CHAPTER VI
SUMMARY OF FINDINGS
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Summary

The study has been a detailed analysis of the tea market of India where all the four market segments, export, import, domestic as well as auction market have been covered. Though the period of study has been chosen to be from 1986 to 2008, the periods prior to 1986 and post 2008 period has also been considered in many instances, while investigating the causes for and consequences of the challenges of the tea market during the period under study.

Tea is an important item of trade of India. India produces 27 percent of the total world tea in 19% of the global area under tea production. Around 13 percent of the total world export is from India. Most of the tea importing countries of the world imports at least one variety of tea produced in India. India is known for its famous Darjeeling tea world over. Darjeeling tea is in high demand all over the world for its unique taste and flavour and is popularly called 'Champagne of Teas'. Darjeeling tea fetches very high price in the world tea market. Thus tea is a very good source of foreign exchange for India. Tea is also a major employer of Indian population. Nearly two million people are engaged directly or indirectly in tea plantation only. If the ancilliary activities associated with tea are taken into consideration, the number of people employed through tea industry will increase significantly.

India was the largest producer, consumer and exporter of tea till nineteen nineties. But gradually India lost its prominence in production and export. In production the position of India has been relegated to second after China since 2004. In export India's position has been declined to fourth since 1999 after Kenya, Sri Lanka and China. Export share in the traditional export markets of India viz. Russia, UAE, UK and in EU countries have decreased significantly. India is losing the export markets to the competing producing countries like, Sri Lanka, Kenya, China, Indonesia, Vietnam etc. Neighbouring Nepal has also been able to increase its export share in most of the tea consuming countries of the
world. Though in bulk consumption India is still the largest consumer of tea, but the per capita consumption of India is lower than many non producing countries like United Kingdom, Ireland, Iraq, Kuwait, Qatar etc. The challenge which emerged as most damaging is the increasing import of India. After adoption of new economic policy in 1991 and signing of WTO agreement in 1995 the volume of import into India has been continuously increasing. High cost of production compelled the tea giants like Hindustan Lever and Tata Tea to exit from the plantation business and to confine their activities only in the marketing sector. As many as 130 tea gardens had been closed or abandoned to avoid high cost of production. International tea prices fluctuate very often putting tea traders of India in difficulty. Demand for bulk tea has been replaced by value added tea in which India is still at a nascent stage. The competition from the tea substitutes like coffee, health drink and soft drink is increasing with every passing consecutive year. Thus India has been continuously losing its past glory. To regain the past reputations it is imperative to identify the challenges, explore the opportunities, analyse the policy recommendations and discover the potentialities for development. Opportunities are to be grabbed with adequate policy backup for sustainability.

6.1 Summary of findings and result analysis
A brief summary of the findings of the study and result analysis is given below.

6.1.1 Evolution of Tea Market

History of tea in the world

Tea was known in different parts of the world at different periods of time. There are controversies regarding the origin of tea. But in most of the literature China has been stated as the place of origin of tea. Emperor Shen Nung of China first discovered tea accidently in B.C. 2737. Tea has been known in Japan since A.D. 805 when two priests called Saico and Kukai brought tea seeds from China. In Russia tea reached as a gift from the Chinese ambassador to Tsar Aleksey
Mikhaylovich in Moscow in A.D.1618. Tea reached America in 17th century under the initiative of Dutch and the Portuguese. In Britain tea is known since a person called Thomas Garraway advertised tea in London in a weekly newspaper. Sri Lanka had its first tea plantation in 1839, when James Taylor, a British planter planted tea at Loolecondera. Though tea is said to be indigenous of Vietnam, the commercial cultivation started in 1882. Tea cultivation in Kenya started in 1903. The other tea growing areas like Indonesia, Malaysia, Malawi, Bangladesh, Nepal etc started cultivation of tea at a later period.

In India tea has been growing naturally but the plant got identified as tea when Robert Bush, an employee of East India Company of Britain discovered it in 1823. It got recognition only after 1834 when it has been confirmed by botanist in Calcutta as of the same variety as China. Commercial cultivation started in 1854. Plantations activities started, in Darjeeling and Cachar by 1856, at Terai in 1862 at the Dooars in 1874 and in Dehra Dun and Kangra by 1857. In between tea was also grown in South India's Nilgiri Hills, Wayanad and Travancore.

**History of tea market in the world**

History of tea market dates back, much before A.D. 350, when tea brick was used as currency to barter, by some tribes in China. After Chinese, the Turkish traders used to trade tea in the borders of Mongolia in A.D.479. From Tang Dynasty of China tea trade got momentum when a close associate of the third emperor of Ming dynasty, Zheng He (1405-1433 A.D.), made long voyages to middle-southern peninsula, South Ocean islands, India, Arab States, the East Coast of Africa and the Coast of Red Sea. Every time when he set out for journey, he brought with him tea. The South Asian countries played vital role as medium between China and the European Countries by sea. When sea routes to India and the East were opened up by Portuguese in 1497, tea trading between Europe and Oriental countries increased to a large extent. After China, Japan became a prominent tea trade center. China was the only supplier of tea till the end of the
eighteenth century. After tea was discovered in India, India also became a major supplier of tea. Thus tea trade spread all over the world.

Auction was the main mode of Tea trade when tea cultivation spread to many countries of the world. The mechanism of auction has been initiated by the British East India Company during seventeen century to transfer tea from China to western world. The first formal and organized auction center for tea was established on 10th Jan 1837 at Mincing lane in London. Thereafter fourteen more auction centers have been established in India, Sri Lanka, Kenya, Malawi Indonesia and Bangladesh. With the establishment of a number of auction centers across the world the flow of tea to London auction fell to a large extent. Subsequently, since 1998, the trading in London auction stopped for ever. Auction had been and is the most acceptable mode of disposal of tea in most of the tea producing and exporting countries of the world till date. Direct sale and forward contract were other modes gaining ground recently for lesser time gap between the supply of tea and receipt of the sale proceeds.

**History, growth and development of tea market in India**

Trading of Indian tea started in 1839 when the first consignment of only 350 lbs of Indian tea was sold in London auction. From then onwards Indian tea is in great demand among the tea consuming countries of the world for its unique taste and flavour. There are more than 1686 tea estates and 157504 small tea growers in India till 2008, located mainly in the states of Assam, West Bengal, Tamil Nadu and Kerala. The export share of India in the world export market was 12 percent in 2008. India mainly produces CTC tea. Of the total tea production 90 percent is CTC, 8 percent orthodox and 2 percent green tea. North India produces 75 percent of the total tea. Rest 25 percent comes from South India. Major export markets of India are Europe, America, West Asia, Africa and Australia. Auction was the chief mode of disposal of tea during colonial period. The first auction center in India started at Calcutta in 1861. But till 1930, 60 percent of the Indian tea was traded through London auction. Since 1946 Calcutta tea auction center has been
revived and is running successfully till date. Presently there are nine tea auction centers in India located in Kolkata, Cochin, Coonoor, Amritsar, Guwahati, Siligury, Jalpaiguri and Coimbatore. In Coonoor there are two auction centers. To encourage auction sale of Indian tea, TMCO 1984 was enacted. TMCO 1984 required at least 75 percent tea produced to be traded through auction. Accordingly, trading in the auction market was significant during 1990s. But after 1990, the percentage of sell through auction started falling. In 2003 the limit of compulsory sale through auction had been removed to allow the tea traders to adopt any mode for selling tea. In 2008 the Percentage sold through auction was, 55.70 percent.

The domestic market of India was relatively small during the colonial period as then tea was grown as an export item. In 1938-39 the domestic consumption of tea was only 30mkg. Since then the consumption started rising. In 1970 it was 83mkgs, in 1990 it increased to 500 mkgs and in 2008 it touched 981mkgs which is 82 percent of the total tea production of that year of India.

The emergence of the import market of India is a recent phenomenon. Till 1991 tea import of India was nil. The quantity of import into India started with only 1.37 mkgs in 1992. Since then the amount started rising at a remarkable rate. In 2008 the imported amount into India is 20.27 mkg which is a very high amount for a major tea producing country like India.

**Challenges of Indian tea market**

Since colonial rule Indian tea market has to confront several challenges. During the colonial rule Indian tea sector has been managed according to the interest of the colonial ruler. Tea gardens have been used only as a source of profit. So the developmental activities of the gardens suffered very badly. With the independence of India, Indian government started putting pressure on the British tea garden owners to indianise the gardens through policy measures. Accordingly, British owners decided to transfer the ownership to Indian entrepreneur and by 1980 they ultimately made their exit from India.
After the British left, Uncertainties gripped both the domestic and the export sector resulting in fluctuating price and dwindling performance of Indian tea sector in both internal and external market.

**Challenges of the export market of India**

The challenges confronted by the export market of India since 1980 has been lowering of the export share in the total tea production of India, as well as in the total world export, overdependence on few countries and limited presence in the emerging markets and problems relating to geographical indication registration.

The percentage share of export in total production of tea in India which was 20.86 percent during 1986, fell to 12.34 percent in 2008. The fall has been mainly due to, increasing domestic consumption, low growth rate of production, declining yield and stagnation in the area under tea cultivation.

The export share of India in the total world export has also been decreasing. Export share of India in 1980 was 26 percent which fell to only 12 percent in 2008. India’s share in major tea importing countries like UK, erstwhile USSR, Ireland and Iraq fallen drastically. In other tea importing countries also the share is dwindling. The causes are, rising competitiveness of the major tea exporting countries of the world, higher Indian export unit value, higher retention, change in the preferences, fluctuating international price, tariff and non tariff barriers, unscrupulous traders, political intervention, higher domestic price than export price and problems associated with GI registration.

Rising competitiveness of the major tea exporting countries of the world is seen from the value of Revealed Comparative Advantage (RCA) index of India and its competing countries. The RCA value of India is less than that of Sri Lanka, Kenya and Malawi. RCA values of Vietnam, Nepal and Bangladesh are also high indicating good prospect of export in the coming years.

The export unit value of India has been higher than that of Vietnam, Indonesia, Malawi and Argentina. The **correlation coefficient value, r**, of export unit value and quantity for India during the period 1980-2008 has been found to be -0.29,
indicating that higher export unit value is resulting in fall in the export of India. High cost of production is the main factor behind the high export price of India.

High rate of retention is also reducing the export share of India in the world market. During 1980-85, India’s retention was 67 percent, which was 0 percent for Malawi, only 3 percent for Sri Lanka and 8 percent for Kenya.

Change in the preference from tea to tea substitute of the tea importing countries of India is another reason for lowering export share of India. Russia’s preference has been shifted from CTC to orthodox tea, health conscious USA and UK prefers green tea, caffeine free herbal tea, fruit tea etc. Soft drink is a global preference of the younger generation. Coffee has also been able to capture the high elite class consumers.

Price instability Index of the world tea price was 17.2 percent during the period 1980-1989, 11.2 percent during 1990-1999 and 13.3 percent in 2000-2008, all are above ten indicating high degree of instability of world tea prices. This increases uncertainty in the profit level and affects export.

Barriers related to technical Barriers to trade (TBT) and sanitary and phytosanitary (SPS) measures are the main concern of India's tea export today. The countries that reported large number of measures related to SPS and technical barriers to trade (TBT) are USA, UAE, UK, Canada, the Russian federation, Germany, Newzealand, Singapore and Japan. Among these countries, the EU, the US, Canada, and Japan are very strict about the maximum residue levels (MRLs) for pesticides and chemicals in the tea traded. Canada is even considering a zero tolerance MRL norm for tea imports. Non tariff barriers prevents, export to a large extent affecting export share.

Export market suffers when there is overdependence on few importing countries. India still depends on a few markets for its tea export. The countries are, CIS (Commonwealth of Independent States), UK (United Kingdom), USA (United States of America), ARE (Arab republic of Egypt), Iran, Pakistan and UAE
(United Arab Republic). H-N index shows that there is market diversification by the tea buying/importing countries.

Geographical indication (GI) registration and forgery related to it also have affected the tea export market of India.

Political conflicts, activities of the unscrupulous traders, adulteration are other factors affecting export share of India in the world export market. Due to all these reasons Indian export market is suffering very badly.

**Challenges for the import market of India**

Continuously rising import has also been a great challenge for India. Since India liberalised its market in 1991, import from other tea producing countries started pouring in. Signing of WTO agreement enhanced the import flow. FTAs also have their effect on the flow of import into India. Export price advantage of other tea exporting countries, have contributed in this case. Price difference of export unit value of the major tea exporting countries and the import unit values of India shows that the difference is negative for Vietnam and Indonesia indicating that these countries have maximum price advantage in exporting tea to India. Nepal also has the price advantage since 2004 to 2008 excepting 2005.

Lower import price than the export price also encourages import. Import price is less than the auction price, encourages exporter to use imported tea to fulfill the export obligations instead of procuring tea from the domestic market, resulting in high import. Thus there is large outflow of revenue than the inflow which is detrimental for the economic growth of India.

Thus rising import is a major threat for India.

**Challenges of the domestic market of India**

Domestic market of India which can be a relief for the tea traders during the crisis in the export front has also been confronted with number of challenges.

Rising competition from the tea substitutes mainly, coffee, health drink, energy drink and soft drink are posing big challenge. During 1990-2008, the
CAGR of coffee was 3.37 percent, for soft drink was 7.53 percent and for tea it was only 2.82 percent. The growth of small tea growers has also created problems in the domestic tea market of India. The quality of tea of small tea growers are alleged to be of lower quality due to low traceability, less financial strength, poor scientific knowledge of cultivation etc. These teas when disposed through auction tarnishes the image of Indian tea in both domestic and export market. This hampers the export share as well as the per capita consumption of tea in India. Malpractices in the Indian auction markets like cartel among buyers, unscrupulous tea suppliers etc. and rising cost of production are also responsible for the problems in the domestic tea market of India.

Thus Indian tea market has been confronting several challenges from both inside and outside the geographical boundary. Since in most of the cases it is not possible to get rid of the challenges like those emanating from the liberalization of market it will be appropriate to adjust with the challenges with suitable policy measures.

**Opportunities**

Though Indian tea market is plagued by enumerable challenges there are opportunities which can be tapped profitably to pull the tea sector from the situation of crisis. The opportunities namely, development of eco tourism in the tea gardens, undertaking alternative cultivation along with tea, production of more and varied value added products of tea, production of organic tea, increasing the production orthodox tea, promoting single garden tea, establishing more tea stores in the gardens, public places, ceremonial halls, bus terminals etc. have great scope in India.

Thus if the strengths of Indian tea market are discovered, weaknesses reduced, threats scrutinized and opportunities grabbed profitably it will be possible to regain the past glory of Indian tea industry.
WTO and Indian tea market

WTO and Tea

World trade organization (WTO) came into existence in the year 1995. This brought with it several challenges as well as opportunities for the developed and developing countries of the world. Like other economic activities, the global tea industries of the world also get affected by the agreement. Tea, like any other agricultural commodities, has to follow the norms of Agreement on Agriculture (AoA) under WTO. Accordingly, tea market have to face the disturbances like, shift in the supply, shift in the demand, fluctuations in the world prices which have impact on the tea market of the world.

Comparing the demand supply situation of the world tea market during the pre and post WTO period it has been found that the growth rate of supply before the WTO period was less than the demand but during the post WTO period the growth rate of supply has been more than the demand. This increasing supply had depressing effect on the tea prices resulting in adverse impact on the tea producers.

Coefficient of variation of world tea demand, supply and prices during the pre and post WTO periods, 1986-1995 and 1995-2008 shows high level of instability in the post WTO period as during the post WTO period of 1996-2008 the coefficient of variation of world price, world demand and world supply was higher than the pre WTO period of 1986-1995.

Thus due to the WTO agreement there have been a very unstable situation in the tea economy of the world.

WTO and Indian Tea market

With the signing of World Trade Organisation (WTO) agreement in 1995, Tea industry of India has to face several challenges. The major one is the rise in import due to lowering of the tariff rates as per WTO guideline. Finding a huge domestic market of India low cost tea producing countries of the world viz. Vietnam,
Kenya, Indonesia, Malawi, Malaysia and even Nepal are widening their export routes to India. The import into India started flowing since 1991 after NEP. Signing of WTO agreement aggravated the situation.

During the post WTO period export increased by 3.25 percent whereas import increased by 28.50 percent. Export values increased by 6.33 percent, whereas import value increased by 30.78 percent, during the same period. The result is inflow of revenue is less than the outflow which is detrimental for an export oriented country like India.

Comparing the variability in export and import price, and export and import values of India in the pre and post WTO period with coefficient of variation (CV), it has observed that, the fluctuations increased, in the post WTO period than the pre WTO period. The rate of fluctuation of export price and auction price of India during post WTO period of 1996-2008 was more than 10 percent which is harmful for tea economy of India.

Thus the implication of WTO agreement on the tea industry of India is not satisfactory. There have been several adverse effects on the tea sector of India putting the sector in a very vulnerable situation. With increasing numbers of free trade agreements with different countries of the world, admissible under WTO, like the one that has been signed recently in 2010 with ASEAN countries, the vulnerability of Indian tea market has increased manifold. At this juncture, since the imports cannot be avoided, the only alternative is to increase India's competitiveness rather than plead with the Government to stop imports. Moreover, the issue of domestic subsidy which is a major stumbling block in the free competition among the developing countries and the developed countries, can be resolved through negotiation in the WTO forum. Market access to the developed countries can be increased by negotiating the Non Tariff Barriers (NTB) like sanitary and phytosanitary measures (SPS). Hence, the market dynamics across products are to be scrutinized properly to sustain in this regime of WTO.
Government policies on tea

Government of India has taken several measures to revitalize the tea industry of India, since independence. Immediately after independence the strategy was to uproot self serving British tea garden owners from India. Accordingly industrial policy was formulated in 1948 with a clause for nationalization. High rate of export tax was imposed to restrict export and lower the profit from export. The Central Tea Board in 1950 and the Tea Board of India in 1953 were established to enforce the Government's regulations and policies. The statutory obligations to tea garden labourers started since 1942 has been restored permanently. Tea Distribution and Export control order, TDECR, 1957 was enacted to regulate the activities of exporters and distributors of tea through a system of licensing and to impose some restrictions on the quality of tea to be observed by exporters and distributors. Tea Waste Order, TWCR, 1959 was passed to control and regulate buying, selling, stocking etc. of tea waste so that it may not reach the hands of the adulterators. The Consultative Committee of Tea Producers' Association (CCPA) was formed in 1956 to protect the interest and discuss the common problems of the tea planters of India. Indian government devalued Indian rupee against dollar in 1966 to protect Indian traders and abolished the system of Managing Agency houses which were very active during the colonial period in 1970. FERA was introduced in 1973 to indianise the foreign companies to the extent of twenty six percent. The Tea Marketing Control Order 1984 was enacted to compel the tea producer to sell 75 percent of their production through auction. Subsequently, it was replaced with TMCO 2003, whereby, the restriction of selling 75 percent through auction has been removed. Export duty has been withdrawn to facilitate export. Separate advisory cell established under TRA in 2004, to render extension services to small growers. Tea Quality upgradation and product diversification subsidy schemes were undertaken from 01-09-2003 for extending financial support for modernization of tea factories through replacement of old and worn out machineries. Tea Board continued to maintain four tea bars/ buffers in
parliament house, Yojana, Bhawan and Udyog Bhawan and North Block in New Delhi to promote tea consumption. The Price Stabilization Fund Scheme (PSFS) introduced from 2003 for protecting small tea growers from price fluctuation. Revolving corpus of loan scheme was introduced to enable tea board to continue its loan scheme without any fresh budgetary support from the government. In 2007, Special Purpose Tea Fund (SPTF) scheme was launched to encourage tea garden owners to take up large scale uprooting and replanting of old tea bushes for improving production and productivity for competitive sustenance. Some other promotional support schemes were also introduced for providing promotional assistance to exporters/associations. Orthodox tea production subsidy scheme was launched in 2005 for encouraging production of orthodox varieties of tea. Special emphasis on irrigation and drainage was laid for combating the recurring drought and water logging. Implementation of ISO and HACCP emphasized to improve the quality of tea. Organic system of tea growing and production of specialty tea are encouraged to capture the markets of tea consuming countries. Emphasis has also been laid on modernization of the existing factories to ensure production of clean tea without any trace of foreign material in the end product. Product diversification and creation of facilities for dual manufacture of tea (orthodox and CTC) was stressed. Special attention has been paid to ensure adherence to the prescribed international and domestic SPS (Sanitary and Phyto-sanitary) standards for tea to conform to the requirement of the tea importing countries from India. To increase the per capita consumption and to arrest the declining trend in the domestic demand, an intensive generic promotion campaign is planned within the country. Over and above, human resource development schemes, improvement in information technology scheme like GIS, technological and industrial research schemes have been continuing during the eleventh plan period.

Thus through various policy measures Indian government is contemplating to boost the tea economy of India. What is required is the proper implementation of the measures.
6.2 Policy suggestions

After detailed study on the evolution, growth and development, challenges, opportunities and government policies pertaining to tea, during pre and post WTO period, the following policy suggestions and recommendations with respect to the key parameters of the growth and development of the tea industry of India, emerges for the future development of the tea market of India.

Tea production

Tea market is related to production. Tea production should be enhanced corresponding to the demand criteria in the domestic and export market. To do so land and labour productivity should be improved.

Land productivity

Replanting, rejuvenation, pruning and infilling with better planting materials should be undertaken immediately according to the stipulated rate after uprooting the low yielding aged uneconomic tea bushes. Full advantage of the government schemes like Special Purpose Tea Fund (SPTF) should be availed.

Adequate numbers of shade trees are to be maintained for the quality tea leaf.

Unwanted weeds in the fields should be removed very frequently.

Crop protection measures should be revamped considering the limits of MRL prescribed so far. Integrated pest management system (IPM) should be adopted for controlling pests in the tea gardens. Crop productivity improvement inputs notably fertilizers should be used scientifically.

Appropriate plucking practices with proper phased prune cycle should be developed.

Adequate fencing for preventing entry of crop damaging animals should be maintained.
Proper drainage for preventing water logging in bush collars and evacuation of the excess water from the growing areas should be maintained.


For improvement in productivity, use of clones and bi-clonal seeds of high-yield variety should be enhanced.

For better production modern harvesting technologies should be adopted. Advanced machineries should be used in field operations.

The tea plantation sector needs huge infusion of capital. Government of India and the Banking sector should co-ordinate their activities to provide financial assistance to the plantation sector. The different entities should be made aware as to utilise bank funds efficiently.

To address the problems of indebtedness of the plantation sector Government should come out with a package of debt relief measures immediately with active support of the institutional financing agencies including commercial banks.

To insure against the loss of income due to fluctuating tea prices, eco-tourism in the tea estates should be developed. But such initiatives are recommended not at the cost of tea production through diversion of land and retrenchment of workers, but only as a supplementary source of income and employment.

The Central and State government should take a second look at the taxation structure and the incidence of taxes on tea plantation enterprise. The tax system and its incidence should facilitate and induce investments in this sector.
Tax reliefs should be given by the government and relief can be tied up to rehabilitation and replanting as an incentive.

Corporate social responsibility (CSR) should be adhered to strictly to sustain the demand in the tea consuming developed countries as western tea companies increasingly buy from estates that pay attention to social standards. Ethical Tea Partnership (ETP), Fair trade organisation certified tea are the hallmark for tea consumed in the tea loving developed countries like USA, Netherlands etc.

A comprehensive agro-information portal, has been launched in 2007 for information on agriculture which can be accessed to enhance the productivity and profitability of the tea sector.

There is a need to relook at the policy of the union ministry of environment and forest regarding the extension of area in cultivation in the nontraditional areas. The regulation requires that clearance has to be obtained from the ministry before taking up tea cultivation, which is time consuming process. Clearance given by the state forest department is not acceptable. This stipulation has come in the way of many growers in taking up tea cultivation in Arunachal Pradesh, where good initiative has been taken for organic cultivation. The vacant lands in the tea growing areas can be brought under cultivation which will not only prevent soil degradation but also prevent occupation by aliens.

The abandoned tea estates which have been deserted for more than three years can be developed as organic tea cultivation as expert opinion holds that tea from bushes that have no chemicals sprayed on them or being chemically fertilized for more than two years can qualify as organic tea and can fetch premium price as high as Rs. 250/kg.

Cultivation of organic tea should be encouraged to capture the health conscious tea consuming countries. New areas are to be brought under organic cultivation.
The production of orthodox tea should be enhanced as the demand for orthodox tea is rising in the world market.

**Labour productivity**

Labour productivity is a major component of plantation production efficiency. To increase the production of quality tea efficiency of labour is very essential. A combination of better skills, improved knowledge and positive attitudes (e.g., the urge for achievement motivation) traverse a long way to upgrade an average worker into a top performer. Hence measures should be taken to increase the efficiency through result oriented training and human resource development measures.

Productivity of labour is related to wages and incentives. Hence wage of the labour should be negotiated according to the prevailing socio-economic situation of the country. Incentives should be provided in terms of monetary benefits and other rewards if they exhibit their proficiency in their work. Linking wage to productivity can also increase the productivity of labour.

Productivity of the field decreases if there is exodus of labour. Skilled worker out-migration in plantations is a great challenge to the corporate sector. To prevent this, labour welfare measures should be revamped. The measures provided by the Tea Board of India and government should be implemented sincerely, which includes, improving the health of workers, education of wards of workers; and imparting training to improve skills for growers/workers and plantation managerial staff etc. Besides, the grievances of the labours should be addressed sympathetically by the tea garden owners to prevent out migration of labour from the tea cultivation to some other greener pastures.
Labours should be incorporated in developmental schemes of the tea estates to develop their belongingness. This would do much in the direction of containing the labour unrest.

The commitments due to the workers including payment of wages, statutory obligations such as remittance of provident fund, should be timely reimbursed by the estate owners in association with the Government and the financial institutions as postponement or non payment results in discontentment among the labours which hampers productivity.

**Tea Quality**

Quality tea is the basis of marketing of tea. Good quality tea will always be supported by the premium market and will find quick buyers while the medium and poor quality tea would continue to face a demand deficit. Hence to sustain the existing export market of India and to enter into new emerging market, tea quality improvement is a must.

Training and awareness of the cultivator regarding scientific cultivation with appropriate dose of fertilizers and pesticides, scientific transportation of green leaves from farm to factory are essential to produce quality tea.

There is a need to intensify research in processing technology as tea quality also depends upon good processing.

For better quality tea, old machineries should be replaced by technologically advanced machineries.

Universal acceptance of international standard ISO 3720 and HACCP will help in lifting quality standards of all growths. Minimum or low pesticide should be followed in every step of production, from manufacturing to processing. Biocides and biocontrols have been developed to help in that direction. Developed countries are moving towards healthier products with quality assurances.
To maintain tea quality, higher wages may be given for 2 leaves and a bud so that the pluckers realise the benefits of good plucking.

In the present world tea market, bulk tea consumption has been replaced by value added tea. Specialty tea has a very good market in the developed countries. Consumerism has taken the front seat even in the developing and poor countries. Hence production of more value added tea should be enhanced in India, to retain and capture the domestic as well as export market.

Tea quality monitoring instrument 'E-nose' when available in India, should be utilized to monitor tea quality. Tea Association, which was contemplating to import the "electronic tongue" to objectively measure the quality parameters of tea, is also advocating "electronic nose" developed indigenously by the Centre for Development of Advanced Computing (CDAC) would be a boon to tea factories. Designed to discriminate among complex odours using an array of sensors, the "E-Nose" is broadly tuned and treated with a variety of odour-sensitive biological or chemical materials.

PFA standards are basic and need to be revisited given the present concerns for food safety and quality.

Quality control is a major issue in Tea. The Quality Control Laboratory Chain in South India as well as in North India needs to be strengthened soon. Well developed field laboratories for quality testing of tea and monitoring of tea estate is essential. If needed, a phased programme can be developed and computer net work monitoring may be essential.

In this era of WTO quality tea is the thrust area for any tea exporting country.

**Cost of Production**

High cost of production is a major stumbling block for India in capturing the markets of the tea consuming countries of the world. With high cost of production, tea prices cannot be lowered which lowers the demand of Indian tea.
Cost of production should be reduced with good field and factory management. Mismanagement, age of the bush, high overhead costs, poor agricultural practices, etc. should be taken care of to cut down operational cost.

Cost reducing technologies should be developed to save thermal and electrical energy. Good processing technology which is also cost effective needs to be developed. Factory modernisation is a way to increase the net out-turns of processed tea and also reduction in cost of manufacturing.

Social cost is a major component of the cost of production of the tea industry of India. But according to the plantation labour act, 1953 it cannot be avoided. Hence if government bears a portion of the cost by including some of the development activities under various government policies of alleviation of poverty and illiteracy, the cost burden of the tea industry can be relieved to a large extent.

Labour cost comprising around 60 percent of the total cost can also be reduced by appropriate mechanization of the field activities

Transport subsidy can be provided while transporting tea from distant places to the export destination.

Oversupply

To prevent the tea price from falling due to oversupply, supply of tea should be regulated. This can be done by limiting the rate at which leaves are plucked. This can also be a method to improve the quality by plucking only tender leaves. Thus supply management, by reducing output could also have some positive impact on tea quality.

Improved supply management schemes are to be developed to build and control the supply chain that is cost effective and manageable.

Small holders and private tea processing factories

Small sector contributes nearly 26 percent of the total production of India. Between 1998 and 2007, production of Bought Leaf Factories increased by 12.3
percent, against a drop of 0.9 percent in the output of large estates. This sector has much lower cost of production which allows it to sell tea at cheaper rates. The major strength of this sector lies in the young and most productive age of the plantations of reasonably high clonal composition, low cost of production and maintenance and the youth segment of the entrepreneurs with receptiveness to new and improved agro-techniques. Much of the success of the tea industry in both Kenya and Sri Lanka is linked to the growth of the small holder sector over past few decades. When labour shortage and rising overhead costs hit production at large estates small tea gardens can be a solution to maintain the supply of tea. To harness the advantages of this small tea sector following measures are to be taken.

To produce quality tea, there is an urgent need to help the small growers in India with adequate technical and financial support to improve their plucking standards, handling of the plucked leaf in a proper manner and transport it to the factories in as fresh a condition as possible.

Regular visits by the factory personnel and a regular dialogue between the factories and growers can also boost the quality of the end-product as good in the corporate sector.

Strict watch is also required on BLF and other manufacturing units so that they regularly upgrade their machineries and thus maintain quality standards.

A ceiling should be fixed on the quantity of leaf that can be accepted by each unit which will prevent haphazard plucking and unscientific transportation of green leaves.

BLFs should be advised to follow differential pricing method, whereby quality leaf is paid a higher rate. This would have a good impact on the quality of made tea produced.
BLFs factories should be encouraged to produce made tea from quality and sub-optimal quality leaf separately so that made tea produced from quality leaves could fetch higher prices.

Effective co-ordination mechanism should be developed amongst the small tea growers, green leaf transporter and bought leaf factory for ensuring quality tea from small tea growers sector.

Small tea growers should be encouraged and supported institutionally and financially to build premium image of their tea so that they can market tea directly to the consumers through small tea traders and provision store owners. A common local brand of the made tea, manufactured by BLFs can be promoted so that tea could reach a wider market. This will also help them to fetch good price and get rid of the unscrupulous BLF agents.

Marketing co-operatives can be formed by the small tea growers to take the advantage of direct sale, tea blending and packaging.

Most of the small tea gardens have been established on government land, ceiling surplus land, grazing land. Hence, they do not have proper land documents which prevent them from registering with tea board. Accordingly, they are deprived of the benefit of the plantation subsidy scheme and bank loan. This requires the government to intervene so that an amicable and just solution is found on a permanent basis.

Price fixation for the tea grown by the small tea growers is very essential for sustenance of the small tea growers. Hence the government should take measure to fix an appropriate price. Similarly, the minimum floor price for made tea may also be fixed.

There is a need for integration of small tea growers, area wise under a single management to synchronise farm activities to the tune of market requirement. Setting up of multipoint advisory centers at different locations is essential to encourage small tea growers to adopt proper scientific and technical backup.
To prevent adulteration during the transportation, only registered agents should be allowed to transport and supply green leaves to factory.

Price sharing schemes should be implementation to percolate the benefit of price rise to the garden level.

The facility of price stabilization fund provided by the government should be availed to avoid loss due to lower prices.

Like other crops, contract farming system may be adopted for tea. For instance, the BLFs may enter into a contract with the growers. This would benefit both the growers and manufacturers as the growers would get reasonable prices and the manufacturers would get quality leaf.

SHG among the growers should be encouraged, which will facilitate financial assistance from the financing organization.

The Government will have to hold the hands of the small scale tea producers until they can be organised on efficient lines. A beginning is yet to be made in that direction.

**Tea marketing**

Export is the thrust area of Indian tea industry. To boost export following measures can be undertaken.

Emphasis is to be given on improving marketing capabilities. Marketing strategy should be thoroughly overhauled and marketing methods improved so as to get a higher market share as well as capture new markets. The export targets should be value based rather than volume based. It is felt that the union government needs to concentrate more on marketing of tea in the overseas market rather than just laying stress on the production front.

To boost export, improved packaging and value addition are very important. In the present environment attractive packaging and differentiated taste are preferable to traditional looking plain tasting consumable items.
Quality is the chief characteristics for a successful marketing of any product including tea. It requires absence of adulteration, permissible plant protection and revitalizing chemicals, hygienic processing and packaging, and maintenance of the maximum freshness of the product. So to expand the export market of tea of India, special attention should be given on maintaining the above characteristics, right from the field level. Quality of the tea should be checked and certified before transporting them to export destinations. The Tea Board, being the appropriate authority, should devise full-proof measures to ensure quality. Tea Board should (i) scrutinize every export order received; (ii) ensure the creditworthiness of the exporter; (iii) arrange intensive checking at the time of shipment; (iv) arrange random checking after un-loading; (v) introduce mandatory use of the Tea Board’s logo, subject to the fulfillment of stipulated conditions, for every export.

High price hampers export. Cost of production is an important element of price. Hence the cost structure of tea should be scrutinized thoroughly. Methods should be evolved to reduce cost.

Export rebate that are permissible under WTO should be provided by the government to encourage exporter of tea.

Import of tea into India should be restricted as far as possible through appropriate government policies to protect domestic producers.

Emerging major tea importing countries like Pakistan, Iraq, Kazakhstan, Russian federation, UAE, Canada and France should be harnessed by improving the quality to suit their taste and preferences.

‘Out of the home’ consumption of tea is a significant way to grow the tea market. Tea bars, lounges, kiosks should be established in every important public places with aristocratic serving. Vending machines should be set up for good quality tea. Mobile vending machines can also be introduced.
With the advent of globalization, there is a need to relook at the competitive strength of the tea industry, both internal and external. The industry needs to overhaul itself in terms of more efficient lines of production by harnessing the economics of costs, undertaking product innovations, and concentrating on value chains viz-a-viz global standard. There is also a need to take a relook at the product profile and work up strategy to ride the worldwide trend. The focus should be on convenience and innovation.

Export trading centers developed so far in foreign countries like that in Dubai and Cairo should be revitalized with more innovation. Only specialty tea of India should be served there. This will go a long way in promotion of India tea in foreign countries.

Export oriented value added tea should be produced and exported according to the taste and preferences of the export destinations.

Aggressive advertising should be launched through media in every tea drinking nations of the world. Every important events of national and international importance should be targeted for promotion of tea. Health benefits of tea should be focused. Exhibitions, seminars, workshops and delegation's visit should be organised at both domestic and international level.

To increase foreign participation in the tea trade of India, efficient electronic trading facilities should be ensured so that it becomes user friendly and foolproof without any interruption in the course of trading. This will facilitate prompt trading worldwide without physical presence of the traders at the auction centers or at the site of production. The facilities provided by Tea Board of India through tea portals should be availed fully.

To address the WTO challenges, India needs to devise appropriate domestic policies (extensive domestic market reforms, heavy investment in building and
maintaining infrastructure, etc.) to improve efficiency and competitiveness of domestic produce.

6.3. Conclusion

Indian tea economy has suffered considerably due to the challenges. Change in the political and economic situation of the world and India in the pre and post WTO period has affected tea market of India to a large extent. Growth of tea substitute and small tea growers has also adversely affected the tea market of India. Government of India has taken various measures to help the tea sector of India to withstand the challenges. But there are lots more to be done to uplift the tea Industry from the present position of distress. Since India has the resources to become a leading producer, trader and consumer, the need of the hour is to harness and utilize the resources, overcome the challenges, harness and develop the opportunities to the fullest to reposition India again as leader in the business of tea in the world.