karnataka would be able to achieve an average productivity of 3000 kg/ha by the year 2005.

Dagdemir and Ozcelebi (1998) examined inputs and production costs for tea production in the Rize-Cayeli region of Turkey. They classified the farms according to their size. Results indicated an increase in income with every increase in farm size.

Hazarika and Subramanian (1999a) analysed the growth and instability in tea production in Kerala during the period 1951-1994. Exponential trends, semi-log quadratic trends and variance decomposition analyses were undertaken. The study revealed that tea production in Kerala has shown significant improvements over time. The growth rate in terms of area was negative due to substitution with other competing perennials. Analysis of change in variance of production indicated that yield-related variables were a major source of production instability.

Hazarika and Subramanian (1999b) studied the production efficiency of tea estates with the objectives of facilitating the removal of production constraints in the Indian tea industry, particularly in Assam, for helping the policy makers to strengthen the production base of the industry during the year 1992-93. They used stochastic frontier function to estimate the farm specific technical efficiency of the estates. The results showed that even under existing technology, potential exists for improving productivity with proper allocation of existing resources. The existence of obsolete tea bushes, high percentage of vacancy and old age bushes weakened the productivity of the plantations. They concluded that estate owners should be educated on the need for undertaking infilling, replanting, replacement planting and about the rational use of inputs.

Hazarika and Subramanian (1999c) analysed the trends in area, production and yield of tea in Tamil Nadu, for the period 1950-51 to 1990-91, dividing it into two periods, and assessed the relative contribution of various components to production instability. Growth of yield was the main component of production growth in both periods. The decomposition analysis of change in variance of production indicated that the main sources of change were yield related factors. He stated that the increased production variance could not be attributed to new technology alone. Approaches to increase stability should include stabilization of yearly adjustment in bearing acreage, reduced dependence on weather through assured irrigation, timely use of fertilizer, and development and use of location-specific high yielding clonal varieties.

Yadav and Srivastava (1999) identified input costs of small (upto 300 ha.), medium (301-600 ha.) and large (more than or equal to 601 ha.) tea plantations, and studied the effect of different inputs on the yield of green tea leaves in selected districts of Assam. They stated that yield of tea was significantly influenced by pest control and plucking in all categories of plantation. Yield from small plantations was also influenced by fertilizer application. They concluded that tea plantations are labour intensive.

Bhowmick and Saikia (2000) evaluated the possibility of installation of small tea processing plants in Assam and its feasibility from the viewpoint of financial analysis. The results of various measures of investment worth, such as positive Net Present Value, Benefit-Cost Ratio greater than unity, and Internal Rate of Return greater than the prevailing borrowing rate are indicators of the fact that investment in small tea processing plants would be feasible. They further opined that larger plant sizes would be comparatively more profitable than smaller ones.

Kavoi et al. (2000a) estimated the smallholder supply function of tea to determine the factors that influence the policy intervention. They argued that objectives of the tea sector policy could be realised if there is a major increase in green leaf supply by the smallholder sub sector. The General Linear Model was fitted for the data on supply function. The authors concluded that green leaf supply was relatively responsive to tea price changes. They added that the policy intervention should therefore be focused on improving producer prices, particularly the monthly payment, in order to increase the quantity of green leaf in the short run and end of year payment in the long run.

Kavoi *et al.* (2000b) investigated some of the factors contributing to low tea productivity in the smallholder tea sector in Kenya. They hypothesised that efficient use of inputs would improve productivity. To measure efficiency, a Cobb-Douglas production function was used. The predictors of tea yield/hectare were fertilizer used/ hectare, number of bushes/hectare, number of growers/hectare and the number of extension staff/hectare per district. The results showed that fertilizer input significantly influenced tea yield. They suggested that farmers needed to be educated about the benefits arising from the application of the fertilizer input according to agronomic recommendations in order to enhance efficiency and ultimately increase tea productivity.

Kavoi *et al.* (2000c) assessed the profitability of the tea enterprise and the break-even price of green leaf in the smallholder sub-sector in Kenya during 1999. Gross margin analysis revealed that tea production under the current smallholders' conditions was economically viable. Break-even analysis revealed a significant difference between the computed break-even price and the monthly payment of green leaf in the smallholder sector.

Nyanga *et al.* (2000) examined the constraints, opportunities, and areas for intervention in smallholder tea production in Tanzania. They identified management practices, marketing of green leaf, availability and type of planting materials, factory processing capacity, green leaf transportation, input supply systems, research and extension services, and Government policies on the tea industry as the major factors affecting profitability. Gross margin analysis revealed a huge potential for improving profitability.

Ratwatte (2000) in his study on the performance of Sri Lanka's tea industry, in terms of production and export volume, during the 20th century highlighted the expansion of the private sector within the industry and changes that took place in the rank and order of Sri Lanka's main tea buyers during the same period.

While discussing the prospects and key techniques for developing organic tea, YunWen (2000) noted that major increases in trade in organic tea over the past few years in the developed countries of the West was mainly due to increasing consumer purchasing

power and concern for consuming healthy products. He recommended six key steps to increase organic tea production in China, namely, soil and fertilizer management in organic tea plantations; cultivation techniques specific to organic plantations; processing and packaging of organic tea; storage and marketing; testing organic tea; and techniques for changing normal tea plantations into organic tea plantations.

ZuFa and DeBiao (2000) in their strategic study on Zhejiang tea industry suggested for the upgradation of the Zhejiang tea industry and for the promotion of production in the major tea-producing provinces in China. Measures for achieving this were quoted based on the analysis of the advantages and disadvantages of tea production in Zhejiang.

In their effort to examine the production performance of tea and its variability by using Index numbers and coefficient of variation during the period 1973-74 to 1997-98, Guledagudda *et al.* (2001) attempted trend analysis by fitting linear and semi log models. The trend in growth rate revealed that the growth in area, production and productivity over the years were positive but negligible. Both area and productivity partially contributed towards positive growth in production.

While studying the relationship between economic performance and scale of tea-producing farm, ZhuCheng *et al.* (2001) commented that economies of scale did not exist in tea production in China. The development of hand-made tea during the 1990s resulted in small-scale tea production, which negatively affected the development of the tea industry. In order to participate in the international market, they suggested that it is necessary to upgrade the technology of the country's tea industry.

In his attempt to promote industrialisation of tea through implementation of famous brand strategy, BaoFa (2002) suggested that there has been an emerging need for analysis of environment, land resources, and current situation of production and sales. He added that the counter measures were proposed to be put forward to solve the problems related to tea industrialisation.

Mahesh *et al.* (2002) analysed the technical efficiency of Indian tea production by using data for the year 1998-99 from four districts of Assam, West Bengal, Tamil Nadu

and Kerala. The sample consisted of 100 corporate units and 100 tea farmers. Results revealed that while 43 per cent of the corporate units belonged to the most efficient category, it was only a minority 13 per cent in the case of individual farmers. They concluded that there exists good scope for improving tea productivity by proper allocation of existing resources.

ZongMao *et al* (2002) while evaluating the impact of WTO on Chinese tea industry concluded that the position of the tea industry in the Chinese economy as well as the global economy is blessed with both the challenges and opportunities and recommended for the need of immediate measures to address the challenges ahead.

The main areas of enquiry of the authors have been the problems, constraints, prospects or opportunities, reasons for production instability and methods to enhance production of tea. The concern for the small holders of the tea sector is well reflected in many studies, especially in the studies held abroad.

2.3   PRICE BEHAVIOUR

Pricing is the most important, difficult and delicate area of export management. It is treated as an important factor in successful export strategy. Consumers are extremely sensitive about the quality and price; competitive capacity in international market also depends on the prices. Hence the review would be incomplete without going through the studies on pricing policies, price analysis and price responsiveness of agricultural commodities and of tea.

According to Ajjan (1987) the price of green tea leaf as fixed by the bought leaf factories was the major determinant of the economic viability of small tea gardens. Green tea leaf price had steadily declined since 1977 in sympathy with the auction prices of 'made tea', which had affected the economy of small growers.

Barah and Chiranjeevi (1991) studied the supply response behaviour of tea in terms of the area and yield responses. The results revealed that removals have an impact on replanting and replacement planting decisions only, whereas expected prices and risks due to price changes were found to have significant impact on area newly planted. Yield per hectare showed higher responses to expected prices and risk due to prices, as

compared to total area. They concluded that the stability of prices emerged as a crucial factor for maintaining stable growth of tea production and also recommended for the new and replacement planting.

Gupta (1993) fitted an ARIMA forecasting model for tea production in India. Using monthly tea production data in India for the period January 1979 to July 1991, he developed the model and forecasts were made for the future twelve-month period.

Nayyar and Sen (1994) while discussing the various empirical estimates, concluded that domestic relative prices of agricultural commodities in India were quite different from world prices, and dismantling existing restrictions on international trade would in general worsen the terms of trade. Further they observed that domestic price moved closer to world prices.

Sundaresan and Menon (1994) estimated the variation in prices of tea in four selected markets during the period 1974-75 to 1990-91. High coefficient of variation for all the markets revealed that uncertainty in tea prices had increased in recent years and a policy covering both production and marketing of tea was imperative to overcome the crisis.

Veena *et al.* (1994) identified price instability as the single largest source contributing to over 60 per cent of the instability in the total Indian coffee export earnings. The abolition of International Coffee Agreement was observed as one of the main reasons causing instability in prices, which were expected to increase in future also.

Jain *et al.* (1995) examined the pattern of growth of agricultural trade in India and abroad, the differential in agricultural prices between those in India and the world, and India's share of world exports and its price efficiency for agricultural commodities. The study reported that Indian agricultural products generally fetched lower prices than world average export price, with the exceptions of tea, pepper, pimento and rice. It also stressed the need to develop overseas markets by means of improving the quality of goods, cost efficiency in production, standardising packaging and producing more value-added products.

Perera (1995) used an econometric model to evaluate the impact of change in international tea price on the Sri Lankan tea sector and found that favourable international prices enhanced the long-term prospects of the tea industry in Sri Lanka.

In his study on trade reform, export diversification and earnings stability of Sri Lanka during 1976-77 to 1990-91, Jayanthakumaran (1996) found three forms of diversification namely horizontal diversification which means development of alternative crops (cocoa, tobacco, spices); vertical diversification which is the result of downstream investment within an individual commodity category; and increased processing of imported inputs. The study revealed that the non-agricultural sector was increasing at the expense of the traditional agricultural export sector, namely, tea and rubber.

Mohanty *et al.* (1996) tested the long-run law of one price (LOP) for international commodity prices using a generalised notion of cointegration. The LOP suggested that prices for a single homogeneous commodity expressed in a common currency are the same both at home and abroad. Fractional cointegration analysis was applied to nine pairs of price series comprising various combinations of the prices of wheat, wool, tea, sugar and zinc in Australia, U.S.A, Canada and the U.K. The empirical results showed that these series were fractionally cointegrated even when the hypothesis of cointegration has been rejected. Eight cases supported the existence of LOP, compared to three in the standard cointegration process. The results approved the notion that there was a long-run tendency for the LOP to hold in the case of these commodity prices.

Barman and Das (2000) found the supply response behaviour of Assam tea for the period 1972-73 to 1995-96, in terms of area and yield responses. They stated that the expected price level and risks due to price changes significantly influenced the total area and short run yield of the crop. They revealed that decisions regarding total planting and planned uprooting and risks due to prices had a significant influence on the long run yield.

Labys *et al.* (2000) examined short-term cycles in primary commodity prices of export importance to developing countries over the period 1960-95. The findings provided evidence for the cyclical behaviour in the expansion, contraction, and overall phases for a number of commodities. The results suggested the predominance of two

types of cycles. The short-term cycle of less than a year reflected the speculative influences that commodity futures trading could have on spot markets. The second cycle with duration of two years or more was particularly evident for cocoa, copper, maize and tea.

Selvaraj *et al.* (2000) opined that an increase in the degree of openness was bound to increase domestic price variability due to direct transmission of world prices. But the results of residual trend analysis showed that variability in domestic price was significant in pre-reform period whereas variability in international prices was significant in the post reform period.

Vickner and Davies (2002) estimated strategic price response of the domestic black and herbal tea industries using cointegration analysis. They developed a vector error correction model, using weekly, point-of-purchase scanner data (6 December 1992 to 12 May 1996), to investigate multivariate pricing relationships among brands competing in the domestic black and herbal tea industries in the U.S.A. Johansen's likelihood ratio test established that the prices of black tea and herbal tea were co-integrated; hence, the pricing decisions of the largest firms in each respective tea market were not unrelated. The black tea prices of the two largest firms in the black tea market were cointegrated as well.

Ramadurai (2003) while studying the price trend of tea plantations under three dimensions namely plantation in India vis-à-vis other commodities, North India vis-à-vis South Indian tea and Indian tea vis-à-vis global, came to the conclusion that the present crisis is in the plantation sector as a whole and the crisis is much more severe in SI than in the North. Further among the tea exporting countries, India and Bangladesh are the only sufferers, the position of SI being the worst among all regions.

Stability in the prices of agricultural commodities is equally important as better prices. Uncertainty in the prices of tea can be overcome to a large extent by provision of marketing facilities along with production incentives. Many authors have pointed out the responsiveness of yield to expected prices, although the role of non-price factors cannot be overruled.

2.4 INTERNATIONAL TRADE AND LIBERALISATION

Since all countries are trying to boost exports and participate in international trade very actively, international markets have become highly sensitive and competitive. Both developed and developing nations are striving hard to promote exports and capture overseas market. Today, there is hardly any commodity, which is not traded internationally. As a result of this, export markets became much more competitive than home markets. In the foreign market, exporters have to compete not only with home exporters but also with exporters from other countries. The review that follows gives an insight into the global scenario in this regard before and after liberalisation.

Sharma (1976) examined the demand conditions for India's exports to the socialist countries. The study showed that demand conditions for majority of the items like tea, mica, coffee, cashew kernel, hides and skins, jute manufactures and oilcakes were far better in the socialist countries than in other market economies. He suggested that the scope for India's exports to the socialist countries of East Europe was very vast as India's share in the imports of these countries was as little as 1.4 percent in 1972.

Goldin (1990) noted that in a neo-classical world, production was found to be determined on the basis of costs, and costs and prices were synonymous, and trade would be determined by comparative advantage. However, it was generally agreed that costs of labour, land and capital especially in developing countries, did not reflect their opportunity costs with any accuracy because of market imperfections. He also opined that trade liberalisation was associated with a substantial growth in the volume of trade.

Hermann *et al.* (1991) investigated how measurement issues were important when agricultural protection was analysed. They found that the computed protection levels were strongly affected by using normal rather than actual world prices in the nominal protection coefficient calculations and also argued that if more realistic framework of imperfect substitution was considered, welfare gains of liberalisation would have become less.

Siddique (1991) analysed demand for non-alcoholic beverages in Australia for the period 1964-65 to 1989-90, with the use of consumption theory. The study's findings,

which generally supported those of earlier studies, suggested that demand for non-alcoholic beverages is price-inelastic. A comparison of income elasticities further suggested that tea is an inferior good, coffee a necessity, and soft drinks a luxury.

In a study on the agricultural exports of India, Pal (1992) opined that the comparative advantage in the production of agricultural products could not be exploited by the least developed countries in the real world mainly because of poor bargaining power in the world market and tariff and non-tariff protection strategy followed by developed countries. Exports of the least developed countries fluctuated more than that of developed countries. This was because of the fact that the export of the least developed countries mainly comprised of agricultural products having erratic supply.

Reddy and Narayanan (1992) argued that the exports of agricultural and agro-based commodities linked with adverse effects on the domestic economy should be discouraged. Their analysis brought out that the share of agricultural exports had been declining over the years due to stagnant output, low yield rates, non-competitiveness in the world markets and dependence on traditional export crops. They suggested a shift in the composition of exports in favour of non-traditional; high value products like processed foods.

Masters (1993) argued that, there was a systematic bias in measuring Producer Subsidy Equivalent (PSE) by placing market prices, rather than reference prices in the denominator which led to incorrect PSE rankings when comparing one crop or country with another. This measure could be improved by dividing the PSE into product price and input cost effects and subtracting the product price effects from the denominator to obtain an estimate of reference- cost values, which gave results that are more accurate.

Bhatia (1994) in his study on agricultural pricing, marketing and international trade under new economic environment opined that in order to take the maximum benefit from the new world trade environment, it would be essential to properly assess the available export surplus of various commodities in the country and to give greater emphasis to production strategy for the commodities for which the country had greater comparative advantage. The relative level of domestic and world prices would indicate the export competitiveness and possibility of export and import of agricultural

commodities in the country. He opined that relatively low prices in the domestic market would indicate that the commodity had comparative advantage in the export of that commodity if the international prices were higher than the domestic price plus transport and other handling charges, in contrast to which, if international prices plus insurance and freight charges were lower than the domestic price, then the country was placed at a disadvantage in the production.

Euromonitor (1994) in its study on the international market for hot drinks revealed that the market was static in overall terms, and recent sales have been hit by fluctuating commodity prices, adverse health criticisms, the trend to soft drinks and the growth of own-brands. The study opined that within the total market, significant opportunities existed especially for essenced coffee and herbal teas.

Uppal (1994) remarked that the slow progress of the country in the export front could be attributed to lack of infrastructural facilities. Further, low productivity and high price of raw materials made our export commodities non-competitive in the international markets.

Paarlberg (1995) opined that export subsidies would raise the domestic price of the subsidised goods for the exporting country because subsidies introduce price wedges and at the critical world price, there will be excess supply in the world market and excess demand in the domestic market.

Swaminathan (1995) emphasised the role of excellence in quality, reliability of supplies and price competitiveness in international trade and suggested ecologically sound methods of production, improved post harvest technology and maximum value addition for spices with particular attention to processing, packaging, transportation and marketing. The major challenges for the Indian spice industry were the productivity challenge, the quality challenge and the value addition challenge.

Jhakhar (1996) was of the view that the economic liberalisation policies would give Indian agriculture a new face of confidence and strength while opening up of farm sector for foreign investment and protecting the interest of the farmers at the same time. A declining trend of Government funds in the farm sector and agricultural research was

noticed. The author opined that phytosanitary conditions and market access measures should be studied in depth and a good market intelligence system should be developed in addition to the continuation of subsidies in the better interest of our farming community.

Srinivasan (1999) found that the agricultural trade liberalisation measures adopted in the Quantitative Restrictions (QR) agreements comprised of many loopholes, which provided developed countries in maintaining dirty models against the interests of non-food exporting countries. The extent of trade liberalisation actually achieved was very small and even negative in some regions like Western Africa.

Selvaraj *et al.* (2000) opined that developing countries with free trade specialised in labour intensive agricultural goods while developed countries specialised in capital-intensive goods, which resulted in biased economic growth. Due to the lack of stability of demand for agricultural goods, developing countries had the problem of export instability. The terms of trade deteriorated in developing countries due to increase in price of imports and imperfection in international financial markets.

An attempt was made by Jha (2001) to compare Nominal Protection Co-efficient of agricultural commodities over the years (1992-93 to 1996-97), which indicated the impact of trade liberalisation on the price competitiveness of the products. The result revealed that over the years there was marginal increase in NPCs for cereals, excluding wheat and maize. The increase in NPCs over the years indicated erosion in price competitiveness followed by trade liberalisation. The author also opined that in India the comparative advantage is high for plantation crops like cotton, tobacco, jute, spices, tea and coffee, which are produced efficiently in the country at a commercial scale.

Naik (2001) in his work on market assessment and exports of agricultural products observed that the competitiveness of countries in individual products/ commodities is expected to play a major role in the international trade. India would have to increase productivity and improve quality to compete effectively in the international market. It was found that India had high share in the low potential market and low shares in high potential market.

Nakip (2001) examined the stability of global market segmented by usage rates of agricultural products. The study reported whether the global market, segmented by usage rates of agricultural products, is stable for a short period of time. Data on sixteen agricultural products including tea were obtained from sixteen countries for the years 1996 and 1998. Countries were divided into 3 usage rate groups: light, medium, and heavy users of agricultural products. Results indicated that the size of the usage-rate segments usually remained similar over a short time period.

Nambiar (2001) in his paper on the impact of globalisation and WTO agreements on the agricultural economy of Kerala observed that countries that have a competitive advantage in terms of production costs and productivity would be placed in a more advantageous position. The overall productivity of agricultural crops in India is only about one-third of that of advanced countries like U.S.A, and Australia. This makes India's agriculture globally uncompetitive for exports and attractive for imports.

Verma and Singh (2001) felt that when QR of important items were being lifted, the most sensitive of the WTO affected areas was India's primary sector, which accounted for millions of livelihoods. The maximum tariff India could impose was 100 per cent on primary sector production, 150 per cent on processed foods and 300 per cent on edible oils. These sound reasonably high, but farms would prove to be the explosive issue at WTO, because every country subsidised them heavily.

Sai (2002) opined that in India, agriculture was not a profitable proposition and farmers were losing comparative edge due to factors like non availability of credit on easy terms, constraints on critical inputs, stagnation of yield, lack of quality consciousness, imperfect domestic markets and uncertain international markets.

There is a strong opinion among the authors that liberalisation has not brought the desired results by way of increasing exports, especially in the case of developing nations. On the other hand, the bargaining power of the developing nations has declined during the post liberalisation period. There is still vast scope for the Indian tea industry in the international market provided Indian tea is made competitive by reducing the cost of production and better quality wise, according to them.

2.5 POLICY ISSUES AND GOVERNMENT INITIATIVES

Since the onset of WTO regime, lot of discussions have been going on with regard to its impact on Indian agriculture, but much of the debate is theoretical in nature and not substantiated by any empirical evidence. The supporters of the free trade regime claim that it has helped India gain a foothold in the international market, while the critics hold it responsible for the current situation of depressed prices in the domestic market. From the long-term perspective, the WTO aims at liberalisation of exports, which is being justified on the ground that and it will open the markets of the developed countries to India. But, the timing and the extent of the same will have to be decided by the Government, taking into account the requirement of the concerned sector. The studies reviewed below will give an insight into the present and expected role of the Government in this regard.

In his attempt to devise policies to improve export performance of USA, Schuh (1984) suggested for more price flexibility and promotion of the general liberalisation of trade both within the country and on the international scene. The implication of expanded trade is increased specialisation, which means that countries will have to shift resources from the production of commodities that they protect at present, to the domestic consumption.

Roberts (1989) analysed tea production based on duality and separability theories and suggested that reducing tea export taxes and thereby increasing estate prices would be a strong impetus to increased tea production whereas a policy of higher worker wages would alternatively decrease the production. The ideal organisation would be the estates with 300 to 400 hectares producing green leaf for large central factories.

Pal (1992) pointed out that despite significant agricultural production achievements, India's involvement in world agricultural trade has been declining during the past twenty-five years. The reasons for such decline could be attributed not only to the trade policies of the developing countries, but also to the increasing domestic demand, volatile prices and policy changes.

Singh *et al.* (1992) examined Indian agricultural policy in the context of new trade and industrial policy. According to them, decline in agricultural exports during the study period of 1970-71 to 1990-91 could be attributed to stagnant output, low yields and non-competitiveness of exportable goods in the world market. They suggested for concentrated efforts in the production of traditional and non-traditional agricultural commodities in order to achieve higher foreign exchange earnings.

Akiyama and Larson (1993) argued that many countries in sub-Saharan Africa remain dependent on a few primary commodities, for a large share of export earnings. Because demand for these commodities became price-inelastic, production and export expansion could depress world prices and net export revenues. The authors viewed the effects of this phenomenon, on policy and development strategies for major agricultural export commodities in sub-Saharan Africa. They were of the opinion that it was not feasible to design a regional commodity production and trade policy for sub-Saharan Africa as a whole because of the difficulty of equitably distributing the benefits of such a policy.

Betz (1993) investigated the tea industry and tea policy in the three most important tea exporting countries, Sri Lanka, India and Kenya which differ in their mix of enterprise type (small farmer/plantation, private/state owned) and in their production and productivity. The study revealed that dynamic expansion of production and exports in Kenya contrasted with India where moderate expansion was prevalent with increased domestic consumption and with Sri Lanka where rate of growth and productivity of the tea sector was already suffering setbacks before the nationalisation of the plantations. The study identified the underlying political factors within these diverse types of development and emphasised tax policy, land distribution, support systems to small farmers, effectiveness of institutional measures and the influence of social pressure groups on tea policy for the better performance of the industry.

Bhowmik (1994) examined new wage agreements that have been negotiated among employers, unions and Government. This particularly included imposition of very low increment rates, payment of wages in kind, and the differences between time and piece work. The study revealed that different regions have varying wage levels in India.

The Southern States showed a much better record of implementing the provisions of the Plantation Labour Act than plantations of West Bengal and Assam.

Gulati and Sharma (1994) have categorised the impact of GATT commitments in agriculture into three main heads, viz., market access, domestic support and export competition. The analysis proved that India gained from trade liberalisation rather than lost by trading with GATT members. Their research on the future agricultural basket of the country also revealed that exports are likely to be dominated by fish and fish preparations, rice, wheat, tea, tobacco, fruits and vegetables and their processed items.

Nayyar and Sen (1994) while studying the international trade and the agricultural sector in India viewed that the unilateral trade liberalisation should be followed by multilateral liberalisation of trade in agriculture. An international regime of discipline for domestic support and Intellectual Property Rights in agriculture should be introduced. They added that the impact of these developments would change the structure of relative prices and costs in the world economy.

Chaduhuri (1995) studied the role of research and development and bio-fertilizers in promoting tea production. He concluded that by the year 2000, target production should be the main criteria governing research and development and investment, but the importance of maintaining quality should not be overlooked.

Daviron (1995) studied the market structure for tea in recent years. He stated that four countries were competing for the first place in the export rankings (India, Sri Lanka, China and Kenya), while imports were scattered among a larger number of unpredictable buyers (Russia, Gulf States). The study revealed that increasing consumption in Asian producing countries was likely to have serious consequences for market operations. Economic development in producer countries inevitably led them to adopt policies intended to isolate the domestic market from the international market. The Indian Government also limited its exports on several occasions in recent years to ensure supplies to the domestic market.

Kumar and Mittal (1995) studied the policies that promote the export of agricultural products and their impact on food security with particular reference to domestic food prices. The study examined the factors that determine exports of tea from India and observed that tea exports were insensitive to price incentives, changes in world demand and decreased with an increasing share of domestic consumption. The authors concluded that the effects of encouraging exports of essential commodities needed to be examined carefully.

Saika and Sharma (1996) analysed mechanisms and policies used by the mercantile colonists to establish the industry, along with the effects of these policies on the traditional economy followed by an analysis of the post-colonial scenario and the changes that gradually crept in. They stated that tea continued to be the cornerstone of the regional economy, although in recent years cultivation in the shape of small tea estates has spread to the neighbouring States. They concluded that both the masters of industry and the State Government should adopt measures for the shaping of the tea sector so as to remove the vestiges of colonial and post-colonial exploitation.

Vishwasrao and Bosshardt (1996) found a simple model for large exporters of quality differentiated products and estimated optimum tariffs based on the quality of the traded commodity. They used the estimated model to find optimum tariffs for two qualities of Indian tea exports and found that optimum export tariffs for high quality teas should, on average, be 14 per cent higher than the tariff on low quality tea exports. Both types of Indian tea were sold at a considerable price premium compared to Sri Lankan tea and since that there were few good substitutes, it appeared that there is considerable scope for India to influence market prices of tea in each quality.

Vithal (1997) assessed the features and objectives of an Estate Performance Agreement System (EPAS) for tea and coffee plantation estates. He concluded that an EPAS provided greater clarity with respect to target setting in terms of various performance criteria and reduced unnecessary reporting.

Rao (1998) stated that if India has to compete with developed countries in international markets, it has not only to increase agricultural production, but also to cut

down the cost of cultivation. He further opined that India has immense potential for many conventional high value farm products to become competitive in the global market.

Damodaran (1999b) studied about the conflict between the WTO and marketing on the basis of its geographic appellation with special reference to Basmati Rice, Darjeeling Tea, and Malabar Pepper, all from India. He discussed the present issue by employing common property resource management theory.

While examining the marketing system of tea in India, Banerjee (2001) stated that with further liberalisation of imports, the domestic market is unlikely to be flooded with low-grade imported tea. It was felt that there was no point in becoming worried at the action of the Ministry of Commerce allowing free import of teas for re-exports. The only necessity is to remain alert against unscrupulous traders who may take advantage of the import liberalisation policy of the Government of India just to further their own interests.

Mutisya and Ng'etich (2001) outlined environmental policies and legislation relating to the tea industry in Kenya. These policies and legislation covered air pollution, use of key agricultural inputs (pesticides and fertilizers) and management of natural resources (forest and water resources).

Owuor *et al.* (2001) while studying the policies influencing tea production and extension activities through socio economic activities of extension staff in Kenya, reported that tea extension structure was long, slow, under staffed, inadequate and in need of overhaul. The impact of extension could be enhanced through administration of regular courses to extension staff. The extension staffs were of the opinion that most of the factors contributing to low tea productivity were man made and could be minimised by proper policy intervention and implementation.

Kacharu (2002) stressed the need to liberalise the patenting procedures in our country for encouraging researchers and individuals to register patents on ideas, products, processes, machinery and designs. Further he added that the efforts of the agricultural industries would need adequate infrastructure and policy support in order to ensure viability and compete in the international market.

Leclair (2002) studied the possibilities of exploring Fair Trade Organisations, their products like coffee, cocoa and tea, services and client groups, in order to establish the impact of this movement. Although small in volume, alternative trade represented a unique response to the relentless pursuit of free trade through the GATT/WTO process. The economic underpinnings of both Fair Trade and subsidy programmes in general were evaluated. Ultimately, alternative trade could provide significant assistance to targeted groups within developing countries, including gains in production and export proficiency. On the negative side, Fair Trade is likely to prolong the dependence of developing countries on products with poor future prospects.

Nimbalkar *et al.* (2002) while studying the current status of agricultural exports and trade concluded that in order to face WTO and to reduce the adverse impact to the farmers, we should know the available opportunities and measures. The farmers must be prepared for better exports by supplementing it with right technology, proper planning and reducing the gap between potential and actual productivity.

Raipuria (2002) argued that along with the price stabilisation fund set up by the Indian Government for four commodities (coffee, rubber, tea and tobacco), what was needed to enable growers to realise a 'fair price' was to expand the market by investing in value orientation, which required joint participation by growers, States, and financial institutions.

Rawat (2003b) while examining the changes that occurred in the new Tea (Marketing) Control Order, 2003 noted that the Act stipulated the buyers to register themselves within 60 days of publication of order with the registering authority and submit a monthly return in the prescribed format giving the details of purchases from the public auction system as well as non auction sources. Even the manufacturers should intimate the registering authority about any sale outside the public auction system within 15 days of such transaction. The author expected that such changes stipulated in the Order would improve the functioning of the market and bring better benefit to all of the segments of the Indian tea industry.

Most of the factors leading to the problems of the tea industry are man made and hence appropriate policy measures and their implementation from the part of the

Government can definitely promote the industry. Studies have revealed that the developmental efforts of the Government towards protection of the small farmers have yielded desired results. While framing policies for the tea industry, the Government should keep an appropriate balance between the objectives of price stability and accumulation of foreign exchange earnings.

2.6 PROBLEMS AND PROSPECTS OF INDIAN TEA INDUSTRY

Although India's export trade is increasing in absolute terms, she is facing an era of mounting trade deficits. In addition, world export trade is fast increasing but India's share in the world trade is not increasing at the same rate of change. This situation is certainly disheartening if the Indian tea industry and its export performance are compared with other countries including the other developing countries. Studies highlighting some of the critical problems and remedial measures are reviewed in this section.

Sharma (1969) found that world import demand for Indian tea was uncertain as it had not shown consistent and significant response to the changes in price due to the role of non price factors such as quality and promotional efforts.

Lingan (1981) noted that high cost of fertilizers, non-availability of fertilizers round the year, supply of inputs by the Industrial Co-operative factory based on the savings by farmers in the factory, high cost of plant protection chemicals, non-availability of financial help, lack of technical assistance, non-remunerative price and non-existence of support price were the main problems faced by the tea farmers.

According to Pai (1990) tea exports from India faced intense competition from Sri Lanka and Kenya. In order to augment its share in the export market, cash compensatory support and duty drawback benefits should be allowed for the exporters.

Sharma and Moorthi (1990) concluded that lack of skilled labour and lack of extension services were the main constraints in the tea gardens of Himachal tea farms.

Singh (1991) found that at the aggregate tea consumption level, population did not appear to be a much significance variable attributing to the fact that tea was cheaper compared to other beverages and its consumption was a necessity. Therefore, the author

concluded that increasing domestic production of tea would serve the twin objectives of catering to the requirements of domestic demand and strengthening the country's capacity to increase the exports of tea.

Devi (1992) found that price instability was the most important problem faced by the growers while marketing tea.

Misra (1993) argued that small planters because of paucity of working capital and lack of knowledge pertaining to biological innovations could not adopt intermediate material inputs of biological innovations, which decreased tea productivity.

Sundaresan and Menon (1994) argued that the inability of Indian tea to compete on price and quality fronts in international market was due to the major constraints in the export of Indian tea namely, dependence on realising high unit value, lack of export promotion measures and inadequate development of international market intelligence.

Moorti and Pathania (1995) estimated the resource-use efficiency of tea cultivation in Kangra district and suggested that the tea planters should use more of the required variable inputs, the response of which towards output was found to be significant and that inputs might be made available to them in time and in required quantity.

While evaluating the sickness of the Indian tea industry Thakur (1995) opined that the sickness found was largely due to the ownership of tea plantations by people whose primary interest lay not in the manufacture of tea, but in the speculative value of land.

Kainth (1996) in his study on export of Indian tea opined that the failure of finding new markets, increased per capita domestic consumption, lack of development of unique brands in the exporting countries, presence of chemical residues and employment of child labour were the major problems confronting exporters of Indian tea.

Boriah (1997) while studying the constraints before the Indian tea industry pointed out the measures undertaken by the Tea Board to improve the industry, which included plantation development, technology upgradation of tea processing and packaging, control of Jhum cultivation in North Eastern States, new area development, small grower development, marketing development and export promotion, research and

development with special emphasis on agronomical aspects, processing, packaging and product development, extension services and human resource development.

Tharakan (1998) in his study on the factors affecting choice of crops by agro-entrepreneurs in nineteenth century South-West India, opined that tea was suitable for the early coffee lands leading to the demise of coffee production because of developed vertical system of production, distribution and marketing.

Kutty(1999) found that it was the shift in the consumer's preferences or habits, which decreased tea consumption in U.K, Ireland, Australia and New Zealand during 1987-97 and therefore it was imperative for the tea exporting countries in the world to launch an intensive, generic promotion in these markets.

Selvaraj and Sundaravaradarajan (1999) examined the nature and effect of credit-linked transactions in agrarian credit markets in the Nilgiris district, Tamil Nadu. The study was confined to production credit for the year 1992-93. Tea was the major food crop grown in this area. The authors identified that the rigidity in the recovery process adopted by cooperative tea factories, and the untimely supply of formal credit were the main reasons for using informal credit.

Sarma and Bhuyan (2000) examined the investment capital and working capital needs and sources of finance for small-scale tea cultivation in the Golaghat district of Assam. The study revealed that human labour was the most important item of working capital, accounting for more than 67 per cent of the total working capital need per ha followed by plant protection expenses, fertilizer and materials for fencing. The small tea growers financed their investment mainly from equity supplemented with non-equity sources such as relatives and moneylenders. Institutional finance was negligible. They recommended that appropriate measures should be taken to channel the flow of funds from the banking sector to this profitable and emerging area of small tea cultivation.

Susan and Keezhara (2000) explored the historical links between tea cultivation and tourism development in Ooty, Tamil Nadu. The study reported that the financial situation of tea farmers has been adversely affected by Government policy, which on the one hand lowered import duties and led to more imports from countries such as Kenya

and Sri Lanka, and on the other reduced farm subsidies. Added to this was an increasing reliance on tourism revenue. The farmers are starting to single out tourism as the root cause of all their problems. As a result, tourism revenues are beginning to be hit by farmers' protests.

While studying the problems existing with the Indian tea industry, Chhibber (2002) reported that strategies like reducing the cost of production, increasing productivity by cost optimizing, replanting, rejuvenation and modernization can provide the necessary push to tea industry. He added that the selection of appropriate trading system and coordination of efforts of the tea industry and the Government might boost up tea companies.

Sundaram (2002) after studying the issues confronting the Indian tea industry suggested measures to promote tea exports including brand promotion, quality improvement, and emphasis on specialty tea, besides encouraging tea exporters to participate in trade fairs. He pointed out that the exporters benefit only by going in for value added products, which apart from improving profitability reinforce consumer loyalty, create brand image and achieve stability in demand.

Bose (2003b) addressed unsatisfactory export infrastructure such as ports and airports, regular complaints about high content of impurities due to poor handling facilities during blending in quality sensitive markets, over production and cheap imports (mainly for re- export) as the major problems associated with the Indian tea industry. He suggested machinery upgradation scheme for the industry to improve the quality and reduce production cost and to enhance the image of Indian exports.

In a study on the Indian tea industry's present crisis, Rawat (2003b) argued that several factors like competition from soft drinks, lack of knowledge about the health related benefits of tea, depressed prices, over–supply situation, controversies surrounding the auction norms, Tea (Marketing) Control Order, 2003, Value Added Tax, expansion of small growing sector, decline in the Russians imports, Iraq war, stiff challenges from the other tea producing nations, age old plantations, low quality clones and high production costs were the main reasons for the present crisis. He suggested that commercial exploitation of new markets, increasing the domestic consumption, replanting of old tea

gardens, concept of organic farming and financial assistance from Government, Tea Board, FAO and similar organizations would bring back the tea to its place of pride.

The Indian tea industry is confronted with not only price factors, but also by non-price factors like lack of, quality, unique brand and promotional efforts. Increasing domestic production not only to meet the domestic demand, but also for strengthening the country's exports will have to be given due attention by the policy makers.

In conclusion, export trade is an important sector for a developing nation like India as it is necessary for growth and development. India must achieve economic growth in a hostile world trade environment. The present environment continues to be difficult for exports of many Indian goods and commodities including tea due to slow down in some of the major economies of the world, stagnation and increasing protectionist barriers by the developed countries. Our efforts on export promotion are certainly given positive results but they are not adequate to meet our growing needs. Naturally, India's export trade continues to be a cause for serious concern to policy makers, administrators and exporters.

The review makes it clear that the tea industry is too important and too complex to be dealt with piece - meal. A package for renewal, sustenance and growth of the sector will have to be framed to give India an edge in the global market. Hence, further empirical studies in this regard will definitely help the planners and policy makers to evolve a suitable strategy. Drawing insights from the methodologies reviewed above, and based on the objectives of the study, the methodology of the proposed study has been formulated, which is detailed in the ensuing chapter.

Materials and Methods

3. MATERIALS AND METHODS

Designing a study or research is the crucial step in any type of research. It is on the effectiveness of this step that the ultimate reliability and validity of the research findings depend. Hence the research must be designed in such a way as to allow the results of the study to be interpreted with a minimum degree of ambiguity. The present study aims to estimate trends in area, production, productivity, imports and exports of tea in South India along with price behaviour, and trade competitiveness. The study also attempts a critical review of the policy options for tea under liberalisation. This chapter discusses the concepts, data sources and methodology adopted in analysing the above objectives.

3.1 Concepts and Definitions

Prior to description of the methodology employed in the analysis of the objectives of the study, the definitions and explanation of various concepts used in the study are presented in this section. The important concepts used in the study are the following:

Border Price: Pursell and Gupta (1998) defined border price as what the prices of the domestic varieties would have been during the same period under conditions of free trade at the same exchange rate.

Domestic price: Domestic prices used in the estimation of Nominal Protection Coefficient are estimated to approximate as closely as possible the prices that the farmers receive during the harvest. The domestic price in the present context refers to the prices in the three major markets of SI, viz, Coonoor, Coimbatore, Cochin and the average for SI. Each of these prices was taken up separately for the analysis of price movements. However, the analysis of the trade competitiveness is confined to South Indian price.

Instability: It is defined as the deviation from general trend of the variable. (Bharathi *et al*, 1992) It is also defined as the fluctuation from trend. (Mohan and George, 1993)

International Price: International Price refers to the price in the market where the volume of transactions was the largest for the commodity in question at the international

level. In the case of tea, London market was believed to be the major market, till the early 1990s. Nonetheless, by mid 1990s, it lost its status to Kenya. Therefore, in the present study the price prevailing in Kenyan market is taken as the international price.

Nominal protection: The ratio of domestic farm prices over the international market commodity price converted into local currency using official exchange rates.

Nominal Protection Coefficient (NPC): Pursell and Gupta (1998) defined NPC of a commodity as the ratio of that commodity's domestic price to its international price. It is an estimate of the extent to which its price has been affected by Government interventions in the country's international trade. NPC determines the degree of export / import competitiveness of commodities by measuring the divergence of domestic price from the international or border price.

Real domestic prices: Nominal or actual price at which transactions were taking place in the market, deflated with appropriate consumer price index to reflect the purchasing power of the recipient is referred to as real prices. Since production and processing of tea is classified under the industry, the Consumer Price Index for Industrial Workers (CPIIW) is used as the deflator. The ratio of nominal price to the corresponding (CPIIW) represents the real price for that year.

Trade competitiveness: Trade competitiveness is the ability of a nation to grow successfully and to maintain its share of world trade.

Market access: This refers to the reduction of import duties at the stipulated rate and manner so that the entry of member-countries into the market can be made effective.

Domestic support: This refers to supports given by a member nation of WTO that is having a direct effect on domestic production and trade.

Export subsidy: It refers to subsidies given by the nation to their farmers to make export artificially competitive.

Geographical Indication: The use of a place name to describe a product in this way - 'a geographical indication', usually identifies both geographical origin and its characteristics.

Quantitative Restrictions: This refers that no prohibitions or restrictions (other than tariffs) whether made through quotas, import or export licences or other measures shall be maintained by any member of the WTO.

Aggregate Measure of Support: The extent of domestic policies that to have a direct effect on production and trade given by the members of WTO by the standard calculations is collectively known as AMS.

Special Safeguard Measures: This measure can be used to restrict imports of a product temporarily if a country's domestic industry is injured or threatened with injury caused by the surge in imports.

Most Favoured Nation: It means treating one's trading partners equally. Under General Agreements on Trade in Service (GATS), if a country allows foreign competition in a sector, equal opportunities in that sector should be given to service providers from all other WTO members.

3.2 Location of the Study

Plantation crops occupy a place of pride in agriculture. Its contribution to the agriculture sector in the country is highly significant. The sector employs a large work force providing livelihood to more than a million of households in the country. These crops figure in as major foreign exchange earners either through exports or through import substitution. Tea is one of the major plantation crops, in which our country possesses world leadership. SI is also having a bigger stake in the plantation economy and contributes around 23 per cent of total tea production in the country. (Ramadurai, 2003) Hence, all the tea-growing States of SI (Tamil Nadu, Kerala and Karnataka) have been selected for the study. Among the South Indian States, Tamil Nadu holds first place in area under tea cultivation and production followed by Kerala and Karnataka. There are 68404 tea estates in SI as against an all India figure of 115264. Tamil Nadu accounts for

62214 estates forming more than 90 per cent of the total of South India. In Kerala and Karnataka, there are 6153 and 37 tea estates respectively. (Tea Board, 2004)

3.3 Collection of Data

The study is primarily based on secondary data. The secondary data on area, production, productivity, domestic price, international price, export and import of tea in SI were collected from various publications and records of Tea Board and United Planters Association of South India (UPASI) and the web site of Tea Board (www.teaindia.org). For analysing trends in area, production, productivity and exports, time series data for a period of twenty years from 1981-82to 2001-02 were collected. For the analysis of the price behaviour, annual data on domestic and international prices for the period 1981-82to 2002-03 were collected. In order to identify the impact of liberalisation, the study period had been grouped into two, viz., pre liberalisation period (1981-82 to 1990-91) and post liberalisation period (1991-92 to 2001-02). Since data on tea imports to SI alone were not available, the all India figures were used for the analysis.

For examining the adequacy of policies, financial and other institutional supports in order to comply with the liberalisation agreements, an informal discussion was carried out with the member exporters of Coimbatore Tea Trade Association, in addition to extensive review of literature.

3.4 Analysis of Data

The analytical tools and techniques used in the study are presented below.

3.4.1 Annual Average Growth Rate

The growth over the years, in area, production, productivity, country wise exports, imports and prices of tea in SI was estimated using Annual Average Growth Rate (AAGR) by using the formula,

$$\text{AAGR} = \frac{\text{Sum of annual growth rates}}{\text{Number of Years}}$$

3.4.2 Quinquennial averages

The quinquennial averages for the variables like area, production, productivity and exports were estimated for the period under study by dividing it into four sub periods viz., 1981-85, 1986-90, 1991-95,and 1996-00. The former two periods represent the pre liberalisation and the latter the post liberalisation period.

3.4.3 Kinked exponential model

To estimate the growth rates, an exponential model of the type $Y_t = ae^{bt}$ ($\ln_e Yt = \log a + bt$) has been fitted, using Ordinary Least Squares (OLS) technique. Period wise growth rate has been estimated by fitting kinked exponential function (Boyce, 1986). In this function, the discontinuity between segments of a piece wise regression (if separate exponential trend lines were fitted for different periods) is eliminated by imposing linear restrictions. The single kink and two kink models were employed wherever appropriate. The models used are explained below.

i) Single Kink Model

In the Single - Kink Model, a time series for the period t=1,2,3...n is broken at point k. Discontinuous growth rate estimates for the resulting sub periods could be derived by estimating them separately or, equivalently, by fitting the single equation:

$$\ln Y_t = \alpha_1 D_1 + \alpha_2 D_2 + (\beta_1 D_1 + \beta_2 D_2) \, t + u_t \tag{1}$$

Where D_j is a dummy variable, which takes the value 1 in the jth sub period and 0 otherwise. Discontinuity between the two trend lines can be eliminated via a linear restriction such that they intersect at the break point k:

$$\alpha_1 + \beta_1 k = \alpha_2 + \beta_2 k \tag{2}$$

Substituting for α_2 (and noting that $\alpha_1 D_1 + \alpha_2 D_2 = \alpha_1$), we get the restricted form:

$$\ln Y_t = \alpha_1 + \beta_1 (D_1 t + D_2 k) + \beta_2 (D_2 t - D_2 k) + u_t \tag{3}$$

The OLS estimates of β_1 and β_2 from (3) give the exponential growth for the two sub periods. There is a kink between the two-trend lines $\beta_1 \neq \beta_2$.

ii) Two Kink Model

If the time series is broken at two points k_1 and k_2, so as to create three sub periods, the unrestricted (discontinuous) model becomes:

$$\ln Y_t = \alpha_1 D_1 + \alpha_2 D_2 + \alpha_3 D_3 + (\beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3)\, t + u_t \qquad (4)$$

The estimated growth rates from (4), β_1, β_2 and β_3, are the same as if exponential trends were fitted separately to the data for each sub period. The two-kink exponential model is derived by imposing linear restrictions such that the sub period trend lines meet at k_1 and k_2:

$$\alpha_1 + \beta_1 k_1 = \alpha_2 + \beta_2 k_1 \qquad (5a)$$

$$\alpha_2 + \beta_2 k_2 = \alpha_2 + \beta_3 k_2 \qquad (5b)$$

Substituting for α_2 and α_3 we obtain the two kink exponential model:

$$\ln Y_t = \alpha_1 + \beta_1(D_1 t + D_2 k_1 + D_3 k_1) + \beta_2(D_2 t - D_2 k_1 - D_3 k_1 + D_3 k_2)$$
$$+ \beta_3(D_3 t - D_3 k_2) + u_t \qquad (6)$$

The growth rates in the three sub periods are now given by the OLS estimates of the coefficients of the resulting composite variables. Based on this trend lines were fitted to all the variables. Compound annual growth rate (CAGR) = (EXP (β_i) – 1) x 100

3.4.3 Durbin-Watson d test

To detect the presence of serial correlation Durbin-Watson d statistic was used in area, production, productivity and exports of South India. This method is developed by two statisticians Durbin and Watson and is popularly known as Durbin-Watson d statistic, which is given by:

$$d = \frac{\sum (e_t - e_{t-1})^2}{\sum e_t^2}$$

This is the ratio of the sum of squared differences in successive residuals to the Residual Sum of Squares (RSS). A great advantage of the d statistic is that it is based on the estimated residuals, which are routinely computed in regression analysis. (Gujarati, 1988) Because of this advantage, it is now a common practice to report the Durbin -

Watson d along with summary statistics such as R^2, t ratios etc. Any estimated d value must lie within certain limits. As a rule of thumb, if d is found to be 2 in an application, one may assume that there is no first order auto correlation, either positive or negative. Hence the d if closer to 0 or 4, the greater is the evidence of positive or negative serial correlation respectively.

3.4.4 Instability index based on residuals of the exponential function

Instability in area, production, productivity and export were estimated using the following three methods.

3.4.4.1 Residuals Based Index: Sen (1989) measured instability based on exponential time trend. The method is scale free, and can be used readily for cross comparison. The instability, index (I) is calculated using the following statistic from the residuals (e_i) of the exponential trend equation.

$$I = \sqrt{\frac{\Sigma e_i^2}{(n-k)}}$$

Where,

e_i = value of residual of ith observation

n = number of observations

k = number of variables

3.4.4.2 Coppock's instability index

To study the instability, Coppock's instability index was also used to estimate the variation, which is algebraically expressed in the following form,

$$Vlog = \sum \frac{\left(\log \frac{x_{t+1}}{x_t} - m \right)^2}{N}$$

The instability index is (antilog$\sqrt{v \log}$ – 1) x 100

Xt = area/production/productivity/export/import in the year t

N = Number of years minus one

m = the arithmetic mean of the difference between the log of X_t and X_{t+1}. X_{t+2} and X_{t+3}

V log = logarithmic variance of the series

3.4.4.3 Co-efficient of variation

To study the variation in the variables, the coefficient of variation was also estimated using the following formula:

$$\text{Co-efficient of variation} = \frac{\sigma}{\overline{X}} \times 100$$

Where,

σ denotes standard deviation and

$\overline{X}$ denotes mean of the sample

3.4.7 Country wise export of South Indian Tea

The country wise export of South Indian tea has been examined for the period 1981 to 2002. The major countries of tea exports were identified based on their percent share in the total value of tea exports. This was also analysed for the two-sub periods, pre liberalisation period (1981-82 to 1990-91) and post liberalisation period (1991-92 to 2001-2002). The direction of tea exports to various countries was analysed based on the changes in percentage share of tea exports to various countries.

3.4.8 Price behaviour

Agricultural prices play a vital role in the marketing of agricultural and non-agricultural commodities. Price movements tend to affect the decisions of producers, buyers and consumers, and the economy as a whole. Keeping this in view, the price behaviour of tea in SI was analysed. The trends in nominal, real, domestic and

international prices were computed using the tools described in the above mentioned growth analysis.

3.4.9 Trade competitiveness of tea

Trade liberalisation is expected to bring changes in the domestic as well as international prices due to removal of price distorting policies. These changes can affect the competitiveness of countries in agricultural trade. To study the export competitiveness of tea, Nominal Protection Coefficient (NPC) has been used. It measures the actual divergence or distortion between any given commodity's domestic price and its international or border price. Such a divergence represents the response of market interventions such as taxes, subsidies, Government controlled prices and other policy instruments. The NPC of commodity is the ratio of domestic price to its border price (international price)

$NPC_i = Pd_i / Pb_i$

NPC_i = Nominal protection coefficient for the ith commodity in a given country

Pd_i = domestic price of ith commodity at the producer or wholesaler level

Pb_i = border price of the ith commodity

NPC was worked out for tea for the two periods, pre liberalisation period (1981-82 to 1990-91) and post liberalisation period (1991-92 to 2001-02) and compared.

Results and Discussion

4. RESULTS AND DISCUSSION

Tea is the most popular beverage in the history of mankind, its patronage cutting across the geographical, racial and gender divide. The sight of hot cup of tea is itself a great stimulant. It would be most apt here, to quote a Chinese gentleman by the name Lu Fu, who said, as far back as in 780 AD,

"Tea temps the spirit and harmonise the mind;
Dispels lassitude and relieves fatigue,
Awakens thought and prevents drowsiness,
Lightens and refreshes the body and
Clears the perspective faculties"

The name and fame of Indian tea is not unknown worldwide. But, of late, this cup is facing not a few challenges on account of the depressed prices and decreased patronage. The threat of tea, the oldest and traditional beverage, is so serious that if we do not wake up and restore its popularity, it may become a drink of the past. The challenge before the Indian tea industry now is to ensure that the tea is made available at a price, which would be remunerative to the producer and affordable to the domestic consumers and yet have sufficient tea to meet the export requirements in order to retain and improve India's share in the world market. An increase in exports both in volume and value is an important objective to be met effectively during the Tenth Plan period. The targets for the Tenth Five Year Plan for tea, therefore, have been based on an objective assessment of the demand for tea to meet the requirements of domestic and export markets on the one hand, and the capacity of the tea industry to undertake developmental measures on the other.

The competitive advantage of Indian tea is closely linked with productivity, quality and cost of production. However, all the three factors are at present in an unfavourable condition. Moreover, increasing imports of low quality tea, competition from other producing countries, flourishing tea imports into India due to trade liberalisation and declining trend of domestic and international tea prices have aggravated the problems of tea industry. For the revival of this 170 years old industry, there is a need

for policy reforms and change in the mindset of the growers so that they are equipped to tackle the challenges better.

This chapter, which deals with the analysis of the study, is broadly outlined under two sections. The first section deals with the objective of analysing the export performance of tea industry in South India (SI) during pre and post liberalisation period and is presented in seven sub-sections. The second part discusses the adequacy of policies, financial and institutional supports inorder to comply with the liberalisation agreements regarding Indian tea industry and comprises of two sub sections, as detailed below.

Section I   Tea economy of South India

4.1 Tea - the global scenario

4.2 Trends in area, production and productivity of tea in SI

4.3 Trends in the export of tea from SI

4.4 Country wise export of tea from SI

4.5 Trends in imports of tea into India

4.6 Price behaviour of tea

4.7 Trade competitiveness of South Indian tea

Section II   Policy options and support services to tea industry

4.8 Policy options for tea in India

4.9 Institutional and financial support to tea in SI

SECTION I   TEA ECONOMY OF SOUTH INDIA

The first section begins with an analysis of the global scenario of tea industry. A comparison of the Indian tea industry with the major competitors is made as a prelude to the main study. It will also help to have an understanding of their performance in the present context of liberalisation.

4.1 TEA - THE GLOBAL SCENARIO

Tea is an important plantation crop, mainly cultivated in 30 countries around the world, which include India, Bangladesh, Sri Lanka, Indonesia, China, Taiwan, Iran, Japan, Malaysia, Turkey and Vietnam of Asia; Burundi, Cameroon, Congo, Kenya,

Malawi, Mauritius, Mozambique, Rwanda, South Africa, Tanzania and Uganda of Africa; Georgia of Europe; Argentina, Brazil, Ecuador and Peru of South America; Australia and Papua New Guinea of Oceania. The inter country comparison of area, production, productivity and trade in tea is discussed under separate heads. The analysis of these variables was done by calculating the quinquennial average annual growth rates from 1980-81 to 1999-00. The absolute values for the last two years and annual per cent growth rate for the period are also presented in the Tables related to these variables. Time-series data on the above variables are presented in the Annexure I to IV.

4.1.1   Area

Area under cultivation is one of the most important factors that contributes to the role of a crop in the total economy of a country. There may be variations in the area in the short run or in the long run depending on a variety of factors including the nature of the crop and the available or the expected returns from its cultivation. The area under tea cultivation and its distribution across the countries during the past two decades are presented in Table 4.1.

Table 4.1 Area under tea in different producing countries, 1981 to 2002 ('000 ha)

Countries	Year					
	1981-85	1986-90	1991-95	1996-00	2001	2002
India	394	413	422	465	510	512
	(1.0)	(0.5)	(0.4)	(4.0)	(4.2)	(0.4)
China	1077	1051	1113	1100	1141	1155
	(-0.3)	(0.9)	(1.3)	(-3.0)	(4.8)	(1.2)
Sri Lanka	235	222	210	193	189	189
	(-1.3)	(-0.1)	(0.0)	(0.0)	(0.0)	(0.0)
Indonesia	111	127	135	155	161	162
	(0.3)	(2.2)	(4.7)	(-0.3)	(2.5)	(0.6)
Kenya	82	88	106	119	132	132
	(1.5)	(3.8)	(3.1)	(0.83)	(8.2)	(0.0)
Vietnam	NA	NA	62	72	82	84
	(-)	(-)	(1.6)	(2.7)	(2.5)	(2.4)
Turkey	62	86	84	77	77	77
	(6.4)	(2.4)	(-3.4)	(0.0)	(0.0)	(0.0)
Bangladesh	45	47	48	49	49	50
	(0.6)	(0.5)	(0.0)	(1.0)	(0.0)	(2.0)
Japan	61	60	56	52	50	50
	(0.0)	(-0.4)	(-1.8)	(-1.9)	(0.0)	(0.0)
Others	NA	NA	NA	NA	344	345
	(-)	(-)	(-)	(-)	(1.3)	(0.2)
Total	NA	NA	NA	NA	2735	2756
	(-)	(-)	(-)	(-)	(2.6)	(0.8)

Source: Tea Board , 1984-2003.

Note: i. Figures in the parenthesis denote Average Annual Growth Rate for the reference period.

    ii. NA - Not Available

From Table 4.1 it can be deduced that China has the largest area under tea cultivation (42 per cent) followed by India (19 per cent) during the year 2002. Thus, these two countries together account for more than 60 per cent of the total area under cultivation of tea world over. The other countries, which rank top globally, are Sri Lanka (7 per cent), Indonesia (6 per cent), and Kenya (5 per cent). The top ten producing countries cover more than 90 per cent of the total area under cultivation of tea around the world.

It can also be noted from Table 4.1 that all the producing countries except Sri Lanka and Japan recorded a gradual increase in area under cultivation in the past two decades. The decrease in area under cultivation in the case of these two countries is seen since 1990s. The increase is the highest in China and India in both pre liberalisation as well as post liberalisation period.

4.1.2 Production

Tea can broadly be classified into black tea and green tea. The black tea can further be categorised as Crush, Tear and Curl (CTC) and orthodox tea based on the process of production. CTC grades are mostly granulated in appearance while orthodox grades are long particle or whole leaf type. The inter country variations in area under cultivation is reflected in the total production of tea from these countries. India and China are the largest and the second largest producers and consumers of tea respectively. Together they account for around half of the world's tea production. Of the total production of tea in India, 77 per cent is black tea and the rest comprises of green tea and others. China is the largest producer of green tea in the world. Other producers of green tea include Indonesia, Taiwan, Vietnam and Japan. In black tea production, 59 per cent is contributed by CTC and the rest by orthodox. The main producers of CTC in the world are India, Kenya and other African countries. The major producers are Sri Lanka, Indonesia, Argentina, and Vietnam. Country wise production of tea, including both black and green tea, and their share in world production are presented in Table 4.2.

Table 4.2. Production of tea in different producing countries, 1981 to 2002 (million kg)

Countries	Year					
	1981-85	1986-90	1991-95	1996-00	2001	2002
India	600	679	745	801	854	857
	(4.1)	(3.8)	(0.2)	(2.3)	(0.8)	(-3.3)
China	411	518	570	638	702	745
	(2.9)	(4.2)	(2.2)	(3.6)	(2.8)	(6.1)
Sri Lanka	197	220	229	282	296	310
	(5.1)	(2.7)	(2.4)	(4.4)	(-3.6)	(4.7)
Indonesia	115	135	136	159	173	173
	(13.9)	(3.0)	(2.2)	(-1.3)	(10.2)	(0.0)
Kenya	120	168	211	251	295	287
	(16.1)	(8.4)	(5.2)	(-0.4)	(25.0)	(-2.7)
Vietnam	28	37	38	52	80	84
	(7.4)	(5.0)	(1.6)	(16.9)	(14.3)	(5.0)
Turkey	105	141	128	134	143	145
	(27.2)	(-2.1)	(-6.3)	(7.3)	(9.2)	(1.4)
Bangladesh	42	42	49	54	57	53
	(2.3)	(5.4)	(1.8)	(2.4)	(7.5)	(-7.0)
Japan	98	92	88	88	90	90
	(-0.8)	(-1.0)	(-0.8)	(0.2)	(1.1)	(0.0)
Others	516	552	571	668	696	673
	(4.6)	(2.0)	(-1.9)	(3.6)	(6.3)	(-3.3)
Total	2121	2415	2554	2876	3091	3099
	(5.6)	(2.7)	(0.0)	(2.6)	(3.3)	(0.3)

Source: Tea Board, 1984-2003.

Note: i. Figures in the parenthesis denote Average Annual Growth Rate for the reference period

ii. NA - Not Available

Almost all the countries except Japan are showing an increase in production during pre and post liberalisation periods. During both the periods, India topped in tea production and contributed nearly 28 per cent to the world production in the year 2002. The increasing trend observed in the area under cultivation is reflected in the production too, except in the case of Sri Lanka. Sri Lanka is showing a phenomenal increase in production inspite of the declining trend in area under cultivation of tea. For rest of the countries, an increase in production is supported by a corresponding increase in the acreage.

4.1.3 Productivity

Though productivity depends largely on natural endowments and climatic factors, some tea producing countries have been achieving substantial increase in production mainly through better crop husbandry practices. In other words, scientific awareness and greater attention to individual aspects of agricultural operations have paid handsome dividends. Table 4.3 shows the productivity of tea in the major producing countries.

Table 4.3. Productivity of tea in different producing countries, 1981 to 2002 (kg/ha)

Countries	Year					
	1981-85	1986-90	1991-95	1996-00	2001	2002
India	1520	1643	1779	1761	1675	1614
	(3.1)	(3.3)	(-0.3)	(-1.7)	(-0.2)	(-3.6)
China	NA	NA	NA	NA	615	619
	(-)	(-)	(-)	(-)	(-1.9)	(0.7)
Sri Lanka	845	989	1065	1508	1568	1641
	(2.7)	(2.9)	(-)	(-)	(-3.4)	(4.7)
Indonesia	1024	1064	1017	1048	1001	1025
	(5.7)	(0.8)	(1.0)	(-1.0)	(0.2))	(2.4)
Kenya	1391	1931	1994	2174	2239	2175
	(11.9)	(2.5)	(2.1)	(4.0)	(15.8)	(-2.9)
Vietnam	NA	NA	NA	NA	976	1000
	(-)	(-)	(-)	(-)	(11.5)	(2.5)
Turkey	1445	1642	1571	1729	1864	1793
	(27.7)	(-4.0)	(-1.5)	(-11.5)	(9.5)	(0.0)
Bangladesh	917	877	1019	1071	1163	1068
	(0.5)	(5.1)	(1.4)	(7.5)	(8.7)	(-8.2)
Japan	1279	1557	1593	1699	1793	1890
	(-1.3)	(-0.9)	(0.9)	(-1.9)	(1.2)	(1.4)
Total	NA	NA	NA	NA	1130	1125
	(-)	(-)	(-)	(-)	(0.7)	(-0.4)

Source: Tea Board, 1984-2003.

Note: i. Figures in the parenthesis denote Average Annual Growth Rate for the reference period.

ii. NA -Not Available

It can be seen from Table 4.3 that, Kenya recorded the highest productivity during the past two decades followed by Turkey. However, Indian productivity is above the world average productivity. An identifiable increase in productivity is seen in the case of almost all nations. However considerable hike in productivity is seen in Kenya and Sri Lanka. In the year 2001, productivity of tea in these two countries has almost doubled in comparison with that of the early eighties. Increase in production of these two countries can be attributed to the increase in productivity. This explains the phenomenal increase in production, in contrast to the declining trend in area under cultivation in Sri Lanka. (Tables 4.1 & 4.2) A combination of acreage and yield effect resulted in an increase in production in rest of the countries. As far as India is concerned, though productivity was continuously increasing till 1995, it registered a decline thereafter and finally reached almost near to the productivity level of the late eighties.

4.1.4 Global export of tea

The global export scenario of tea is also dominated by a few countries including India, China, Sri Lanka, Kenya, and Vietnam. In countries like Turkey, Japan, Iran and Taiwan, production is mainly for domestic consumption. Also the domestic market is predominantly important for countries like India, China, Indonesia, Bangladesh and Vietnam. On the other hand, for Argentina, Malawi, Sri Lanka and Kenya, production is export oriented (Maheshwari, 2001). India and China export about a quarter of their production. In the global trade, India's contribution is 17 percent while that of China stands at 17.6 per cent vis-à-vis the production contribution of 30 per cent and 23 per cent respectively. This is because of high consumption of tea in both these countries. Other countries like Kenya, Sri Lanka and Indonesia produce only 25 per cent of world tea but control 50 per cent of the global trade. They export around 90 per cent of their production. The export performance of the major tea producing nations at global level is presented in Table 4.4.

Table 4.4 Global export of tea, 1981 to 2002 (million kg)

Countries	Year					
	1981-85	1986-90	1991-95	1996-00	2001	2002
India	224	205	174	194	183	201
	(-2.2)	(0.8)	(-3.8)	(8.3)	(-11.6)	(9.8)
China	125	189	182	203	250	252
	(-)	(3.4)	(-2.1)	(8.1)	(9.6)	(0.8)
Sri Lanka	195	210	212	260	288	286
	(-)	(1.1)	(2.7)	(4.7)	(2.9)	(-0.7)
Indonesia	82	98	104	89	100	100
	(-)	(9.4)	(6.5)	(4.6)	(-5.7)	(0.0)
Kenya	98	144	190	233	258	268
	(-)	(10.3)	(8.6)	(-1.1)	(18.9)	(3.9)
Argentina	33	39	40	52	57	54
	(-)	(7.0)	(3.6)	(6.6)	(14.0)	(-5.3)
Malawi	35	39	36	42	38	39
	(-)	(2.6)	(0.0)	(2.3)	(0.0)	(2.6)
Bangladesh	27	25	27	21	13	14
	(-)	(0.7)	(1.4)	(-6.9)	(-27.8)	(7.7)
Tanzania	13	12	19	20	22	23
	(-)	(3.6)	(5.5)	(5.4)	(0.0)	(4.5)
Others	83	87	89	116	186	194
	(-)	(9.0)	(7.8)	(5.0)	(15.3)	(4.1)
Total	915	1048	1073	1230	1395	1431
	(3.9)	(0.7)	(4.6)	(4.6)	(2.6)	(-)

Source: Tea Board, 1984-2003.

Note: Figures in the parenthesis denote Average Annual Growth Rate for the reference period

It can be seen from Table 4.4 that the world export of tea has registered an increase of more than 56 per cent, while that of India is –10.26 per cent during 1981 to

2002. Only India and Bangladesh have shown negative change over the years. However there are inter-country variations in the trend. Kenya is the only country, which is showing a consistently increasing trend during the period under study with an overall growth rate of more than 173 per cent. China, Sri Lanka and Tanzania have also recorded a steady increase in exports. Sri Lanka bags the highest share in the export market, closely followed by Kenya. During the early eighties, India had the highest share in the export market, but gradually her share started declining, both in absolute and relative terms. Fierce competition arising from other exporting countries like Sri Lanka, Kenya and China along with increasing domestic consumption (Pal, 1992; Venkatachalam, 1993) uncompetitive prices (Venkatachalam, 1993) insufficient domestic production (Dass *et al.,* 1994) frequent changes in export policy (Pal, 1992) availability of cheaper Kenyan teas and Sri Lankan inroads into the Commonwealth of Independent States (C.I.S) markets (Kainth, 1995) have pulled down our exports to fourth position at global level. It is heartening to note that India's share has started increasing in the recent years.

Analysis of area under cultivation, production, productivity and export performance of tea industry at the global level for the period 1981 to 2002 points out some fundamental issues facing the Indian tea industry. The area under cultivation and production have been increasing in absolute terms throughout the period. The AAGR has been positive for both the variables during all the years except 2002 for production. But the productivity, which stood at a relatively higher level in the early 1990s, has drastically declined, the AAGR being negative since 1991. The exports have declined tremendously even in absolute terms, the AAGR sliding to −11.6 per cent in 2001. Hence, an indepth analysis of the tea economy of India in general and specifically of South Indian tea industry will provide a better understanding of the issues confronting the industry.

4.2 TRENDS IN AREA, PRODUCTION AND PRODUCTIVITY OF TEA IN SOUTH INDIA

It has been widely acknowledged that the liberalisation and consequent changes in the economic policies will have its implications on various aspects of export oriented commodities, especially plantation crops like tea, coffee and rubber. This section attempts an analysis of the trends in area, production and productivity of tea in SI so as to examine

whether there has been any significant change in these aspects consequent on the liberalisation of the economy. Comparative analysis of the above mentioned aspects during the pre and post liberalisation periods is carried out by estimating the rate of growth of these variables and examining whether the growth rates are significantly different during these two sub periods. Growth rate of a variable may be defined as the rate of change per unit of time, usually a year. For estimating the growth rate, kinked exponential model is fitted to the time series data on area, production and productivity. The entire period has been divided into two sub periods namely pre and post liberalisation periods. Broadly the period from 1980-81 to 1990-91 is taken as the pre liberalisation period and that from 1991-92 to 2002-03 is the post liberalisation period. The year of kink for the estimation of kinked exponential growth was chosen by observing the line graph plotted for each variable. Therefore, value of kink need not be the same for all variables.

Three aspects of area, production and productivity- distribution across States, trend, and instability are analysed, discussed and presented in this section. Time series data on area, production and productivity is given in Annexure V to VII.

4.2.1 Analysis of area under tea cultivation in South India

The area under tea cultivation in SI has been analysed from three angles, viz., the distribution of area under tea among the different South Indian States, trends in area under cultivation and instability in area during pre and post liberalisation period.

4.2.1.1 Area under tea in South Indian States

Tea is grown extensively in the South Indian States of Tamil Nadu and Kerala, and to some extent in Karnataka. The growth in area of tea for the past two decades can be deduced from Table 4.5 and Figure 4.1. The graph is drawn using the values of the variable for each State, indexed to the base year 1981.

It can be seen from Table 4.5 that the area under cultivation at the all India level has gone up from 394.4 thousand to 509.8 thousand hectares. Area under cultivation in SI has also gone up from 74 thousand to 114.7 thousand hectares and correspondingly the share of SI has gone up from 18.8 per cent to 22.5 per cent during the past two decades. Among the major tea growing South Indian States, Tamil Nadu bags the first position with 66 per cent of the area under cultivation followed by Kerala. Karnataka has relatively lower share. It can also be inferred from Table 4.5 that the area under cultivation has continuously increased during the post liberalisation period in all the three South Indian States.

It can also be deduced from Table 4.5 that the area under cultivation registered a faster growth in the post liberalisation period in Tamil Nadu and its share also increased. Consequently there is a marked reduction in the share of area under cultivation in Kerala, from 47.5 per cent in 1981 to 32.2 percent in 2001. Subsequently the share of Karnataka also reduced from 2.6 per cent in 1981 to 1.9 per cent in 2001.

Table 4.5 Area under tea cultivation in different States from 1981 to 2001(000'ha)

States	1981-1985	1986-1990	1991-1995	1996-2000	2001
Tamil Nadu	37.0	38.2	42.8	61.1	75.7
	(49.9)	(51.1)	(53.3)	(61.1)	(66.0)
Kerala	35.2	34.7	35.5	36.8	36.9
	(47.5)	(46.3)	(44.2)	(36.8)	(32.2)
Karnataka	1.9	1.9	2.0	2.1	2.1
	(2.6)	(2.6)	(2.6)	(2.1)	(1.9)
South India	74.0	74.9	80.3	100.1	114.7
	(18.8)*	(18.1)*	(19.0)*	(21.4)*	(22.5)*
All India	394.4	412.9	422.4	466.8	509.8

Source: Tea Board, 1984-2002.

Note: i. Figures in the above table show five-year annual average of area under tea.

ii. Figures in the parenthesis denote per cent share of each State to the South Indian total.

iii. * Denotes percent share of SI to that of all India

Figure 4.1 Area under cultivation of tea in South India and all India
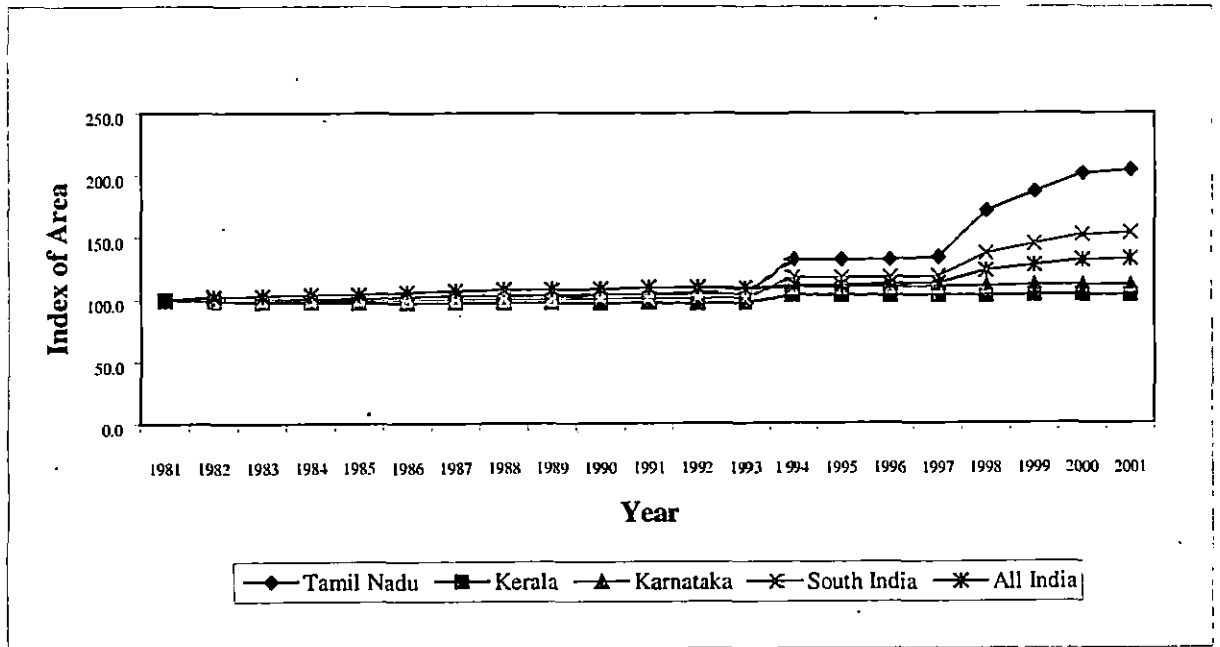
4.2.1.2 Trends in area under tea – a comparison of pre and post liberalisation regime

As mentioned in the introductory paragraph, kinked exponential model has been employed to estimate the growth rates for the two periods and to test their significance. Pair wise estimates of growth rates are presented in Table 4.6.

Table 4.6 Trends in area under tea – Kinked exponential model

States	Period	R^2	Growth rate	DW	t value
Tamil Nadu	1981-1992	0.97	0.74	1.79	2.40*
	1993-2001		8.84		17.27**
Kerala	1981-1992	0.69	0.05	0.69	0.46
	1993-2001		0.84		4.88**
Karnataka	1981-1992	0.88	0.66	0.39	5.96**
	1993-2001		0.75		4.28**
South India	1981-1992	0.97	0.37	1.71	1.91
	1993-2001		5.46		17.14**
All India	1981-1992	0.94	0.51	0.75	3.60**
	1993-2001		2.39		10.60**

Source: Tea Board, 1984-2003.

Notes: i. * Denotes values at 5 % level of significance

ii. ** Denotes values at 1 % level of significance

The growth rates are not found to be statistically significant during pre liberalisation period for SI and Kerala implying the relative stagnancy in area between 1981 and 1992. It is seen that period wise growth rates are statistically significant in the case of Tamil Nadu and Karnataka. The high R^2 vouches for the validity of the model. Acceptable Durbin-Watson d statistic for Tamil Nadu and SI means that the results have stronger footing.

There has been a significantly higher growth rate at the all India level during the post liberalisation period compared to the pre liberalisation period. It has to be noted that the growth rates are above the national level in SI in the post liberalisation regime. This has been facilitated by the high growth rate achieved by Tamil Nadu with 8.84 per cent before liberalisation compared to the meagre 0.74 per cent after liberalisation.

The findings of Ajithkumar and Devi (1995), Thakur *et al.* (1995), Hazarika and Subramanian (1999a) were found to be in conformity with the above with respect to slow or negative growth in the pre liberalisation period. The reason attributed by the authors was the substitution of the crop with other competing crops by the farmers. While studying the supply response of tea in terms of area, Barah and Chiranjeevi (1991) revealed that removals have an impact on replanting and replacement planting decisions only; where as expected prices and risk due to prices were found to have significant effect on newly planted area. However, in the post liberalisation period all the States and the country as a whole recorded a higher growth rate. Tharakan (1998) opined that tea was suitable for the early coffee lands leading to the demise of coffee production because of developed vertical system of production, distribution and marketing. The results of the above growth rate analysis have shown that there is a positive growth in the later 1990s, which is in conformity with the findings of Guledagudda *et al.* (2001).

4.2.1.3 Instability in area under cultivation of tea

Instability analysis was attempted by working out coefficient of variation and instability index. The results are presented in Table 4.7.

Table 4.7 Instability in area under cultivation of tea during 1981-2001

Methods used	Period	Tamil Nadu	Kerala	Karnataka	South India	All India
CV (%)	1981-91	1.92	0.89	1.38	1.38	2.84
	1992-01	24.96	2.59	1.62	1.62	8.11
	1981-01	28.33	2.84	4.57	16.71	8.38
Residuals based index	1981-01	0.05	0.02	0.02	0.03	0.02
Coppock's index (%)	1981-01	10.62	6.57	1.51	6.40	1.04

Source: Tea Board, 1984-2002.

It is found that during the entire period of study, coefficient of variation is relatively high for SI compared to all India. Among the South Indian States Tamil Nadu shows higher instability. When compared with pre liberalisation, the variation is relatively high during the post liberalisation in all the cases. The results of instability index indicated relatively higher instability in Tamil Nadu, Kerala and SI.

4.2.2   Trends and composition of production of tea in South India

The trends and composition of production of tea in SI is discussed under three heads, viz., production of tea in SI, trends in tea production and analysis of instability in production.

4.2.2.1 Production of tea in South India

Analysis of the trends in area under cultivation in the previous section revealed that there has been a significant increase in the area under cultivation. Therefore it is expected that this could have a positive impact on the total production of tea in the country and in SI, as well. This section examines the trends in production and inter State variation in the composition of production. The trends in the production of tea are presented in Table 4.8 and Figure 4.2.

Table 4.8 Production of tea in South India from 1981 to 2003 (million kg)

| States	1981-85	1986-90	1991-95	1996-00	2001	2002	2003
Tamil Nadu	76.3	98.3	114.2	128.1	132.4	129.0	131.7
	(58.5)	(61.8)	(63.1)	(64.0)	(65.2)	(66.4)	(68.1)
Kerala	55.8	56.7	62.3	66.6	65.2	59.7	56.6
	(42.8)	(35.6)	(34.4)	(33.3)	(32.1)	(30.7)	(29.3)
Karnataka	3.6	4.1	4.4	5.4	5.5	5.7	5.2
	(2.8)	(2.6)	(2.5)	(2.7)	(2.7)	(2.9)	(2.7)
South India	130.3	159.1	181.0	199.9	203.1	194.4	193.5
	(21.7)*	(23.4)*	(24.1)*	(24.2)*	(23.8)*	(23.5)*	(22.6)*
All India	599.7	678.9	751.3	827.0	853.7	826.2	857.1

Source: Tea Board, 1984-2003; UPASI, 2004.

Notes: i. Figures in the above Table show five year annual average of tea production
    ii. Figures in parenthesis denote per cent share of each State to the total of SI

   iii. *Denotes per cent share of SI to the all India

The total production of tea at all India level shows a notable increase from 599.7 million kg in 1981-85 to 857.1 million kg in 2003. The all India tea production has reached the maximum in 1998 with the value of 874.1 million kg and shows a decline in the later years. The total production of SI has shown an increase from 130.3 million kg in 1981-85 to 199.9 million kg in 1996-00 and thereafter it declined to 193.5 million kg in 2003. From Table 4.8 it can be seen that the share of SI in the total production has increased from 21.7 per cent to 24.2 per cent during 1981 to 2000. Since then, the share declined. In absolute terms too, the total production declined.

Figure 4.2 Production of tea in South India and all India
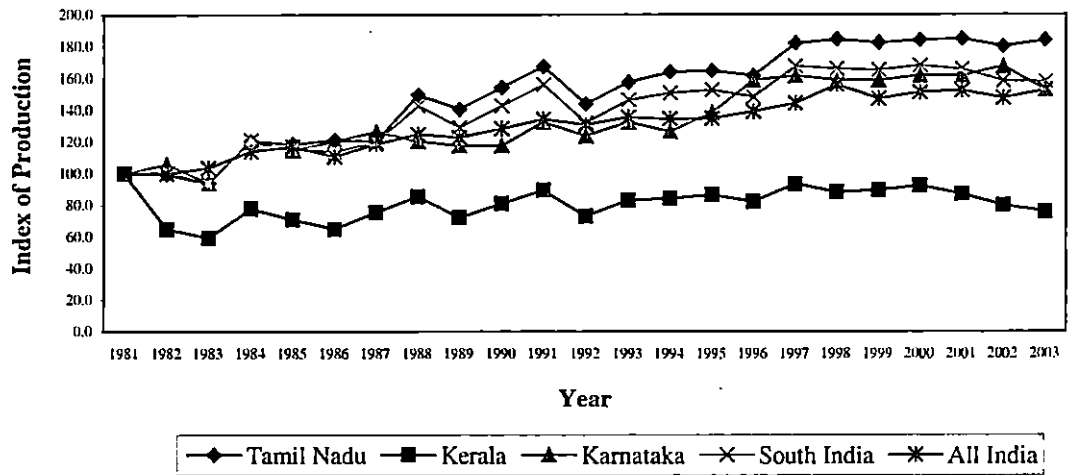
As in the case of area, the values are indexed to the base year 1981 and indexed values are presented in the graph. By analysing Figure 4.2, it can be seen that the tea production has more or less increased during both pre and post liberalisation period in all the cases except Kerala. Out of the major tea growing States in SI, Tamil Nadu contributed the highest share followed by Kerala and Karnataka.

Tamil Nadu occupies the first position right from 1981 in the arena of the production too. The share of Tamil Nadu increased from 58.5 per cent in 1981-85to 68.1 per cent by 2003. Second position is held by Kerala. In fact there has been a decline in the contribution of Kerala to the total production and consequently the share of Kerala in the total south Indian production declined. Though the contribution of Karnataka is only 3 per cent to the total production, there has been an increase from 3.6 million kg in 1981-85 to 5.2 million kg in 2003. CTC method of production is dominant in SI as well as in all India. Therefore CTC type showed an increase in SI and all India from 49 and 64 per cent in 1981-85 to 84 and 89 per cent respectively in 2002.

4.2.2.2 Trends in tea production – Kinked exponential model

In order to make comparative analysis of the growth rate between the pre and post liberalisation period, the kinked exponential model is used. Table 4.9 shows the results of kinked exponential model for the production of tea in SI.

Except for Kerala, for all other selected States, t values are significant and R^2 values are high. The Durbin-Watson d values ranging from 1.67 to 2.31 validate the soundness of the model used. Statistically insignificant t values and low R^2 values indicate the poor performance of Kerala State. Comparing area and production, it may be inferred that performance of Kerala is far below satisfactory level. Relatively high rate of growth of area in the post liberalisation period and low growth of production in all the States may be an indication of the falling productivity, which is the topic of discussion of the ensuing sub section.

Table 4.9 Trends in tea production – Kinked exponential model

States	Period	R²	Growth rate	DW	t value
Tamil Nadu	1981-1991	0.93	4.74	2.25	10.94**
	1992-2003		1.42		3.32**
Kerala	1981-1991	0.22	1.30	1.67	1.54
	1992-2003		0.44		0.52
Karnataka	1981-1993	0.86	2.36	1.67	6.14**
	1994-2003		2.29		3.91**
South India	1981-1991	0.89	3.92	2.31	8.70**
	1992-2003		0.99		2.23*
All India	1981-1991	0.95	2.66	1.81	12.12**
	1992-2003		1.27		5.83**

Source: Tea Board, 1984-2003 ; UPASI, 2004.

Note: i. * Denotes values at 5 % level of significance

ii. ** Denotes values at 1 % level of significance

To conclude, the trend analysis has revealed a significant growth in production in the pre liberalisation period as well as for the whole period, which was similar to the findings of Ajith Kumar and Devi (1995), George (1997); and Hazarika and Subramanian (1999c).

4.2.2.3 Instability in production of tea

The instability analysis conducted for tea production shows high variation in all the States of SI when compared to all India. In production too, Tamil Nadu recorded higher variation (20.27) during the whole period. Unlike area under cultivation of tea, variation in production is high during the pre liberalisation period compared to the post liberalisation period.

Table 4.10 Instability in production of tea during 1981-2003

Methods used	Period	Tamil Nadu	Kerala	Karnataka	South India	All India
CV (%)	1981-91	19.16	15.55	9.80	16.30	9.94
	1992-03	7.97	7.33	10.37	7.01	5.96
	1981-03	20.27	12.42	16.64	16.94	13.28
Residuals based index	1981-03	0.06	0.12	0.17	0.06	0.03
Coppock's index (%)	1981-03	10.74	15.83	9.38	10.49	5.72

Source: Tea Board, 1984-2003; UPASI, 2004.

It can be deduced from Table 4.10 that the instability in production is at a low level. Residual based index ranges from 0.03 to 0.17 during the period under observation indicating a low level of instability. Closer the values of residual based index to 1 higher the instability. Coppock's index also indicates that the instability in production is not very high. The instability measured on the basis of coefficient of variation shows that the variation is higher in the pre liberalisation period compared to the post liberalisation period. It is highest in Tamil Nadu with 19.16 per cent as against 7.97 percent in the post liberalisation period. Except in Karnataka the instability has declined in the post liberalisation period in all the three States, and at the SI and all India level.

The instability in production can be attributed to the instability in area (Table 4.7) and productivity (Table 4.13) Hazarika and Subramanian (1999c) suggested that to increase stability in production we have to adjust the stability in bearing acreage, reduce dependence on weather through assured irrigation, timely use of fertilizer, and development and use of location specific high yielding varieties. Mitra (1991) opined that the absolute yield of large farms was much higher than that of small farms due to better package of practices adopted in large farm sector in tea cultivation.

4.2.3 Trends in productivity of tea

Trends in productivity of tea is analysed with respect to the productivity of the three South Indian States, trends in productivity using kinked exponential model and the instability in the productivity of tea.

4.2.3.1 Productivity of tea in different States

Productivity is one of the most important criteria in any analysis on the performance of a crop. Although the productivity depends on weather and climatic parameters, synchronisation and integration of the individual components of production is a must for attainment of the desired productivity level duly backed up by adequate physical and financial resources. It will therefore be necessary for the gardens to visualise their operational responsibilities in terms of individual factors of production such as land management, soil management, nutrient management, bush management, water management, and not merely in the traditional term 'estate management'. The growth in productivity of tea of SI for the past two decades can be observed from Table (4.11) and Figure (4.3).

Table 4.11 Productivity of tea in South Indian States (kg/ha)

States	1981-85	1986-90	1991-95	1996-00	2001
Tamil Nadu	2063.4	2569.8	2697.8	2144.8	1751
Kerala	1434.4	1633.6	1754.2	1808.8	1764
Karnataka	1905.4	2132	2165.2	2483.2	2615
South India	1760.8	2124.8	2260.8	2013.8	1771
All India	1519.6	1643.6	1778.6	1776.4	1675

Source: Tea Board, 1984-2002.

Out of the tea growing States in SI, the productivity performance of Karnataka is found to be the best in the later years. During the same time period, the productivity of Tamil Nadu drastically declined about 500 kg/ha, which is a matter of concern. It is to be noted that along with the decrease in area under cultivation and production after the year 1998 (Annexures V and VI), the productivity also decreased in Tamil Nadu. For Kerala, it was stagnant during this period.

Figure 4.3 Productivity of tea in South India and all India
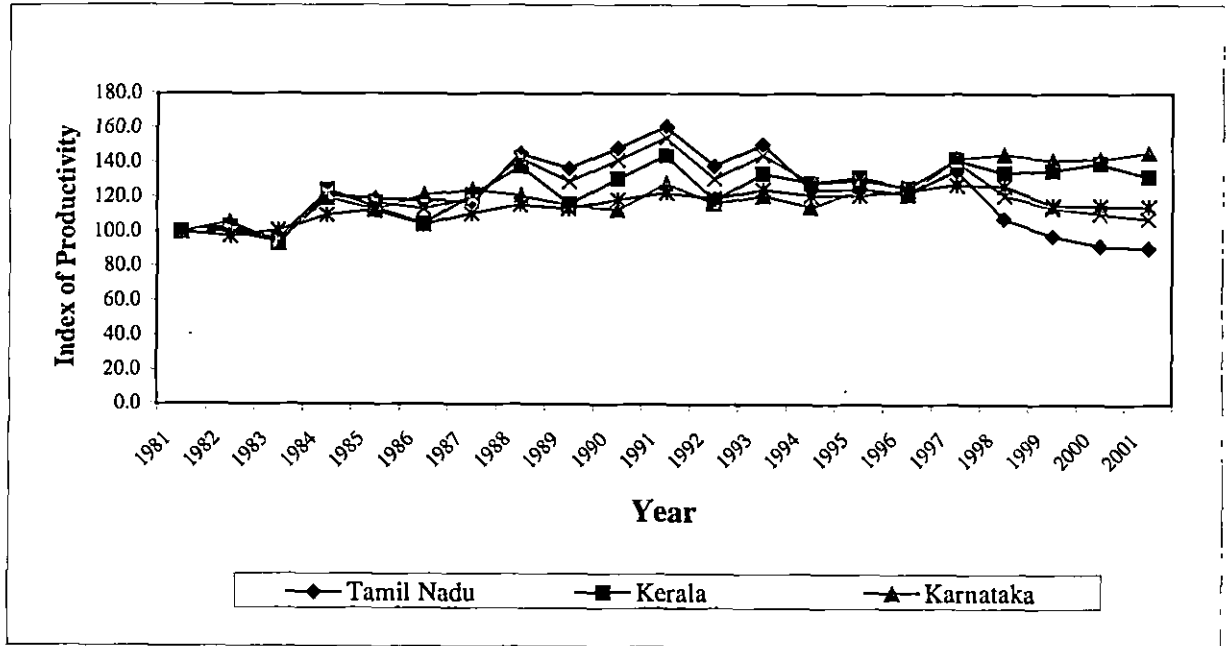
The graph is drawn using the value of the variable indexed to the base year 1981. From the Figure 4.3, we can see that the productivity has continuously decreased during the post liberalisation period in Tamil Nadu and SI in general and from 1998 onwards in particular. The maximum level of productivity in both these cases was observed in the year 1991 with the values of 3104, and 2539 respectively.

Thus the increase in total production during this period can be attributed to the increase in area under cultivation or in theoretical language it was due to positive area response. When we observe the all India productivity of tea, it has shown an increase from 1519.6 kg/ha in 1981-85 to 1776.4kg/ha in 1996-00. And from 1998 onwards this was also showing a declining trend like Tamil Nadu and SI.

4.2.3.2 Trends in productivity – Kinked exponential model

To analyse the trends in productivity kinked exponential model was tried with single kink and two kink levels for productivity wherever found suitable. The kinked exponential model with a single kink explained good performance in every case, which is observed from Table 4.12.

The t values are significant except for the sub period 1991-01 for Kerala and 1989-01for all India. We can observe that the growth rates for Tamil Nadu and SI were negative in the second phase; and lower when compared to the first phase in all the cases under study. It may be noted that during the pre liberalisation period, increase in productivity was maximum in Tamil Nadu and the least in Karnataka. Nonetheless during the post liberalisation period, fall in productivity was maximum in Tamil Nadu and the least in Karnataka. All Durbin-Watson d statistic values fell within the tolerable limit, which validates the model. The kinked exponential model tried at two kink levels also revealed significant t values except in 1997-01 for Tamil Nadu, Kerala, SI and in 1991-95 and 1996-01 for Karnataka. R^2 values were significant in all the cases. Growth rates were significant and in higher magnitude in almost all cases but for majority States it was negative in the post liberalisation period, which validates the hypothesis that since 1995 there was fall in productivity. Durbin-Watson d statistic values were not dangerous either above 2 or below 2 and hence the model can be broadly acceptable.

Table 4.12 Trends in productivity – Kinked exponential model

States	Period	R²	Growth rate	DW	t value
Tamil Nadu One kink	1981-1990	0.85	5.06	2.39	8.65**
	1991-2001		-5.16		-9.29**
Two Kink	1981-1990	0.88	4.89	2.47	8.27**
	1991-1996		-5.81		-6.90**
	1997-2001		-4.22		-1.77
Kerala One kink	1981-1990	0.69	2.78	2.76	4.81**
	1991-2001		0.21		0.37
Two Kink	1981-1990	0.70	3.01	2.68	4.77**
	1991-1996		-2.24		-2.42*
	1997-2001		0.46		0.18
Karnataka One kink	1981-1990	0.71	1.35	1.80	2.44*
	1991-2001		1.92		3.47**
Two Kink	1981-1990	0.76	1.83	2.40	3.20**
	1991-1995		-1.38		-1.37
	1996-2001		3.84		1.83
South India One kink	1981-1990	0.79	4.21	2.73	7.81**
	1991-2001		-2.86		-5.66**
Two Kink	1981-1990	0.81	4.17	2.59	7.60**
	1991-1996		-4.27		-5.39**
	1997-2001		-2.68		-1.20
All India One kink	1981-1989	0.77	2.55	1.24	5.77**
	1990-2001		0.06		0.32

Source: Tea Board, 1984-2002.

Note: i. * Denotes values at 5 % level of significance

ii. ** Denotes values at 1 % level of significance

Although there has been steady increase in the productivity in the pre liberalisation period, its growth in the post liberalisation period is showing signs of decline due to heavy burden of old age bushes (Boriah, 2002). At present as much as 38

percent of the total area in the country bears bushes that have crossed the economic threshold age limit of 50 years. The benefits accruing from the adoption of improved agricultural practices and new planting with high yielding planting material were getting offset, to an extent, by deteriorating output from the aged sections of tea. Uprooting/replanting of old trees with the rejuvenation and consolidation by infilling/interplanting wherever desirable need to be geared up by individual gardens to cope with the problem of old and uneconomic tea.

In the year 2001 the position of extension, replacement and replanting stands 136.02, 11.00, and 14.68ha for SI and 2606.02, 632.00, and 959.68 for all India respectively.

4.2.3.3 Instability in productivity of tea

The variability in growth of tea as measured using the coefficient of variation and instability index showed high variability in all the South Indian tea producing States. The coefficient of variation was less in productivity compared to production. As in the case of production the maximum variation in productivity was observed in the pre liberalisation period.

Instability index estimates revealed that variability was higher in SI than the corresponding all India figures. Coppock's index also supports the above observation. This is in line with the growth rate analysis presented earlier in Table 4.12.

Table 4.13 Instability in productivity of tea during 1981-2001

Methods used	Period	Tamil Nadu	Kerala	Karnataka	South India	All India
CV (%)	1981-91	17.50	13.60	9.35	15.73	7.45
	1992-01	17.42	5.17	9.82	9.74	3.94
	1981-01	17.18	11.50	11.90	12.91	7.93
Residuals based index	1981-01	0.07	0.07	0.07	0.06	0.04
Coppock's index (%)	1981-01	12.40	12.42	9.91	11.18	4.62

Source: Tea Board, 1984-2002.

The above results are in conformity with the results of Hazarika and Subramanian (1999a) and Guledagudda *et al.* (2001). But there is enough scope for increasing the productivity further with the introduction of high yielding clones and improved cultivation practices. Ahuja (1999) argued that under the best condition of bush and soil management, many garden have already been able to produce yield as high as 4000 kg/ha. Mahesh *et al.* (2002) in their study on technical efficiency of Indian tea production in Assam, West Bengal, Tamil Nadu and Kerala, argued that there is good scope for improving tea productivity with the proper allocation of existing resources.

4.3 TRENDS IN THE EXPORT OF TEA FROM SOUTH INDIA

The changed economic order in the context of liberalisation of world trade in agriculture has opened up new vistas of growth. India embarked on a process of trade liberalisation policies since 1991 as part of economic reforms. The liberalisation of the

economy opened the Indian products to stiff competition in the international markets and liberalized the imports to the country. This section examines the trends in export of tea so as to provide a comparative picture of the exports during the pre and post liberalisation period. Quantum of tea export from SI and it's share in the total exports from India for the past two decades are presented in Table 4.14. The tea exports from India stood at 214 million kg during the first half of 1980's declined to 182.6 million kg by 2001. There had been a gradual decline in the exports during the past two decades except the early 1990s when it showed an increase of 27.4 percent over the previous quinquennial average. In contrast to the all India pattern the exports from SI has shown a steady increase. It can be seen from Table 4.14 that South Indian tea exports have increased more than two fold over the period in absolute terms. Nevertheless, the increase was confined to post liberalisation period. As a result, South Indian exports as a percentage of total exports from India have increased substantially in the 1990s.

Table 4.14 Share of South Indian exports to total exports from India (million kg)

Particulars	1981-85	1986-90	1991-95	1996-00	2001
SIP	130.3	159.1	181	199.9	203.1
SIE	53.6	41.6	53	96.3	97.2
AIE	214.1	205.3	172.8	193.9	182.6
SIE/SIP (%)	41.2	26.2	29.3	48.2	47.9
SIE/AIE (%)	25.1	20.3	30.7	49.7	53.2

Source: Tea Board 1984-2002; UPASI, 2004.

Note: SIP – South India Production, SIE- South India Exports, AIE- All India Exports

The ratio of South Indian exports to South Indian production has declined during the period 1986-90 compared to initial 1980's. However, in the second half of 1990s it again picked up and in the year 2001, it stood at 48 per cent.

Figure 4.4. Trends in quantity and value of South Indian tea exports from 1981 to 2001
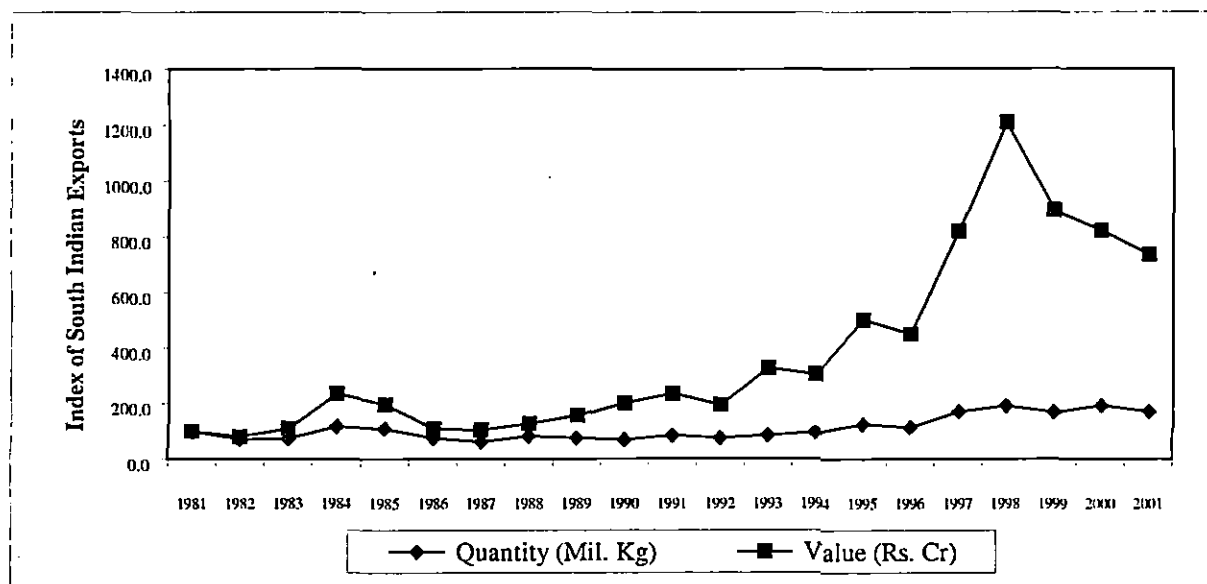
The trends in export of tea from SI in quantity terms could be gauged from Figure 4.4 also. Figure 4.4 reinforces the above observations. It can be seen from Figure 4.4 that there had been a gradual increase in exports in quantity terms during the 1980s and 1990s. However, the increase in exports in value terms registered a significant increase in the post liberalisation period. The values are not indexes to the inflationary pressures in the economy and therefore the conclusions drawn have to be read with caution.

4.3.1 Trends in export of tea – Kinked exponential model

To estimate whether there had been significant change in the growth rate of exports in quantity and value terms in the pre and post liberalisation period, kinked exponential model with single kink or two kinks was used wherever appropriate. The results are presented in Table 4.15. It can be seen from Table 4.15 that during the pre liberalisation period the tea exports registered a marginal decline. However, there was a significant increase in the growth of exports in the post liberalisation period. Chand and Tewari (1991) reported that India's share in world export was fluctuating in the case of the agricultural commodities with the exception of tea, which was showing remarkable performance. It could be deduced from Table 4.15 that on the export front, the South Indian tea made a better performance than their counter parts in the other part of India. The all India exports from India registered a significantly higher decline of –3.85 per cent compared to the marginal decline in exports from SI at –0.24 per cent, which validates the hypothesis that since 1997 there was fall in value of exports from all India as well as SI. Though the all India growth rate in the post liberalisation period turned positive, the growth rate was not found statistically significant. It may be noted that in the post liberalisation period, increase in export quantity was maximum in SI (9.1 per cent) and low in all India (1.32 per cent).

Table 4.15 Trends in Export of tea– Kinked exponential model

States	Period	R²	Growth rate	DW	t value
SIEQ Single kink	1981-1990 1991-2003	0.73	-0.34 9.10	1.26	-0.24 6.03**
SIEV Two kink	1981-1991 1992-1997 1998-2003	0.85	7.73 7.81 -24.13	1.30	2.72* 1.88 -2.64*
AIEQ Single kink	1981-1993 1994-2003	0.44	-1.96 1.32	1.16	-3.85** 1.67
AIEV Two Kink	1981-1987 1988-1997 1998-2003	0.85	7.32 3.33 -15.05	1.31	2.61* 1.98 -2.98**

Source: Tea Board, 1984 –2002; UPASI, 2004.

Notes: i. * Denotes values at 5 % level of significance

   ii. ** Denotes values at 1 % level of significance

   iii. SIEQ- South India Export Quantity, SIEV- South India Export Value, AIEQ-
      All India Export Quantity, AIEV- All India Export Value

In value terms, the country recorded a high growth rate in the pre liberalisation period. Though in the early 1990s, the exports registered a positive growth rate, there was a significant decline in the late 1990s i.e. the post WTO period. Similar trend was observed in the case of South Indian tea exports also. Higher growth in the quantum of exports and decline in value terms spell the decline in export earnings. It points either to the decline in the price of exported tea in the international market due to the increased

competition from the traditional and new entrants in the international tea market or the deterioration in the quality of tea from India which fetched lower prices for the product. Further the decline in the value of rupee in the international market might have impinged on the export earnings from tea.

The performance of tea exports in the post liberalisation was found to be better than that in the pre liberalisation period in terms of quantity. This is in conformity with the studies undertaken by Reddy (1991), Venkatachalam (1993), Dass et al. (1994) and Thakur et al. (1995). However, Dattatreyulu (2000) in his study points out that in the post liberalisation period, there was a real growth in quantum as well as value in both SI and all India tea export. Decline in exports especially after 1998, from SI and from India as a whole is in conformity with the findings of Guledagudda et al. (2002). The main reasons for decline in exports are increase in the per capita consumption and strong domestic demands (Dass et al., 1994 and Kainth, 1996). The decline in exports in terms of quantum and value would have been far more prominent had the devaluation of rupee was taken into account.

Mahesh et al. (2002) in their study revealed that Indian tea exports were moderately competitive and good import substitute. They reported that the growth path of the rupee values of India's tea exports was nothing but a continuation of that of the pre-World Trade Organization (WTO) period and it did not accelerate during the post-WTO period. He suggested that in order to sustain the exports, it is necessary to formulate and implement a strategy to increase the quantity and quality, and exploit the comparative advantage of Indian teas. This is also in conformity with the study undertaken by the Prabirjit (1995) who opined that exchange rate behaviour exerted no influence on the dollar value of exports and imports during the period of liberalisation.

4.1.3.4 Instability in exports of tea

Instability analysis was worked out using coefficient of variation and instability index and is presented in Table 4.16. It is found that variation was high in case of South Indian exports both in terms of volume and value. This can be proved by the coefficient of variation of 39.11 and 80.54 in terms of quantum and value respectively. The residuals

based index also explained the higher instability in case of SI compared to all India. The Coppock's index tried was also confirmed the same results during the reference period.

Table 4.16 Instability in exports of tea during 1981-2003

Methods used	Period	South India		All India	
		Quantity	Value	Quantity	Value
CV (%)	1981-91	21.00	38.20	6.24	35.54
	1992-03	30.22	46.16	10.77	28.24
	1981-03	39.11	80.54	10.93	48.69
Residuals based index	1981-03	0.20	0.36	0.09	0.20
Coppock's index (%)	1981-03	19.20	44.28	11.55	25.52

Source: Tea Board 1984-2002; UPASI, 2004.

Instability in exports was found to be higher in the whole period as well as sub periods because of the instability in production, volatile prices, and fierce competition from other producing countries and changes in the policy matters.

4.4 COUNTRY WISE EXPORT OF TEA FROM SOUTH INDIA

4.4.1Quantity

The major destinations of South Indian tea are U.K, U.S.S.R/C.I.S, Poland, A.R.E, Sudan, U.S.A, U.A.E, Iraq and Germany. Over the years, there were significant changes in the directions of exports from SI. This part examines the changes in the direction of exports from SI so as delineate whether there had been any change in the direction of exports consequent on the liberalisation policies.

Exports to different countries from 1980-81 to 2000-01 and the trend in exports to these countries can be gathered from Table 4.17. The quinquennial average quantity and growth rates are provided in the Table.

The erstwhile U.S.S.R was the major exporter of South Indian tea. This is because of Rupee-Rouble Agreement facilitated preferential trade, which gave India a distinct competitive advantage in Russian market. There had been a steady increase in exports to this country over the past two decades. This is evident from the high share of U.S.S.R in the exports from SI. The exports increased from 25.3 million kg in 1981-85 to the maximum of 60.7 million kg in 1996-00. However as share of total exports, it reached its maximum during the second half of 1980's and the share declined to 57.8 by 2001. This was because of the shift in consumer preference in Russian market to orthodox tea. The Russians, which were earlier buying the CTC tea, have shifted to orthodox tea (Sundaram, 2002).

Table 4.17 Country wise exports of tea from SI (million kg)

Countries	1981-85	1986-90	1991-95	1996-00	2001
U.S.S.R/ C.I.S	25.3	27.7	30.2	60.7	56.2
	(47.1)	(66.6)	(57.0)	(63.0)	(57.8)
A.R.E	7.3	4.6	2.5	1.3	0.2
	(13.5)	(11.0)	(4.8)	(1.4)	(0.2)
Iraq	5.5	2.8	0.0	6.5	14.4
	(10.2)	(6.8)	(0.0)	(6.7)	(14.8)
U.K	5.3	0.9	1.5	1.8	3.4
	(10.0)	(2.2)	(2.8)	(1.8)	(3.5)
Sudan	2.4	0.0	0.1	0.2	0.6
	(4.4)	(0.0)	(0.2)	(0.2)	(0.6)
U.S.A	1.8	0.8	1.9	2.7	3.6
	(3.4)	(2.0)	(3.7)	(2.8)	(3.7)
Poland	1.8	0.4	8.2	9.5	7.5
	(3.4)	(1.0)	(15.5)	(9.8)	(7.7)
Germany	0.5	0.2	1.3	1.2	1.1
	(1.0)	(0.5)	(2.4)	(1.2)	(1.1)
U.A.E	0.0	0.0	0.9	4.7	1.6
	(0.0)	(0.1)	(1.7)	(4.9)	(1.6)
Others	5.9	3.9	6.3	9.9	8.9
	(11.0)	(9.3)	(11.9)	(10.3)	(9.2)
Total	53.6	41.6	53.0	96.3	97.2
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Tea Board, 1984-2002.

Note: Figures in the parenthesis denote percentage share of each country to the total
    South Indian exports

Apart from U.S.S.R, other major consumers of South Indian tea are A.R.E, Iraq and U.K Table 4.17 shows that the share of A.R.E, and U.K has declined drastically from 13.5 per cent and 10 per cent during 1981-85 to 0.2 per cent and 3.5 per cent respectively during 2001. During the 1980's, A.R.E was the second important market, which is lost to Iraq by 2001. Even though the exports to Iraq have increased by 2001, it is marked by wide fluctuations in the quantum of exports in the intervening years. The post WTO witnessed the emergence of a new market-the U.A.E. India started tea exports to this country in the early 1990s only. By 2001, the South Indian exports increased to 1.6 million kg.

From the analysis, it is clear that SI dominated in the U.S.S.R tea market and her exports to that country maintained steady growth with stability. Our present situation is that since break up of the USSR, our exports have fallen. Another thing to be noticed is that the tea industry has not found any major alternative market.

Change in the destination of exports of SI in terms of value is given in Table 4.18. In value terms also, the direction of exports presents almost a similar picture as seen in the quantum export. Value of exports increased over the years except in the year 2001. This was in conformity with the study undertaken by Ahuja (2000), who stated that the export value in 1981 was $ 506 million and in 1998 it was $ 510 million. However, in rupee terms the export earnings from tea between 1981 and 1998 went up as much as five times from Rs. 4.38 crore in 1981 to Rs. 21.56 crore in 1998. Moreover, U.S.A market which holds the export quantum of 4 million kg, its value of exports stands very high 5841 lakh in the year 2001 because of stability in U.S currency. (Sundaram, 2002) Since, the values have not been adjusted for inflation it is natural that the values had been increasing over the years.

Table 4.18 Country wise exports (lakh)

Countries	1981-85	1986-90	1991-95	1996-00	2001
U.S.S.R/C.I.S	6332.5 (49.2)	9012.8 (71.4)	17096.0 (60.5)	47275.7 (62.8)	34119.7 (51.7)
A.R.E	1636.1 (12.7)	1029.2 (8.2)	982.3 (3.5)	744.1 (1.0)	51.4 (0.1)
Iraq	1280.7 (9.9)	598.4 (4.7)	0.0 (0.0)	5128.7 (6.8)	9601.9 (14.5)
U.K	1228.2 (9.5)	743.3 (5.9)	533.8 (1.9)	1393.2 (1.8)	2336.5 (3.5)
Sudan	299.8 (2.3)	0.0 (0.0)	52.5 (0.2)	160.3 (0.2)	274.1 (0.4)
U.S.A	624.6 (4.9)	221.5 (1.8)	1198.9 (4.2)	3433.6 (4.6)	5840.5 (8.8)
Poland	317.6 (2.5)	137.8 (1.1)	3923.5 (13.9)	6804.2 (9.0)	4762.7 (7.2)
Germany	120.6 (0.9)	59.3 (0.5)	476.4 (1.7)	884.9 (1.2)	821.8 (1.2)
U.A.E	2.0 (0.0)	16.4 (0.1)	468.6 (1.7)	3064.4 (4.1)	1143.3 (1.7)
Others	1878.8 (14.6)	1248.8 (9.9)	3461.5 (12.2)	7482.1 (9.9)	7072.9 (10.7)
Total	12876.1 (100.0)	12615.4 (100.0)	28261.6 (100.0)	75313.2 (100.0)	66024.8 (100.0)

Source: Tea Board, 1984-2002.

Note: Figures in the parenthesis denote percentage share of each country to the total South Indian exports

Table 4.18 depicts that the share of U.S.S.R remains high both during pre and post liberalisation period. No major changes were noticed except the decline in case of A.R.E,

U.K and Sudan from the share of 12.7,9.5 and 2.3 per cent in 1981-85 to 0.1, 3.5 and 0.4 per cent in the year 2001 respectively. Poland presents a different picture with an increase in the post liberalisation period compared to the pre liberalisation period.

The industry is also upbeat about the prospectus in the U.S.A and U.A.E markets. The markets like Sudan and Germany showed stagnancy in its imports. The Iraq markets shown a steady decrease from pre liberalisation period and turn to nil in the initial 1990s and again picked up. The reason has been attributed to the wars Iraq had been waging and a decline in demand followed on (Rawat, 2003b).

Nevertheless, the declining unit value realisation is a major problem confronting the export market. The unit price realisation is Rs 120 per kg in the case of U.A.E, Rs 104 in the case of U.S.A; and Rs 101 in the case of Kazakhistan. It is just Rs 65 per kg in the case of Russia, the largest market for South Indian tea (Sundaram, 2002).

4.5 TRENDS IN IMPORTS OF TEA INTO INDIA

The liberalisation of the economy in the early 1990's opened Indian markets for foreigners and imports were allowed to the country. Imports of tea to India are subject to the provisions of the Tea Waste (Control) Order 1959. In India, import of tea is allowed only to the licence holders under the same order issued by the Tea Board. By the removal quantitative restrictions in agricultural trade in the subsequent years i.e. 1997 and 2001, paved the way for free imports to India in agricultural commodities including tea. Thus there was a steady increase in the imports from 1992-93 to 2003 in terms of quantum as well value. Prior to the liberalisation the imports to India were negligible and the data on the imports during the pre liberalisation period is not available. Therefore the analysis is restricted to post liberalisation period.

The major importers of tea to India include Indonesia, Vietnam, Kenya and Sri Lanka. The bilateral free trade agreement has given a boost to imports from Sri Lanka. However, according to commerce ministry, the tea imports from Sri Lanka is way below those permitted under the free trade agreement. And 95 per cent of the Sri Lankan tea is re-exported. Table 4.19 shows the quantum and value of tea imports to India from 1992-93 to 2002-03, i.e, during the post liberalisation period.

Table 4.19 Trends in imports of tea into India

Year	Quantity (million kg)	Value (crore)
1992-93	1.4 (-)	5.1 (-)
1993-94	0.9 (-36.5)	4.0 (-22.4)
1994-95	0.2 (-77.0)	1.1 (-72.4)
1995-96	0.5 (125.0)	2.4 (119.1)
1996-97	1.3 (177.8)	6.2 (157.7)
1997-98	2.6 (108.8)	17.8 (186.5)
1998-99	8.9 (242.2)	64.7 (263.9)
1999-00	10.4 (16.0)	62.0 (-4.3)
2000-01	15.4 (48.2)	96.7 (56.0)
2001-02	16.1 (5.2)	83.7 (-13.4)
2002-03	19.6 (21.7)	90.9 (8.6)
AAGR (%)	63	68

Source: Tea Board, 2002-03.

Note: Figures in the parenthesis denote percentage share of each country to the total South Indian exports

The phenomenal increase in imports to India during the post liberalisation period is recorded in Table 4.19. It can also be seen from Table 4.19 that, the quantity and value of imports increased by 63 per cent and 68 per cent respectively from 1992-93 to 2002-03. In absolute terms the imports stood at 1.4 million kg during the 1992-93 and 19.6 mil kg in 2002-03. There was a quantum jump in the imports in 1998-99 and it could be attributed to the phase wise removal of QRs during this period.

4.6 PRICE BEHAVIOUR

The competitive power of traditional commodities in the international market depends crucially up on prices. Price movements tend to effect the decisions of producer, buyer, consumer and the economy as a whole. So it is expedient to analyse the price movements of commodities. A comparison of the movements of both international and domestic prices is carried out in this study. The prices quoted in major South Indian markets namely, Cochin, Coonoor, and Coimbatore markets are taken up for analysis. The major international markets of tea are Kenya and Sri Lanka. Since Kenya is the major market for tea, the price in Mombasa market of Kenya market is employed for comparative analysis.

Table 4.20 shows the domestic and international prices of tea for a period from 1982 to 2003. The AAGR of the prices showed an increasing trend over the years. At the all India level, the prices showed an increasing trend, during the 1980's and early 1990's. A similar trend could be observed in all the South Indian markets. However, the prices started declining in the post liberalisation period. The increase in the cost of production due to increase in cost of inputs and labour wages, removal of QRs and flow of low quality cheap imports lowered the prices during this period. (Boriah, 2002)

Table 4.20 Domestic and international prices of Tea from 1982 to 2003(US cents/kg)

Year	1982-86	1987-91	1992-96	1997-01	2002	2003
Cochin	196	184	129	143	97	98
	(1.1)	(0.7)	(-0.6)	(-1.0)	(-12.2)	(0.8)
Coonoor	161	162	115	123	76	74
	(-0.2)	(1.2)	(1.7)	(-12.5)	(-13.8)	(-2.3)
Coimbatore	215	183	123	132	83	82
	(12.0)	(-1.5)	(1.2)	(-12.2)	(-12.6)	(-1.6)
South India	190	175	122	132	86	86
	(1.2)	(2.0)	(0.04)	(-11.4)	(-12.1)	(0.34)
All India	206	203	145	161	115	120
	(5.8)	(0.5)	(-1.3)	(-8.0)	(-11.9)	(4.2)
I.P	192	142	150	184	149	162
	(5.7)	(2.2)	(-3.4)	(-5.5)	(-2.6)	(8.7)

Source: Tea Board, 2002-2003; UPASI, 2004.

Notes: i. Figures in the above table shows five-year annual average of prices tea

ii. Figures in the parenthesis denote AAGR of the reference period.

Increase in the price realization was noticed in the pre liberalisation period when compare to the post liberalisation period. In the post liberalisation period, there was a declining trend with negative growth rate was observed in both nominal and real prices. But the Consumer Price Index (CPI) showed positive growth when compare to the pre liberalisation period due to the devaluation of money.

The price behaviour of domestic, real and international prices of tea was analysed with the help of Figure 4.5 for the period 1982-2003 and computing growth rates for pre and post liberalisation period. A comparison of real and domestic prices were also carried out. The real price was computed by deflating the actual domestic price with the CPI.

Figure 4.5 Trends in nominal, international and real prices
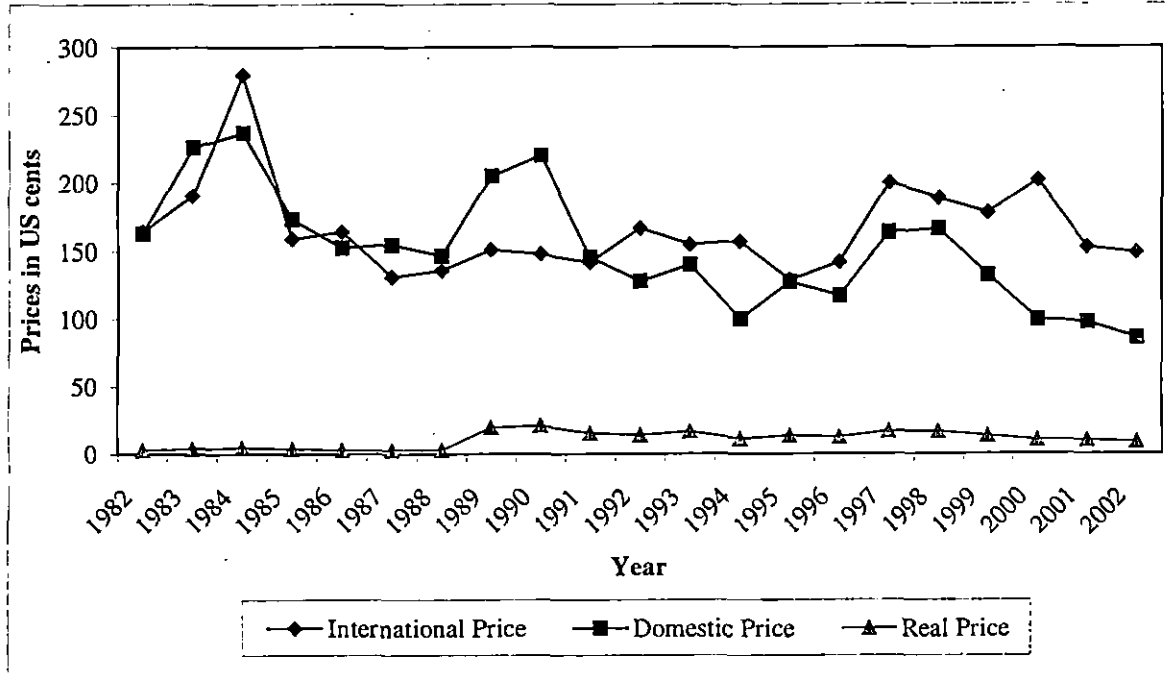
From the graph (4.5) it is clear that the domestic prices were relatively higher in the late eighties, which is also depicted, in the real prices. The domestic and international prices were following the same trend except in the late eighties of pre liberalisation period. The decline was sharper in the post liberalisation period in case of domestic prices. The magnitude of decline is not so prominent in the case of international prices during the same period. Table 4.21 make a comparison between the nominal and real prices of tea in SI along with the consumer price index.

Table 4.21 Comparison of domestic prices, CPI and real prices (Rs)

Year	Domestic Price	Consumer Price Index	Real Price
1982-86	21.18	613.8	21.2
	(8.9)	(3.8)	(8.9)
1987-91	29.10	412.6	29.1
	(16.6)	(-11.9)	(16.6)
1992-96	37.97	281.4	6.89
	(8.6)	(9.0)	(8.6)
1997-01	55.17	417.2	55.2
	(-4.9)	(6.4)	(-4.9)
2002	41.63	477	41.6
	(-9.5)	(4.2)	(-9.5)
2003	40.28	NA	NA
	(-3.2)	(-)	(-)

Source: Tea Board, 2002-2003; UPASI, 2004.

Notes: i. Figures in the above table shows five-year annual average of prices tea

ii. Figures in the parenthesis denote AAGR of the reference period.

To analyse the instability in prices the Coppock's instability index and coefficient of variation were estimated. Table 4.22 clearly depicts the instability in prices of domestic and international prices. The instability analysis for the whole period as well as sub periods shows higher variation in all the cases except international prices. This was in

conformity with the results of Nayyar and Sen (1994) that revealed that the divergence between border and domestic price movements increased and the prices were of more or less same rate for exportables. From the year 1981, domestic prices have increased much faster than the border price with somewhat less variability. Border prices have tended to fluctuate around the trend than the domestic prices. Thus gives its imperfection in the world markets in agricultural commodities is less stable than the Indian domestic market. He opined that the fluctuation in domestic prices were due to inter and intra year price fluctuation.

Table 4.22 Instability of domestic and international prices

Methods used	Period	Cochin	Coonoor	Coimbatore	South India	All India	I.P
CV (%)	1982-92	29.24	32.50	24.88	29.16	30.35	24.69
	1993-03	21.83	25.25	23.64	22.77	19.23	15.25
	1982-03	39.45	41.48	35.43	38.51	40.42	20.27
Coppock's index (%)	1982-03	25.21	30.94	28.70	26.51	23.94	22.97

Source: Tea Board, 2002-2003; UPASI, 2004.

The Coppock's index also gives the same results. High instability was noticed in the case of Coonoor market among the various markets under study. Compare to all India, south Indian prices showed higher instability.

4.7 TRADE COMPETITIVENESS OF SOUTH INDIAN TEA

The liberalisation of Indian economy has provided enormous opportunities for agricultural exports. In this context it is important to understand the global competitiveness of various agricultural commodities. In this study trade competitiveness of tea in SI is measured by adopting the standard approach of measuring competitive advantage through the estimation of Nominal Protection Coefficient (NPC). NPC is the ratio of domestic price to international price and the divergence between these two measures the level of protection. If the NPC is greater than one, then that commodity is

protected compared to the situation, which would prevail under free trade, and if NPC is less than one that means the commodity is less protected and it is having competitive advantage in the international market. It may be mentioned that the domestic price used for calculation of NPC refers to prices of tea in South Indian market. In this study NPCs of South Indian tea were analysed during the period 1982 to 2003.

From Table 4.23 it can be seen that, the NPC values of tea are less than one during the post liberalisation period when compared to the pre liberalisation period. The above findings on the NPC values of less than one during the post liberalisation period was in conformity with the findings of Bhatia (1994). Another attempt made by Jha (2001) to compare the NPC of agricultural commodities over the years (1992-93 to 1996-97), also indicated the existence of high comparative advantage for tea.

Table 4.23 Nominal Protection Coefficient values of tea during 1982 to 2003

Pre Liberalisation period				Post liberalisation period			
Year	I.P	D.P	NPC	Year	I.P	D.P	NPC
1982	164	178	1.08	1993	155	165	1.06
1983	191	242	1.27	1994	157	103	0.66
1984	280	267	0.95	1995	129	131	1.02
1985	159	189	1.19	1996	142	128	0.90
1986	164	155	0.95	1997	200	167	0.84
1987	131	159	1.22	1998	189	190	1.00
1988	136	158	1.16	1999	178	138	0.78
1989	151	239	1.59	2000	202	104	0.51
1990	148	238	1.61	2001	153	102	0.67
1991	142	189	1.33	2002	149	88	0.59
1992	167	146	0.87	2003	162	86	0.53

Source: Tea Board, 2002-2003; UPASI 2004.

Note: i. I.P and D. P refer international and domestic prices respectively.

ii. Mombasa (Kenya) auction market prices are taken as international price and South Indian prices are taken as domestic price.

Even though the NPC values are less than one, it may be noted that it may change according to the fluctuation in international market since tea is export oriented and any set back in markets in major exporting countries will affect the producers in remote villages of all the tea producing States and upset our economy. It is therefore a matter of survival for the tea industry to increase productivity and also maintain the marketability of the produce through improved quality.

SECTION II POLICY OPTIONS AND SUPPORT SERVICES TO TEA INDUSTRY

Among the many factors promoting the development of any sector or industry, the role of State patronage is not an insignificant one and tea industry is not an exception. The policy measures of the Government from time to time and its adequacy or inadequacy especially in the context of the liberalization forms the first part of the discussion of this section. The support services of the Government to the tea industry, direct and indirect, are discussed in the later part of this section.

4.8 POLICY OPTIONS FOR TEA IN INDIA

The tea industry in India has to function within a set framework of rules and regulations. An increasing role has been bestowed on the State to revive this ailing industry, especially in the context of the liberalisation of the economy. The objective of this section is to detail the framework set in by the Central and State Governments and to examine how far these policy issues have been promoting or retarding the growth of the industry. A comparison has also been made with respect to the policy options of the major tea producing countries of the world, which are our competitors in the international market. The policy options for tea in Indian economy can be spread under the following heads, namely:

4.8.1   Taxation in tea plantations

4.8.2   Marketing policy

4.8.3   EXIM / Trade policy

4.8.4   Policies with WTO agreements

4.8.1 Taxation in tea plantations

Taxation is a very important aspect that needs careful examination; and the remedy lies at home and not with WTO. In fact, there is no level playing field for the plantation commodities as a whole, even within our own country due to the country's administrative structure involving a Central Government, several State Governments and a few Union Territories. The powers given under the Indian Constitution to the State Governments in matters relating to land, labour and taxation have, over the years, resulted in a wide disparity for guidelines or directives from the Central Government. First, the land policies of the

concerned State Governments are not conducive to the growth and development of the plantations. Second, some of the State Governments, with the powers given to them under the Minimum Wages Act, have tended to prescribe wages at high levels that cannot be sustained by the plantations. This has led to wide disparity in labour wages between States and resultantly, in the cost of production, since the plantations are highly labour intensive. The third aspect most importantly, is taxation. The tea industry is subject to dual taxation both by the Central Government and the State Government.

4.8.1.1 Central levy

Tea is subjected to different kinds of levy at various stages of production. The rate of cess on tea produced in Darjeeling plantation district is Rs.0.12/kg and for others Rs.0.30/kg. Excise duty of rupee one per kg on tea imposed from 1st March 2002 has been abolished with effect from 1st March 2003. However, additional excise duty of rupee one per kg has been introduced for developmental purposes. An *ad valorem duty* of 16 per cent is also levied on instant tea, falling under the head 2101.20. The import duty stands 100 per cent for tea except instant tea, for which it is 35 per cent only. Exceptionally only 7.5 per cent import duty is levied on teas imported under Indo Sri Lankan Free Trade Agreement. No duty is exercised for the import of tea for re-export under duty exemption scheme and/or Export Oriented Unit/Export Processing Zone / Special Economic Zone units.

The Corporate tax of Central Government stands at 35 per cent (plus two per cent surcharge). Apart from that the Government is levying two per cent Central Sales tax for teas sold at all auctions except Guwahati, four per cent on ex-garden sale and eight per cent on teas sold to unregistered dealers. (Tea Board, 2004)

4.8.1.2 State levy

The tea industry is subject to dual taxation - 40 per cent of the income is taxed by the Central Government under the Income Tax Act, 1961 and 60 per cent of the income is subject to agricultural income tax in the State where tea is grown. While the Central Government has taken the initiatives giving some semblance of uniformity in the rates of sales tax of commodities, there is a glaring anomaly and discrimination in respect of plantation crops in the matter of agricultural income taxation as given below.

i)   While, virtually, income from no other agricultural produce is subject to taxation anywhere in India, it is only the plantation segment whose income is subject to taxation. In effect, agricultural income taxation is prevalent only in plantation growing States.

ii)   Not only that within the agricultural sector plantations are being discriminated, but also they are left to the mercy of the State Governments, by whom they are heavily taxed. (Menon, 2001)

The varying rates of agricultural tax charged by the major tea producing States in India are depicted in Table 4.24.

Table 4.24 Rates of agricultural tax of major tea producing States of SI during the year 2002-03

States	Sales tax	Inter-State sales tax	Agricultural income tax
Tamil Nadu	4-8%	2%	65%
Kerala	8-15%	2%	65%
Karnataka	8-15%	-	38% (plus 40% of the amount which exceeds Rs.5 lakh)

Source: Tea Board, 2003.

Note: Inter- State sale tax is for the teas sold in auction for inter-State sale.

The discrimination in taxation in the case of plantation crops is totally unjustified. While a fair treatment would call for exempting plantation crops from agricultural income tax on the analogy of other agricultural produces, the least that the planters would demand is that they be taxed not more than the industrial giants in the country, which is 30-45 per cent. While the maximum rate of the agricultural income tax in Assam and West Bengal has been brought down in recent years to 45 per cent, in Southern States it is still in the 50-65 per cent range. (Menon, 2001)

In Kerala, plantation tax is levied for tea plantations at the rate of Rs.1500 per ha in the case of holding size of above 14 ha and upto 500 ha. The Karnataka Government is

exercising turnover tax of three per cent for the profit of above Rs. 10 crore and five per cent on tax payable as infrastructure development tax. Tamil Nadu Government is also practicing infrastructure surcharge of five per cent on sales tax. Thus, the tea industry ends up in paying corporate tax at a rate higher than that applicable to all other industries. This will leave nothing for the industry to reinvest in improved cultural practices or on increasing production and productivity, even in a good year. (Victor, 1995)

4.8.1.3 Duties and taxes in other tea producing countries

The situation as noted above, with respect to agricultural taxation is completely different in competing countries. Labour wages are much lower in African countries. In many countries, there is only one Government and there are no State Governments, and hence, plantations in such countries are subject to uniform policies. The agricultural income tax in Sri Lanka, which is a very large producer and exporter of tea, is only 35 per cent and in Malaysia it is only 30 per cent. The major tea producing countries levy no export duty on tea plantation sector except Tanzania, which is charging two per cent on total proceeds value. Sales tax is levied only by the Russian Federation at five per cent rate. Value Added Tax is exercised by many of the tea producing countries like Bangladesh (15 per cent), Indonesia (10 per cent), Kenya (18 per cent), Uganda (17 per cent), Russian Federation (20 per cent) and Argentina (21 per cent). In many countries the Government does not interfere if the planters wish to link the wage increases to labour productivity. In Sri Lanka, Government has taken over the responsibility of building quarters, schools and hospitals and supply of water and electricity for estate workers while in India the planters are forced to provide all these under the provisions of 'The Plantation Labour Act'. That is why the Indian planter, is left with low post tax profit for development, to compete with his counterparts in other tea producing countries.

It is high time that having declared, tea as 'industry' under the Parliamentary Act viz. Tea Act, 1953 the Central Government takes effective action to rectify the anomalies rather than pleading helplessness that certain matters are State subjects. The first step, which the Central Government should do, is to stipulate that the rate of agricultural income tax cannot exceed the rate prescribed under the Central Income Tax Act. If needed, the Indian Constitution should be amended. Secondly, whatever facilities are available for the

manufacturing sector under the Central Income Tax Act should also be available for the plantations under the State Agricultural Income Tax Acts.

It goes without saying that if the plantation industry in the country is to survive and be globally competitive, a thorough review of the taxation and labour policies enunciated in India by the Central and State Governments are called for.

4.8.2 Marketing policy

Marketing is as critical to better performance of agriculture as farming itself. Therefore, market reforms ought to be an integral part of any policy for development. Auctions have always played a key role as the main vehicle for primary marketing of tea in India for over a century, ever since the first auction centre was set up in Calcutta in 1861 followed by Cochin in 1947. During the post independence, the successive setting up of other auction centres across both North India (NI) and SI further strengthened the tea auction system.

The auction system received strong regulatory support in the early eighties when the Tea (Marketing) Control Order (TMCO), 1984 was effected. Amongst other things, Clause 17 of TMCO stipulated that at least 75 per cent of a producer's tea production should be sold through auctions (except for plantation packed tea and bulk exports). Consequently over the years, auction sales became the main conduit for primary marketing of tea in India. With SI traditionally moving 85 per cent of its tea production through auctions, the auction system has, in particular, dominated primary marketing of tea in SI. In fact, in Tamil Nadu, which has a large BLF (Bought Leaf Factories) sector concentrated in the Nilgiris, almost the entire (over 95 per cent) tea production of the State has traditionally been sold through auction system. Thus, amongst all the tea growing regions in the country, for SI in general and Nilgiris in particular, the primary marketing of tea and auction system has the closest linkage.

The continued depression in prices experienced in the past two years necessarily brings into focus the method of disposal of tea in which the auction system plays a major role. Even though the Tea (Marketing) Control Order has been relaxed, auction prices continue to be the benchmark for the sale of teas disposed through alternative channels. However, various issues relating to the functioning of the auction system have cropped up

from time to time. While the price to the tea producer has not improved in the last one or two years compared to the cost of production, the price at which the common man buys it for consumption remains at the same old high levels. This had been agitating the minds of the producers and the Government of India. Finally, the Tea Board commissioned A.F.Ferguson and Company to undertake a thorough review of the existing primary marketing system in early 2001. Ferguson and Company submitted their report and according to their findings, prima facie there seems to be some distortions in the present system of primary marketing. The Report recommended for auction reforms as the necessity of the hour, on the following grounds:

i)   Producers have been gradually shifting away for the auction system (both in SI and NI)

ii) Many of the auction rules needed reform either because they are not in line with fundamental auction principles or added to transaction time and cost.

iii) Introduction of ex-estate sales within the auction system is as yet not permitted

iv) The age-old manual 'open outcry' system prevails across all auction centres and there is an urgent need to bring technology into the auction room

v)   There is a need for creating variety and choices in auctions since the auction centres are by and large similar.

The report made by Ferguson covered each of these issues and outlined the focus areas for auction reforms and the way forward for the same, which are briefed under the following sections.

4.8.2.1 **Need to preserve the auction system**

Consequent to the liberalisation of Clause 17 of Tea Marketing Control Order, in early 2001, there has been a perceptible shift away from the auctions in the very first year itself. In SI, auction volumes as a percent of total production have decreased from 83 per cent to 80 per cent during 2001. while in NI, the fall has been from 49 per cent to 42 per cent during the same period. (Divekar, 2002) The shift in SI was a matter of concern since SI has

always moved teas (in good times and bad) through the auction system unlike NI, which moved significant quantities of teas outside the auction system.

Given this scenario, there is thus an urgent need to ensure that through a series of auction reforms and other initiatives, the shift from the auctions is arrested and the auction system not only survives but also flourishes as the main vehicle for primary marketing of tea. This is critical since the auction system is still perceived to be by far the best vehicle for primary marketing of tea and one that offers significant benefits to both producers and buyers (especially smaller producers and smaller buyers) as well as enabling effective monitoring of the primary tea market and easier and single point collection of sales tax revenues.

4.8.2.2 Recommended changes in the auction rules

Tea auctions are a complex interplay amongst the various shareholders who participate in the auctions adhering to a set of auction rules and procedures, which represent the fundamental essence of an auction-based trading system. Given the historical evolution of the Indian tea auction system, there are a plethora of auction rules across auction centres. Some of the rules have evolved over time; some have been modified to suit the tea trade's interest at a particular point of time while others have possibly drifted away from their original objectives. Broadly, the auction rules are divided into two categories:

i) Rules related to auction principles:

These rules are directly linked to the fundamental principles of the auction system and need to be evaluated from the base itself. Industry convenience and related aspects of these rules are secondary in importance. The rule, which fall into this category are those related to lot size, divisibility and bidding for others (proxy bidding).

ii) Rules related to the auction process:

These are rules, which are basically linked to the auction process and hence while evaluating these rules, industry convenience, fairness and practicality should be borne in mind. Essentially these rules relate to the auction process viz., pre-sale, sale and post-sale conditions and include pre-sale related rules (like catalogue closing, sampling and withdrawals), sale related rules (like advancement of bids and re-opening of bids) and post-sale related rules.

Perhaps the most important priority for auction reforms is reforming the rules that pertain to the fundamental auction principles like divisibility and minimum lot size rules and proxy bidding. Changes in each of these rules are required to ensure that the fundamental auction principles are preserved as follows:

Fundamental principle No.1: Producers should be able to sell any category quantity and type of tea through the auction system since the auction system is designed for price discovery of a non-homogenous commodity like tea (including non-homogeneity in the size of the lot). Thus from a fundamental auction principle standpoint, there should be no minimum lot size stipulations.

Fundamental principle No.2: Buyers must put the winning bid in the auctions to buy teas. The current divisibility rules contradict this basic auction principle since it permits some buyers to buy tea without putting the winning bid. This is particularly relevant for SI where auction centres have perhaps the most liberal divisibility norms worldwide with upto four buyers permitted to divide certain lots. The problem is further accentuated by the fact that lot sizes in SI are typically half of those in NI and so effectively even greater quantities get divided. Thus from a fundamental auction principle standpoint, the eventual direction of auction reform should be to free up lot size stipulations with no divisibility of lots. This will ensure that lot sizes are market oriented (i.e. small lots for small buyers) and that all teas are sold only to winning bidders.

Fundamental principle No.3: Buyer must be present in the auction room to buy his tea. Currently all auction centres permit proxy bidding with the number of proxies that a buyer can bid for, varying from two to four. A fundamental auction principle is that a buyer must be present in the auction room so that effectively there is more competition in the auction room, for which proxy bidding is not permitted at some leading international centres. In the Indian context, given the large number of buyers, elimination of proxy bidding altogether may not be feasible or desirable. But, there is a need to tighten the proxy bidding rules so that there is greater competition in the auction room.

In addition to the reforms required for the rules related to the fundamental auction principles there is a need to reform various other rules which are related to the auction process and which have a bearing on the transaction time and costs involved in selling teas

through the auctions. Though there are a number of rules related to the pre-sale, sale and post sale, the key rules that require change pertain to cataloguing time, sampling, bidding increments, unsold lots, prompt, grading and valuation. The overall objective of these reforms would be to ensure that transaction time and cost of selling teas through the auctions is reduced. Needless to say, a phased implementation programme for auction reforms is essential for achieving this objective.

4.8.2.3 Introduction of ex-estate sales

Currently all auction centres are based on an 'ex-warehouse' concept wherein the auction process commences only after teas reach the designated warehouse at/near the auction centres. Introduction of ex-estate sales (in addition to the current ex-warehouse system) across all auction centres to reduce the cycle time of the auction system is thus another important area of reform. To introduce ex-estate sale, two warehousing options has been considered in the Indian context, in the Report of Ferguson and Company.

i. Just in time warehousing (pre-sale) at auction centre: In this system, the teas are catalogued (and samples drawn) on an ex-estate basis. However, the teas must arrive at the warehouse a few days (say three days) before the date of sale. This is to ensure that there is a guarantee of physical availability of the tea before they are actually sold. This system can be introduced easily since it has a number of similarities with the existing system.

ii. Ex-garden warehousing: Teas are catalogued, sampled and sold on an ex-garden basis. There is no need to be warehoused at the auction centre at all.

4.8.2.4 Electronising the bidding process

One of the primary objectives of the auction system is Price Discovery, which is taking place in the auction room on a completely manual 'open outcry' system in the auction centres. Some of the major drawbacks of manual auction as pointed out by Ferguson and Company are:

i) The 'open outcry' process provides shorter time for price discovery (roughly 20 to 30 seconds per lot). There is always a pressure on the participants to 'complete' the catalogue for the day, which dilutes the quality of the price discovery process.

Electronic bidding systems on the other hand can provide longer time for price discovery, which is the basic purpose of the auctions in the first place

ii) The 'open outcry' system cannot ensure anonymity of bids. In contrast electronic system can be designated to be totally anonymous or not anonymous

iii) The manual system necessarily has to have a 'serial bidding' sequence i.e. the next lot comes up for sale only after the previous one is knocked down. This puts a pressure on 'completing' the catalogue and also makes the system vulnerable to market trend based bidding. Electronic systems permit a 'parallel bidding' sequence wherein the entire catalogue can open for sale at the same time

iv) In a manual system there is no record of bid history relating to the bidding pattern and number of increments. Records exist only for the sale made. Electronic bidding systems on the other hand easily maintain a 'history of bidding' for the sale, which can provide a valuable record of the auction process for future analysis and for taking corrective action

v) A manual system requires enormous back office operation and does not facilitate real time information dissemination. Also there is wasteful duplication of effort by many agencies. Electronic bidding systems, in contrast, provide real time dissemination of data and reduce duplication of data entry by the various auction participants.

The above discussed drawbacks of the manual system could be overcome by the introduction of an electronised auction room. Therefore, the Commission considered introduction of an electronic auction room concept as another key for auction reforms. Since familiarity with electronic bidding systems is virtually non-existent amongst the various auction participants, a pilot project for implementation of electronic auction room with strong support from the Tea Board was recommended to make them familiar with the electronic system.

4.8.2.5 Need for creating choices within the auction system

Tea auctions in India are organised by the respective Tea Trade Associations (TTA) at the particular auction centre. The TTA is a unique multi-partite association consisting of buyer, seller, broker and warehouse members, created to administer the auction system and its multi-partite interests. Effectively TTA is an organisation wherein parties with different

individual interest try to work together towards a common interest. Since individual interests are diverse and often conflicting in nature, the end result is that the strategic direction of the TTA often tends to veer towards finding 'acceptable' solutions rather than the best solutions for the auction systems.

Consequently, there is limited innovation and variety across auction centres despite the fact that their needs and industry structure may be different. Most auction centres are modeled on similar lines with marginal changes in rules or functioning styles. Also, most of the TTAs follow the one member-one-vote method which often results in a situation wherein one (or many) particular parties/groups feel 'left out' in the management of the auction center-in some centres the estates sector feels left out, in others the bought leaf sector feels neglected, in still others the large buyers feel neglected. Effectively, the 'one size fits all' type of approach across auction centres had led to a somewhat paradoxical situation in the context of Clause 17 liberalisation wherein producers are free to sell their tea through any primary marketing system but still have to sell it through one type of auction system-since there is at present an absence of variety in auction systems. For the reasons elaborated above, it was felt that creating variety in auction systems with different rules, ownership and management structures, if required, is necessary to encourage efficiency in the auction system as a whole.

4.8.2.6 Recent trends in the marketing policy of tea

Based on the suggestions made in the Report of Ferguson and Company, the Government of India revoked the Tea (Marketing) Control Order, 1984 imparting flexibility and rationalisation to the tea auction system. It notified the Department of Commerce to supercede the TMCO, 1984 by the Tea (Marketing) Control Order, 2003, removing several shortcomings of the earlier. The new Order spells out that every registered manufacturer should sell such a percentage as might be specified from time to time by the authority. The order excludes the tea marketed directly by the manufacturer. Besides there are certain provisions of the Act through which it is evident that the Government aims at tighter control over the tea industry.

The Act stipulates that the buyers have to register themselves within 60 days of publication of order with the registering authority (Chairman of Tea Board). The registering

authority has been empowered to lay down what per cent to total purchase of tea by a buyer in a calendar year should be from the domestic public auction. However, direct purchases in the form of packet, instant tea, green, black and organic tea have been excluded from the computation of total buying. But it implied that every registered buyer has to submit to the registering authority a monthly return in the prescribed format giving details of purchases from the public auction system as well as non-auction sources. Even the manufacturer has to intimate the registering authority about any sale outside the public auction system within 15 days of such transaction. On the determination of reasonable price and its compliance the Order spells out that whenever considered necessary, the Board shall decide the reasonable price payable to the tea growers on a periodical basis.

Under the TMCO, 1984, the manufacturer was one who manufactured tea and also included BLFs and co-operative tea factories. But TMCO, 2003 lays down that a manufacturer means any person including the owner of an estate factory, a BLF and cooperative factory who manufactured any product commercially known as derived from the leaves of the plant *Camelia sinensis* and/or who produces value added products of tea such as packet instant green, flavoured, and quick brewing black as tea bags. The Tea Board or its representative is empowered to conduct search and seizure within the premises of a buyer or seller. And in case of any contravention of Order, he can act within the provisions of Code of Criminal Procedure, 1973. It may be noted here that even the Sales Tax Act does not have such stringent provisions. Besides, monthly returns and maintenance of records, which expose stock details, has also irked the packeteers.

The buyers want the Tea Board to adopt Sri Lankan model wherein the auction centre is the first sourcing point of all tea produced in the country. In other words, even the producer exporter has to source his requirements from the auction. In the opinion of the buyers such a practice is entirely transparent and plugs all loopholes as far as sales tax and excise duty evasion are concerned, and would not require the buyers to file any returns as the Board would already provide a cue from the auction sale book. The buyers have alleged that the new order restricts their right to buy.

But the Tea Board refuted these allegations and stated that these measures would facilitate to keep track of tea within the country. This was necessary to bring in more transparency and efficiency to the system. Bose (2003a) stated that the new Order would lead

to more transparency and the possible evasion of taxes by way of under invoicing and other unscrupulous practices could be eliminated. The new reforms in auction system are still perceived by all participants in the tea industry as a fundamentally sound one for the primary marketing system of tea. The need for hour is to further strengthen it through a variety of reforms.

Yet another initiative taken from the industry's side is by UPASI, which approached Forward Marketing Commission (FMC) for a licence to run the Tea Futures Exchange. The objective is to have a system for hedging against the risks of price volatility. The Tea Futures Exchange would be yet another marketing tool for price discovery, especially the likely future trends. UPASI is also exploring the feasibility of directly marketing by a Consortium of Tea Producers in potential upcountry markets. For this purpose, ORG-MARG was commissioned to suggest a suitable marketing model after mapping the existing value chain. (Menon, 2002) The erosion of the share of India in some of the import markets is an added dimension to the current crisis. Tea Board is in the process of implementing a medium-term export strategy recommended by Accenture, an internationally reputed consultant, based on a detailed study undertaken by them. Government of India has also liberalised its policy on foreign direct investments in tea sector plantations and trade. (Bose, 2003b)

Auctions, which played major role in the primary marketing of tea in India, underwent significant changes when the marketing restrictions were being liberalised in the early 2001 and allowed the producers to sell their tea, as they desired. The compulsory routing of tea through auctions had created a situation where tea growers, traders and marketers coexisted in the earlier times. Even then the auction system is still perceived by all participants in the tea industry as being a fundamentally sound system for primary marketing of tea. The need of the hour is strengthen it through a variety of auction reforms. Compared to the prominence of the tea industry to the Indian economy, the policy measures are too inadequate. Even with the present TMCO, 2003, the stakeholders are not satisfied. The complete replacement of the 'out cry' system by the electronic system as recommended by Ferguson and Company will bring about more transparency into the system of marketing. The findings of Betz (1993) while comparing the tea policy in the important tea exporting countries-Sri Lanka, India and Kenya, is quite noteworthy here. He identified the underlying political factors within these diverse types of development and emphasized tax policy, land

distribution, support systems to small farmers, effectiveness of institutional measures and the influence of social pressure groups on tea policy for the better performance of the industry.

4.8.3 EXIM/ Trade policy

Trade or commercial policy refers to the overall policy of a country towards export-import trade and other related matters. Such policies are prepared and announced by the Central Government periodically. The trade policy speaks about the objectives to be achieved through trading activities and also suggests the ways and means to achieve such objectives. At present, all countries-developed and developing, draft their independent trade policies to meet the requirements of their economies. Trade policy should always be dynamic and progressive, as it must suit to the growing and changing needs of the national economy. It is closely related to industrial, financial, fiscal and other economic policies of the Government. The impact of trade policy is visible on the entire economy of the country. Businessmen, manufacturers, exporters and importers are expected to study all aspects of trade policy in detail. This is necessary as such policy offers new concessions, facilities and incentives to them. Certain new opportunities will be available and certain new restrictions may be imposed as a result of changes in the trade policy. The Import Export (EXIM) policy, in general, aims at developing export potential, improving export performance, encouraging import substitution and finally removing deficit in the balance of trade and balance of payments position. The objective of this section is to give an overview of the various EXIM policies of India in general and to highlight the provisions in them for the tea industry specifically.

4.8.3.1 EXIM policy before independence

Before independence, the EXIM policy as it is understood today was practically absent. During the British period, India was exporting raw materials and other traditional commodities like tea, coffee, cotton and textiles to England and other countries of Commonwealth. Imports were made mainly from England. In brief, before 1947, there was no specific policy and direction to import-export trade of the country. It was adjusted as per the needs and requirements of foreign rule.

4.8.3.2 EXIM policy after independence (1947 to 1951)

This second phase of export policy covered the period since independence till the commencement of the planning era in the country. The Indian economy suffered heavily as a result of partition and this affected export as well as import trade of the country. Large-scale imports were necessary to meet the domestic needs but liberalisation of imports was not possible due to restriction placed by the United Kingdom on the utilisation of sterling balances. By and large import policy continued to be restrictive during this period. Certain efforts were made to promote exports but they proved to be ineffective due to limited industrial production and heavy pressure of domestic demand. The Indian rupee was devalued in 1949 to meet the needs of the situation. All usual features of import-export trade during the British period were also visible in this period too.

4.8.3.3 EXIM policy in the First Five Year Plan (1951-52 to 1956-57)

The third phase of EXIM policy started in 1951 along with the introduction of First Five Year Plan. Here also, special attention to exports was not given in the early period of economic planning. For promoting tea exports, the Tea Board was established in 1953 under the Tea Act, 1953. It took active interest in production, development, marketing and export of tea. In the First Five Year Plan, reference to exports, and the need for export promotion was not stressed. On the other hand, imports were liberalised. Import licenses were granted in a liberal manner. Relaxation of export controls, reduction in export duties and abolition of export quotas, encouraged exports at minimal level. On the other hand, the liberal policy undertaken by our Government resulted in large-scale increase in imports. The whole policy was short sighted and not encouraging for building a favourable export climate in the country.

4.8.3.4 EXIM policy in the Second Five Year Plan (1956-57 to 1960-61)

The revival of the trade policy was urgently required by the end of the First Plan. Due to the urgency of revival of the policy, the Government appointed Export Promotion Committee in 1957. The Committee was asked to study all aspects of trade (export) promotion and suggest ways and means to promote exports as the needs of export promotion was accepted at the Government level. As per these recommendations, a Directorate of

Export Promotion was created in the Ministry of Commerce and Industry. The export procedures were simplified and export restrictions in respect of some 200 commodities were removed. Export duties on a number of commodities were either reduced or completely abolished. Export incentives were also offered to the exporters. They include rebates and drawbacks on customs and excise duties. Exporters were given special concession in the railway freight in respect of certain commodities to be exported. The Government also entered into bilateral trade agreements with other countries of Europe and Asia. Finally, State Trading Corporation of India as a Government trading company was set up in 1956 to look after import-export trade.

4.8.3.5 EXIM policy during the Third Plan and up to 1970

The foreign exchange crisis developed during the Third Plan Period led to devaluation of rupee by 36.5 per cent in June 1966. Following the Devaluation, large export taxes were imposed on a wide variety of traditional exports especially to tea. Tea alone contributed Rs. 21.51 crore to the Governmental revenue in the form of customs/export duty. The Government introduced Cash Compensatory Support (CCS) in August 1966 to promote exports. But agricultural products in general received little export incentives in the form of cash incentives.

4.8.3.6 EXIM policy resolution (1970)

The export policy resolution of 1970 is an important landmark in the history of export policy as it is a comprehensive one providing the basic structure and strategy for promotion of exports. This has given special thrust towards industrial licensing policy and special incentives to Export Oriented Units (EOU). It included various vigorous export promotional schemes such as export subsidies, Import Entitlement Schemes by way of Replenishment Licenses, Duty Exemption. In addition, attention and assistance had been given for consolidating the position acquired in overseas market by Indian tea and for identifying new areas of growth and adoption.

4.8.3.7 EXIM policy 1977 and up to 1984

The EXIM policy was made liberal in a gradual manner and more incentives and concessions were offered to the exporters for large-scale exports. Imports were also allowed to meet the requirements of export promotion programmes.

4.8.3.8 EXIM policy (1985-88)

On April 12, 1985, the Commerce Ministry announced new long term EXIM policy for the three years 1985 to 1988 based on the recommendations of the Abid Hussain Committee. Domestic taxes were introduced for 14 thrust sectors including tea, especially in packaged and value added form.

4.8.3.9 EXIM policy (1988-91)

The main innovation in the 1988-91 policy was that the Import Replenishment Licenses were given for all exports and could be used to import any item in limited permissible and canalised lists. With effect from April 1989, profits from exports were fully exempted from export tax. (Kale and Karnavat, 1990)

4.8.3.10 EXIM policy (1990-93)

A new three-year EXIM policy for 1990-93 was announced terminating the earlier policy for 1988-91, a year in advance. The 1991-92 budget lowered the customs duty for agricultural products from 110 per cent 75 per cent after April 1992. With effect from 1st March 1993 unification and market based determination of exchange rates came in to effect.

4.8.3.11 EXIM policy (1992-97)

The principal objectives of the EXIM policy were to establish the framework for globalisation of Indian foreign trade and to encourage the attainment of high and internationally accepted standards of quality and thereby enhance the image of India's products abroad. The policy eliminated licensing, quantitative restrictions and other regulatory and discretionary controls. The Export Oriented Unit and Export Promotion Zone (EPZ) schemes were liberalized and extended to agriculture, horticulture, aquaculture,

poultry and animal husbandry. The Eighth Five Year Plan document proposed further liberalisation of the trade regime. EOU status was given to units in exports of agriculture and allied products, which exported at least 50 per cent of their produce as against a minimum of 75 per cent from other sectors in November 1992. Excise duty on bulk tea, packet tea and instant tea has been withdrawn. Exporters of tea, coffee and spices, like other exporters, were, in effect, pumping out a tax on export earnings by way of accepting a lower rte of exchange rate for 40 per cent of their earnings under the dual system of exchange rate determination.

4.8.3.12 EXIM policy (1997-02) during the Ninth Five Year Plan

In this Plan, the major constraints affecting agro-exports were identified as volume insufficiency, quality deficiencies, stringent legislation relating to health and safety standards in importing countries, procedural bottlenecks and lack of adequate post-harvest infrastructure. The major thrust areas for development as per the Plan document were infrastructure development, quality and packaging, value addition and encouragement of export-oriented production. From 1st August 1998, India unilaterally removed all Quantitative Restrictions (QRs) on imports of 2,300 items from SAARC countries in order to promote trade among SAARC countries by South Asia Free Trade Area (SAFTA). As of 28th December 1998, a free trade agreement was concluded between India and Sri Lanka on, which would result in zero import tariffs for most of the commodities on both sides by 2007.

On 1st December, 1999, the Government announced one amendment in the EXIM policy 1997-02 stating that the central excise duty paid on bulk tea procured from licensed auction centres by Export Oriented Unit/Export Promotion Zone (EOU/EPZ) units would be reimbursed by development commissioner of concerned Zone at all industry rates so long as levy on bulk tea in this regard was in force. In 1998-99, while 'nil' duty for bulk tea produced by the tea estates/factories continued, an eight per cent duty was introduced on consumer packs of tea.

4.8.3.13 EXIM policy (1999-00)

The policy introduced Free Trade Zones (FTZ) to replace Export Processing Zones and these were to be treated as outside the country's customs territory. The policy planned

for institution of Ombudsman for faster resolution of exporter's problems and Green card for exporters exporting 50 per cent of their production. During 1999-00, excise duty on consumer packs was withdrawn and duty on bulk tea was re-introduced at a uniform rate of rupee two per kg, doing away with the zonal system.

4.8.3.14 EXIM policy (2000)

The Government of India, announced modifications in the EXIM policy 1997-2002 on 31st March 2000. Efforts were made to remove the restrictive export-import related regulations. An important step in this regard was the proposal to set up Special Economic Zones (SPZ) with fewer rules and regulations governing imports and exports subject to the condition that what they produce would be exported. QRs on 714 items were removed from 1st April 2000 which included instant tea, quick brewing black tea, tea aroma, other extracts, essences, concentrates of tea also. Items which were exempted from customs duty include green tea ((not fermented) in immediate packings of a content not exceeding three kg), other green teas (not fermented), black tea (fermented), other black tea (fermented), extracts, essences and concentrates of tea and preparations with a basis of these extracts, essences or concentrates or with a basis of tea/mate. The Government set up a high-powered standing committee on reduction of transaction costs of Indian exports. On 17th October 2000, the Government placed export tariff / cess of rupee five per kg on tea.

4.8.3.15 EXIM policy (2001-02)

The policy removed remaining QRs on most of the consumer items and agricultural products. On 31st March the Government announced that import of tea waste would be subjected to compliance of Tea Waste (Control) Order, 1959. It further added that import of tea would be allowed only to the license holders under the afore mentioned Order issued by the Tea Board. The Central Government also notified the list of free importable items including black tea (leaf bulk, dust bulk or ball, brick, tablet etc.), black tea waste, green tea (leaf bulk, or ball, brick, tablet etc.), green tea waste and tea bags from 2nd May 2001. It stated that imports of these items would be allowed through seaports (Mumbai, Kolkata, Chennai, Vizag and Cochin) and airports (Delhi, Mumbai, Chennai and Kolkata). Export Promotion Schemes such as Export Promotion Capital Goods Import Scheme (EPCG) and

Duty Exemption Scheme (DES) were widened to agricultural exports. Farm-to-Port approach in the agriculture economic zones and a new agricultural exports policy was introduced.

The budget announced in 2001-02 increased the customs duty on tea, coffee, copra, coconut and desiccated coconut to 70%. The developmental allowance available for tea industry has been raised to 40 per cent from 20 per cent. This would be used only for replantation, rejuvenation, and modernization. But only corporates benefited because of the hike in the customs duty and tea developmental allowance.

4.8.3.16 EXIM policy (2002-07)

The policy has several initiatives to boost up our agro exports. The policy states that the corporate sector with proven credential would be encouraged to sponsor Agri. Export Zone for boosting agro exports. The corporate sector is expected to provide services such as provision of pre/post harvest treatment and operations, plant protection, processing, packaging, storage and related research and development.

The budget announced in 2002-03 increased the customs duty on tea and coffee to 100 per cent and on natural rubber, poppy seeds, pepper, cloves and cardamom to 70 per cent. It also proposed to reduce the customs duty on agricultural machinery and implements from 25 per cent to 15 per cent to encourage our farmers to acquire new and efficient technology. In order to promote the interest of tea growers, the policy reduced the excise duty on tea from rupee two per kg to rupee one per kg. Under the policy, import of tea is permitted with an import duty of 100 per cent. Because of the problems existing in the industry, especially in SI, the Government has taken a number of steps like reduction in excise duty, increasing the allowance under Section 33 AB of the Income Tax Act, from 20 per cent to 40 per cent and implementation of a Credit Relief Package announced by the Government to help the industry. (Sinha, 2002)

With a view to providing stability in terms of income for the small growers, from 2003-04 onwards, Government announced a Price Stabilization Fund of Rs.500 crore for the benefit of tea, coffee, and natural rubber growers. In addition, it abolished the excise duty of one rupee per kg on tea and replaced it by a cess of one rupee per kg for creating a separate fund for development, modernisation and rehabilitation of the tea plantation sector. The budget stated that

this measure will not impose any additional burden on the tea industry, but it will redesign the duty to help the industry. Further, coffee plantations will henceforth be eligible for income tax deduction of sums deposited in a development account, as in the case of tea.

The budget 2004-05 has reduced the customs duty on imported machineries used in the plantation industries from 50 per cent to five per cent. This concessional rate will be extended to the tea also. With a view to providing a road map for export sector, efforts were being taken by the Government since independence. The GOI liberalised the export and import trade in a phase wise manner. For preparing policies and programmes necessary to achieve the objective of raising the share of India's exports in the world market to one per cent in the medium term, the Medium Term Export Strategy- 2002 to 2007 was announced on 30th January 2002. A total of 220 items and 25 markets have been identified for special attention based on different criteria. For the identified potential export items, indicative sector-wise strategies have been announced based on detailed strategy paper prepared by the Export Promotion Council/Commodity Boards and detailed discussions held with exporters.

Even though there was no EXIM policy as such, before independence, India was exporting agricultural commodities including tea. It is to be noted that, recognizing the prominence of the tea industry, the Government of India set up the Tea Board in the First Five Year Plan itself, for promoting production, development, marketing and export of tea. But the privileges enjoyed by the tea industry began to the imposed traditional exports, including tea. The removal of the Quantitative Restrictions (QRs) and the Free Trade Agreement between India and Sri Lanka, under Ninth Five Year Plan, to cope up with liberalisation, almost choked the tea exporters and thereby the producers of tea. The impact of liberalisation is well reflected in the recent EXIM policies by the Government. The Government has undertaken a series of measures to provide relief to small and marginal farmers of plantation crops like tea, coffee and rubber, and help these sectors negotiate the difficult period from time to time since independence.

4.8.4 Policies after WTO agreements

India embarked on a process of trade liberalisation policies since 1991 as part of economic reforms, which include decanalisation of the imports of agricultural commodities, removal of quantitative restrictions on all agricultural products and reduction of tariff rates. Subsequently, liberalisation in agricultural trade was institutionalised in 1995 through various agreements signed under Uruguay Round Agreements and formation of WTO. Trade liberalisation has put Indian agriculture into the framework of global competition and rules of global market. These developments have raised the question of competitiveness of Indian agriculture. India has competitive advantage in several commodities for agricultural exports because of near self-sufficiency of inputs, relatively low labour costs and diverse agro-climatic conditions.

The major agreements that effect agricultural trade are Agreement on Agriculture, Agreement on Sanitary and Phyto Sanitary Measures, and Agreement on Trade Related aspects of Intellectual Property Rights. These agreements were aimed at promoting trade by reducing the level of protection and by removing various kinds of trade barriers and distortions in agricultural trade resulting from domestic policies.

4.8.4.1 Agreement on Agriculture

The chief provisions of WTO Agreement on Agriculture (AOA) falling under three broad areas of trade and agricultural policies namely market access, domestic support and export subsidies, are briefly introduced before the discussion of their implications on the tea industry.

a) Market access

Members are required to remove all non-tariff measures and replace them with tariff equivalents. The tariffs arrived at after tariffication, and the tariffs applicable to other agricultural products are to be reduced by specified percentages over the implementation period. This reduction of tariffs is 36 per cent for developing countries and has to be reduced uniformly over the implementation period i.e. from 1994-2004 for these countries. However least developed countries are not required to make any

reduction in tariffs. Import control measures will not be allowed for developing countries except when it has the protection of 'BOP provisions' (i.e. adverse Balance of Payment conditions). The only exception to this rule is when a developing country is faced with the situation where it has to take to safeguard action. Both developing and least developed countries are required to bind their rate of tariffs against further increases. The AOA provides for taking Special Safeguard Measures (SSM) in the form of additional duty on imports. Unlike general safeguard measures, which enable a country to adopt quantitative restrictions, SSM will not permit quantitative restrictions. However under SSM, injury to domestic production is not required to be proved as in the case of general safeguard action.

b) Domestic support

Domestic support extended to agriculture has to be reduced over implementation period. The reduction of domestic support is on the basis of the quantification done initially through computing of the Aggregate Measure of Support (AMS). AMS is calculated on the basis of the support extended to agriculture in the year 1986-88. This is done by measuring product support (support price) and non-product support (support for purchase of fertilizer, seeds, water and electricity). For developing countries the *de minimis* limit of aggregate measure of support is 10 per cent of total value of production for the relevant year with regard to product specific support and 10 per cent for non-product specific support. For developed countries the limit for both the categories are 5 per cent each. The base AMS has to be reduced by developing countries by 13.3 per cent over the implementation period, which is 2004 for them. For developed countries the reduction is 20 per cent to be effected by 2000, which is the base period. In the calculation of AMS and in its reduction there are many concessions given by WTO-AOA, one of which relate to Green Box measures. Green box measures are considered to be non-discriminatory and permitted without limits. The green box items are typically listed in Article 6 of WTO-AOA and covers investment subsidies available on agriculture in developing countries and agricultural inputs subsidies generally available to low income and resource poor producers in these countries.

c) Export subsidy

Here the Agreement requires discipline on two parameters namely annual budgetary outlay and quantity of export covered by the export subsidy. The base year for calculation of reduction is 1986-90. The requirement of reduction in developing countries is 24 per cent of the budgetary outlay and 14 per cent for the quantity of export covered by the export subsidy. The period of implementation is 1994 to 2004 with the requirement that the export subsidies have to be reduced uniformly from year to year. (WTO, 1999)

Subsidies to reduce cost of marketing include handling, upgrading, processing and international transport and freight, internal transport and freight and subsidies, contingent upon the incorporation of the product into exported products. Developed countries, which have not given commitment on reducing exports, are prohibited from using export subsidies on agricultural products. However developing countries like India are permitted to use export subsidies including those which are meant to reduce cost of marketing in exports of agriculture products, internal transport and freight charges on export shipments.

4.8.4.2 Implications of AOA on the tea plantations

The implications of AOA on tea industry with respect to tariffication reduction in tariffs, binding on tariffs, SSM, domestic support and export subsidy are discussed in this section.

a) Tariffication reduction in tariffs

India could not maintain Quantitative Restrictions (QRs) on plantations products from 2002 onwards. Though India was required to remove QRs only by 2004, since she did not uniformly remove QRs during the implementation period, she was dragged to the WTO dispute settlement body by the U.S. Finally she lost the case before the dispute settlement body. This effectively meant that India had to advance the phase-out of QRs to 2002 for the four plantation commodities including tea. This made Indian tea more import sensitive in the post QR phase.

India's domestic market for tea is high in volume and in the range of 600-700 million kg per annum. Given the high domestic cost of production for tea in SI, it is conceivable that South Indian tea market would be adversely affected by removal of QRs through import of cheaper teas from Vietnam, Indonesia, China and Sri Lanka. It is conceived that import of Kenyan teas may also hit the North Indian tea producers particularly in Assam, in case Kenyan currency loses its value viz. - a - viz. US $.

b) Binding of tariffs

Tariffication of the QRs will become an important challenge for import restricted plantation crops once the QRs are removed. Currently the bound levels of tariff for tea are 150 per cent. This means that rival producers who can effect a landing cost of 50 per cent of the domestic price for Indian tea could be effectively neutralised by the bound rate of 150 per cent. If one considers certain producer rivals such as Bangladesh (for tea) of being in a position to effect a landed cost of less than 50 per cent aided by high fall in exchange rate of their currency, even the present bound rate of 150 per cent may not suffice.

Tariff quota principle:

By virtue of their complexity and sensitivity, Tariff Quota Rate (TRQs) has naturally emerged as one of the key issue in the WTO agricultural negotiations. TRQs are device of compromise between the principles of 'market access' and 'tariffication'. The WTO provides member countries with sufficient latitude in the matter of identifying commodities for TRQ. The minimum access provisions of the AOA are not a binding requirement. Hence it is possible for member countries to circumvent the minimum market access provisions by making less liberal commitments in their schedule of concessions. Similarly Para 6 of the Understanding on the Interpretation of Article XXVIII of GATT 1994 enables member countries (particularly developed member countries) to limit TRQs to commodities that enjoy unlimited tariff concessions. What is more, section B (Para7) of Annexure 5 attached to the AOA specifically excludes primary agricultural products that form the predominant staple in the traditional diet of a developing country from minimum access opportunities. Given these liberties in developing countries could exercise their choice carefully. The plantation sector is also

faced with import threats from SAARC countries in regard to tea as well as pepper and rubber. Given the lower CIF values of products from SAARC countries, the threat of imports is greater from these countries. SAPTA also provides for a concessional tariff structure for SAARC countries. It would be desirable for the plantation industry as a whole to ensure that the tariff quota system is avoided and if in case such avoidance is difficult to insist on use of tariffs quota on a non-discriminatory basis, by stressing on the need for uploading the MFN (Most Favoured Nation) principle.

Commodities, which experience fluctuations in prices or in terms of trade, may face non-filling of quotas in the event of coming under a TRQ. A case in point is the TRQ for 'tea', instituted by India under the Indo-Sri Lankan Free Trade Agreement of 1998. The Agreement envisages annual imports of tea to India from Sri Lanka to the tune of 15 million kg of tea at 50 per cent concession in the import duties. At the time of the Agreement, the import duty worked out to be 15 per cent with a concessional duty equal to 7.5 per cent. Subsequently, in the year 2000, the Government revised the import duty on tea from 15 per cent to 35 per cent. In the Union Budget 2002-03, the GOI further revised the import duty rate upwards to 75 per cent, but retained the TRQ in-quota tariff rate at 7.5 per cent. The FTA envisages rule of origin proof and the onus of producing this is on the importer. However, the actual levels of imports have fallen far below the envisaged quota levels. One factor accounting for the 'quota underfill' for Sri Lankan tea has been rapid downward movement in prices of South Indian tea since 1999, which rendered Sri Lankan tea by comparison, expensive. Thus demand elasticities, price and fluctuating terms of trade volatility can contribute to underfilling of quotas in a TRQ. (Damodaran, 2000) For the above reasons, design of TRQs needs to be presaged on the following building blocks viz., choice of commodity and the policy on appropriation of rent.

d) Special Safeguard Measures

SSM may have to be adopted for the import of sensitive plantation crops like tea. It is absolutely necessary for GOI to carefully determine which trigger measure to adopt for different plantation commodities. It also needs to be ensured that the "appropriate base period" is chosen for activating the trigger for operating a price trigger. This analysis should be done to determine appropriate SSM.

e) **Domestic support**

Almost all plantation crops in India are grown in environmentally sensitive zones of Western Ghats and Eastern Himalayas. Plantations have contributed to development of the regions in which they are located by way of providing employment to large section of the poor population. In addition plantations are not covered by product specific support such as procurement prices as in the case with agricultural crops such as wheat, rice etc. In case of tea, GOI introduced a subsidy scheme of rupee five per kg for the benefit of small growers upto 10 ha to compensate them for low prices at auctions in SI for a limited period of six months. The amount to be compensated by way of subsidy would be the gap between the auction and Rs. 55/kg subject to a maximum of rupee five per kg. This benefit was extended to all small growers in South.

The Tea Board subsidy scheme is prima facie, a violation of the domestic support norms of the WTO. It is a form of product specific support extended to tea growers. Neverthless there are points favouring domestic support extended by GOI to the plantation sector. These arise from the following:

Being located in Western Ghats and Eastern Himalayas where they are accepted as established land use practices, Government support for improvement of the tea plantations could qualify to be put under the green box out of regional and environmental consideration. Subsidies on replanting for tea could be considered as 'permissible support' since they do not disturb existing land use and established production methods consistent with existing land use. In the absence of these subsidies it is conceivable that land use may shift to alternative annual crops, which may lead to greater incidence of soil erosion. Similarly domestic support provided to plantations also qualify to be termed as regional assistance programmes since hill areas in India which grow plantation crops are generally disadvantaged areas in terms of transport, communication and other related amenities.

Therefore Sections 12 and 13 of Annexure 2 of the AOA can be employed to justify placement of a large chunk of development assistance to tea in the "Green Box". Meanwhile it would be also worthwhile to dilate upon the scope of the term "

Governments' environmental or conservation programmes" under Section 12 (i) of Annexure 2 and the scope of the term " disadvantaged on the basis of neutral and objective criteria" mentioned in section 13 of Annexure 2 of AOA. These concepts could be dilated upon in the interests of helping sustainable options such as plantations.

Coming to subsidies issues under Article 6(2) of the AOA, it needs to be noted that Government measures of assistance direct or indirect, by way of agricultural input subsidies or otherwise, in developing countries, are exempted from domestic support reduction commitments. This enables the Tea Board subsidy scheme also to be exempted from reduction commitments under the AMS since these subsidies are designed to encourage agriculture development and resource poor "small growers of tea" in SI. However, the larger question is on the definition of the term 'resource poor' and 'agriculture development' in the Annexure 2 of AOA. The main point is whether small and marginal categories of farmers can be considered "resource poor", irrespective of the crop they produce. The AOA is not clear on this aspect. A broader and clearer definition of the word "resource poor" in AOA may be helpful to the tea plantations in India.

f) Export subsidy

In terms of detailed interpretation, 'export subsidies' would include all subsidies contingent on export performance and subsidies intended to reduce the cost of marketing, handling, upgrading, processing and international transport and freight charges. Developing countries are permitted to utilise subsidies, which reduce cost of marketing of exported agricultural products including handling; upgrading and processing internal transport and freight charges on export shipments. This means, that AOA permits reintroduction or continuance of subsidies on post-harvest, processing, international transportation and freight. The Tea Board should explore the possibility of making all tea growers eligible for subsidies under the existing developmental schemes. They should increase the existing subsidy levels taking into account the present day costs, as also introducing new subsidy schemes in order to enable our products to be competitive.

4.8.4.3 Implications of WTO Agreement on Trade Related aspects of Intellectual Property Rights

An important area in the context of WTO requirements is the protection of Geographical Indication. Section 3 of the TRIPS Agreement provides for mutual recognition of Geographical Indications. The Agreement contains a provision (Article 22.3) that a member shall provide the legal means for interested parties to prevent the use of a good that indicates that the good in question originates in a geographical area other than the rule place of origin in a manner which misleads the public as to the geographical origin of the good. There is, however, no obligation under the Agreement (Article 24.9) to protect geographical indications which are not protected in their country of origin or which have fallen into disuse in that country. In India, we do not have any specific law on geographical indications. The need to enact a separate law on this subject has been recognized and separate legislation on Geographical Indication is being drafted in consultation with the concerned ministries and experts. The Tea Board has taken number of steps in this regard. The Board is trying to preserve the Intellectual Property Rights of the growers of various forms of tea in foreign markets through this Geographical Indication. The Board has filed applications for certification mark at the U.K. Trader Marks Registry for Darjeeling and Assam tea and the Tea Board's Marketing Symbol. Subsequently the Board has filed an application of certification mark of Darjeeling tea in the Mumbai Trade Marks Registry. Identification applications are proposed to the Trade Mark Authorities of other important markets.

4.8.4.4 Implications of the WTO Agreement on Sanitary and Phyto Sanitary Measures on the plantation industry

As far as the WTO Agreement on SPS measures is concerned, the working of the same in regard to tea exports has not been unenviable. The tea industry, which is the dynamic sector in our exports, is facing non-tariff barriers in recent years, mainly arising from teas of low quality in the Indian logo. It should be ensured that in the name of freeing of trade, our country is not flooded with substandard imported products. For instance strict standards have been prescribed for tea under the Indian Prevention of Food Adulteration Act (PFA) and Tea Waste Control Act. These conform to ISO 3720 standards for tea. Hence there is no possibility of the competing countries trying to export

tea to India that does not conform to the standards. In fact, Section 5 of the PFA Act, no product can be imported into India, which does not conform to PFA standard prescribed for the product, and it is the responsibility of the customs officials to ensure that this Section is strictly enforced. This will be applicable for import either for re-export category or for domestic consumption. The concept of Total Quality Management (TQM) as propounded by ISO-9000 series has been well received by the industry and some of the tea companies have already obtained the certification and registration. A step further in this direction is to integrate the concept of HACCP (Hazard Analysis. Critical Control Point). This system provides for analysing the hazards that are likely to occur at the various stages of tea growing, manufacturing and marketing and take appropriate corrective measures through close monitoring, validation and verification so as to ensure that the final product reaches the consumers as a safe item and unlikely to cause any health hazard to the consumer. Similar will be case for other products have been prescribed either under the Agricultural Produce Marketing Act (AGMARK) or Export Inspection Council Act, etc. These aspects should be clearly brought to the notice of other countries during the next round of WTO discussions. Also effective Import Intimation System should be developed in order to monitor the imports under the Tea Act and to gain complete advance knowledge of the imports.

To sum up, State Governments, Commodity Boards and Plantation Associations form the three players who can push through a WTO agenda for agro plantations. These three players have to work in tandem to formulate WTO response strategies for tea plantations and provide concrete negotiation points to the GOI for future WTO negotiations, taking a hard look at implementation issues. The preceding discussion clearly indicates that the brunt of WTO has been felt in vast regarding the tea industry in general. These experiences need to be documented by the three players in order to provide ammunition to the GOI on the implementation record of the WTO Agreement since 1994. All the same, three players also need to proactively commit themselves.

4.9 INSTITUTIONAL AND FINANCIAL SUPPORT TO TEA IN SOUTH INDIA

Being an important traditional export commodity, tea is subjected to several dismantling and cumbersome procedures under the Tea Act, 1953 as also the various Orders discussed hereunder. This section makes a critical review of the institutional arrangements and financial support to tea with special emphasis on post liberalisation period. As a prelude to this, a review of the institutional and financial support prior to liberalisation is also carried out. Institutional arrangements can be broadly classified as legislative measures, measures taken by the Union Government of India, the State Governments and the measures by the Tea Board.

4.9.1 Institutional support to tea industry

This section deals with the various institutional and financial supports rendered by Central and State Governments, Tea Board, other organizations and associations.

4.9.1.1 Legislative measures

Some of the earlier attempts of the GOI for the development of the tea industry could be gathered from the major provisions of the Acts passed by Government from the early 1950s. With the aim of giving a boost to the sector, the GOI passed the Tea Act 1953. The Act brought the development of tea industry under the control of the Union Government. The Tea Board was formed with due representation to producers, labourers traders, consumers and State Governments. Through the provisions of the Act, prior permission of the government was made compulsory for plantation of tea. The Act also provided for a development grant to the growers, which were fixed at certain proportion of the cost of planting and replanting of stands. (UPASI, 1993)

Other Acts aimed at controlling the transaction of tea in the market during the early years of planning were Tea (Distribution and Export) Control Order, 1957 and Tea Waste (Control) Order, 1959.The 1957 Order required every exporter of tea to obtain a licence from the Tea Board, which should be renewed once in three years. However, established exporters were allowed to obtain permanent licence. Under the Order of 1959, any producer intending to stock or sell tea waste has to obtain an annual licence from the Tea Board, which should be renewed periodically. Producers selling tea waste under

licence should ensure that the buyer also has the licence from the Board. Only producers can get the licence and sell them to end users like caffeine manufacturers or instant tea manufacturers who must have licence for purchase.

Apart from the above, the Government took measures to improve the labour relations. The Plantation Labour Act, 1951 provided for the welfare of plantation labour and regulated the conditions of work in plantations. This Act specified the facilities to be provided to the workers, including drinking water, housing, educational and medical facilities. The State Governments were made responsible for the administration and implementation of the Plantation Labour Act.

With a long gap of almost two decades, major legislations were enacted only by 1980s. The Tea (Marketing) Control Order, 1984 and Tea Regulation of Export (Licensing) Order, 1984 were the major Acts through which the Government exerted their influence in tea market. The 1984 Order required producers to sell a minimum of 75 per cent of their output through public auctions. It acted as a barrier to producers to directly market tea in bulk in the country. This Order was superceded by the Tea Marketing (Control) Order, 2003, which stipulates that the buyer has to register themselves within 60 days of publication of Order with the registering authority, which has been already discussed in the earlier section. Although the producer-exporter and merchant-exporter are already licensed under the Tea (Distribution and Export) Control Order, 1957, the Tea Regulation of Export (Licensing) Order, 1984 enactment requires the producer-exporter to obtain another licence, register the exporter-contract and submit valuation report for tea in respect of each contract. If the Government's concern is possibility of or under invoicing in exports, it is only appropriate that this field be left to the customs authorities as in respect of all other exports, rather than introducing an extensive licensing system with the Tea Board, that too exclusively for the producer-exporters.

The budget 2002-2003 proposed to increase the development allowance available for the tea sector under Section 33 AB of the Income Tax Act, from 20 per cent to 40 per cent. This additional allowance is to be used only for re-plantation, rejuvenation, and modernisation of tea plantations and processing facilities.

4.9.1.2 Measures taken by the GOI

Government of India is fully alive to the problems confronting the tea sector. Several steps have been taken to support the tea industry. Expert committees appointed by the GOI to study the closed tea gardens of West Bengal (25), Kerala (12), Assam (3) and Tripura (3) indicated that these gardens have been inherently weak, have suffered from chronic low yields and poor garden management and, in many cases, strained industrial relations. The studies revealed that more than 35,000 workers were affected by the closure.

According to the Reports of these Committees, all these estates were required to *invest both in the plantations as well as in the factory and other infrastructure to achieve* better results in terms of quantity, quality and price realisation of their teas. However, bulk of the investment was required in the plantation itself. Government had facilitated discussions by the managements of these gardens with their bankers to work out a revival package. These packages included promoters' contribution; further loans from concerned banks with restructuring of the accounts and assistance from the Central Government. The assistance was to be in the form of an interest subsidy up to a maximum of five per cent for those gardens, which were considered financially viable by the concerned banks.

To provide necessary support to the tea industry, the excise duty of rupee one per kg on tea has been replaced by an additional duty of excise of rupee one per kg as a surcharge, which would form a fund for the development, modernisation and rehabilitation of the tea plantation sector. Assistance, through this fund, would be extended for providing interest subsidy to closed gardens, which are potentially viable, increasing production of orthodox tea, generic promotion of tea and research and development.

Implementation of a number of developmental schemes during the Tenth Five Year Plan by the Tea Board has been initiated for enhancing productivity, quality and marketability of tea produced in the country. Financial and technical assistance is being provided for various plantation development activities like replanting, rejuvenation and

creation of irrigation facilities. The amount of surcharge on all types of tea at the rate of rupee one per kg, will be utilised for modernisation, upgradation and increasing the production of Orthodox tea, promotion of tea research and development. An outlay of Rs.350 crore has been provided in the Tenth Plan for Tea Board for this purpose.

Government has moved the RBI and the Indian Banks Association for providing an effective Credit Relief Package for the tea industry from the banking sector. Special Tea Term Loan (STTL) which envisages restructuring/rephasing of outstanding term/working capital loans in the tea sector with working capital upto Rs. 2 lakh at a rate not exceeding 9 per cent to small growers. (Mishra, 2003) Basic customs duty on import of tea has been increased from 70 per cent to 100 per cent from 2002-03 onwards. The import duty on items of machinery used to improve productivity and quality of tea, including value addition, has been reduced to an all-inclusive rate of five per cent. An Inter-Ministerial Committee, set up by the Ministry of Labour, has also studied the issues relating to the plantation sector, particularly the social costs, provident fund dues of the plantation workers and taxation structures.

A Price Stabilisation Fund with an initial corpus of Rs.500 crore has been established for providing relief to the small growers of plantation commodities such as tea, coffee, rubber and tobacco. An amount of Rs.16 crore has been granted to them as loans. Government has also provided financial incentives to the exporters of tea for meeting part of cost of handling, packaging, and transport/freight charges.

4.9.1.3 Measures taken by the State Governments

Agriculture is a state subject. Therefore, apart from the Central Government, the measures taken by the State Governments will play a major role in the development of agricultural sector. Therefore measures taken by the state governments of major tea growing states like Tamil Nadu and Kerala are discussed in this section.

4.9.1 3.1 Measures taken by the Government of Tamil Nadu

In order to mitigate the sufferings of the tea growers, Government of Tamil Nadu swung into action to assist the farmers for production of quality tea and thereby enabling them to realise better price for their tea leaves. The following two programmes with assistance from the Tea Board were taken up for implementation during 2002-03.

i) Broad based tea quality up gradation (Rs.19.00 lakh).

ii) Village Awareness Campaign Programme (Rs.15.00 lakh).

For this purpose, 90 extension workers were recruited by the Government and after training; they were intensively engaged in the dissemination of improved technologies to the farmers under the supervision of Horticulture Department officials and MYRADA, a popular NGO in the Nilgiris district. Promoting alternate crops is considered another important measure to tide over the crisis of tea growers. Steps are being taken to popularize multi-tier cropping viz, cultivation of silver oak, pepper, cardamom and mandarin orange along with tea. Considering the prevailing agro-climatic condition in Nilgiris, a few new kinds of crops have been identified. Among these, Macadamia and Pecan nuts are the major ones. It is proposed to raise these crops in the State Horticultural Farms at Nanjanad and Colegrain during 2003-04. Simultaneously, efforts would be made to distribute planting materials of these kinds to the farmers in select pockets.

Hill Area Development Programme (HADP) is implemented in the Nilgiris district with the objectives of preventing soil erosion in the sloppy hill areas and to preserve the eco-system of the hills by crop diversification viz, from annual crops to perennial horticultural crops like tea, coffee, fruits, tree spices and other economic crops. Under this scheme, planting materials are produced and distributed to the growers at subsidised cost. An amount of Rs.299.48 lakh was allotted to this scheme for the year 2002-03. This scheme is continued during 2003-04 with an outlay of Rs.350.81 lakh.

Marketing of tea through the Civil Supplies Department like Tamil Nadu, is a very laudable project. Government of Tamil Nadu has extended some tax concessions in respect of sale through auctions. (Das, 2000) The industrial co-operative societies

promote the growth of small industries as a co-operative movement. They undertake production, purchase and supply of raw material, marketing of products and providing other services to their members. During 2002-03, there were 327 industrial co-operatives with a total membership of 63150, registering a sales turnover of Rs.260.38 crore. To improve the economy of the small tea growers of Nilgiris district, 16 industrial cooperative tea factories have been established in the Nilgiris district. They undertake marketing of made-tea in order to secure better price for green leaves to the farmers, improving the productivity of tea through necessary inputs and imparting training in modern methods of cultivation and production of tea.

The biggest support to the tea industry came from two institutional sources namely Defence Department and the cooperative Indcoserve. The Defence is conditioned to buy its entire tea requirements only through public auctions. (Sundar, 2003) The State Government of Tamil Nadu has taken this initiative and stated that this would help the 60,000 small growers in the Nilgiris. To overcome the tea crisis, the Indcoserve embarked upon selling made tea in the name of "Ooty Tea " through Public Distribution System (PDS) outlets. Indcoserve later introduced sale of "Ooty Gold" premium tea in the open market also. Its premium grades of "Ooty Teas" are quite popular in Tamil Nadu now.

4.9.1.3.1 Measures taken by the Government of Kerala

State Governments like West Bengal and Kerala have taken steps to provide relief to the affected plantation workers of closed tea gardens. Steps taken include creation of employment opportunities through various schemes such as the Sampoorna Grameena Rozgar Yojana, extending health care, implementing nutritional programmes for the children, distribution of food grains, augmenting drinking water facilities and distribution of cash to the most needy. The plantation sector came to an agreement with Kerala government with regard to wages. The State is looking forward to cash the demand for organic tea. The State is also lobbying with the Union Ministry of Agriculture for setting up of National Institute for Organic Farming. (Rawat, 2002) The Kerala Government has extended some tax concessions in respect of sale through auctions. (Das, 2000) The Kerala Government is yet to come forward with definite proposals for saving the tea growers of the State.

4.9.1.4 Measures taken by the Tea Board

Since its inception, the Tea Board has been giving special attention to the small growers, through provision of subsidy to meet the cost of planting materials and other inputs such as fertilizers, chemicals and pesticides, and imparting training to small growers. Many of the schemes of the Board in SI are being operated in collaboration with the UPASI and the Indcoserve.

As part of the liberalisation process, the Tea Board has taken measures to simplify procedural formalities. The registration of tea packets meant for export with the Tea Board was done away except for tea packets which carry the Tea Board's marketing symbol and the three logos of Darjeeling, Assam and the Nilgiris.

To prevent the damage to the reputation of the Nilgiris teas, the State Authorities and Tea Board have taken some positive steps. The Board has taken a series of meetings with brokers, producers and others and issued various appeals to the producers, to improve the quality. The brokers, the buyers and others have been asked to bring to the notice of the Board as and when they come across any sub-standard teas being offered for sale in the auction or at any other place.

To address the need for improving tea quality in general and to diversify the product mix by developing dual capacity (CTC/Orthodox) a special incentive scheme has been launched during the last quarter of the year 2002. The scheme provides for 25 per cent subsidy to Bought Leaf Factories (BLFs) for correction of imbalances in their manufacturing capabilities. (Boriah, 2002) Tea Board takes care of development research and promotion. It has five overseas offices at London, Hamburg, New York, Dubai and Moscow. It has promoted an Indian brand 'Nargis' in a few foreign markets. (Kumar, 1998) The Board has taken commendable initiatives towards the national tea campaign 'Piyo More Chai' which is eyeing the foreign market. It plans to set up more than 20 'chai bazars' in different parts of the world. The first chai bazar has already come up at London. (Rawat, 2003b)

The Tea Board, Coonoor office is exploring various avenues that would enable setting up of internet kiosks in remote areas of the Nilgiris. One such avenue would be to

setup these kiosks at its agri-clinics and agribusiness centres that provide multiple extension services to the small growers. It is also looking to set up internet kiosks at all Tea Board locations.

To delve deeper in to the present crisis surrounding the tea industry in India, the Board appointed two internationally reputed consultants, Accenture and A.F. Ferguson & Co, to recommend a "Medium term export strategy for Indian tea" and prepare a "Study on primary marketing of tea in India", respectively. The studies, coupled with a few supplementary exercises by Price Waterhouse Coopers and the Indian Institute of Management (IIM), Kolkata, for the first time provided a ringside view of the entire gamut of weaknesses and vulnerability of the Indian tea industry in terms of performance in the domestic and overseas markets and the ways to overcome them. As part of its effort to consolidate existing markets and enter new markets, two reputed agencies, were appointed to carry out a market research in Saudi Arabia, Syria, Chile and U.A.E. (Bose, 2003b)

During the Ninth Five Year Plan, the Tea Board implemented the following eight schemes.

1. **The plantation development scheme:** It aimed at motivating the tea garden owners to undertake production oriented field developmental activities covering extension planting, replacement planting, replacing rejuvenation pruning, infilling and irrigation and drainage.

2. **The tea processing and packaging development scheme:** This provided necessary financial assistance to the needy tea gardens/factories for renovation as well as augmenting the processing capabilities including setting up of new factories in the co-operative sector, replacement of worn out tea processing machinery in existing factories, creation of facilities for packaging and generation of power required for processing and purchase of transport vehicles such as tractors, trailers and light commercial vehicles.

3. **The tea development scheme:** This was meant for North-Eastern States for the control of jhum cultivation. The objective was to serve as a vehicle for social

transformation of the non-traditional tribal North-Eastern States. It aimed at weaning away the farmers from the traditional practice of jhuming/shifting cultivation and making them take up tea cultivation. This would not only provide an opportunity for the jhumias to settle permanently in one place but also provide them with regular income..

4. **The new area development scheme:** The objective of this scheme was to encourage new plantations in areas found suitable but which remained hitherto unexploited for tea cultivation.

5. **The small grower development scheme:** This provided a comprehensive developmental package for the overall development of the small grower sector which included imparting training in modern aspects of tea cultivation and manufacture, supply of inputs such as planting materials at subsidised cost, organising study tours and field advisory visits. The contribution from the small grower sector which used be around five per cent of the all India production at the beginning of Ninth Plan had gone up to 20 per cent at the end of Ninth Plan period which proved the notable progress of this scheme.

6. **The market development and export promotion scheme:** This covered market research survey, national level campaign for Indian tea in select markets, brand promotion support to Indian companies for launching new brands in international markets, genetic campaign in new markets and setting up of an umbrella unit in India to meet the requirements of product and packaging standards in international markets.

7. **Research and Development:** This covered agricultural/agronomical aspects including bio-technology and plant protection measures, manufacture and quality improvement, product diversification, development of multiple tea products made from regular teas, processed tea and tea extracts, health aspects of tea drinking, strengthening extension service and use of non- conventional energy resources.

8. Human resource development: This scheme was meant for efficient working of the tea-producing units and received serious consideration during the Ninth Plan period.

During the Tenth Plan period - 1st April 2002 to 31st March 2007- the focus of the Tea Board's schemes would be on improving quality, cost control and productivity increase through consolidation of the existing area rather than expansion of the area, and market promotion in both domestic and international markets. Accordingly, the following schemes have been approved by the Planning Commission and Government for implementation during the Tenth Plan period with an overall sanctioned outlay of Rs. 403 crore comprising Rs. 280 crore as subsidy, Rs.70 crore as grant in aid for R& D schemes and Rs.53 crore as loan under the revolving corpus of the Board. The activities to be supported under the aforementioned new schemes of Tenth Plan period are summarised as below:

1. Tea plantation development scheme

The Ninth Plan activities were continued during the Tenth Plan period without any change in the content and pattern of assistance with regard to financial parameters. New planting by small growers in North-Eastern Region and in the state of Uttranchal; uprooting and replanting/replacement planting in the uneconomical sections of the tea gardens; rejuvenation, pruning and consolidation through infilling vacancies and increasing the bush population with inter row planting were the main activities undertaken. Further in line with the recommendations of the Planning Commission for bringing down the number schemes by merging schemes with overlapping objectives, the following schemes of Ninth Plan period, namely, Plantation Development Scheme (without the loan component), Tea Development schemes for the North-Eastern States for control of jhum cultivation, New Area Development Scheme and Small Growers Development Scheme, have been merged with the instant scheme. The financial outlay sanctioned for this scheme for the Plan period is Rs.98.59 crore.

In addition to the above activities, the following new activities will be supported during the Tenth Plan period like, setting up of pilot tea producers' societies for the benefit of small growers, usage of mechanical aids (pruning machines) for field operations, creation of irrigation facilities for dealing the drought which has become a recurring phenomenon in the tea growing regions, intensive pruning in small holdings and strengthening of extension services for closer interface between the small growers and the research stations.

The scheme envisages setting up of 100 pilot tea producer's societies during the Plan period. These 100 tea producers' societies for the benefit of the small tea growers would be set up in villages after carefully demarcating their area of operation so as to cover around 500 tea growers per society. Such societies would act as technology dissemination and service centres. The main activities that would be entrusted to these societies are extension-technology and information dissemination, pruning, leaf plucking, collection, storage and transportation and mechanisation in field operations.

The Tenth Plan schemes for the tea industry envisage a comprehensive development programme for the small grower segment. The measures contemplated under the programme, which aims at better use of field assets and a significant improvement in the quality of the produce, are:

i) Setting up of demonstration plots in each of the North-Eastern states for demonstrating all aspects of tea growing in a more comprehensive manner.

ii) Setting up of central nurseries for supplying the right kind of planting materials to small growers

iii) Arranging training programmes on all aspects of tea growing in collaboration with Tea Research Association and Agricultural Universities

iv) Setting up of advisory service for all practical aspects of tea cultivation and

v) Arranging study tours for the growers in the developed areas in South India as also abroad, particularly Kenya and Indonesia, where, in the assessment of the union Commerce and Industry Ministry and tea Board, considerable work has been done for the benefit of small growers.

The programme is carried out by the Tea Board through its regional outfits and in collaboration with the respective State Governments. (Tea Board, 2004)

2. Tea quality upgradation and product diversification scheme

This is a new subsidy scheme being introduced by the Tea Board for the first time by way of full-scale Plan Scheme. The objective of the scheme is to facilitate the tea gardens/factories towards production of good quality of teas suiting eminently to the tastes and preference of the consumers. In order to fetch remunerative returns for the tea sold, the processing of it in the tea factories should be geared up by replacement of old and worn out machinery and equipment. Replacement of machineries has to be a regular exercise depending upon the working condition of the machineries. Since there is always good demand for the quality teas, modernisation and technology upgradation assumes added significance.

Accordingly this scheme has been formulated to provide necessary financial assistance to the needy tea gardens/factories for renovating as well as augmenting the processing capabilities including, creation of facilities for packaging and bagging, and product diversification. At present, only 35 to 40 per cent of tea is sold in package form and the rest in the form of loose tea. During the Tenth Plan period, thrust would be on more value realisation. For this purpose, proper infrastructure needs to be created for improving not only the packaging standards but also for increasing the volume of value added teas and specialty teas such as green teas, flavoured teas and ready to drink teas. Towards, this end, it is proposed to provide for subsidy for the packaging machineries and creating facilities for product diversification.

Because of the high variability in the quality of tea produced, there is a greater need for evolving appropriate quality-market matching. For this, the process of manufacture needs to undergo changes to suit to the emerging new markets. Moreover, quality assurance should be the Unique Selling Proposition (USP) in the emerging competitive environment. To facilitate the tea growers and manufacturers to participate in

the quality improvement programmes such as Hazard Analysis and Critical Control Point (HACCP) and ISO certification, it is proposed to provide incentives to the tea factories and packaging units opting for participation in certification programmes.

The Tea Board has conducted ten awareness programmes on HACCP by organizing one day seminars in different locations with training of about 300 Tea Management Personnel. Tea Board has also developed a module on HACCP in tea. A number of tea houses have already sought help from Bureau of Indian Standards (BIS) which has been solely responsible for imparting awareness on HACCP through in-built quality module for "Tea".

Tea Board's role being that of a catalyst towards accelerating the production growth rate, the funds provided under this scheme are not meant to meet the entire needs of the industry. 75 per cent of the total funds required for undertaking the developmental activities have to be mobilised by the industry itself either from its internal generation or by borrowings from financial institutions/commercial banks. All the tea growers, manufacturers, and others who are dealing with value addition of tea such as blending, packeting and tea bagging and are registered with Tea Board are eligible to claim subsidy subject to fulfilment of the terms and conditions of the scheme. The subsidy, however, shall not be allowed for any equipment if imported under the Export Promotion Capital Goods Import (EPCG) scheme.

The Financial outlay sanctioned for this scheme for the Tenth Five Year Plan period is Rs.76.80 crore. The rate of subsidy is limited to 25 per cent of the total cost, which would include besides the basic cost of the machinery items, admissible taxes, freight, insurance and cost of commissioning. The maximum subsidy amount payable per factory/blending and packaging unit would be limited Rs.25 lakh. Subsidy for acquisition of ISO/HACCP and organic certification will be allowed at 50 per cent of the cost of certification, subject to a maximum of Rs.75,000. Subsidy for Quality Awareness Programme for upgrading the quality of tea produced in small grower segment shall be determined by the Board in accordance with the merit of the case.

Tea Board is in the process of implementing an IT based Information Dissemination Plan for the tea industry, including electronisation of auction centres. This would improve the efficiency of the tea purchase systems and reduce transaction time and costs.

In order to promote exports of tea, financial assistance is provided to tea exporters to meet part of the cost of handling, packaging, transport/freight and value addition, even as efforts are being made to improve the quality of teas produced in the country through a quality upgradation programme being implemented by the Tea Board. Promotional support is being lent to Indian exporters in their promotion and marketing of Indian brands.

3. Market promotion scheme

An increased export both in volume and value is an important challenge to be met effectively during the Tenth Plan period. The targets for Tenth Five-Year Plan for tea, therefore, have been based on an objective assessment of the demand for tea to meet the requirements of domestic and export markets on the one hand and the capacity of the tea industry for undertaking developmental measures on the other.

A thorough study of India's competitiveness in each market vis-à-vis its competitors has been carried out to work on the aspect of fine-tuning our country's specific export strategies for the five years, code named "Vijay", the "Tea Export Initiative - 2002 to 2007" program, is being guided by the recommendations emanating from a study which was conducted by the Ministry of Commerce and Tea Board through M/s Accenture, - (a consultancy firm), for developing a medium term export strategy for the industry..

With the removal of QRs, new market needs to be created within India besides new markets abroad. Further, with the growing level of imports of tea, days are not far off for the teas of various countries origin flooding the Indian market. Under such

circumstances, chances of Indian tea, losing its identity in its own soil are not a remote possibility. To obviate this eventuality, it is necessary to support, in the immediate context, domestic promotion campaign.

Thus, keeping the above in view, activities to be undertaken under the Market Promotion Scheme of the Board during the Tenth Plan period have been grouped broadly into three categories namely, direct assistance to Indian exporters; activities which will be conducted entirely by the Tea Board and joint generic campaign in association with tea industry.

a. Direct assistance to Indian exporters

In order to develop price competitiveness for Indian teas in the international markets, this scheme provides for extending incentives to tea exporters towards transportation for direct export of tea, incremental exports to exporters, export of specialty teas-organic tea, green teas, de-caffeinated teas and other specialty teas and financial assistance for market diversification.

b. Activities conducted by Tea Board

Some of the major activities to be conducted by the Tea Board, on actual cost basis, during the Tenth Plan period are:

i) Logo promotion to build equity for Indian tea in international markets. It is proposed to develop and promote an Indian tea logo among consumers. It would be managed and funded by the Tea Board with inputs from the industry

ii) Commissioning market research surveys to develop market understanding and to assess potential markets, build-up market information and data bank, branding position, competitor's strategy and growth of new/innovation on tea based products

iii) Studies in relation to specific product groupings, which would comprise of organic tea, Darjeeling tea, flavoured teas or other specific niche segments teas by engaging professional agencies

iv) Uninational campaign for restoring the position of Indian tea in select markets where our Indian teas are/have been taken over by other suppliers

v) Uninational campaign for improving the position of Indian tea in major markets where positive trends are noticed while India's share is not high

vi) Exchange visit of delegations to and from India and holding buyer-seller meets.

vii) Setting up 'India Tea Pavilion' in major/specialised international fairs where selected major exporters would also be invited to participate.

viii) Production of publicity materials for trade and consumer education in various international languages including films, audio visual aids, gift items, publicity literature and postures.

c. Joint generic campaign in domestic market in association with tea industry

This campaign primarily seeks to arrest the declining trend in domestic consumption. While doing so, the recent findings as to the health benefits of tea drinking would be focused so as to create awareness amongst the Indian population and thereby increase the overall consumption rate. To overcome the stagnation in the domestic demand the proposed promotion campaign is expected to make the domestic market absorb this additional quantity.

4. Research and development scheme

During the Tenth Plan, the focus would be on quality upgradation, technology transfer for improving the productivity of individual tea gardens especially in the small grower segment and product diversification for deriving added value from the secondary grades of tea.

Extension services of the research institutes also need to be expanded so that the gap between the lab-to-land is narrowed down and all the growers are able to have good interface with the research institutes through the network of the advisory centres. Towards this end it is proposed that during the Tenth Plan period, the research institutes may be directed to focus attention on productivity improvement, cost reduction in the field operations, quality manufacture process, value addition and product diversification of tea. Substantial numbers of small growers co-exist side by side with large corporate holdings and medium proprietary gardens, who are unable to have their own research activities. (Das, 1993)

One of the major reasons attributed for the lower productivity in small tea gardens is the adoption of out-moded cultural practices. It is therefore proposed to strengthen the extension activities during the Tenth plan period.

5. Human resource development scheme

Over the years, India has been facing stiff competition in the international markets mainly due to the high cost of production. As an agricultural produce, the fortunes of tea are dependent on factors like land and weather over which the industry has little control. The single and most important factor on which some influence can be exercised is to develop the human factor into an advantage. Tea being labour intensive crop, more than one million worker families reside in tea plantations alongside the managerial personnel. There is an increasing recognition that people should be looked upon as a valuable asset of the industry and that the growth process should be based on the integrated deployment of human resources. The approach in the coming years, therefore, is to adopt a comprehensive pattern of development whereby science and technology, humanities and human values are woven together. This approach would facilitate in motivating every employee to contribute his/her share for the growth of the industry; enable each employee including managerial personnel to realise his/her own potential; help the workers to develop a positive culture and inculcate in him/her a sense of belonging; build up mutual trust among superiors and subordinates and also provide opportunities for career development.

The competitive advantage of tea industry depends primarily on the quality of people. Therefore, HRD inputs are critical to the future developments of the tea industry. The Board's HRD scheme will aim at overall improvement of the skills of persons associated with tea plantations at all levels (workers to managers) through extensive and intensive training.

The health of the workers is one of the valuable assets of an organization. Absenteeism, alcoholism and so on, contribute to the loss of the organization's wealth due to reduction in production, productivity and quality. In the changed scenario and the social preferences of the new generation, the relative attractiveness of jobs has been undergoing a sea change. A new approach is required to tap local talent and train it for estate management. In addition, continuing development of the managerial skills of existing managers is also required. This can be achieved through continuous exposure to new ideas and perspectives through short-term executive programmes. For this purpose, the services of Indian Institute of Plantation Management (IIPM) will be utilised during the Tenth Plan period.

Thus the focus of this scheme during the Tenth Plan period would be upon the training programmes and functioning of the Tea Training Centres, Target Groups - workers, supervisors and estate managers. A sum of Rs.601 lakhs has been earmarked towards the training programmes to be undertaken during the Tenth Plan period.

6. Revolving corpus for loan scheme

Starting from 1960, Tea Board has been implementing loan schemes for facilitating the tea gardens in undertaking long term activities both in the field and factories. During the Tenth Plan period financial support by way of long-term loan will be extended for the activities like replanting/replacement of old and uneconomical section of tea, creation of irrigation & drainage facilities, expansion of existing tea factories for augmenting processing capacity, procurement of vehicles for haulage of green leaf from field to factory, and transport of finished tea to point of sale.

7. Tea Board award scheme

Awards given by the Tea Board of India are classified into the following types, awards for highest productivity, awards for quality, awards for labour productivity and export awards.

4.9.1.5 United Planters Association of Southern India (UPASI)

The change in the consumer preference from CTC to Orthodox in the U.S.S.R market brought instability in the exports of Indian tea. In order to stabilise the U.S.S.R market, UPASI sought financial assistance from the Tea Board for enhancing production of Orthodox tea in SI produced. (Nair, 2002)

The per capita consumption of tea in Pakistan is the highest in the world with very little production of tea in their country. Of late, they have been buying most of their tea from Kenya. At the annual conference of UPASI in 2003, the Indian tea companies and the Pakistani tea traders had discussed between themselves about exploring the possibility of opening official tea trade between India and Pakistan through the border route, or otherwise. UPASI is granting export subsidies to the eligible exporters who consistently export a minimum quantity of ten tonnes of tea annually during the last three years. The rate of subsidies given to the exporters by UPASI is given in Table 4.25.

Table 4.25 Subsidies given to the exporters by UPASI

Category of exporters	Rate of subsidy/kg of made tea (Rs)
Tea Bags	10.00
Packet tea	2.50
Orthodox tea in bulk	2.00
CTC tea in bulk	2.00
Tea from BLFs	2.00
Organic tea	2.00

Source: UPASI, 2003.

Other measures adopted by the UPASI aims at labour welfare. Comprehensive Labour Welfare Scheme is operated by UPASI for upgrading the quality of life of the workers and their families through its Krishi Vigyan Kendra. This supports the small growers and tribal people in the plantation areas. From the interest of the corpus, the Foundation will render financial assistance to the family of the estate workers and staff who die in harness. It also grants scholarship for higher education to deserving children drawn from the plantations.

Many studies have pointed out that one of the main reasons for the decreasing share of Indian tea exports is the uncompetitive price of our products in the forthcoming future. The role of the Central as well as State Governments, Tea Board and other associations are too significant for uplifting this ailing industry. As seen in the discussion above, there has been no scarcity of schemes from the part of the GOI or the Tea Board. The sector, in which we had world leadership once, is coming down the ladder with the passage of time. Hence proper implementation of the existing schemes of institutional and support services seems to be more important than mere announcement of new schemes.

4.9.2 Critical view of responses from the exporters regarding policy options

It is time for the plantation sector to formulate strategies to encash the emerging situation arising from the impending liberalisation of imports of all commodities including tea. There are several issues that need to be sorted out-some at the level of GOI itself and some others at international forums.

In the 1980's and the early 1990's, tea production rose steadily and though exports had stabilised around 200 million kg a year, the growing internal demand ensured upward trend in prices. But towards the end of the twentieth century, domestic consumption reached plateau, leading to a marked fall in prices, down to uneconomic levels. However the liberalised policies, convertibility of the rupee, abolition of excise duty on tea all provide a unique opportunity for the tea industry to expand production, so as to meet both the domestic demand and the export market requirements. Therefore, in this section, the perception of exporters on the adequacy of institutional and financial arrangements, and policy measures to be taken for the development of tea industry are summarised and presented.

According to the exporters perception, the increase in production actually took place was barely sufficient to meet the rising domestic demand and the strong domestic market is, in fact, a big strength for the Indian tea industry. They visualised a major threat from competing beverages, viz, coffee and the soft drinks. They perceived that although it would be too simplistic to assume that the reasons for the recession in the tea industry are surplus production the world over, the plateauing off of domestic consumption, comparatively high production costs and low labour productivity, a multi prolong approach is needed on the expansion of generic promotion strategy for domestic consumption of tea in India.

Realising the gravity of the problem, the government is taking measures, which are aimed at reinstating the lost glory of the industry. One of the important initiatives that the government has taken is to announce setting up of Price Stabilization Fund of Rs 500 crore for the plantation sector.

The exporters are of the opinion that the quality upgradation must be pursued with ample vigour in an effort to weed out substandard tea from the system, which is causing a major problem of oversupply situation and lower price realisation in the plainer tea categories. They felt that deterioration in the quality over the years could be checked by following the strictly implemented standards like Prevention of Food Adulteration Act (PFA) and ISO 3720 for both the domestic as also export market. They want to enforce PFA Act for imports either for re-export or for domestic consumption. These aspects, in their opinion, should be clearly brought to the notice of other countries during the next round of WTO discussions.

On the marketing front, the exporters expressed their satisfaction with the functioning of present marketing systems including auctions and Producer Cooperative Marketing Societies. They are against increasing the number of centres from four at present in SI. They also concurred with New Marketing (Control) Order 2003. They are contented with the measures taken GOI to discourage the adultered tea sales in the auction centres. However, they reported about the inadequacy of warehousing facilities. As such they are not interested in the electronic mode of trading and future trading in tea. This might be due to their ignorance about the system and its advantages.

The exporters are not satisfied with the sales tax and agricultural income tax at present. They concurred with the present level of import duty and argued for rationalisation of tax structure in our country. The exporters are concerned about the decline in exports and want to resort our imports to meet the domestic demand or for re-export in value added form. They are satisfied with the duty drawback concession over the imports for re-export clause and stressed the need for control over free imports. Another practice that has come to notice is the import of lower quality teas from other countries, blending it with a small proportion of India tea and re-export it with a certificate of origin that the consignment is "Indian tea". This depicts a false picture and tends to undermine the image of Indian tea. The exporters feel that certificate of origin should not be issued terming the consignments as Indian tea for blends which do not have 100 per cent Indian tea. At best, such certificates should indicate the blend percentage on the label. They strongly feel that more vigil is needed in issuing certificate of origin to enhance our tea's image in the world market. They welcomed government's order

restricting import of teas only through designated ports existing with proper infrastructure. They stated that they felt a shift in preference over organic and orthodox teas in the world market at present. According to them, bulk packaging of tea is advantageous over others for domestic as also export markets.

The possibility of direct marketing through customer packs was explored. They haven't agreed with one of the major reasons for the present crisis of the tea industry, that is, discouraging price realisation due to the imports from Sri Lanka under bilateral agreements.

They argued for the need for efforts upon quality packing, promotion of brands & logos and conducting fairs & exhibitions. They stated that they do not wish to bring back the era of International Commodity Agreements encompassing export quotas and minimum export price.

The exporters opined that they are satisfied with the role played by the Tea Board and UPASI and their schemes in the Tenth Five Year Plan period. They expected that profitability of the tea industry would be enhanced with the steps taken by GOI and Tea Board. They are satisfied with the financial support rendered by the Tea Board and the banks in all developmental activities. They opined that Tea Board should explore the possibility of making all growers eligible for re-export and farm subsidies under existing schemes.

Regarding their opinion on the factors responsible for their present crisis in the tea industry, it was reported by the exporters that many factors are responsible for the same. However, the most important factor has been the failure of tea to keep pace with the changing time. Hence in this section the most important constraints as identified from the exporters are listed in the Table 4.26 according to their prominence.

Table 4.26 Constraints faced by the exporters

Sl. No	Constraints
1.	High cost of production and increasing labour wages
2.	Lack of national and international market intelligence
3.	Strong domestic demand
4.	Existence of age old plantations and high percentage of vacancy
5.	Lack of unique brands and logos
6.	Fierce competition from other producing countries
7.	Lack of export promotional measures by GOI and Tea Board
8.	Low productivity
9.	Change in preference and competition from other beverages
10.	Lack of export infrastructure
11.	Volatile prices
12.	Imperfect domestic and uncertain international market
13.	Adverse health criticism
14.	Cheap, low quality tea imports
15.	Failure of finding new markets

To sum up, the above aspects, the exporters are more or less satisfied with the present policy resolutions and initiatives taken by the State and Central Governments as also the Tea Board. However the generic promotional programme is, therefore, of considerable importance. The future policy should encompass value-addition, product innovation and market-orientation. In order to face all those challenges, efforts are needed in the product mix and product diversification since the demand for grades, are going up. Competition among producing countries should be welcomed. The real challenge is to establish the long-term profitability and to secure market share against other drinks. On-line auction should be promoted as it facilitates flow of information and greater participation in policy making. Extensive research will have to be done in this area to revive the industry. Building up strategies and implementing them to their fullest only can give a facelift to this ailing industry. Strategies like reducing the cost of production,

increasing productivity by cost optimising, replanting, rejuvenation and modernization can provide the necessary push to tea industry. There is still lot of scope for the growth and upliftment of this industry provided appropriate measures are taken. All that is needed is to coordinate the efforts of the tea industry and the Government. All this may come as a soothing cup for tea industry, which is facing difficult times, and a cheering cup for the national economy. Therefore, the concerned factors need a critical analysis to surge the demoralized tea industry in this global race of competitiveness and profit making.

Boriah (1997) while studying the constraints before the Indian tea industry pointed out the measures undertaken by the Tea Board to improve the industry, which included plantation development, technology upgradation of tea processing and packaging, control of jhum cultivation in North-Eastern States, new area development, small grower development, marketing development and export promotion, research and development with special emphasis on agronomical aspects, processing, packaging and product development, extension services and human resource development.

In a study on the Indian tea industry's present crisis Rawat (2003b) argued that several factors like competition from soft drinks, lack of knowledge about the health related benefits of tea, depressed prices, over-supply situation, controversies surrounding the auction norms, Tea (Marketing) Control Order, 2003, Value Added Tax, expansion of small growing sector, decline in the Russians imports, Iraq war, stiff challenges from the other tea producing nations, age old plantations, low quality clones and high production costs were the main reasons for the present crisis. He suggested that commercial exploitation of new markets, increasing the domestic consumption, replanting of old tea gardens, concept of organic farming and financial assistance from Government, Tea Board, FAO and similar organizations would bring back the tea to its place of pride.

Summary of Findings and

Conclusion

5.SUMMARY OF FINDINGS AND CONCLUSION

India embarked on a process of trade liberalisation policies since 1991, as part of economic reforms, with the objective of stimulating competition and strengthening trade environments. Subsequently, liberalisation in agricultural trade was institutionalised with the formation of WTO in 1995 through various agreements signed under Uruguay Round Agreements. The major agreements that effect agricultural trade are Agreement on Agriculture, Agreement on Sanitary and Phytosanitary Measures and Agreement on Trade Related aspects of Intellectual Property Rights. Distortions in agricultural trade also result from changes in domestic policies after liberalisation.

Trade liberalisation has put Indian agriculture into the framework of global competition and rules of global market. These developments have raised the question of competitiveness of Indian agriculture. India has competitive advantage in several commodities of agricultural exports because of near self-sufficiency of inputs, relatively low labour costs and diverse agro-climatic conditions. Tea is one among the few agricultural commodities where India commands a place of pride in the global market. India is the largest producer of tea in the world. Moreover, India is the world's largest consumer of tea, consuming nearly 660 million kg of tea annually. It is the most popular and widely consumed beverage within the country. Being home to the world's best teas, it is no surprise that India is also one of the world's largest exporters of tea. During the course of last decade, India's export share has declined from 18.7 per cent in 1991 to 15.4 percent in 2000. (Boriah, 2002) Consequently, India is pulled down to the position of fourth largest exporter of tea in the world. The supreme need of the hour for the tea industry is to evaluate the implications of the reforms, in order to assess their efficacy in adapting to the new trade environment. Keeping these in view, an attempt was made in the present study to analyse the export performance of tea industry in SI with the following specific objectives:

1) To analyse the export performance of tea industry in SI during pre and post liberalisation period in terms of volume and direction; and

2) To examine the adequacy of policies, financial and other institutional supports in order to comply with the liberalisation agreements regarding Indian tea industry.

The study was based on secondary data. Secondary data have been used to study the trends in area, production, productivity and export of tea in SI along with price behaviour and trade competitiveness. Time series data were collected mainly from various publications of Tea Board for the period 1981-82 to 2002-03. An informal discussion with the exporters of Coimbatore Tea Trade Association was undertaken to examine the adequacy of policies, institutional and financial supports as also the constraints faced by the exporters. The trends in area, production, productivity and exports of tea in SI along with the corresponding all India figures were estimated using the kinked exponential model. Coppock's instability index, residual based index and coefficient of variation were used to estimate the instability in the above aspects of tea industry. The quinquennial averages, Annual Average Growth Rates were also used to supplement the growth rate in above variables.

5.1 THE MAJOR FINDINGS

The major findings of the study were summarised under nine heads and presented in the following sequence.

Section I   The Tea Economy of SI

5.1.1 Tea - the global scenario

5.1.2 Trends in area, production and productivity of tea in SI

5.1.3 Trends in the export of tea in SI

5.1.4 Country wise export of tea from SI

5.1.5 Trends in imports of tea into India

5.1.6 Price behaviour of tea

5.1.7 Trade competitiveness of South Indian tea

Section II   Policy options and support services to tea industry

5.1.8 Policy options for tea in India

5.1.9 Institutional and financial support to tea in SI

5.1.1 Tea - the global scenario

Globally, India ranks second in area under tea next only to China. The other countries, which ranked top, are Sri Lanka, Indonesia, and Kenya. The top ten producing countries together cover more than 90 per cent of the total area under cultivation of tea around the world. The increase in area under tea was high in China followed by India in the past two decades.

In the arena of production too, India and China adorn the top positions. These countries together account for around half the world's tea production. During both the pre and post liberalisation periods, India topped in tea production and contributed nearly one third of the world production. It has to be noted that India is the largest producer of black tea whereas China is the largest producer of green tea in the world. In India, more than half of the black tea production is contributed by CTC type and the rest by orthodox type in India. Besides, CTC is produced in large scale in Kenya and other African countries. The major producers orthodox tea are Sri Lanka, Indonesia, Argentina, and Vietnam. The increasing trend observed in area under cultivation is reflected in production too, except in the case of Sri Lanka, which is showing a phenomenal increase in production in spite of the declining trend in area under cultivation of tea. For rest of the countries, an increase in production was preceded by a corresponding increase in acreage under cultivation. Thus area effect explains the increase in production of tea in the world.

An identifiable increase in productivity was observed in the case of almost all nations though not as high as the increase in the area to have an impact on production. Among the world producers of tea, Kenya recorded the highest productivity during the past two decades followed by Turkey, Sri Lanka and Japan. However, Indian productivity is above the world average productivity.

On the export front, Sri Lanka bags the highest share in the export market, closely followed by Kenya. During the early eighties, India had the highest share in the export market, but gradually her share started declining, both in absolute and relative terms. The two countries, which had recorded a negative change in export, are India and Bangladesh. It may be noted that Kenya is the only country, which is showing a consistently

increasing trend during the period under study. China, Sri Lanka and Tanzania have also recorded a steady increase in exports.

5.1.2 Trends in area, production and productivity of tea in South India

Comparative analysis of the important aspects of South Indian tea industry viz. area, production and productivity, during the pre and post liberalisation period revealed the following.

The trends in area under cultivation of tea revealed that there had been a significantly higher growth rate at all India level during the post liberalisation period compared to the pre liberalisation period. It has to be noted that the growth rates were above the national level in SI in the post liberalisation period, which is contributed by Tamil Nadu. The area under cultivation registered a faster growth rate in the post liberalisation period in Tamil Nadu and consequently its share also decreased. Obviously there was a marked reduction in the share of area under cultivation in Kerala and marginally in the case of Karnataka too. The instability analysis revealed that coefficient of variation was relatively higher for SI compared to all India. Among the South Indian States, Tamil Nadu showed the highest instability. However, compared to pre liberalisation period the variation was relatively higher during the post liberalisation in all the cases.

In the case of production, among the tea producing States of SI, Tamil Nadu occupied the first position during the pre and post liberalisation period. There had been a decline in the production and percentage share of Kerala to the total SI production, during the study period. Except for Kerala, all other selected States showed significant positive growth rates in production. Residual based index and Coppock's index indicated that the instability in production was not very high. The instability measured on the basis of coefficient of variation showed that the variation was higher in the pre liberalisation period compared to the post liberalisation period. Except in Karnataka, the instability had declined in the post liberalisation period in South India as well as at all India level.

Trends in productivity presented a difficult picture. There had been a continuous decline during the post liberalisation period in Tamil Nadu and SI. Out of the tea growing

States in SI, productivity was found to be the highest in Karnataka. For Kerala, it was almost stagnant during this period. The decline in productivity during the post liberalisation period has been attributed to the heavy density of old age bushes (Boriah, 2002).

It may be noted that in the pre liberalisation period, increase in productivity was maximum in Tamil Nadu and least in Karnataka. In the post liberalisation period, fall in productivity was maximum in Tamil Nadu and least in Karnataka. The Instability index estimates exhibited that variability was more in the case of all South Indian States. Coppock's index also proved the same when compared to all India productivity.

From the above analysis it could be concluded that the increase in production is mostly the outcome of an increase in area under cultivation rather than increase in productivity.

5.1.3 Trends in the export of tea from South India

The trends in export quantity proved that there had been a gradual decline in the exports during the past two decades except during the early 1990s at all India level. Major reason for the decline in exports was the increase in domestic consumption. However South Indian tea exports have increased more than two fold over the period in absolute terms. Nevertheless, the increase was confined to the post liberalisation period. This was in contrast to the all India picture, which depicted a decline during the pre liberalisation and the post WTO regime. Therefore, South Indian exports as a percentage of total exports from India have increased substantially in the 1990s. Though the all India growth rate in the post liberalisation period was positive, the growth rate was not found statistically significant. In value terms, the country recorded a high growth rate in the pre liberalisation period. Though in the early 1990s, exports registered a positive growth rate, there was a significant decline in the late 1990s i.e., the post WTO period. Similar trend was observed in the case of South Indian tea exports also.

It may be noted that the decline in the price of exported tea in the international market due to the increased competition from the traditional as well as new competitors or the deterioration in the quality of tea from India which fetched lower prices for the

product were the factors leading to the decline in exports. Further, the decline in the value of rupee in the international market might have impinged on the export earnings from tea. It was found that variation was high in case of South Indian exports both in terms of volume and value. The residuals based index and Coppock's index also revealed higher instability in case of South Indian exports compared to all India.

5.1.4 Country wise export of tea from South India

The major destinations of South Indian tea are U.K, U.S.S.R / C.I.S, Poland, A.R.E, Sudan, U.S.A, U.A.E, Iraq and Germany. The country wise analysis of South Indian exports revealed that erstwhile U.S.S.R was the biggest importer of South Indian tea, which was facilitated by the Rupee-Rouble Agreement. Nearly two-third of the total South Indian tea was exported to the Russian market, which showed a decline since 2000, because of the shift in consumer preference in Russian market to orthodox tea. The Russians, which were earlier buying the CTC tea, have shifted to orthodox tea.

Other major consumers of South Indian tea are A.R.E, Iraq and U.K, which showed a decline in its share during the entire period of study. With the collapse of Soviet Union, our exports to that country also fell and there was a magnificent decline in the share of U.S.S.R. Another thing to be noticed is that the tea industry has not found any major alternative market. In value terms also the direction of exports presents almost a similar picture as seen in the quantum of exports. Nevertheless, the share of U.S.S.R remained high both during the pre and post liberalisation period. No major change was noticed except the decline in case of A.R.E, U.K and Sudan. The industry is also upbeat about the prospects in the Poland, U.S.A, and U.A.E markets. The exports to Iraq, another major market have also taken a hit following the war. Moreover lower unit price realisations in the major markets like U.S.S.R was one of the reasons behind decline in export values.

5.1.5 Trends in imports of tea into India

The progress of liberalisation and the removal of Quantitative Restrictions in agricultural trade paved the way for free imports to India in agricultural commodities including tea. The analysis showed that there was a steady increase in the imports from

1992 to 2003 in terms of quantum as well as value. The major importers of our tea include Indonesia, Vietnam, Kenya and Sri Lanka. The bilateral free trade agreement has given a boost to imports from Sri Lanka. However, according to commerce ministry, the tea imports from Sri Lanka is very below than those permitted under the free trade agreement and 95 per cent of the Sri Lankan tea is re-exported. There was a hike in the imports in 1998-99, which was due to the phase-wise removal of QRs during this period.

5.1.6 Price behaviour

The price behaviour of domestic, real and international prices of tea was analysed with the help of graphs for the period 1982-2003 and by computing growth rates for the pre and the post liberalisation period. The prices quoted in major South Indian markets, namely, Cochin, Coonoor, and Coimbatore, were taken up for analysis of domestic market and for the international market, the price in Mombasa market of Kenya was employed for comparative analysis. The AAGR of prices showed an increasing trend over the years. At the all India level, the prices showed an increasing trend, during the 1980's and early 1990's. A similar trend could be observed in all the South Indian markets. However, the prices started declining in the late 1990s. A comparison of real and domestic prices revealed that the nominal domestic prices were relatively higher in the late eighties, which is also depicted in the real prices. The decline was sharper in the post liberalisation period in case of domestic prices. The domestic and international prices were following the same trend except in the late eighties. The magnitude of decline was lower in the case of international prices during the same period.

To analyse the instability in prices, Coppock's instability index and coefficient of variation were estimated. The instability analysis for the whole period as well as sub periods showed lower variation in international prices than the domestic prices. Among the South Indian markets, high instability was noticed in the case of Coonoor market. Compared to all India prices the South Indian prices were showing higher instability.

5.1.7 Trade competitiveness of South Indian tea

Trade competitiveness of South Indian tea was measured by using the Nominal Protection Coefficient during the period 1982 to 2003. For easy comparison, NPC was

calculated for the pre liberalisation period and the post liberalisation period from 1982-92 to 1993-2003. The results of NPC values are less than one during post liberalisation period when compared to pre liberalisation period. This indicated the existence of comparative advantage for tea.

5.1.8 Policy options for tea in India

The tea industry in India has to function within a set framework of rules and regulations. An increasing role has been bestowed on the State to revive this ailing industry, especially in the context of the liberalisation of the economy. The objective of this section is to detail the framework set in by the Central and State Governments and to examine how far these policy issues have been promoting or retarding the growth of the industry. A comparison has also been made with respect to the policy options of the major tea producing countries of the world, which are our competitors in the international market. The policy options for tea in Indian economy has been discussed with respect to taxation in tea plantations, marketing policy, EXIM / Trade policy and policies with WTO agreements.

5.1.8.1 Taxation in tea plantations

The powers given under the Indian Constitution to the State Governments in matters relating to land, labour and taxation have, over the years, resulted in a wide disparity for guidelines or directives regarding taxation in tea plantations. Wider disparity in labour wages between States has increased the disparity in the total cost of production of tea. Another aspect, most importantly, is dual taxation by both the Central Government and the State Government in the ratio of 40:60. The import duty stands 100 per cent for tea except instant tea, for which it is 35 per cent only. Exceptionally, only 7.5 per cent import duty is levied on teas imported under Indo Sri Lankan Free Trade Agreement. No duty is exercised for the import of tea for re-export under duty exemption scheme and / or Export Oriented Unit / Export Processing Zone / Special Economic Zone units. Labour wages are much lower in African countries. In many countries, there is only one Government and there are no State Governments, and hence, plantations in such countries are subject to uniform policies.

Comparison of Indian tea industry with those of other countries revealed lower wages and income tax in those countries. Moreover in those countries, the Government does not interfere if the planters wish to link the wage increases to labour productivity. However, the planters in India are forced to provide all these under the provisions of 'The Plantation Labour Act'. As a result, the production cost of tea is less in those countries, compared to that of India. Hence, our tea prices are less competitive in the international market.

5.1.8.2 Marketing policy

The auction system received strong regulatory support in the early eighties when the Tea (Marketing) Control Order (TMCO), 1984 was effected. Amongst other things Clause 17 of TMCO stipulated that at least 75 per cent of a producer's tea production should be sold through auctions (except for plantation packed tea and bulk exports).

To overcome the issues relating to the functioning of the auction system, the Tea Board commissioned A.F. Ferguson and Company to undertake a thorough study of the existing primary marketing system in the early 2001. Their report emphasised drastic changes in areas like, rules related to auction principles and the auction process, introduction of ex-estate sales and electronising the bidding process. Based on this report, GOI enacted Tea (Marketing) Control Order, 2003, removing several shortcomings of the earlier order. The act stipulates that the buyers have to register themselves within 60 days of publication of Order with the registering authority (Chairman of Tea Board). The registering authority has been empowered to lay down what percent to total purchase of tea by a buyer in a calendar year should be from the domestic public auction. However, direct purchases in the form of packet, instant tea, green, black and organic tea have been excluded from the computation of total buying. In case of any contravention of the order by a buyer, the registering authority can act within the provisions of Code of Criminal Procedure, 1973. It may be noted here that even the Sales Tax Act does not have such stringent provisions. Besides, monthly returns and maintenance of records, which expose stock details, have also irked the packeteers.

UPASI has taken initiatives like Tea Futures Exchange with Forward Marketing Commission (FMC). It is also exploring the feasibility of directly marketing by a Consortium of Tea Producers in potential upcountry markets. For this purpose, ORG-MARG was commissioned to suggest a suitable marketing model after mapping the existing value chain. Tea Board is in the process of implementing a medium-term export strategy recommended by Accenture, an internationally reputed consultant, based on a detailed study undertaken by them. GOI has also liberalised its policy on foreign direct investments in tea sector plantations and trade.

5.1.8.3 EXIM/ Trade policy

The objective of EXIM policy in general, aims at developing export potential, improving export performance, encouraging import substitution and finally removing deficit in the balance of trade and balance of payments position. Before independence, there was no specific policy and direction to import-export trade of the country. The important phase of EXIM policy started in 1951 along with the introduction of First Five Year Plan. Under this, for promoting tea exports, the Tea Board was established in 1953 under the Tea Act, 1953. Domestic taxes were introduced for 14 thrust sectors including tea, especially in packaged and value added form in the 1985-88 policy. The main innovation in the 1988-91 policy was that the Import Replenishment Licenses were given for all exports and could be used to import any item in limited permissible and canalised lists. With effect from April 1989, profits from exports were fully exempted from export tax. The 1991-92 budget lowered the customs duty for agricultural products from 110 per cent 75 per cent after April 1992. Also the Export Oriented Unit (EOU) and Export Promotion Zone (EPZ) schemes were liberalised and extended to agriculture, horticulture, aquaculture, poultry and animal husbandry.

The Eighth Five-Year Plan document proposed further liberalisation of the trade regime. EOU status was given to units in exports of agriculture and allied products, which exported at least 50 per cent of their produce as against a minimum of 75 per cent from other sectors in November 1992. Excise duty on bulk tea, packet tea and instant tea was withdrawn. Exporters of tea, coffee and spices, like other exporters, were, in effect, pumping out a tax on export earnings by way of accepting a lower rate of exchange rate for 40 per cent of their earnings under the dual exchange rate system. In this Plan, the

major constraints affecting agro-exports were identified as volume insufficiency, quality deficiencies, stringent legislation relating to health and safety standards in importing countries, procedural bottlenecks and lack of adequate post-harvest infrastructure. The major thrust areas for development as per the Ninth Plan document were infrastructure development, quality and packaging, value addition and encouragement of export-oriented production. From 1st August 1998, India unilaterally removed all Quantitative Restrictions (QRs) on imports of 2,300 items from SAARC countries in order to promote trade among SAARC countries by SAFTA. As of 28th December 1998 a free trade agreement was concluded between India and Sri Lanka, which would result in zero import tariffs for most of the commodities on both sides by 2007. In 1998-99, while 'nil' duty for bulk tea produced by the tea estates/factories continued, an eight per cent duty was introduced on consumer packs of tea. During 1999-00, excise duty on consumer packs was withdrawn and duty on bulk tea was re-introduced at a uniform rate of rupee one per kg, doing away with the zonal system.

QRs on 714 items were removed from 1st April 2000, which included instant tea, quick brewing black tea, tea aroma, other extracts, essences and concentrates of tea. The Government set up a high-powered Standing Committee on reduction of transaction costs of Indian exports. On 17th October 2000, the Government placed export tariff / cess of rupee five per kg on tea. The EXIM policy announced in 2001-02 removed the remaining QRs on most of the consumer items and agricultural products. On 31st March the Government announced that import of tea waste would be subjected to compliance of Tea Waste (Control) Order, 1959.

The budget announced in 2001-02 increased the customs duty on tea, coffee, copra, coconut and desiccated coconut to 70 per cent. The budget of 2002-03 increased the customs duty on tea and coffee to 100 per cent. In order to promote the interest of tea growers, the policy reduced the excise duty on tea from rupee two per kg to rupee one per kg. Under the policy, import of tea is permitted with an import duty of 100 per cent. Because of the problems existing in the industry, especially in SI, the Government has taken a number of steps like reduction in excise duty, increasing the allowance under Section 33 AB of the Income Tax Act, from 20 per cent to 40 per cent and implementation of a Credit Relief Package.

With a view to providing stability in terms of income for the small growers, from 2003-04 onwards, Government announced a Price Stabilization Fund of Rs.500 crore for the benefit of tea, coffee, and natural rubber growers. In addition, it abolished the excise duty of one rupee per kg on tea and replaced it by a cess of one rupee per kg for creating a separate fund for development, modernisation and rehabilitation of the tea plantation sector. The Budget 2004-05 has reduced the customs duty of 50 per cent to five per cent over some of the plantation machinery including tea.

5.1.8.4 Policies after WTO agreements

The WTO is a set of complex sectoral agreements, which has a distinctive manner of viewing global trade in agricultural commodities. The major agreements that effect trade are Agreement on Agriculture, Agreement on Trade Related Aspects of Intellectual Property Rights and Agreement on Sanitary and Phyto Sanitary measures which were attempted to provide a fair amount of discipline to agriculture and agricultural commodities entering the portals of world trade. The AOA applies to market access, domestic support and export subsidies. It is to be noted that removal of QR in the post liberalsiation period has made Indian teas more import sensitive. The South Indian tea market where domestic cost of production is high for tea, has been more adversely affected by removal of QRs through import of cheaper teas from Vietnam, Indonesia, China and Sri Lanka. The tea plantations are also faced with import threats from SAARC countries because of the lower CIF values.

The Tea Board is trying to preserve the Intellectual Property Rights of the growers of various forms of tea in foreign markets through Geographical Indication. The Board has filed applications for certification mark at the U.K. Trade Marks Registry for Darjeeling and Assam tea and also for Tea Board's Marketing Symbol. This is to be extended to SI too.

To check the inflow of low quality substandard teas, PFA, ISO 3720, and ISO 9000 series should be strictly enforced. HACCP system should be actively implemented through close monitoring, validation and verification to ensure tea as a safe item and unlikely to cause any health hazard to the consumers.

5.1.9 Institutional and financial support to tea in South India

Tea industry in India is governed by several legislations imposed by the GOI. This includes, Tea Act, 1953, Tea (Distribution and Export) Control Order, 1957, Tea Waste (Control) Order, 1959, the Plantation Labour Act, 1951, the Tea Marketing (Control) Order, 2003 and Tea Regulation of Export (Licensing) Order, 1984. Expert Committees appointed by the GOI, to study the closed tea gardens because of the prevalence of the crisis around the industry, revealed that all those estates are required to invest both in the plantations as well as in the factory and other infrastructure to achieve better results in terms of quantity, quality and price realisation of their teas. The GOI has given financial assistance in the form of an interest subsidy up to a maximum of five per cent for those gardens, which are considered financially viable by the concerned banks, after having discussions with the management and their bankers. To provide necessary support to the tea industry, the excise duty of rupee one per kg on tea has been replaced by an additional duty of excise of rupee one per kg as a surcharge, which would form a fund for the development, modernization and rehabilitation of the tea plantation sector.

Government has moved the RBI and the Indian Banks Association for providing an effective credit relief package for the tea industry from the banking sector. Special Tea Term Loan (STTL) envisages restructuring / rephasing of outstanding term / working capital loans in the tea sector with working capital upto Rs. 2 lakh at a rate not exceeding nine per cent to small growers. Basic customs duty on import of tea has been increased from 70 per cent to 100per cent from 2002-03 onwards. A Price Stabilisation Fund with an initial corpus of Rs.500 crore has been established for providing relief to the small growers of plantation commodities including tea. In order to mitigate the sufferings of the tea growers, Tamil Nadu Government introduced two programmes namely Broad based tea quality upgradation (Rs.19.00 lakh) and Village Awareness Campaign Programme (Rs.15.00 lakh) with assistance from the Tea Board for its implementation during 2002-03. It also promoted extension staff to disseminate suitable alternate crops along with tea to tide over the crisis. Under the Hill Area Development Scheme, planting materials are produced and distributed to the growers at subsidised cost. An amount of Rs.299.48 lakh was allotted to this Scheme for the year 2002-03. This Scheme was continued during 2003-04 with an outlay of Rs.350.81 lakh. Marketing of tea through the Civil Supplies

Department is being done in Tamil Nadu, is a very laudable project. Government of Tamil Nadu has also extended some tax concessions in respect of sale through auctions. The Indcoserve also initiated upon selling made tea in the name of "Ooty Tea " through Public Distribution System (PDS) outlets. Indcoserve has now introduced sale of "Ooty Gold" premium tea in the open market also. Another support came from the Defence Department, which is conditioned to buy its entire tea requirements only through public auctions.

The plantation sector in Kerala came to an agreement with State Government with regard to wages. The State is looking forward to cash the demand for organic tea and the setting up of National Institute for Organic Farming. The Kerala Government has extended some tax concessions in respect of sale through auctions. But compared to the measures of the Tamil Nadu Government, the support of the Kerala Government is too inadequate. Perhaps this might be reason for the better performance of the Tamil Nadu tea industry compared to that of Kerala, as revealed in this study.

The Tea Board has taken effective measures in the Ninth Five Year Plan by introducing several schemes namely, plantation development scheme, tea processing and packaging development scheme, tea development scheme, new area development scheme, small grower development scheme, market development and export promotion scheme, research and development and human resource development. In order to improve quality, control costs and increase productivity through consolidation of the existing area, the Government continued certain schemes of Ninth Plan period in a consolidated manner during the Tenth Plan with an overall sanctioned outlay of Rs 403 crore comprising Rs. 280 crore as subsidy, Rs.70 crore as grant in aid for R& D schemes and Rs.53 crore as loan under the revolving corpus of the Board. It is also giving awards for the outstanding productivity, quality and exports. The Tea Board is in the process of implementing an IT based information dissemination plan for the industry, including the electronic trading in auction centres.

The discussion with the exporters revealed that they are more or less satisfied with the role played by the GOI, Tea Board and UPASI, even though they argued for better efforts to increase production, consumption, improve quality thereby promote the image of Indian tea in the world market. The exporters interviewed were mainly non-

producer exporters. Hence a study among the producers and producer- exporters need not give the same opinion as that of the non-producer exporters.

5.2   SUGGESTIONS

i)   Productivity of tea in India was declining in the post liberalisation period because of the presence of high percentage of age-old bushes. Hence replanting and replacement planting activities should be carried out in full fledge

ii)   To reduce the cost of production, labour wages can be linked with the productivity through negotiations and necessary legislations

iii)   Market research in the key markets where India has no share can improve our international trade

iv)   Moreover adequate spending in the overseas market, publicity and logo and brand promotion will keep our products in the premier position in the forthcoming future

v)   Quality is the key to export. We have to harmonise the quality of our products to internationally accepted standards. In order to compete and retain our position in the world market, our ability to meet the quality expectations through drastic reduction in pesticide residues and other impurities should be strengthened

vi)   Meeting future challenges would also depend on putting Research and Development on a sound footing. Organic teas and orthodox teas are gaining great momentum in the world market. Hence we have to adjust our product mix to meet out the demand for tea in the world market

vii)   Central Government should stipulate that the rate of agricultural income tax charged by the State Governments couldn't exceed the rate prescribed under the Central Income Tax Act to over come the issue of taxation of the sector. Also, facilities, which are available for the manufacturing sector under the Central

Income Tax Act, should also be available for the plantations under the State Agricultural Income Tax Acts

viii) It would be desirable for the tea plantations to ensure that the tariff quota system is avoided. Otherwise it is difficult to insist the use of tariff quotas by the MFN principle. It is to be advised that GOI may adopt SSM for the import sensitive plantation crops like tea

ix) A comprehensive package for revival of the tea industry should be worked out involving stakeholders and representatives from the tea growing areas. The package should include tax and fiscal incentives for the ailing industry to make it competitive in the domestic and export markets

x) A market strategy should be framed to give India an edge in the global market. The key strategy should be to augment India's competitive strength.

5.3 CONCLUSION

The study undertaken under the liberalisation regime gives an indication that, the restrictions on import of teas into India would, eventually, be removed. Traditionalists may consider this as a threat, but according to this study, it is a great opportunity. The major factor that needs to be considered, by our Government is to ensure an even level-playing field in the domestic and international market. If projections are anything to go by, the consumption of tea in the world in future will be growing at a faster rate than production. If a concerted effort is made by those involved in this premier industry to market our teas, there is no reason why everybody should not benefit and that includes our customers who will have a choice of greater variety of teas at reasonable prices. To conclude this report, it would be more suitable by quoting *Sidney Smith* whose views everyone should endorse:

> *"Thank god for tea!*
> *What would the world do without tea?*
> *How did it exit?*
> *I am glad I was not born before tea".*

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Annexure

Annexure I. Area under cultivation of tea in different producing countries ('000ha)

Countries/ Year	India	Sri Lanka	Indonesia	Bangladesh	China	Japan	Vietnam	Turkey	Kenya	Others	Total
1981	384	245	114	45	1061	61	NA	53	79	NA	NA
1982	394	242	108	45	1097	61	NA	64	81	NA	NA
1983	396	230	108	45	1105	61	NA	64	82	NA	NA
1984	398	228	111	45	1077	61	NA	64	83	NA	NA
1985	399	232	115	46	1045	61	NA	67	84	NA	NA
1986	408	223	124	47	1024	60	NA	83	84	NA	NA
1987	411	221	121	47	1045	60	59	81	85	NA	NA
1988	414	222	125	47	1057	60	59	86	87	NA	NA
1989	415	222	129	47	1066	59	58	90	87	NA	NA
1990	416	222	135	48	1062	59	60	91	97	NA	NA
1991	421	222	137	48	1061	58	60	89	100	NA	NA
1992	420	222	196	48	1084	57	61	89	102	NA	NA
1993	418	NA	129	48	1171	56	62	89	105	NA	NA
1994	426	187	129	48	1135	55	63	77	110	NA	NA
1995	427	NA	142	48	1115	54	64	77	113	NA	NA
1996	431	NA	154	48	1103	53	64	77	117	NA	NA
1997	434	194	153	49	1076	52	65	77	117	NA	NA
1998	474	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	490	195	157	49	1130	51	77	77	120	466	2692
2000	504	189	157	49	1089	50	80	77	122	470	2665
2001	510	189	161	49	1141	50	82	77	132	476	2735
2002	512	189	162	50	1155	50	84	77	132	477	2756

Annexure II. Production of tea in different producing countries (million kg)

Countries/ Year	India	Sri Lanka	Indonesia	Bangladesh	China	Japan	Vietnam	Turkey	Kenya	Others	Total
1981	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1982	561	187	90	41	397	99	25	68	96	479	1947
1983	581	180	112	44	401	103	27	101	120	506	2055
1984	640	209	126	38	414	93	29	114	116	530	2193
1985	656	215	132	43	432	96	31	137	147	548	2290
1986	621	213	129	38	460	94	33	144	143	547	2279
1987	665	215	126	41	508	96	35	141	156	518	2345
1988	700	228	134	44	545	90	38	153	164	539	2471
1989	688	208	141	39	535	91	39	136	181	566	2443
1990	720	234	145	46	540	90	40	131	197	589	2535
1991	754	242	133	45	542	88	38	139	204	629	2610
1992	703	179	136	48	530	90	40	135	188	528	2389
1993	761	233	137	51	600	92	35	128	211	576	2613
1994	753	244	128	52	588	86	38	134	209	550	2573
1995	756	246	144	48	588	85	40	105	245	572	2584
1996	780	259	166	53	593	89	40	115	257	607	2702
1997	811	277	154	53	613	91	42	140	221	609	2790
1998	740	281	156	66	625	83	42	115	294	814	2922
1999	826	284	161	46	676	89	65	171	249	655	2973
2000	847	307	157	53	683	89	70	131	236	655	2992
2001	854	296	173	57	702	90	80	143	295	696	3091
2002	826	310	173	53	745	90	84	145	287	673	3099
2003	857	303	NA	57	NA	NA	NA	NA	294	NA	NA

Annexure III. Productivity of tea in different producing countries (kg/ ha)

Countries/ Year	India	Sri Lanka	Indonesia	Bangladesh	China	Japan	Vietnam	Turkey	Kenya	Total
1981	1461	858	958	928	NA	1670	NA	789	1152	NA
1982	1422	776	834	916	NA	1615	NA	1055	1184	NA
1983	1468	743	1036	966	NA	1684	NA	1565	1469	NA
1984	1606	918	1137	843	NA	1521	NA	1767	1393	NA
1985	1645	929	1156	932	NA	1576	NA	2048	1755	NA
1986	1523	954	1043	805	NA	1597	NA	1723	1846	NA
1987	1617	969	1039	872	NA	1608	NA	1743	1824	NA
1988	1689	1029	1068	920	NA	1507	NA	1775	1890	NA
1989	1658	936	1093	824	NA	1534	NA	1519	2065	NA
1990	1730	1056	1076	963	NA	1537	NA	1448	2031	NA
1991	1794	1090	974	946	NA	1526	NA	1563	2039	NA
1992	1742	NA	1044	1024	NA	1624	NA	1749	1847	NA
1993	1819	NA	1057	1055	NA	1654	NA	1430	2014	NA
1994	1768	1300	998	1079	NA	1584	NA	1745	1900	NA
1995	1770	NA	1010	992	NA	1579	NA	1366	2172	NA
1996	1809	NA	1078	1115	NA	1683	NA	1493	2190	NA
1997	1869	1447	1087	1146	NA	1595	NA	1497	2507	NA
1998	1844	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999	1685	1454	1027	954	598	1746	843	2222	2066	1104
2000	1679	1623	999	1070	627	1772	875	1703	1933	1122
2001	1675	1568	1001	1163	615	1793	976	1864	2239	1130
2002	1614	1641	1025	1068	619	1793	1000	1890	2175	1125

Annexure IV. Global export of tea (million kg)

Countries/ Year	India	Sri Lanka	Indonesia	Bangladesh	China	Malawi	Tanzania	Argentina	Kenya	Others	Total
1981	241	183	71	29	92	31	14	26	76	165	852
1982	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	209	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1984	217	204	86	23	145	37	11	42	91	176	941
1985	214	198	90	30	137	37	13	31	126	203	953
1986	203	208	79	28	172	40	14	36	116	194	974
1987	202	201	90	22	174	33	11	34	135	208	975
1988	201	220	93	26	198	37	10	34	138	218	1037
1989	212	204	115	23	205	40	12	43	163	266	1120
1990	209	215	111	27	195	43	15	46	170	271	1132
1991	202	219	110	25	185	34	17	36	176	245	1073
1992	169	178	121	27	176	38	18	39	167	239	1005
1993	175	210	124	32	201	35	19	44	188	314	1154
1994	151	224	85	24	177	39	19	43	183	271	1033
1995	168	235	79	25	167	33	21	41	237	314	1083
1996	162	234	102	26	170	37	18	41	244	325	1115
1997	203	257	67	25	202	49	19	56	198	301	1179
1998	206	265	70	22	217	41	22	59	263	353	1255
1999	162	263	98	15	200	43	21	52	242	411	1265
2000	207	280	106	18	228	38	22	50	217	385	1334
2001	183	288	100	13	250	38	22	57	258	444	1395
2002	201	286	100	14	252	39	23	54	268	462	1431
2003	218	292	NA	·NA	260	35	20	NA	269	NA	NA

Annexure V. Area under cultivation of tea in South India and all India (in ha)

Year	Tamil Nadu	Kerala	Karnataka	South India	All India
1981	37037	35589	1901	74563	383629
1982	36977	35324	1914	74215	394170
1983	36952	35020	1924	73896	396066
1984	36885	35060	1924	73869	398453
1985	36978	34760	1931	73669	399929
1986	38041	34736	1909	74686	407647
1987	38168	34688	1909	74765	411335
1988	38247	34694	1904	74845	414347
1989	38166	34671	1912	74749	414953
1990	38603	34686	1976	75265	416269
1991	38634	34708	1976	75318	420500
1992	38673	34525	2015	75213	420289
1993	38831	34683	2060	75574	418363
1994	48854	36817	2095	87766	425966
1995	48958	36775	2099	87832	427065
1996	48984	36762	2099	87845	431204
1997	49671	36817	2104	88592	434294
1998	63543	36748	2105	102396	474027
1999	69103	36845	2122	108070	490200
2000	74398	36940	2122	113460	504366
2001	75652	36940	2128	114693	509770

Annexure VI. Production of tea in South India and all India (million. kg)

Year	Tamil Nadu	Kerala	Karnataka	South India	All India
1981	71.6	74.6	3.4	122.6	560.4
1982	71.4	48.5	3.6	123.5	560.6
1983	67.4	44.6	3.2	115.2	581.5
1984	86.1	58.2	4.1	148.4	639.9
1985	84.9	53.1	3.9	141.9	656.1
1986	86.7	48.6	4.1	139.5	620.8
1987	86.3	56.3	4.3	146.9	665.3
1988	107.2	64.0	4.1	175.3	700.0
1989	100.7	53.9	4.0	158.5	688.1
1990	110.6	60.7	4.0	175.2	720.3
1991	119.9	66.8	4.5	191.3·	754.2
1992	103.1	54.6	4.2	161.9	732.3
1993	112.8	62.0	4.5	179.3	760.9
1994	117.5	63.1	4.3	184.9	752.9
1995	117.9	64.8	4.7	187.4	756.0
1996	115.8	61.6	5.4	182.0	780.1
1997	130.2	69.8	5.5	205.3	810.0
1998	132.0	65.9	5.4	203.5	874.1
1999	130.5	66.8	5.4	202.7	824.4
2000	131.8	68.9	5.5	206.2	846.5
2001	132.4	65.2	5.5	203.1	853.7
2002	129.0	59.7	5.7	194.4	826.2
2003	131.7	56.6	5.2	193.5	857.1

Annexure VII. Productivity of tea in South India and all India (kg/ ha)

Year	Tamil Nadu	Kerala	Karnataka	South India	All India
1981	1931	1338	1793	1645	1461
1982	1931	1374	1891	1665	1422
1983	1825	1273	1671	1559	1468
1984	2335	1659	2147	2009	1606
1985	2295	1528	2025	1926	1641
1986	2282	1399	2172	1868	1523
1987	2262	1622	2228	1965	1617
1988	2803	1844	2169	2342	1689
1989	2638	1554	2071	2121	1658
1990	2864	1749	2020	2328	1731
1991	3104	1925	2291	2539	1794
1992	2665	1582	2087	2153	1742
1993	2906	1788	2164	2372	1819
1994	2406	1715	2049	2107	1768
1995	2408	1761	2235	2133	1770
1996	2365	1675	2181	2072	1809
1997	2621	1895	2557	2318	1865
1998	2078	1794	2594	1987	1844
1999	1888	1814	2536	1875	1685
2000	1772	1866	2548	1817	1679
2001	1751	1764	2615	1771	1675

EXPORT PERFORMANCE OF TEA INDUSTRY IN SOUTH INDIA IN THE CONTEXT OF ECONOMIC LIBERALIZATION

BY

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ABSTRACT OF THE THESIS

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ABSTRACT

The present study entitled "**EXPORT PERFORMANCE OF TEA INDUSTRY IN SOUTH INDIA IN THE CONTEXT OF ECONOMIC LIBERALIZATION**" was conducted with the following objectives.

1) To analyse the export performance of tea industry in South India during pre and post liberalisation period in terms of volume and direction; and
2) To examine the adequacy of policies, financial and other institutional supports in order to comply with the liberalisation agreements regarding Indian tea industry.

Secondary data have been used to study the trends in area, production, productivity and export of tea in South India along with price behaviour and examination of competitiveness. Time series data were collected from various publications of Tea Board for the period 1981-82 to 2002-03. An informal discussion with the exporters of Coimbatore Tea Trade Association was undertaken to examine the adequacy of policies, institutional and financial supports and constraints faced by the exporters.

The trends in area, production, productivity and export of tea in South India as also all India were estimated using the kinked exponential model. Coppock's instability index, residual based index and coefficient of variation were used to find out instability. The quinquennial averages, Annual Average Growth Rates were also supplemented to find the growth in above variables.

An analysis of area under cultivation, production, productivity and export performance of tea industry at the global level for the period 1981 to 2002 points out to some fundamental issues facing the Indian tea industry. The area under cultivation and production have been increasing in absolute terms throughout the period. The AAGR has been positive for both for all years except during 2002 for production. But the productivity, which stood at a relatively higher level in the early 1990s, has drastically declined, the AAGR being negative since 1991. The exports have declined tremendously even in absolute terms, the AAGR sliding to –11.6 per cent in 2001.

The trends in area under cultivation of tea revealed that there had been a significantly higher growth rate at the all India level during the post liberalisation period. It has to be noted that the growth rates were above the national level in South India in the post liberalisation period, which is contributed by Tamil Nadu. The instability analysis revealed that coefficient of variation was relatively higher for South India compared to all India. Among the tea producing states of SI, Tamil Nadu occupies the first position during pre and post liberalisation period. Except for Kerala, all other states showed significant positive growth rates in production. Residual based index and Coppock's index indicated that the instability in production is not very high. There has been a continuous decline during the post liberalisation period in Tamil Nadu and SI and the highest is in Karnataka. For Kerala, it was almost stagnant during this period. The Instability index estimates exhibited that variability was higher in all the South Indian states.

The trend analysis in exports of tea from all India showed that there was a significantly higher decline compared to marginal decline in exports from SI. It may be noted that in the post liberalisation period, increase in export quantity from SI was higher than all India. In value terms, the country recorded a high growth rate in the pre liberalisation period. Though in the early 1990s the exports registered a positive growth rate, there was a significant decline in the late 1990s i.e. the post WTO period. Similar trend was observed in the case of South Indian tea exports. The instability analysis revealed the higher instability in case of South Indian exports compared to all India, both in terms of volume and value. Regarding the destination of exports, the share of U.S.S.R remained high during both the pre and post liberalisation period. It has not shown any change, except the decline in case of A.R.E, U.K and Sudan. The industry is also catching up in the Poland, U.S.A and U.A.E markets. The analysis of imports showed that there was a steady increase in the imports from 1992 to 2003 in terms of quantum as well as value.

The price analysis showed that there was a sharper decline in the post liberalisation period in case of domestic prices. The domestic and international prices were following the same trend except in the late eighties. The magnitude of decline was lower in the case of international prices during the study period compared to domestic

prices. The instability analysis for the whole period as well as sub periods showed lower variation in international prices than in the domestic prices. Among the South Indian markets, high instability was noticed in the case of Coonoor market. Compared to all India prices, the South Indian prices were showing higher instability. The results of NPC values are less than one during post liberalisation period when compared to pre liberalisation period, which depicted the existence of comparative advantage for tea.

The taxation policies denoted that the present taxation structure is not feasible for the tea producers in general when compared with other producing nations. The GOI renewed the Tea (Marketing) Control Order in 2003, removing several shortcomings of the earlier Tea (Marketing) Control Order, 1984, which enriched the Tea Board to exercise stiff regulation including the provisions of Code of Criminal Procedure, 1973. UPASI has taken initiatives like Tea Futures Exchange with Forward Marketing Commission (FMC) and Consortium of Tea Producers in potential upcountry markets.

For promoting tea exports, the Tea Board was established in 1953 under the Tea Act, 1953 during First Five Year Plan. During 1980's the stress is given towards liberalisation of trade. From 1st August 1998, India unilaterally removed all Quantitative Restrictions (QRs) on imports of items from SAARC countries in order to promote trade among SAARC countries by South Asia Free Trade Area (SAFTA). As of 28th December 1998 a free trade agreement was concluded between India and Sri Lanka, which would result in zero import tariffs for most of the commodities on both sides by 2007. QRs were removed from 1st April 2000 for tea. The developmental allowance given under the Central Income Tax Act, 1961 is raised from the present level of 20 per cent to 40 per cent. The budget announced in 2002-03 increased the customs duty on tea and coffee to 100per cent. With a view to provide stability in terms of income for the small growers, from 2003-04 onwards, Government announced a Price Stabilization Fund of Rs.500 crore for the benefit of tea as well as other plantations. The budget 2004-05 has reduced the customs duty of 50 per cent to five per cent over some of the plantation machinery including that of tea.

While reviewing WTO response strategies, it can be seen that the removal of QRs facilitated import of cheaper teas from Vietnam, Indonesia, China and Sri Lanka. The tea

plantations are also faced with import threats from SAARC countries because of the lower CIF values. It would be desirable for the tea plantations to ensure that the tariff quota system is avoided. Otherwise it is difficult to insist the use of tariff quotas by the MFN principle. It is to be advised that GOI may adopt SSM for the import sensitive plantation crops like tea. The Board is also trying to preserve the Intellectual Property Rights of the growers of various forms of tea in foreign markets through Geographical Indication. To check the inflow of low quality substandard teas, there is a need for strict enforcement of PFA, ISO 3720, and ISO 9000 series and HACCP system for the domestic market.

Tea industry in India is subjected to several legislations imposed by the GOI. To strengthen the base of the industry, the Tea Board, the central government and state governments as well as the plantation associations have actively taken part in assisting the producers of tea plantations by both institutional and financial supports. The Tea Board is in the process of implementing an IT based information dissemination plan for the industry, including the electronic trading at the auction centres. The discussion with the exporters revealed that the exporters are satisfied with the role played by the GOI, Tea Board and UPASI as well as the present policy resolutions undertaken by the Tea Board and GOI to a certain extent. They suggested for constructive efforts in generic promotion of tea in all the angles, through increasing production, consumption and exports in general.