



ORGANISATIONAL SET-UP & FUNCTIONS

1.0 Constitution of the Board

The Tea Board, set up under section 4 of the Tea Act, 1953, was constituted on 1st April 1954. It succeeded the Central Tea Board and the Indian Tea Licensing Committee that were functioned respectively under the Central Tea Board Act, 1949 and the Indian Tea Control Act, 1938. The activities of the two previous bodies confined largely to regulation of tea cultivation and export of tea as required by the International Tea Agreement then in force, and promotion of tea Consumption. The present Tea Board is charged with the overall development of the tea industry in India.

1.1 Organisation of the Board:

The Board is headed by a Chairman and consists 30 members appointed by Government of India representing the below noted different segments of the industry. The tenure of the Board is three years and it is reconstituted every three years.

1.2 Tea Board- Composition

- 3 members represent Parliament
- 8 members represent owner of tea estates
- 6 members represent govt. of principal tea growing states
- 2 members represent dealers including exporters and internal traders of tea

- 5 members represent labour union
- 2 members represent manufacturers of tea
- 2 members represent consumers
- 2 members represent other interest

The list of current members of the Board (2008-09 to 2010-11) is at (Annexure-I)

The Board is assisted by the following standing committees :

i. **Executive Committee**

This committee comprising 9 members including Chairman deals with the administrative matters of the Board.

ii. **Export Promotion Committee**

This committee comprising of 7 members including Chairman advice the Board on export promotion issues and monitors various promotional schemes being implemented by the Board.

iii. **Labour Welfare Committee**

This committee comprising of 9 members including Chairman advice the Board on issues relating to labour welfare measures which are not covered under the Plantation Labour Act, 1951. This committee also guides the Board in implementation of various welfare schemes for the benefit of the plantation workers and their wards.

iv. **Development Committee**

This committee comprising of 7 members including Chairman advice the Board on issues relating to tea production, productivity and quality improvement and is responsible for overseeing the various developmental schemes being implemented by the Board.

The list of current members of Standing Committee of the Board (2008-09 to 2010-11) is at (Annexure- II)



1.3 Election of Vice Chairman :

Shri J L Butuail, Chairman, Kangra Valley Small Tea Planters' Association, Kangra Valley Tea Estate, Gopalpur Himachal Pradesh acted as the Vice Chairman of the Board for period ending 31.03.2011, in terms of Rule 9(1) of the Tea Rules, 1954.

1.4 Functions of Tea Board :

The primary functions of the Tea Board are briefly as under:

a) Rendering financial and technical assistance for cultivation, manufacture and marketing and Export Promotion of tea.

b) Extending financial support for Research and Development activities for augmentation of tea production and improvement of tea quality.

c) Extending financial assistance to the plantation workers and their wards through labour welfare schemes.

d) Assistance to the un-organised small growers sector both financially and technically

e) Collection and dissemination of Statistical information

f) Such other activities as are assigned from time to time by the Central Government.

1.5 Source of Funds :

Funds are made available to the Board by the Government through Plan and Non-Plan Budgetary allocations.

The Non-Plan funds are being used exclusively for the administrative and establishment charges of the Board and Plan funds are used for all other activities.

1.6 Administrative Set-up :

The head office of the Board is located in Kolkata, West Bengal and it is headed by Chairman and being assisted by Deputy Chairman and two Executive directors

who are stationed at Guwahati and Coonoor. The Board has sixteen (16) offices within India and three (3) abroad (Annexure-III) located in the following places :

(i) **Overseas offices** : London, Dubai, and Moscow. All these foreign offices of the Board are designed to undertake the various promotional measures to boost up export. These offices also act as a liaison offices for interaction between importers and Exporters.

(ii) **Offices within India** : The Regional/Sub-Regional Offices which are under the direct control of HO and of Executive Directors are located as follows :

Offices under direct control of Head Office	Offices under Executive Director, Guwahati	Offices under Executive Director, Coonoor
New Delhi	Guwahati	Coonoor
Mumbai	Silchar	Chennai
Siliguri	Jorhat	Kochi
Palampur	Dibrugarh	Kottayam
Kurseong	Tezpur	Tea Nook, Tirumala
Jalpaiguri	Agartala	

1.7 Tea Board Research Centre.

The Darjeeling Tea Research & Development Centre is located at Kurseong headed by a Project Director.

1.8 Functional activities of Departments in the Head Office:

a) **The Secretariat** headed by Secretary looks after Establishment / administrative works and co-ordinates with the various departments of the Board's office.

b) **The Finance wing** headed by Financial Advisor and Chief Accounts Officer is responsible for the maintenance of accounts, release of financial assistance to tea gardens and internal audit.



c) **The Development Directorate** headed by the Director of Tea Development is responsible for formulation and implementation of various developmental schemes and rendering assistance to the industry in the procurement, distribution and movement of essential inputs.

d) **The Promotion Directorate** headed by the Director of Tea Promotion looks after the works relating to Marketing and Promotion of tea in India and abroad.

e) **The Research Directorate** headed by the Director of Research is responsible for co-ordination of tea research carried out by the different tea research institutions in the country and monitoring the functions of the Tea Board's own Research Station.

f) **The Licensing Department** headed by the Controller of Licensing is responsible for issue of licenses, to tea producers*, manufacturers, exporters, brokers, auction organisers & monitoring of the movement of "Tea Waste"

**Permission & Registration of Tea Estates /Gardens (Section 12 of the Tea Act, Rule 30, 30A, 30B, 31 of Tea Rule 1954)*

Monitoring and regulating Tea Waste and Tea Warehouses (Section 30 of the Tea Act and Tea (Waste) Control Order 1959)

Regulating and Monitoring Tea Manufacturer, Tea Auctioneers and Tea Brokers (Section 30 of the Tea Act read with Tea (Marketing Control Order 2003)

g) **The Labour Welfare Department** headed by Welfare Liaison Officer looks after the work relating to implementation of welfare schemes of the Board, which are not covered under the Plantation Labour Act, 1951.

h) **The Statistics Department** headed by the Statistician is responsible for the collection of statistics relating to tea area production, export and all other related data and carrying out techno-economic surveys of various tea growing areas in the country including cost studies.

i) **Hindi Cell** headed by the Hindi Officer is responsible for the implementation of the provisions of Official Languages Act and various related measures.

j) **Darjeeling Tea Research and Development Centre:**

The Board has its own Tea Research Centre at Kurseong. In this Centre, field as well as laboratory experimentations are carried out on specialised topics of replantation, young tea management, crop physiology, clonal selection, bio-pesticides, residual toxicity, fertility status and nutrition uptake of tea, flavoury components and manufacturing technique of flavoury tea etc. DTR&DC also publishes a number of scientific papers and technical bulletins as part of transfer of technology besides undertaking advisory visits to tea estates.

1.9 Salient features of the services being rendered by Tea Board:

The activities undertaken during the year under report by the aforementioned departments are given elsewhere. Brief summary of the services being extended by the Board to the industry is given below:

Tea Development :

In order to bring about overall improvement in tea productivity and production and creation of better tea processing facilities for qualitative improvement of the product, a number of financial assistance schemes are operated by the Board. The interests of all the sectors ie. large, medium and small plantations are given due consideration.

Like any other industry, some tea units also face sickness from time to time and the affairs of such tea gardens are looked into in terms of the provisions under the Tea Act. Besides financial assistance, fiscal incentives by the way of Tax concession (Section 33 AB of Income Tax Act) for better working of the tea gardens are considered by the Board.

One of the thrust areas for development is the small grower sector. Keeping in view the lower productivity of the small units, financial assistance is extended towards various developmental measures such as Training and Demonstration on improved methods of tea cultivation, setting up of tea nurseries for supply of planting materials at subsidised costs, study tours for the growers to visit various tea growing areas etc.



Tea Research :

Research is an essential input for development of tea industry. Traditionally, the research on tea is being carried out by the R & D Units set up and managed by industry itself. Tocklai Experimental Station of Tea Research Association (TRA) and Tea Research Foundation of UPASI in South are the two important centres of research for tea in the country. Tea Board is maintaining a Research centre at Kurseong to look into specific requirements of Darjeeling tea. Some work is also undertaken by IHBT at Palampur and Himachal Pradesh Krishi Viswa Vidyalaya (HPKVV) in regard to the problems of Hilly area of Kangra region.

Tea Board provides substantial Grant-in-aid to TRA, UPASI-TRF, HPKVV, and Assam Agricultural University (Jorhat) for carrying out research and extending advisory service to the tea gardens. In addition to grant in aid, both TRA and UPASI TRF are given grant under plan schemes for undertaking various R& D Schemes

In order to extend the research findings at the door steps of the tea gardens, both TRA and UPASI-TRF have a good network of advisory centers. UPASI is also running a KVK exclusively for supporting the causes of small growers in the South India.

To develop technical manpower in the North Eastern States, financial assistance is being provided by the Board towards imparting training on tea culture by TRA to the persons nominated for training by the state governments. Tea Board also provides grants-in-aid to different universities and technical institutions for undertaking research on specific projects covering those items which are not included in the programme of research of the TRA, and UPASI-TRF.

National Tea Research Foundation (NTRF) has been established with financial contribution from the tea industry and NABARD to strengthen research activities and to launch schemes on new and diversified fields of research.

In addition to conducting and promoting research, multifarious technical matters relating to alternate tea packaging, ISO/PFA specifications, quality barriers, development of specialised products, bio/eco teas etc are

handled by the Research Directorate of the Board. The Board is being represented by the Director of Research in various technical committees on tea research.

Labour Welfare :

Tea Board has been extending support towards certain Labour welfare measures to tea plantation workers and these measures are confined to those which are not covered under the Plantation Labour Act and Rules there under. The welfare measures of the Board are in the form of grant of educational stipend to the wards of the garden workers for pursuing studies above primary stage as well as providing financial assistance for construction/extension of school buildings, purchase of Ambulance and medical equipments for specialized treatment etc.

Tea Promotion :

Tea Board's promotional work is generally carried out through its foreign offices currently located at London, Dubai and Moscow.

The activities of the overseas offices include:-

- Participation in international fairs and exhibitions, particularly food and beverage events.
- Field sampling at specialty stores /super markets.
- Media publicity.
- Buyer -seller-meets.
- Providing promotional support to Indian exporters/foreign importers of value added teas in their promotional and marketing efforts.
- P.R. activities to establish closer link between importer and exporter
- Exchange of tea delegations between India and importing countries.

1.10 Man-Power of Tea Board

The total man-power of the Board as on 31.03.2011 was 602. The break up existing strength of the Officers and staff members under different categories in offices of the Board in India and abroad is as shown in the Table-1.



Table – 1
Groupwise man power of the Board in India as on 31.03.2011

Sl. No.		Group A	Group B	Group C	Group D (Safai Karmachari)	Total
Number of India-based Officials in Board's Offices abroad under (as on 31.03.2011)						

1.11 Recruitment Drive :

During the year recruitment was made to fill up the following positions :

Group	A	B	C	D
No.	Nil	Nil	03	12

1.12 Scheduled Castes & Scheduled Tribes and Other Backward Class

	SC	ST	OBC	Total

1.13 Changes in administration during the year under review :

1. Dr. P.Shakil Ahmed, IAS, Director of Tea Promotion, Moscow completed his tenure with Tea Board and repatriated to his parent department w.e.f. 12.04.2010.
2. Shri A.K.Kala, Special Officer for NWI, New Delhi superannuated on 30.04.2010.
3. Shri Mohinder Singh, Section Officer (Dev.) was promoted to the post of Joint Controller of Licensing, Kochi w.e.f. 10.05.2010 and superannuated w.e.f. 30.09.2010.
4. Shri R.D. Nazeem, IAS, on completion of his tenure with Tea Board relinquished his charge as Executive Director, Coonoor w.e.f. 21.06.2010 (FN).
5. Shri R.Ambalavanan, IA&AS joined the Board as Ex-



- ecutive Director, Coonoor w.e.f. 21.06.2010.
6. Shri Subir Kr. Hazra, ADTD was promoted as Dy. Director of Tea Development (Plantation) at Board's Head Office, Kolkata w.e.f. 09.08.2010.
 7. Shri Amal Roy Chowdhury, DDTD(P) was promoted as Joint Director (Plantation) w.e.f. 07.10.2010 and superannuated w.e.f. 28.02.2011
 8. Shri Basudeb Banerjee, IAS on completion of his tenure with Tea Board was relieved of his duties as Chairman w.e.f. 19.10.2010.
 9. Smt. Roshni Sen, IAS, Dy. Chairman looked after the charge of Chairman of the Board for 3 months in addition to her own duties w.e.f. 20.10.2010.
 10. Shri Dinesh Sharma, IAS took over the charge of the post of Chairman of the Board in addition to his own duties as Chief Executive Officer, Price Stabilization Fund Trust w.e.f. 29.12.2010 (FN).
 11. Shri Sudhagnsu Bikash Naskar, Accounts Officer superannuated w.e.f. 31.12.2010.
 12. Ms. M. Gunabhoosanam, Supdt.(GD) was promoted as Joint Controller of Licensing, Kochi w.e.f. 27.01.2011
 13. Shri S.S.Namboori, Assistant Secretary superannuated w.e.f. 31.01.2011.
 14. Smt. Rekha Ghosh, Section Officer (Estt.) looked after the charge of Assistant Secretary w.e.f. 01.02.2011 in addition to her own duties.



INDIA TEA IN THE INTERNATIONAL PERSPECTIVE

Our view of the Global and Indian Tea

Scenarios:

Global Tea Scenario

Tea is one of the most popular and widely consumed hot beverages the world over. Today cultivation of tea is spread over all the continents except North America with wide range of agro-climatic conditions between 42°N (Georgia) and 35°S latitude (Argentina). More than 30 countries grow tea. The estimated global production in 2010 was 4162 million kg of which 42% was exported. With the world consumption around 3980 million kg, the global production and absorption remained finely balanced with production little ahead of demand. Being an agricultural commodity which is subject to vagaries of nature, the prevailing difference between production and demand is well within reasonable limits.

Amongst tea producing countries, the principal producers are India, China, Sri Lanka, Kenya and Indonesia. These five countries account for 76% and 79% of world production and exports respectively.

During the last decade the Vietnam and China have made rapid strides and emerged as the prominent forces to reckon with in the international market. The research findings in 90s as to the goodness of tea and its health attributes fuelled the green tea production growth during the last decade. The additional area brought under cultivation during the last decade was around 1 million

hectares and the global production increase between 2001 and 2010 was around 1100 million kgs. Out of this increased production nearly 900 million kgs was of green tea and the increase in black tea production was modest at around 200 million kgs.

The significant features of the last decade (2001 to 2010) include:

- i. Share of green tea in global production had gone up from 23% to 39% and the black tea's share declined from 77% to 61%.
- ii. The share of orthodox tea remained stagnant at 34% and that of CTC tea declined from 43% to 27%.
- iii. Kenya became the leading exporting country
- iv. China became the leading producer of tea in the world in 2006 surpassing the record held by India over 111 years.
- v. Sri Lanka was relegated to third position in the ranking of exporting countries.
- vi. Small grower sector in India became a force to reckon with and made a significant contribution to total production by increasing its share from 11% to 26% between 2001 & 2010.
- vii. Global tea prices which were sluggish from the beginning of the decade started firming up and remained stable since 2008. The buoyancy in the tea prices over the last three years helped the tea industry particularly in India in consolidation of the financial losses sustained over the previous seven years.

The average per head consumption of tea varies widely from country to country. While it is more than 2 kg in Ireland and the U.K. and around 1 kg in Sri Lanka and Pakistan, it is only 800 grams in India. Despite per head consumption being one of the lowest in the world, the total consumption in India, due to its population size, is the largest and almost 80% of the total production is consumed within the country. The domestic consumption volume account for 22% of the global consumption. This distinct position is in sharp contrast with other producing



countries, particularly Kenya and Sri Lanka which hardly have any strong domestic demand and export 90 to 95% of their production.

2.1 Global Tea situation in 2010-11:

During the year under review the international tea prices remained stable and were either at par or moderately higher than the levels of previous year (Table-1) On the other hand the prices for south Indian teas declined by

Rs.4 to 11 per kg. As against decennial average of 110 million kg, the actual increase in global production in 2010 over 2009 was 230 million kgs of which black tea accounted for 182 m.kgs and green tea 48 million kg. (Table-2). Bulk of the increase in black tea production came from Sri Lanka and Kenya while there was marginal decline in Indian when compared to previous year.(Table-3). Total exports in 2010 increased by 155 million Kgs over 2009 an increase of 1.5%. .(Table-4).

Table-1 : Tea prices during 2010 in respective currencies per kg

Auction Center		2009	2010
Kolkata	₹	124.63	132.97
Guwahati	₹	110.42	112.93
Siliguri	₹	104.65	104.44
Kochi	₹	88.56	77.45
Coimbatore	₹	79.23	63.49
Coonoor	₹	75.38	61.11
Chittagong	Taka	144.06	183.55
Colombo	Rs	362.70	370.48
Jakarta	US \$ c	182.49	181.69
Mombasa	US \$ c	229.00	254.00
Limbe	US \$ c	158.32	158.45

Source ; ITC Annual Bulletin of Statistics 2011 except Indian auction

Table-2: World's Total Product Mix (in Million Kgs.)

	2009	2010	Increase/decrease over 2009
Green Tea	1235.87	1284.50	48.63
Black Tea	2696.11	2877.83	181.72
Total	3931.98	4162.33	230.35

Source ; ITC Annual Bulletin of Statistics 2011

**Table-3. Tea production in major black tea producing countries (in Million Kgs.)**

Country	2009	2010	Increase/Decrease over 2009
India	979.00	966.40	-12.60
Sri Lanka	289.78	331.43	41.65
Kenya	314.20	399.01	84.81

Source; ITC Annual Bulletin of Statistics 2011

Table-4 Global Exports and imports for consumption(in Million Kgs.)

	2009	2010
Exports	1582.94	1738.41
% of Global production	40.26	41.77

Source; ITC Annual Bulletin of Statistics 2011

2.2 Indian Tea Scenario

Major tea areas of the country are concentrated in Assam, West Bengal, Tamil Nadu and Kerala. These four states account for 95% of the total production. The traditional states where tea is grown to a small extent are Tripura, Himachal Pradesh, Uttarakhand, Bihar and Karnataka. The non-traditional states that have entered the tea map of India in the recent years include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Orissa and Sikkim.

India produces some of the world's finest teas. The low temperature in the hills of Darjeeling aids production of the famous Darjeeling tea. Assam teas are well known for their strong, brisk and full bodied liquor and the Nilgiri teas are famous for their delicate flavour, strength and brightness. Other areas, with their diverse agro climatic conditions produce medley of teas suited to many different tastes. The characteristics of each region are distinct, which sets them apart from one another in many different ways.

Today, tea industry is one of the oldest agro-based well organized industries in India. The tea industry provides direct employment to more than a million workers of whom

a sizable number are women. The tea plantations are not just economic production units, but rather social institutions, which control the lives of their resident work force to a large extent. The plantations do not just offer employment; they are also responsible for providing housing, water, welfare and many other facilities that affect the daily lives of workers. The labour cost, therefore, is the largest cost overhead accounting for about 60% of the total cost of production. Since workers come from socially and economically weaker sections of the society their livelihood is directly linked with the prosperity of the tea industry. It is, therefore, of the utmost importance that the tea industry must grow not only to fulfill its primary function of producing a wholesome beverage for the domestic and overseas consumer, but also to fulfill its social obligations in sustaining and improving the well being of all those who are dependent on its fortunes.

2.3 Indian Tea Situation in 2010-11

Production: During 2010, tea production declined by 12.60 m.kg over 2009 because of marginal decline in production in Assam due to adverse climatic conditions. The in the financial year was 24.45 m.kg when compared to previous year. (Table-5)



Exports: The export during 2010 was down by 4.61 m.kg over 2009 and by 34.50 m.kg in the financial year 2010-11 when compared to previous year. (Table-6)

Table-6. Exports of Tea from India during the last 3 years

Calendar Year	Qty. (M.Kgs.)	Value (₹ Crs)	U.P. (₹/Kgs.)	Financial Year	Qty. (M.Kgs.)	Value (₹ Crs)	U.P. (₹/Kgs.)
2008	203.12	2392.91	117.81	2008-09	190.64	2381.79	124.94
2009	197.90	2785.85	140.77	2009-10	213.43	3038.69	142.37
2010 (E)	193.29	2595.21	134.26	2010-11 (E)	178.93	2450.49	136.95

The decline in exports during 2010-11 was due to low off take by Russian Federation, Iraq, Afghanistan, United Kingdom, and Egypt as compared to last year. The details of exports over the last three years in different forms are given in Tables 7 to 10.

Table-7. Exports of Bulk Tea from India during the last 3 years

Year	Quantity (M.Kgs.)	Value (₹ Crs.)	Unit Price (₹ /Kg)
2008-09	168.93	1876.03	111.05
2009-10	183.27	2328.73	127.07
2010-11 (E)	152.59	1808.39	118.51

Table-8. Exports of Packet Tea from India during the last 3 years

Year	Quantity (M.Kgs.)	Value (₹ Crs.)	Unit Price (₹ /Kg)
2008-09	10.26	162.18	158.12
2009-10	17.72	297.11	167.65
2010-11 (E)	16.13	284.37	176.30

**Table-9 Exports of Tea Bags from India during the last 3 years**

Year	Quantity (M.Kgs.)	Value (₹ Crs.)	Unit Price (₹ /Kg)
2008-09	8.64	248.44	287.67
2009-10	9.50	295.10	310.50
2010-11 (E)	7.21	233.79	324.26

Table-10 Exports of Instant Tea from India during the last 3 years

Year	Quantity (M.Kgs.)	Value (₹ Crs.)	Unit Price (₹ /Kg)
2008-09	2.81	95.14	338.57
2009-10	2.94	117.75	400.09
2010-11 (E)	3.00	123.94	413.13

2.4 Primary Marketing :

During 2010 out of the total tea produced, 55% was sold through public auctions, 4% was directly exported through forward contract and the remaining 41% was sold through ex-garden private sale. The different modes of disposal of tea over the last three years and the average price fetched in public auctions are shown in Table-11 & 12

Table-11 Mode of disposal of Tea produced in India

Year	Qty. of tea sold through Auction	Ex-garden export under forward contract Sale	Ex-garden private sale
2008	546 (55.66)	45 (4.59)	390 (39.75)
2009	518 (52.91)	42 (4.29)	419 (42.80)
2010	530 (54.87)	41 (4.24)	395 (40.89)

(Volume in Million Kgs. Figures in brackets denote % to the total production)

Table-12 Average price ₹ per kg of tea sold through Auctions

Year	Average price ₹ per kg	Average price ₹ per kg	Average price ₹ per kg	Year	Average price ₹ per kg	Average price ₹ per kg	Average price ₹ per kg
2008	95.27	66.27	86.99	2008-09	97.15	70.26	89.70
2009	114.86	81.03	105.60	2009-10	116.46	80.26	106.36
2010	119.50	67.69	104.66	2010-11	123.72	66.07	109.18



2. 5 Domestic Consumption :

The internal consumption of tea for the year 2010 was around 837 M.Kgs. as against 819 M.Kgs in **2009** - an increase of 18 M.Kgs over 2009.

2.6 Taxes & Duties :

Excise Duty	:	10% ad-valorem on Instant Tea falling under heading 2101.20
Export Duty	:	Nil
Import Duty	:	Nil on teas imported for the purpose of re-export by Export Oriented Units (EOU) and Special Economic Zone (SEZ) units. However,

Teas imported for domestic markets would attract Basic import duty of 100% plus 10% surcharge plus special addi-

tional duty of 4% on basic duty and surcharge (w. e. f. 1st March, 2002).

Concessionary rate of 7.5% basic duty plus other normal surcharges apply to imports from Sri Lanka up to a volume of 15 M Kgs per calendar year.

2.7 Tea Cess :

Cess is levied on all teas produced in India under Section 25(1) of the Tea Act, 1953. The said Act provides for levying cess upto 50 paise per kilogram of tea produced in India. Currently, however, the cess is collected at the rate of 30 paise per kg. except Darjeeling teas for which only 12 paise per kg is levied. The Cess at present is collected by the Central Excise Department and credited to the Consolidated Fund of India after deducting the expenses of collection. Funds to Tea Board are released by the Central Government at quarterly interval on the basis of the sanctioned budget .



FINANCE

INTRODUCTION

As per Sections 25 and 26 of Tea Act the proceeds of tea cess levied and collected by Central Exercise Department on all teas made in the country get credited to the Consolidated Fund of India and Central Government as deemed necessary provide non-plan funds to the Board under Annual Budget of Ministry of Commerce & Industry. The rate of cess has been enhanced with effect from 1st April, 1997 and at present is charged on Darjeeling and other than Darjeeling varieties of made teas @ ₹ 0.12 per kg and ₹ 0.30 per kg respectively in terms of the enabling provision contained in Section 25 of the Tea Act.

The other major sources of income of the Board are grants, subsidy and loan released to it by the Government of India under Section 26 A of the said Act. The Board also has some other minor sources of revenue such as fees on licenses, interest on loans and advances and miscellaneous receipts such as sales of liquid tea, sales of green leaves, sale of application forms and other publications etc.

Thus, all funds available to the Board under Sections 26 and 26 A of the Tea Act are routed through the medium of the Annual Union Budget. Such funds are then applied to the functions of the Board as enshrined in

Section 10 of the Tea Act subject to the delegation of financial powers of the Government and/or under the provision of the Act and subordinate legislation thereto.

As indicated above the Budget of the Board comprises of two constituent elements Viz. Non-Plan and Plan.

CESS PROCEEDS

The estimated collection of cess during the year under review was ₹ 3066 lakhs. During the year 2010-11 an amount of ₹ 2642.67 lakh was released by the Government towards proceeds of cess under Section 26 of the Tea Act, 1953 as non-plan contribution to the Tea Board.

RESEARCH & DEVELOPMENT GRANTS

During the year 2010-11, a sum of ₹ 2883.11 lakh was received from Government towards Research and Development Grants for old and ongoing schemes and new schemes under Section 26A of the Tea Act.

SPECIAL FUND (ASIDE)

During the year an amount of ₹ 300.00 lakh was received from the Govt. towards Grant-in-aid under Special Fund-ASIDE for setting up of Quality Control Laboratory with the objectives of testing pesticide residue, bio-fertiliser and bio-pesticides etc.

TRA CENTENARY GRANT (RESEARCH)

During the year an amount of ₹ 1500.00 lakh was received from the Govt. towards centenary grant of TRA.

S U B S I D Y

A sum of ₹ 10055.70 lakhs was received from Government towards subsidy during the year under Section 26A of the Tea Act.

LOAN CORPUS FUND

During the year under review no amount was released by the Government under Section 26A of the Tea Act towards Loan Schemes.

SPECIAL PURPOSE TEA FUND-Capital

During the year, an amount of ₹ 1500.00 lakh was received from Govt. towards SPTF Capital Contribution.



Receipts during the year 2010-11 under different heads of Non-Plan were as under :

A. Receipts

(₹ in lakh)

MONEY RECEIVED UNDER SECTION 26 OF TEA ACT	2642.67
Fees realized on account of licenses	3.42
Fees realized on account of TMCO,2003	6.15
Miscellaneous Receipts including sale of liquid tea, sale of green leaves, sale of publications, interest on fixed deposit etc.)	207.36
INTEREST ON ADVANCE	8.90
Registration fees realized on account of HACCP/ DCTM	4.63
Operating cost received from plan schemes	1363.40
TOTAL	4236.53

Non-Plan Expenditure during the year 2010-11 was as under:

B. Expenditure - (NON-PLAN)

(₹. in lakh)

Administration including Library	2306.48
Tea Promotion in India	484.28
Tea Promotion outside India	59.03
Pension including 6 th CPC Arrear	1031.54
Advances to employees	36.62
Employer's contribution to New Pension Scheme	17.55
Repayment of liability	78.47
TOTAL	4013.97

C. Expenditure - Research & Development Grants

(₹ in lakh)

Grant in aid to TRA	1170.43
Grant in aid to UPASI	152.04
Research Grant UPASI	43.50
Research Grant TRA	244.85
Research Grant to HPKV	3.50
Research Grant to AAU	3.00
Research Grant C-DAC	14.50
Research Grant IIT, Kharagpur	175.00
Research Grant B.C. Guha Centre	10.00
Research Grant - Darjeeling Tea Research & Dev. Centre, Kurseong	9.01
Darjeeling Tea Research & Dev. Centre, Kurseong (Regular)	39.01
Workshop/Seminar	7.69
Development Grant-ISRO	100.00
Development Assistance	237.41
Operating Cost	640.00
Total	2849.94

D. Expenditure - Subsidy

(₹ in lakh)

Plantation Subsidy Scheme	701.07
Quality Upgradation & Product Diversification Scheme	2006.77
Human Resource Development Scheme	261.60
Orthodox Tea Production Subsidy Scheme	2437.00
Market Promotion Scheme	1603.34

**E Special Fund (AED)**

(₹ in lakh)

Research	155.22
TOTAL	155.22

F. Special Fund (ASIDE)

(₹ in lakh)

Research	250
TOTAL	250

G. Research & Development (TRA Centenary Grant)

(₹ in lakh)

Research	1500.00
TOTAL	1500.00

H Expenditure - LOAN SCHEME

(₹ in lakh)

Revolving corpus fund for loan scheme	Nil
TOTAL	Nil

H. Expenditure—Special Purpose Tea Fund (Capital Contribution)

(₹ in lakh)

Expenditure	1500.00
TOTAL	1500.00

TOTAL EXPENDITURE ON PLAN DURING THE YERA**(C+D+E+F+G) = ₹ 14841.47 lakh**



TEA DEVELOPMENT

Introduction :

One of the major functions of Tea Board is to bring about improvement in tea production, productivity, quality up gradation, value addition, change of product mix, capacity building of small growers to move up in the value chain, improving skills at all levels from workers to managers etc. Towards this end, as a part of the XI Plan, the below noted developmental schemes have been continued during the year under review :

Sl.No	Name of the Scheme
1	Tea Plantation Development Scheme
2	Special Purpose Tea Fund Scheme
3.	Quality Upgradation and Product Diversification Scheme
4	Human Resource Development Scheme
5	Development of small holdings

The Development Committee met three times during the year as noted below :

Meeting No.	Date of Meeting	Place
115	30/06/2010	Kolkata, West Bengal
116	28/12/2010	Kolkata, West Bengal
117	29/03/2011	Kolkata, West Bengal

Physical and Financial Achievement during 2010-11

The year 2010-11 marks the 4th year of the XI plan. The physical and financial achievements during the year under report as well as the cumulative achievement during the four years of the XI plan under each scheme were as under:

1. Plantation Development Scheme :

The main objective of the Scheme is to encourage the tea plantations in undertaking various field oriented developmental measures aimed at increasing field productivity and decreasing cost of production. Specific areas of support given under this scheme include Productivity improvement through creation of irrigation, drainage and transportation facilities, extension planting in small holdings in hilly areas and encouraging small growers to organize themselves into producer groups etc. The nature of financial assistance that was made applicable under the scheme was as under ;

i) For all the growers regardless of the size of their holdings :

	Activity	Nature of Assistance
1.	Creation of Irrigation, Drainage and Transportation facilities	1) 25% of the actual cost subject to a combined ceiling limit of ₹ 10,000 per hectare



For individual Small growers holding up to 4.00 ha under tea

	Activity	Nature of Assistance
1.	New Planting in the Hilly areas and in North Eastern Region.	25% of the unit cost as subsidy payable in two instalments after completion of the field operation.

iii) For Small Grower Self Help Groups

	Activity	Nature of Assistance
1.	Setting up Leaf collection Centers	Grant in aid @100% of the cost subject to a ceiling limit of ₹ 30,000/center
2	Input Storage godowns	Grant in aid @100% of the cost subject to a ceiling limit of ₹ 50,000/godown
3	Purchase of weighing Scales/ Leaf carry bags	Grant in aid @100% of the actual cost
4	Purchase of Transport vehicles	50% of the actual cost as subsidy
5	Purchase of Field inputs – fertilizers, plant protection chemicals, pruning machines, sprayers etc	One time grant @ ₹10000/ha to be used as revolving corpus
6	Training on upkeep and maintenance of tea areas owned by the Group.	100% grant towards training fee and boarding and lodging during the training period. Plus honorarium @ ₹ 500 trainee per month for six months after completion of training.

Physical and financial achievements during 2010-11

	Activities	Targets		Achievements	
		Financial ₹ Crores	Physical	Financial ₹ Crores	Physical
1	New Planting	7.00	2000 ha	7.01	1153.26 ha
2	Irrigation & Drainage		1500 ha		1181.27 ha
3	SHGs of small growers		60 nos		95 nos
cumulative achievements during 4 years of XI plan : 2007-11					
1	New Planting	23.94	4250 ha	25.29	3084.72 ha
2	Irrigation & Drainage		5700 ha		9521.89 ha
3	SHGs of small growers		145 nos		227 nos

2. SPECIAL PURPOSE TEA FUND SCHEME:

This Scheme as a sub component of the Plantation Development Scheme was launched in 2007-08 for providing special assistance to tea gardens to take up large scale uprooting and replanting and rejuvenation of old tea areas for improving production and productivity for competitive sustenance. The target set for the XI Plan period was 40992 ha comprising of replantation in 32560 ha and rejuvenation in 8432 ha. Rejuvenation pruning is allowed only in hilly areas and in the Tillah areas of Cachar and Tripura. The nature of financial assistance that was made applicable under the scheme was as under:



Activities	Nature of Assistance
1 Replantation /Replacement planting and Rejuvenation of old tea areas	1) 50% of the unit cost as long term loan with 9.5% interest, moratorium on the principal during the first 5 years and repayable in 8 equated annual installments from 6 to 13 the year. 2) 25% of the unit cost as subsidy payable in two installments after completion of the field operation.

Physical and financial achievements during 2010-11

	Activities	Targets 2010-11		Achievements 2010-11	
		Financial ₹ Crores	Physical	Financial ₹ Crores	Physical
1	Replanting	30.00	6500 ha	30.76	6340.22 ha
2	Rejuvenation		1300 ha		1600.43 ha
cumulative achievements during 4 years of XI plan : 2007-11					
1	Replanting	87.50	21034 ha	91.67*	18691.11 ha
2	Rejuvenation		6388 ha		6621 ha
* In addition a sum of ₹ 38.52 Crores has been disbursed as long term loan.					

For improving the performance of the scheme the following steps have been taken:

- Putting in place definite time frame for each stage of processing of applications
- Nomination of Panel inspectors from Producer' Associations for conducting post uprooting inspections
- Approached non participating gardens to create awareness and understand their difficulties in availing the benefit of the scheme
- Participation in SPTF scheme was made as one of the pre-requisites for availing benefits under other Developmental schemes of Tea Board
- Introduced upfront financial assistance for raising nursery by the reopened closed tea estates to be adjusted from actual subsidy payable after completion of planting

3. Quality Upgradation and Product Diversification Scheme

The main objective of scheme is to modernize the tea processing factories to manufacture better quality teas and go in for value addition. Specific areas of support given include replacement of old and worn out machineries, creation of new facilities for product diversification like orthodox / green tea and other specialty teas, setting up of modern blending/ packaging units, installation of electronic control devices for quality processing, obtaining ISO/HACCP/Organic tea certification etc. The nature of financial assistance that was made applicable under the scheme was as under :



Sl. No.	Activities	Nature of Assistance
	1. Modernisation of the processing factories by replacement of old and worn out machinery : 2. Procurement of processing machinery for orthodox tea in 100% CTC factories and 3. Setting up of new factories by the Self Help Groups of small growers.	Subsidy @ 25% on the actual cost of machinery subject to a ceiling of ₹ 25 Lakhs per factory per annum. For item 2 & 3 subsidy @ 40% subject to a ceiling of ₹ 25 Lakhs per factory per annum.
II	1. Value addition by way of creating additional infrastructure for cleaning, blending, colour sorting, packaging etc. 2. In case of machinery for orthodox tea in 100% CTC factories.	Subsidy @ 25% on the actual cost of machinery subject to a ceiling of ₹ 25 Lakhs per factory per annum. For item 2 Subsidy @ 40% subject to a ceiling of ₹ 25 Lakhs per factory per annum.
III	Quality assurance certification for ISO/HACCP and Organic Tea	Subsidy @ 50% of the certification fee subject to a ceiling of ₹ 1.00 lakh per certificate including renewals per annum.
IV	Setting up of new factories for production of green tea, orthodox tea and specialty teas etc (product diversification) –	Subsidy @ 40% of the cost subject to a ceiling of ₹ 25 Lakhs per factory per annum.
V	Incentive for orthodox tea production –	Subsidy @ ₹ 3/- per kg of actual production of leaf grades and ₹ 2/- per kg for dust grades and an additional incentive @ ₹ 2/- per kg of the incremental volume over the previous year.

- Note: Machinery: The subsidy is limited to 25% of the total cost (basic cost of the machinery items, admissible taxes, freight, insurance and cost of commissioning) subject to a ceiling limit of ₹ 25 lakhs per factory/ blending packaging unit.
- Certification: The subsidy for obtaining an ISO/ HACCP and organic certification is limited to 50% of the cost of certification and restricted to a maximum amount of ₹ 1,00,000/-.

The physical and financial achievements during 2010-11

Sl. No	Activities	Targets 2010-11		Achievements 2010-11	
		Financial Crores	Physical	Financial Crores	Physical
1	Factory Modernization		130 units		189 units
	Value Addition	20.00	30 units	20.06	27 units
	Quality certification		30 units		52 units
2	Orthodox Production *	25.00	80 m. kg	24.37	77 m. kg.



Cumulative achievements during 4 years of XI plan : 2007-11

Sl. No	Activities	Targets 2010-11		Achievements 2010-11	
		Financial ₹ Crores	Physical	Financial ₹Crores	Physical
1	Factory Modernization	87.26	350 units	85.28	854 units
	Value Addition		130 units		80 units
	Quality certification		95 units		155 units
2	Orthodox Production *	54.28	290 m. kg	57.34	306 m. kg.

*The initial outlay approved for XI Plan period was ₹ 120.50 crores. As the claims received were far in excess of the approved outlay, an additional sanction was accorded for a sum of ₹ 24 crores in 2010-11 which takes the total out lay to for the scheme to ₹ 144.50 crores

4. HRD Scheme

Activities supported under this scheme include welfare measures for the tea garden workers and their wards particularly in health and education which will be in the nature of complimenting but not replacing the statutory provisions of Plantation Labour Act and induction of professionalism in plantation management, improve labor productivity, skills improvement at all levels from workers to managers through extensive training. The welfare measures supported during the year are reported elsewhere (under the chapter: Labour Welfare). The particulars of training programmes organized through various agencies for the benefit of tea garden workers, small growers and Plantation managerial staff during the year were as under :

Training programmes conducted during 2010-11 through different agencies with financial support from HRD Scheme

Agency	Beneficiaries	No of people trained	Amount released ₹ lakhs
ITA	Tea Garden workers	1200	12.25
DTA	Tea Garden workers	500	5.00
IIPM	Tea garden managers, and workers	6228	17.75
UPASI-KVK	small tea growers	4719	27.14
AAU	small tea growers	52	4.24
TRA	Development Officers of Tea Board	4	0.20
HPKV Palampur	small growers	55	0.10
Comptroller and Auditor General of India(CAG)	Accounts Officers of Tea Board	2	0.20



Training programmes conducted during four years (2007-11)

Agency	Beneficiaries	No of people trained	Amount released ₹ lakhs
ITA	Tea Garden workers and managers	2256	27.82
DTA	Tea Garden workers	500	5.00
IIPM	Tea Garden managers	1627	253.45
UPASI-KVK	small tea growers	23901	65.10
AAU	small tea growers	153	5.32
UNB	small tea growers	211	3.35
TRA	small tea growers	4716	16.77
HPKV-Palampur	small tea growers	55	0.85
IHBT Palampur	small tea growers	290	6.00

Details of Seminars / Workshop / Trainings conducted by HO (other than SPTF) during the Year under Report

	Date	Title	Place
01.	3.12.10 To 3.02.11	12 Number of workshops for SHGs involving 569 participants on field management and pest management in tea	Jalpaiguri and Uttar Dinajpur
02.	26.10.11 & 27.02.11	National Convention on South Indian tea in collaboration with Tea Trade Association of Coimbatore	Coimbatore

5. Development Grant

Developmental activities supported under this head include extending advisory services for benefit of small growers, opening of new development offices of the Board for closer interface with small growers in non-traditional areas, strengthening of existing Board's offices, setting up of nurseries for supply of good quality planting materials for small growers, establishment of demonstration plots, study tours and workshops for small growers etc

During the year under report a sum of ₹ 343.26 lakhs was disbursed as per the breakup of particulars as noted below :

Development grant disbursed during 2010-11

Sl No.	Particulars	Amount ₹ lakhs
1	Advisory service – grant in aid provided to TRA/UPASI/AAU & IHBT Palampur	Nil
2	Study tours and workshops	35.77
3	Strengthening of Zonal & Regional offices of the Tea Board	38.25
4	Nursery + Demonstration Pruning in small holdings in Nilgiris, Tamil Nadu	10.00
5	Others (Miscellaneous including ISRO, CFC, e-auction projects etc.)	259.24
	Total	343.26



Development grant disbursed during 2007-2011

Sl No.	Particulars	Amount lakhs
1	Advisory service – grant in aid provided to TRA/UPASI/AAU & IHBT Palampur	230.70
2	Study tours and workshops	60.31
3	Strengthening of Zonal & Regional offices of the Tea Board	254.47
4	Nursery + Demonstration Pruning in small holdings in Nilgiris, Tamil Nadu	72.11
5	Others (Miscellaneous including ISRO, CFC, e-auction projects etc.)	700.82
	Total	1318.41

Other ongoing projects and MAJOR INITIATIVES TAKEN during the Year

A. Mapping of tea areas through GIS and Remote Sensing :

This project was launched during 2007-08 in collaboration with ISRO. Digital Mapping of tea areas in Assam, West Bengal (GIS) and generation of MIS on the profile of tea gardens and tracking of physical progress made with regard to replantation / rejuvenation etc were the main deliverables of the project. Total of around 500 maps received from tea gardens were scanned and digitization of garden boundary, section boundary, road network, garden land use and section attribute labeling was attempted during the year under report. In order to establish the correctness of the GIS information, DGPS based GCP Collection work initiated and about 221 DGPS points have been covered during the year . A web portal for of the Project has been linked to the official website of Tea Board for facilitating the tea gardens to have direct access to the project details and submission of garden particulars. Workshops were organized at Guwahati Shillong and Kolkata to create awareness of the project to the various stake holders.

B. Energy conservation in small tea processing units in South India :

This project was launched in 2008. Supported by the United Nations Development Programme – Global Environment Facility and this four year project is being implemented in collaboration with M/s TIDE- Bangalore.

The objective of the project is to remove barriers to energy conservation and energy efficiency that inhibit the realization of large energy saving potential in the tea sector.

The project has accomplished the following activities:

- Every tea factory in South India reached through aware-

ness creation and most tea factories are investing in energy conserving equipment.

- The project has completed 95 energy audits out of the 100 audits proposed. This year a few sample audits have also been conducted in the Assam tea factories for a better understanding of energy related issues there and also to spread awareness on energy conservations.
- The project has also completed close to 100 post audit technical studies where data is collected on newly installed equipment post audit so that the factories have data on the impact of the investment that they have made on energy conservation.
- It is estimated that the tea factories have invested close to US\$ 3 million on energy conservation equipment and more than 1000 new energy conserving equipment and machinery has been purchased. The section wise energy saving achieved based on the data available :
 1. CTC 17.5 %
 2. Dryer 34.3%
 3. Sifting 27.3%
 4. Pulverizer: 14.6%

Energy consumption of 0.6 kg firewood / kg of dryer mouth tea (DMT) and 0.3 KWH / kg of DMT can be achieved through energy conservation activities.

The project has recently introduced renewable energy interventions to the tea factories. So far the focus has been



on shift to sustainable fuel, energy plantations and small hydro power. A thermal gasifier for green tea panning is also being piloted. As a result of project interventions it has been estimated that the tea industry has saved close to 50,000 tons of CO₂.

The knowledge products created by the project are:

- A good definition of project baseline based on data collected from all tea factories in south India.
- 100 energy audit reports in tea factories in south India (about 40% of the factories covered)
- 100 TIDE technical reports ; these are equipment and factory specific post audit energy consumption reports
- A set of 10 video tutorials on each of the energy audit recommendation. The same would be circulated to all tea factories in India.
- 14 newsletters with articles information and updates
- An energy score card designed as a self assessment tool.

Data collected so far, shows that project interventions have resulted in 70 factories adopting at least one energy efficient recommendation. At the present rate of adoption, the energy efficient equipment is saving 5.187 million KWH of electrical energy and 8326 tons of firewood / annum with a carbon emission mitigation of 17,200 tons of CO₂ / yr.

C. Organic Tea Development Project:

This project supported by the FAO-IGG, CFC and IFOAM was launched in September 2008. It aims at establishing scientific package of practices for organic tea, identification of market potential for organic tea and development of marketing strategies for organic tea in the world market. Three Model farms one each of 100 ha size have since been established in Assam, Darjeeling and In Kerala. Three R & D institutions in the respective regions are also associated with the Model farms for conducting experiments on all aspects of organic tea production. Field developmental

activities as envisaged in the project like new planting, replanting, rejuvenation and simple conversion from conventional to organic have been initiated in all the three Model farms. A market survey has been undertaken by IFOAM on behalf of project to study the demand for organic tea in the United States and a report has been submitted. Steps have also been initiated for establishment of Capacity Building centre for conducting training as well as act as information centre. Training programmes have also been organized for the benefit of workers, supervisor and managerial staff engaged for the project areas. The funds received from CFC (Common Fund for Commodities) so far adds up to USD 9,65,888 as loan and USD 308562 as grant. The entire loan component has been released to the owners of three model farms. The grant portion has been used towards R&D, Market survey and O&M expenses. The in kind contribution made to the project by Tea Board & owners of Model Farms so far adds up to USD 1191812.

D. Revolving Corpus for Loan Schemes :

During the year there was a good response to the restructuring package offered by the Board and the default position decreased significantly with the recovery of ₹ 11.67 crore during 2010-11.

E. Closed Tea gardens :

The improved economic conditions due to steady tea prices in 2010-11 had led to reopening of nine closed tea gardens during the year. Thus a total number of 31 gardens reopened out of 35 closed tea gardens, leaving only 4 closed – two in West Bengal and two in Kerala as on 31st March, 2011.

The Board has also written off a sum of ₹ 3.34 crores on account of defaulted dues of the closed tea estates under the erstwhile loan schemes of the Board.

The Board approved the benefit of upfront subsidy for raising tea nursery by reopened and listed closed tea gardens. The amount is to be adjusted from payable subsidy after completion of planting.



TEA RESEARCH

Introduction :

Tea research in India covers a whole gamut of basic, applied and regulatory research aspects such as plant improvement (breeding and biotechnology), plant production (agronomy and soil science), plant protection (mycology and entomology) and tea quality covering biochemistry, tea tasting and tea processing, electronics and engineering mainly through three tea research institutes, namely Darjeeling Tea Research and Development Centre (DTR&DC), Kurseong, Darjeeling, West Bengal; Tea Research Association (TRA), Jorhat, Assam and United Planters' Association of Southern India – Tea Research Foundation (UPASI-TRF). The research directorate of Tea Board has been entrusted to conduct, coordinate and evaluate tea research nationally through these institutes.

As per the provision of Tea Act, 1953 Tea Board of India has been continuing to support and promote tea research for the development of Indian tea Industry. To cater the needs of Darjeeling tea industry, DTR&DC, Board's own research institute located at Kurseong is engaged in the R&D activities whereas TRA and UPASI are involved to look after the requirement of tea industry of North East India and South India respectively. TRA and UPASI operate through each of their seven advisory centers scattered throughout different tea plantation areas in their respective zones. Both these Institutes are being granted financial support to the tune of 80% (Grant-in-aid: 49% and AED: 31%) on certain identified items to carry out effective tea research useful for the Industry. DTR&DC has comparatively small infrastructural facility and manpower strength which is being fully financed by Tea Board, Govt. of India.

Apart from the above mentioned three tea research institutes, research projects are being given to other national R&D Institutes and Universities to conduct research for the benefit of Indian tea industry.

Grant-in-aid

During 11th plan period financial support have been increased to all the three research institutes and number of research projects were increased to 20 as against 11 in the previous plan (10th) schemes. These institutes are providing both basic and applied research information on tea cultivation, plant protection and package of practices required from time to time for the management of tea plantation, increase of productivity and enhancement of quality. The activities and progress of each of the ongoing research projects are reported in the following sections separately.

The fund allocation on account of R&D for the year 2010-11 was ₹. 28,83,11,000.00. The financial support given to TRA on account of Grant-in-aid was ₹ 11,70,42,664.00 and AED Rs. 90,67,000.00 during 2010-11 . Similarly, UPASI was granted ₹ 1,52,03,593.00 as Grant-in-aid and ₹ 64,55,335.00 as AED. Tea Board also granted ₹ 3,00,000.00 as recurring expenditure to Assam Agricultural University, Jorhat for their tea technology course at the graduate level and ₹ 3,50,000.00 to Himachal Pradesh Krishi Viswa Vidyalaya (HPKVV), Himachal Pradesh during 2010-11. Under ASIDE scheme a sum of ₹ 3,00,00,000.00 was received from the Ministry during 2010-11 against which a sum of ₹ 2,50,00,000.00 was released to DTR & DC, Kurseong, Darjeeling for continuation of building infrastructure. For the upgradation of DTR & DC, an amount of ₹ 39,01,291.00 was released for infrastructural development and procurement of equipments etc.

Plan Schemes :

During 11th plan period, there are total seventeen research projects awarded to three tea research institutes (TRA-11, UPASI-4 and DTR & DC-2) and three other projects given each to Indian Institute of Technology (IIT), Kharagpur; CDAC, Kolkata and Calcutta University. The projects are mainly aimed at applied research however, basic and regulatory aspects of tea research are also included for long term benefit and to promote export of Indian tea in the international market. Region specific research is



being undertaken by different tea institutes considering the need/requirement of the respective region.

Progress of 11th plan research projects

UPASI Projects

1. DEVELOPMENT OF INTEGRATED PEST AND DISEASE MANAGEMENT (IPDM) STRATEGIES FOR TEA WITH SPECIAL REFERENCE TO NON-CHEMICAL CONTROL METHODS

Entomology :

Resistance in red spider mite

The level of pesticide resistance was monitored in the red spider mites collected from Anamallais, Coonoor, Vandiperiyar, Munnar, Gudalur, Mepadi and Koppa against some acaricides like, fenpropathrin, ethion and dicofol. The LD₅₀ and resistance ratio (RR) values revealed that mites collected from Coonoor and Vandiperiyar showed more resistance values to fenpropathrin compared to other pesticides. It was confirmed by the quantitative enzyme studies (esterase, glutathione s-transferase and mono oxygenase) also.

Studies on predators

Predators such as predatory mite (*Neoseiulus longispinosus*) and the green lacewing (*Mallada boninensis*) collected from the fields were brought to the laboratory and bio ecology and predatory potential were studied on red spider mite.

In case of *Neoseiulus longispinosus*, the rate of prey consumption of on *O. coffeae* increases with increase in temperature. Per capita prey consumption was seen decreased with increase in number of predator as a result of mutual interference. Developmental time from egg to adult varied from 4 to 14 days at various temperature ranges. Survival of immature stages was found more than 95% at all temperature ranges.

In case of *Mallada boninensis*, mass rearing technique (using an artificial diet) was standardized for field release in organic tea garden to evaluate their potential as an efficient biological control. Prey consumption was increased with advancement of larval instars and increase in temperature.

Studies on Entomopathogens

Entomopathogenic bacterium, *Pseudomonas fluorescence* and fungus *Lecanicillium lecanii* were isolated from the infested mites and thrips respectively collected from the tea ecosystem and their bio-efficacy was

evaluated against the respective pests. Enhancement of efficacy of entomopathogens namely *Paecilomyces fumosoroseus* and *Lecanicillium lecanii* were studied by the addition of equal quantity of jaggery.

Pathology :

Isolation and Characterization of the tea pathogens:

Isolation and growth characteristic features of *Pestalotiopsis* sp., *Hypoxyton* sp. and *Macrophoma* sp. are being carried out in laboratory. Standardization of media was completed for *Hypoxyton* sp. Growth was better in Potato Dextrose Yeast Extract Agar (PDYA) under shaking condition and Malt Extract Agar (MEA) in static condition. The temperature range between 25 - 30 °C and the pH ranged between 5.5. - 6.0 were found to be ideal for the growth *Hypoxyton* sp.

Pathogenicity Study :

Pathogenicity of grey blight pathogen was tested under nursery, field condition and detached tea shoots *in vitro*. Results indicated that advance stage of infection (appearance of black fruiting bodies with spores) was noticed on the tenth day after inoculation. Similarly, Pathogenicity of wood rot and branch canker pathogens were tested in BSS-1 seedlings, kept under glass house. Development of wood rot symptoms & black fructification was noticed after 42 days of inoculation and branch canker symptom was noticed after 55 days of inoculation.

Screening of biocontrol agents :

Among the 645 bacterial (resembling colonies of *Pseudomonas* sp. and *Bacillus* sp and 65 *Trichoderma* sp) isolates, five each of *Pseudomonas* sp. and *Trichoderma*.sp showed higher inhibition against grey blight pathogen compared to *Bacillus* sp. under *in vitro*. Among the 150 bacterial and 40 *Trichoderma* isolates, 5 *Bacillus* strains showed higher antagonism against wood rot. 3 *Bacillus* sp, 3 *Pseudomonas* sp. had higher antagonism against branch canker pathogen *in vitro*.

In vitro bio-efficacy of certain fungicides against wood rot and branch canker pathogens:

Some fungicides like Hexaconazole, tebuconazole and tridemorph were tested against wood rot and branch canker pathogens under *in vitro* conditions. Results indicated that, tridemorph at all three concentrations (Recommended dosage -1.28ppm, Lower dosage -0.64ppm and higher dosage -1.92ppm) completely inhibited the growth of *Hypoxyton* sp. But Hexaconazole was found ineffective.



Copper oxychloride, at all concentrations (0.1%, 0.25%, 0.5%, 0.75% and 1.0%) inhibited wood rot pathogen whereas 1.0% was found to be effective against branch canker pathogen, and the lower dosages were ineffective. The botanical fungicide Expel showed better performance at 0.1% against wood rot and 0.3% against branch canker pathogen.

Integrated disease management of grey blight disease:

Field evaluation of biocontrol agents against grey blight disease revealed that, application of *Pseudomonas* followed by *Trichoderma* provided satisfactory control which was comparable to the standard chemical fungicide schedules (Carbendazim and Mancozeb and high concentration of a new formulation (Nativo @10g/10L). Antagonistic potential of *Pseudomonas* and *Trichoderma* strengthens the possibility of an integrated approach for grey blight disease management in tea.

2. CONSTRUCTION OF HI-TECH TEA FACTORY AT UPASI-TRF, COONOOR

High Tech Factory

Site plan, building and ancillary building proposals approved to be located in Coonoor. Area cleared and leveled. Approval for construction of building from the local municipality is awaited.

Trials on ENV system

The optimum fermentation time of nine clones was studied using E-Nose system. The results showed that five to ten minutes difference in optimum fermentation time was observed between E-Nose and spectrophotometric methods. The fermentation colour palette of eight clones were developed using E-Vision system. Difference in number of colour palette was noticed between the clones studied.

Clonal variation on total amino acid and theanine

A study was conducted to document the clonal variation on total amino acid and theanine content of selected clones. Among the clones selected UPASI-3 registered higher theanine content which comprises nearly 45% of the total amino acid and one percent of the dry weight of tea leaves.

Changes in enzyme activities and their substrates during black tea processing

From harvesting to withering, the activity of PPO showed a linear increase followed by reduction in its activity immediately after cutting. During fermentation, PPO activity

dipped down further and after drying made tea contained only a residual quantum of PPO. PO activity increased rapidly till withering and decreased during cutting and further declined on firing. Among the processing stages, a significant reduction in polyphenol and catechin contents was observed during withering.

Changes in peptidase and amino acids during processing

The enzyme peptidase activity gradually increased from plucked leaves to end of withering; there after it decreased during cutting, fermentation and drying due to temperature inactivation. Losses in its activity were higher during drying where temperature was $>100^{\circ}\text{C}$. The amino acids were increased with the increasing withering hours and thereafter it was reduced during further stages of processing.

Amino acids and theanine content in the shoot components of UPASI – 9

The results revealed that the amino acid content was in the order of first internode > second internode > third internode > bud > first leaf > second leaf > third leaf. Theanine is present to the time of about 50% of the total amino acids in tea. Theanine followed the same trend as that of amino acid content.

Changes in the amino acids and theanine content during processing

The results revealed that both amino acids and theanine content were gradually decreased from fresh leaves to cutting there after it declined during subsequent stages. These results suggest that amino acid and theanine are involved in the formation of chemical compounds during fermentation, which determines quality of black tea.

3. ANALYSIS OF GENE EXPRESSION DURING PHYTO-PATHOGENIC STRESS IN TEA USING TRANSCRIPTOMIC APPROACH

Construction of SSH library specific to the infected leaves obtained from the blister-tolerant cultivar SA-6 is completed. Analysis of ESTs obtained from the forward and reverse SSH library has been completed and it was found to correspond to various stress and defence related proteins and few PR proteins.

Chitinase, a PR protein was isolated from the healthy leaves of SA-6, purified using gel-filtration chromatography. Optimal conditions for activity and stability of the enzyme has been characterized. A full length cDNA (1181bp)



encoding the chitinase enzyme has been isolated and the expression pattern of the gene during different stages of blister infection has been studied using semi-quantitative RT-PCR.

The anti-fungal property of the purified enzyme was validated against the germination of fungal spores of *Exobasidium vexans* and *Pestalotiopsis theae*. Construction of SSH library specific for grey blight disease infection was completed and the quality of the library was determined by DIG High Prime DNA Labelling and Detection Starter Kit I. 74 and 92 ESTs, from the forward and reverse libraries respectively were submitted to the NCBI database (Accession number: **JG463673 to JG463746** and Acc.no: **JG294142 to JG294233**). 74 ESTs (Genbank Accn no: **GW787565 - GW787738**) were submitted to NCBI public database. 202 EST's (**JG017537 to JG017738**) and partial 3 cDNA's (**JF288556, JF288557 & JF288558**) were submitted to NCBI public database.

The enzyme Phenylalanine ammoniolyase was isolated and purified; further the enzyme was characterized for its optimal activity. Construction of cDNA library during grey blight disease infection has been completed. The sequence analysis and functional annotation of the sequence obtained from both SSH and cDNA libraries has been completed.

4. STUDIES ON RESIDUES OF PESTICIDES AND HEAVY METALS IN TEA

The residue field trial with Abamectin (Vertimec 1.8 EC), Bifenazate (Acaramite 50 WP), Thiacloprid (Calпсо 240 SC), Dimethoate (Rogor 30 EC) and Thiamethoxam (Actara 25 WDG) were carried out. Results indicated that the residue on 7th day @ the recommended dose level in black tea samples was 3.77 ppm, 2.54 ppm and 1.84 ppm respectively for Bifenazate, Thiacloprid and Dimethoate respectively whereas in case of Abamectin and Thiamethoxam, it was less than LOQ.

The results on transfer of residues from black tea to tea infusion showed that percentage of transfer of residues from black tea to tea infusion was highest in Dimethoate (65%) followed by Thiamethoxam (56%) whereas no residue was transferred to tea infusion in case of Abamectin and Bifenazate.

The overall degradation of residues during the various stages of manufacture was highest in case of Dimethoate (26.81%) followed by Bifenazate (18.80%).

TRA PROJECTS

5. ESTABLISHMENT OF CHAIN OF QUALITY TESTING LABORATORIES AND STRENGTHNING OF EXISTING ANALYTICAL FACILITIES AT REGIONAL CENTRES AND AT TOCKLAI

A total of 360 Nos. of black tea samples were collected from Upper Assam, South Bank, North Bank, Barak valley, Nagrakata, Terai Region and Darjeeling. TF content of CTC black tea from the regions of Assam are comparable except Barak valley which has the lowest TF content among the regions considered. In addition to TF, considerable variation in TR content among the regions was observed. Low molecular weight thearubigin (TR1) of North Bank tea was found higher than the other regions. Total soluble solid content was the highest in North Bank teas whereas the lowest in Barak valley teas. Theaflavin, thearubigin and their fractions of Darjeeling tea is the lowest among the regions where as epigallocatechin gallate and total catechin contents are the highest than other regions teas.

Several volatile flavour components of black tea samples were identified and estimated by using GC & GCMS. The common VFC of all the regions are n-hexanal, t-2-hexenal, linalool, benzene acetaldehyde, caprynic acid, 1,2-benzene dicarboxilic acid and bis-(2-methyl propyl) ester. Trans-2-hexen-1-ol, linalool oxide, hotrinol, trans-geraniol, hencicosane and tetratricontane of Darjeeling teas were found higher than the other regions.

Systematic study of some non-volatile components of Darjeeling orthodox black tea is under progress.

6. DEVELOPMENT OF ALTERNATIVE STRATEGIES FOR MANAGEMENT OF TEA MOSQUITO BUG AND BLISTER BLIGHT DISEASE IN TEA PLANTATION OF NORTH BENGAL INDIA

Dichloromethane and N-Hexane extracts of different body parts i.e., head, thorax and abdomen of *H. theivora* (male and female) were prepared and sent to NCL, Pune for GCMS analysis and molecular identification. Similarly, crude extract of different body parts of tea mosquito bug were prepared and sent to UPASI for identification. Extraction of semiochemicals from different body parts of *Helopeltis theivora* were carried out.

Rearing of green lace wing *Mallada spp.*, a native predator of tea mosquito bug is being successfully carried out under laboratory condition by altering the diet composition. Population density of *Oxyopes* spiders in relation to the infestation of *Helopeltis theivora* was studied in the tea sections located in the Tocklai campus.

Isolation of surface and gut microflora of *Helopeltis*



theivora was carried out. Microorganisms associated with *Helopeltis theivora* were quantified. *Geotrichum sp.*, *Cladosporium sp.*, *Fusarium sp.*, *Curvularia sp.*, *Acremonium sp.*, *Aspergillus sp.*, *Aspergillus parasiticus*, *Geotrichum candidum*, *Trichoderma sp.*, Yellow *Aspergillus sp.* were isolated for pathogenecity studies.

Solvent extracts of *Cassia alata*, *A. opulentum*, *Helianthus sp.*, *Leonurus sibricus*, *Polanisia icosandra*, *Utrica dioica*, *Polygonum chinensis*, *Argimone mexicana* were prepared sequentially on the basis of their polarity and tried against *Helopeltis theivora* under laboratory and field conditions. Petroleum ether extracts of *Cassia alata* @ 1- 5% recorded 21- 45 % reduction of feeding spots by *Helopeltis* after 72 hrs of treatment application under laboratory conditions. Petroleum extracts of *Helianthus sp.* @ 1-5 % recorded 12-68 % reduction of feeding spots after 72 hrs of treatment.

7. SUSTAINING SOIL PRODUCTIVITY – SOME STRATEGIES

Suitable bio waste for preparation of quality organic manure (Vermi-compost) were found out and suitable methodology was established for preparation of quality vermin-compost was standardized and transferred to member tea estates. Nutrient content of vermin-compost was much higher as compared to cattle manure and traditional compost. Vermicompost @250-300g/pit was found to be viable alternative to conventional cattle manure @4 kg/pit.

Experiment on integrated Nutrient Management revealed that though all treatments maintained a satisfactory level of organic carbon status, the treatments 75% of recommended dose of fertilizer (RDF) + 6t vermin-compost and 100 RDF maintained highest build up of organic carbon level in soil after one year of experimentation. This treatment also maintained yield at par with 100% inorganic (RDF).

Initial results (one year after experimentation) also indicated that organic matter status in directly planted tea (after uprooting) could be improved by addition of 40t of cattle manure incorporated after soil preparation. Deep ploughing plus sub soiling plots maintained organic carbon and water stable aggregates at par with the plots prepared with only deep ploughing (Without sub soiling).

8. STUDIES ON HEAVY METALS – PHASE II

A total of 144 samples of made tea were collected from different tea gardens and analyzed for chromium contents. Result showed that wide variation existed. Additional gardens were selected from different tea growing regions of northeast India for collecting fresh samples of tea and different inputs used in the gardens for identifying

possible sources of contamination.

Made tea samples are also being processed for determination of arsenic. Water samples used in field and factory were also collected and tested for arsenic. Sites for collecting soil samples were also identified.

A pot experiment is in progress to study the uptake of arsenic and chromium by tea plants.

9. DEVELOPMENT OF METHODOLOGIES FOR THE EXTRACTION OF FOOD GRADE SECONDARY METABOLITES FROM TEA AND UPSCALING THE METHODS FOR COMMERCIAL PURPOSE

Free radical nitrite and superoxide scavenging as well as inhibition of lipid peroxidation property in relation to chemical constituents of tea were studied. With the increase in the level of phenolic content the scavenging property increase when assayed with DPPH. It is equally true for the lipid peroxidation also. Nitrite scavenging as well as superoxide scavenging property was also studied during this period. Theaflavin content and catechin content is found to be directly correlated with the scavenging property.

Trials were carried out in recently installed full set of tableting machine. Experiments were also carried out with different concentration of ingredient and with different binders. Different tablet were prepared by using different ingredients. More than thousand nos. of tea tablets were prepared for commercial trials among the various entrepreneurs. Processing temperature, concentration of active ingredients as well as binders is responsible for the quality of the tea tablets.

Experiment is under progress to enhance the retention of flavour by changing the binder composition, incubation period, temperature of processing etc.

10. BIOTIC & ABIOTIC STRESS ANALYSIS FOR DEVELOPMENT OF STABLE QUALITY GENOTYPES

For waterlogged stress (Abiotic stress), six different germplasms [COHBHR (Coochbihar), BTGR (Baintgoorie), TV1 (Tocklai Vegetative Clone1), MNPR (Monmohinipur), DFLGR (Duflaghur), DJN (Dinjan)] were taken in control trial condition for 45 days. Water use efficiency (WUE), Leaf Water Potential Chlorophyll, proline and wax content of plants were measured in 15 days interval and plant materials were selected as tolerant (BTGR) and susceptible (TV1). Sequencing process is ongoing

For Tea Mosquito Bug infestation (Biotic stress), controlled trial conditions were established for two quality planting material T.3E/3 and S.3A/3 plants by covering with mosquito net and experimental material are kept open to be infested by *Helopeltis*.



Sequencing process is being continued.

11. MOLECULAR BASIS OF STRESS LINKED BIOCHEMICAL CHANGES DURING PROCESSING OF TEA SHOOTS AND THEIR RELATION TO THE QUALITY OF MADE TEA

Effect of temperature as well as rate of loss of moisture during withering on oxidase enzyme, catechin and black tea quality was studied. Increase in moisture and temperature result in decrease of PPO activity but increase in PO activity at the end of withering. Change in enzyme activities due to increase in temperature effects theaflavin formation specially the gallated theaflavins. As a consequence, brightness and briskness of black tea liquor reduce.

The enzyme activity and formation of TF and TR vary considerably with the variation of withered leaf moisture. TF and TR content of black tea change with the withered leaf moisture. The cultivar S3A3 produces better quality when the moisture content is slightly higher than 70%, while TV-9 produces better quality at moisture content slightly lower than 70%. With the increase in the degree of CTC cut TF content reduces while TR content increases. Increase in fermentation temperature increased oxidation of catechin in the early part of fermentation. Rate of oxidation of EGCG and EGC is higher in comparison to other catechin.

Fast fermenting cultivars such as TV-1, T3E3 etc. produce better cup at low temperature fermentation while slow fermenting cultivars like TV-9 and TV-26 produce better quality at higher temperature.

12. ESTABLISHING A PESTICIDE RESIDUE TESTING LABORATORY

A laboratory was set up in about 763 Sq ft floor area at the premises of Tea Research Association, Kolkata and the sanctioned posts have been filled up and analyst trained. Procurement of equipment and consumables are in progress. The two major state of the art equipment LC-MS/MS and GC-MS/MS have been received and awaiting installation. Consumables, reagents and certified analytical standards are being procured.

TRA-NAGRAKATA PROJECTS

13. CURRENT PEST PROBLEM IN TEA OF NORTH BENGAL AND THEIR POSSIBLE MANAGEMENT STUDIES

A total of 10,926 moths of *H. talaca*, *H. infixaria*, *B. suppressaria*, *E. magnifera*, *A. submarginata* were caught till March 2011 from 2 light traps. *H. talaca* dominated the overall moth catch (74%). 72.9% and 28.07% of the moths were caught in shaded and unshaded section of tea plantation respectively. 81.6% of

overall moths in light traps were males.

A wide range of herbs, shrubs and trees were seen actively fed by *Hyposidra* spp. Majority of the trees belong to Fabaceae family. Some shade trees heavily fed by the insect were *Albizia lebbek*, *Albizia odoratissima*, *Derris robusta*, *Indigofera teysmanii* etc.

Life table studies of a hairy caterpillar pest (*Arctornis submarginata*) in laboratory showed 73% survival of the larvae. The incubation period and larval period of the insect ranged from 9 days and 33-44 days respectively.

Surveys on the mortality rate of looper caterpillars due to HtNPV in field conditions showed that NPV infection was low during winter period. However, in March 2011, 39% of the late instar looper caterpillars were found dead due to NPV infection.

14. STUDIES ON DROUGHT IN TEA AREAS OF DOOARS AND TERAI IN RESPECT OF SOIL PROPERTIES, PHYSIOLOGY AND YIELD WITH A VIEW TO SCHEDULE IRRIGATION IN A COST EFFECTIVE WAY

Long term meteorological data from Dooars agro-climatic condition is being analyzed to classify drought of different intensity.

One field trial on irrigation from 2009-10 winter seasons with four different treatments viz. T1: 50 mm at 15 days interval, T2: 50 mm at 30 days interval, T3: 50 mm at 40 days intervals and T4: Control was started. Physiological parameters [viz. photosynthesis (Pn), transpiration (E), stomatal conductance (Gs), leaf temperature (Lt), internal CO₂ concentration (Ci) etc] were measured at different intervals in both irrigated and non-irrigated tea plots by Licor Portable Photosynthetic System.

Preliminary observations suggested that there's a marked difference in the rate of photosynthesis within the treatments and among the treatments. It appeared that in T3 after 120 days, photosynthesis rate is highest in post irrigation. In T1, Transpiration rate (Tmmol) was the highest at 45 and 75 days respectively in case post irrigation whereas in T2, transpiration rate was the highest in control (non-irrigated) at 90 days. In case of T3, transpiration rate was the highest in pre-irrigation at 120 days.

15. STUDY OF THE BIOCHEMICAL ASPECTS OF TEA PROCESSING IN RESPECT OF CTC AS WELL AS GREEN TEA MANUFACTURE

Ten cultivars viz. Tv1, Tv9, Teenali 17, TV20, TV25, TV26, St 462, St463, St491 and St520 were selected for process standardization of green tea manufacture by steaming method at miniature factory, Nagrakata. Total chlorophyll content was found to be the highest in TV25 followed by St463, St491 and the lowest in TV1.

Green teas were processed from freshly plucked shoots



of cultivars viz. TV1, TV9, Teenali 17, TV20, TV25, TV26, St462, St463, ST491 and St520 by steaming each cultivar separately for 4 mins.; 6 mins. and 8 mins during 2nd and rain flush. It was observed that total soluble solid content is higher in 2nd flush than rain flush.

Green tea samples were processed from various cultivars by steaming and panning methods separately for each variety at estate level. Cultivars used for the purpose were AV2, B157, T383, CP1, T78, R17/144, P1258, B668, ROH1, P312, Teenali17, K1/1, B777, G.O. China, T Valley1, ROH2 and ROH3. These samples were analyzed for moisture, total soluble solid, and caffeine content.

B.C.GUHA CENTRE (CALCUTTA UNIVERSITY) PROJECT

16. EVALUATION OF THE HEALTH BENEFICIARY EFFECTS OF TEA PRODUCTS AND MODULATORY ROLE OF TEA FLAVONOIDS ON EMPHYSEMATOUS LUNG DAMAGE FOR THE FORMULATION OF A HIGH POTENCY TEA TABLET.

Measurement of tea components in animal tissue samples as well as blood (to check bioavailability) attempted albeit without success probably because of the low sensitivity of the HPLC detector (UV). Lung cellular damage assessment in guinea pigs exposed to cigarette smoke and its prevention by black tea revalidated through histo-pathological profiling and apoptosis studies as a background for the follow-up comparative study with tea tablets from TRA, Tocklai.

Evaluation of the comparative concentrations of the tea tablets, tea powder procured from TRA, Tocklai against CTC black tea infusion revealed that the tea tablet/powder was three times concentrated compared to CTC black tea. Fluorescence Activated Cell Sorting (FACS) analysis of the whole blood cells collected from treated animals to access the levels of cellular apoptosis in cigarette smoke treated animals against those orally administered tea tablet/powder analysis revealed an exposure dependent increase of Annexin V-positive cells (early apoptosis) in the cigarette smoke treated group compared to the group that was administered black tea tablet/powder infusion along with cigarette smoke exposure.

TRA black Tea powder/tablet was found to prevent cigarette smoke-induced oxidative damage in guinea pig lungs as evidenced by oxyblot of lung proteins. TRA black tea powder/tablet was found to prevent cigarette smoke induced apoptosis in the guinea pig lung as evidenced by TUNEL assay.

Modulatory role of tea tablets (prepared by TRA, Tocklai) on cigarette smoke-induced protein damage, apoptosis and pulmonary emphysema in a guinea pig model was completed with histopathological analysis to

establish the protective role of tea tablets/powder (TRA, Tocklai) on cigarette smoke-induced emphysematous lung damage. Intra-tracheal instillation of guinea pigs done to study the modulatory role of tea tablets on the major harmful cigarette smoke component p-benzosemiquinone/p-benzoquinone induced protein damage, apoptosis and pulmonary emphysema in a guinea pig model was initiated. The animals however failed to survive the operative procedure because of post operative infection.

IIT-KHARAGPUR PROJECT:

17. STANDARDIZATION OF PROCESS PARAMETERS FOR MACHINERY DEVELOPMENT IN WITHERING, MACERATION, ROLLING, FERMENTATION AND DRYING OF TEA.

A withering trough has been developed to study the effect of operating parameters (leaf moisture content, relative humidity, temperature of air and air velocity) on quality of made tea and to achieve uniform withering. From the experiments it has been observed that for a particular rotor speed, as the helix angle of the rotor blade is increased, the macerated made tea contained finer particles. Another horizontal single cut maceration device is under development.

An alternative way of re-sharpening of CTC roller can be Gear Hobbing. After data collection on CTC roller profile dimensions, the cutting process was selected and the basic rack profile was developed. The cutter profile has been designed with the basic rack of the CTC roller.

CTC segments will be made of mild steel instead of stainless steel to reduce the material cost to a good extent. After cutting the grooves, wear resistance of the segment will be improved by giving a hard chromium coating. Chromium coating is an established process to protect surfaces from wear and erosion.

A screw type rolling device consisting of a vertically placed hollow cone fitted with a screw has been fabricated. A scaled up device is under fabrication by Britannia Engineering, Kolkata. Rotocone tea roller has been developed for rolling of withered tea leaf in a continuous manner.

An Environment Control Chamber for carrying out withering, fermentation and drying of tea leaves under controlled air temperature, humidity and air flow rate has been fabricated and installed. Performance of the device has been tested. Air temperature can be controlled within ± 0.2 °C and RH of air within $\pm 2\%$.

Some preliminary experiments on withering of tea leaves were conducted at different temperature and relative humidity levels of air, fixed air flow rate of 45 cfm/sq. ft and thickness of leaf as 8 inch with leaves of TV-



25. It was observed that with the rise of temperature, PPO and PO specific activity decreased. Moisture loss was much faster at higher temperature and lower relative humidity. At lower relative humidity, PPO and PO specific activity was reduced.

Drying of fermented tea under vacuum was attempted as an alternative to conventional drying. Optimization of the drying parameters (plate temperature, loading rate of dry matter present in tea and duration of drying) has been done on the basis of desired values of the dependent parameters (moisture content of product and colour values of liquor). A conceptual design of continuous vacuum dryer has been done.

The biochemical compounds such as total polyphenolic compounds, proteins, chlorophylls and amino acids were analyzed from fresh tea leaves of different clones (TV-25, TV-23, TV-26, TV-1, AV-2, B-157 and P-312) by UV/Vis spectrophotometer (Shimadzu UV-1800). The analysis of the biochemical compounds like theaflavins, thearubigins, highly polymerized substances, total polyphenols, chlorophylls and amino acids from made tea of the above clones were also done. Volatile flavor compounds (VFCs) of made tea were analyzed by GC-FID (Shimadzu).

In addition to this, three types of tea bush uprooting devices (using Chain Pulley Block system, Hydraulic Pump system and Rack and Pinion Arrangement) have been tested.

C-DAC PROJECT

18. CORPUS CREATION OF MEASUREABLE PHYSICAL PARAMETERS OF INDIAN TEA

Under this project, 6 nos. of ENV System were deployed in 1. Tea Research Association, Tocklai, 2. IHBT, Palampur, 3. Tea Research Foundation, TRF, UPASI, Valparai, 4. Tripura Govt. Tea Factory, Tripura, 5. Tezpur University, Tezpur Assam and 6. Indian Institute of Technology, IIT, Kharagpur for initial data collection at pilot level.

Software Development: Remote client ENV Software has been developed for transmitting of tea tasting data from the client PC to the centralized server PC through Internet. This software is responsible for automatic data transfer from remote PC to the centralized server PC in a regular interval. For presenting the corpus data, a web portal has been developed.

Data Collection & Analysis: A pilot level experiment has been initiated in C-DAC, Kolkata for evaluating tea quality using existing ENV System as well as manual evaluation has been performed by a professional tea taster. A total of 182 number of CTC tea samples have been tested in the laboratory and testing data collected

by the ENV system has been stored in the corpus database. More than 600 numbers of different tea samples (made tea) testing data (ENV System analysis result) has been collected from different tea gardens as stated above.

Tea sample analysis using electronic tongue: Both voltammetric and potentiometric electronic tongues were employed for collecting the responses of black CTC tea of Assam, India. TF values of 17 black tea samples were determined using a spectrophotometer in the Tea Research Association, Tocklai, India. Same tea samples (TF range from 1.3 to 2.4) were used for analysis in potentiometric and voltammetric E-Tongue. Both types of electronic tongues are able to distinguish tea liquors having high TF (more astringent, in most cases), medium TF and low TF value.

Determination of aging of black tea using instrumental analysis: E-Vision analysis showed that the colour value of tea liquor was increasing at first (after properly storage in first month), then colour value remained same for next 5 months then colour of the tea liquor changed to dull (Less score). Same result followed for infused tea sample experimented with E-Vision.

In case of E-Nose tea tasting, aroma index of tea was gradually increased and after 6/7 months there was a sharp changes in aroma value which might be due to absorption of moisture which affected tea quality. In first interval, moisture level in made tea was very low. Then, it absorbs the moisture from air, so, sensor response did not affect by the external moisture. But, when tea was saturated with the moisture contains, it might remove the moisture as a result sensor response was more later on.

DTR & DC PROJECTS

19. NITROGEN MINERALIZATION OF ORGANIC MATTER IN ACID SOILS OF TEA (*Camellia sinensis* L.) IN NORTHERN DISTRICTS OF WEST BENGAL

On the basis of cumulative CO₂ evolution, vermi compost (VC) was considered as the most stable products followed by poultry manure (PM), farm yard manure (FYM), raw cow dung (RCD), mustard cake (MC), tannery waste (TW) and fish meal (FM). Fish meal decomposed very quickly and 92.3% of added carbon was mineralized within 35 days, so it can be considered as the most unstable product.

Marked differences in nitrogen mineralization among decomposed and un-decomposed organic matters were observed. Mineralization capacity of various organic matters were in the decreasing order of TW > FM > MC > PM > RCD > VC > FYM.

FYM and VC had very low net nitrogen mineralization



rate ranging from 0.37 to 1.08 mgN/kg soil/day, whereas poultry manure in spite of being decomposed exhibited high mineralization rate (0.86 to 1.98 mg/kg/day) especially at initial stage.

Studies on a new set of 15 (fifteen) organic matters i.e. Poultry manure, Vermi-Compost, Fish Meal, Farm Yard manure MBM-2, Organomax, Copra Cake, Karanja Cake, Neem Cake, Mustard deoiled Cake, Ground nut deoiled cake, Rice Bran deoiled cake, Til cake, Mahua Cake, Soya Deoiled cake showed that C: N ratio of neem cake is high as compared to other oil cakes available in the market. Chromium content of Meat and bone meal is very high (1170mg/kgMBM), while other organic matters contain 8.1 (Mahua cake) to 122.2 ppm Cr (Poultry manure). Hence, care should be taken while using these two organic matters for tea garden.

Studies on the laboratory experiment on C-mineralization from 15 different organics in acid soils showed that CO₂-C produced (mg CO₂-C/kg soil) was higher in soils treated with Fish meal, Mustard cake, Meat and Bone Meal and Til cake (355.90 to 453.80 mg-C/kg soil) followed by Neem cake, Rice bran, Soya cake, Groundnut cake, Karanja cake and Poultry manure (239.20 to 276.00). CO₂-C produced (mg C/kg soil) was lower in soils treated with Mahua cake, Organomax, Farm Yard Manure, Vermi compost and Copra cake (98.70 to 174.20).

Two organic fertilizer formulations for Darjeeling Tea considering the nutrient content (N, P and K), mineralizable-N and C-mineralization of different organics have been developed.

20. DEVELOPMENT OF PHOSPHATE SOLUBILIZING BIOFERTILIZER FOR TEA (CAMELLIA SINENSIS L.) IN ACID SOILS OF NORTH BENGAL

A total of 455 cultures were isolated from 131 soil samples.

Screening programme based on the Solubilization of tri-calcium phosphate Solubilization, Rock phosphate, Aluminium Phosphate and Ferric Phosphate in liquid culture have been completed for 41 bacterial cultures under laboratory condition.

11 potential bacterial isolates were tested for their growth performance at different growing temperature under laboratory condition. Utilization of various carbohydrates by selected phosphate solubilizing bacteria has been completed. Growth performance of phosphate solubilizing microorganisms at low pH (4.0) has been completed for 9 isolates.

Dry spell is frequently observed in Darjeeling Hills which may influence the microbial population and their activities.

Hence, growth performance of phosphate solubilizing microorganisms at different levels of Desiccation (with polyethylene glycol 600) were conducted and completed.

Development of a biofertilizer with phosphate solubilizing bacteria which can perform well in Darjeeling tea garden considering the low soil temperature of hills is under process.

Regulatory Issues and Technological Support :

Research directorate of Tea Board has been pursuing regulatory issues of tea including fixation of MRL, addressing pesticide residue problem, iron filling, nature identical flavor and fixation of standards of instant tea etc. Essential technical support is being provided in the form of circular/notice etc. to the tea producers association, tea export association and tea merchant association obtaining technical information from different international organization and collecting/collating data from the tea research laboratories. Tea Board attended various national (PFA, BIS, Shadow Committee etc) and international (Codex, ISO etc) meetings and participated in the deliberation for updating latest information/regulation and represents the concern of both the industry and government.

Summary of the Core Committee Report :

A meeting was held under the Chairmanship of the Additional Secretary (Plantations), Department of Commerce on 13th July, 2010 in Udyog Bhawan, wherein it was decided to constitute a core committee by Ministry of Commerce and Industry (MOC&I) Govt. of India to address the regulatory issues including presence of iron filling in tea, fixation of MRL in tea brew and use of NI flavour in tea. Accordingly, a Committee was constituted vide order No. T-35018/1/2009- Plant(A) dated 12.10.10 by Department of Commerce, Ministry of Commerce & Industry.

The committee held three meetings (14th December, 2010 in Delhi; 6th January, 2011 in Kolkata & 27th May, 2011 in Siliguri, West Bengal) to discuss these issues. The members of the Committee also visited a tea processing factory in Siliguri to see the various steps / processes involved in preparation of made tea from tea leaves to get an idea of the possible sources of iron filling in Tea. While addressing all these issues, the committee desired to have monitoring data on iron filling in tea produced in various areas in the country. This was generated by different Government/ autonomous and other laboratories. The Committee considered all these observations and available National and International information/literature, earlier reports etc. and after detailed deliberations recommended the followings :



Iron filing in tea: The earlier limit of iron filing of 250 mg/kg in tea (Ref. Govt. Order No. P 15013/16/79 – PH (F&N)/ DMS & PFA, dated 5th April, 1984) which was revoked in 2005 (Ref. No. P-15025/6/2004-PH(F)/DMS, dated 21st September, 2005) may be reinstated as there are no evidence to suggest that these levels are harmful to health , monitoring data indicates presence of iron filings in various samples of tea and international literature indicates that various countries have fixed different limits but none of the countries has fixed a zero iron filing limit.

Maximum Residue Limit (MRL) in Tea: Tea is normally traded as processed tea leaves, not as tea brew. It is also a fact that pesticide residues present in tea leaves do not represent the actual risk to consumers as tea is consumed mainly as tea brew. Therefore, to further refine the risk assessment for fixation of MRL in tea, the concept of processing factor be applied as has been a practice

for many other commodities and also advised by CCPR in its 43rd Session held in China during April 4-9, 2011.

Participation in the Council of Management/board of Trustees/Scientific advisory committees :

Research directorate of Tea Board attended/represented various research/scientific advisory committee, management council and planters committee of tea research institutes in the country for formulating, coordinating and evaluating tea research for the interest of the Indian tea industry. Directors / Scientists of tea research institutes and Project Investigators of the all the 11th plan research schemes were invited to Tea Board for attending / presenting the progress report in the Tea Research Liaison Committee (TRLIC) meeting. One such meeting was held in Tea Board in August, 2010 for the evaluation of the projects wherein representatives of the Industry and expert scientists were also invited.



TEA PROMOTION

Introduction

Exports of Tea were lower in 2010-2011 in terms of quantum as compared to the previous year to the extent of 34.50 m. kgs. The value realization also registered a decline during 2010-2011 as compared to 2009-2010 to the extent of US\$.99.73 million. The unit export price realization has shown nominal improvement.

A major factor affecting Indian tea exports during the year under review was on account of lower exports to Russian Federation both in terms of volume and value realisation due to increased competition from other producer countries. Exports to Afghanistan and Iraq suffered a setback due to the unstable situation there. Also during the year, Indian tea exports declined to U.K, UAE, A.R.E., Kazakhstan, Ukraine, Sri Lanka, whereas, exports increased to Germany, Iran, Japan, Kenya and Pakistan. In fact, the increase in exports to Pakistan has been quite substantial.

Markets such as Russia/CIS, UK, A.R.E. (Egypt), UAE and

The Board's export promotion work is carried out from Head Office and through its foreign offices located at London, Moscow & Dubai.

The present jurisdiction of the Board's Foreign offices are as under:

LONDON	UK, Ireland, Norway, Sweden, Denmark & Finland. Since the closure of Hamburg Office from July 2002, the following countries have come under the jurisdiction of London Office:- Belgium, Luxemburg, Netherlands, France, Germany, Italy, Spain, Portugal, Greece, Austria, Switzerland, Malta, Cyprus, Poland and the breakaway Republics of former Yugoslavia such as Bosnia Herzegovina, Croatia, Slovenia, Serbia, Montenegro and Macedonia
MOSCOW	Russia and CIS countries
Dubai	West Asia and North Africa comprising Kuwait, Iran, Iraq, Bahrain, UAE, Saudi Arabia, Oman, Qatar, Yemen, Jordan, Syria, ARE, Libya, Sudan, Tunisia, Algeria, Morocco, Turkey and also South Africa. Afghanistan and Pakistan were new additions.

Pakistan continued to be of vital importance. In keeping with the requirements of the export and domestic markets there was a focus on quality in a sustained manner. Quality control projects continued to be actively pursued along with implementation of ISO 3720 Standards and HACCP (Hazard Analysis & Critical Control Points). Efforts continued to persuade producers to increase production of exportable quality good teas of orthodox variety.

The Tea Board organized several promotional activities for domestic consumption of tea. They were mainly aimed at the youth, projecting tea as a lifestyle beverage and at housewives, propagating the health benefits of tea. However, the domestic generic effort was on a low key during 2010-2011 due to paucity of funds. For projecting the quality image of Indian tea, the Tea Board's outlet at Mumbai, the "Tea Centre" continued to serve and sell quality teas.

As part of tea promotion activities the transport subsidy scheme was continued. ₹1.50 per kg teas was reimbursed to tea exporters towards meeting additional transport and handling charges incurred for teas exported through I.C.D. Amingaon. In keeping with Ministry's MDA guidelines some nominal promotional assistance was provided to exporters. Regular promotional activities of the Board were also carried out including through participation in various trade and consumer Fairs and Exhibitions internationally.

The table below gives position of Indian tea exports over the last 3 years.

Year	Qty (in M Kgs)	Value (in M US\$)	Unit Price (US\$/kg)
2008-09	190.64	518.04	2.72
2009-10	213.43	637.80	2.99
2010-11	178.93	538.07	3.01



Promotional activities in countries other than those covered by the Overseas Offices are undertaken from the Board's Head Office in Kolkata with the help and co-operation of respective Indian Missions abroad.

The work of promotion is carried out at various levels :-

- a) Generic promotion through Tea Councils to increase overall consumption of tea including activities to communicate the health aspect of tea. India withdrew memberships from the Tea Council of Canada from 01.04.2010, and from German Tea Council from 01-01-2011. Withdrawal notice has been given to U.K. Tea Council. India continues to be a member of the Tea Council of USA.
- b) Promotional programmes for Indian tea are carried out by the Board's foreign offices to enhance demand for Indian tea and increase market share. Activities geared towards facilitating trade through these offices include participation in Fairs and Exhibitions, trade facilitation by way of arranging Buyer-Seller meets and visits by trade delegation, etc.
- c) Market development activities include market Surveys, market analysis and tracking of consumer behaviour. This also includes making all relevant information available to exporters/importers and through an information dissemination plan.
- d) In order to enhance the equity of Indian Tea and its various sub-brands, efforts are on to register the Board's logos in various markets as well as to popularise the usage of these logos and to prevent misuse by unauthorized users.

6.1 Activities from India.

The Directorate of Tea Promotion in the Board's Headquarters co-ordinated the activities of the Board's overseas offices to ensure proper monitoring of their promotional programmes and smooth functioning. Activities during the year 2010-2011 included the following:

- a) Organising the Board's participation in Trade Fairs and Exhibitions not covered by the Overseas Offices.
- b) Arranging the visit of the Board's representatives, tea delegations to foreign countries to participate in International Meetings, Fairs/Exhibitions and Buyer-Seller Meets.
- c) Organising the visits to India of tea delegations/buyers and media representatives from abroad, including arranging their meetings with tea trade, visits to tea

areas etc.

- d) Maintaining liaison work with the tea trade, attending to trade enquiries, shipping and warehousing difficulties, keeping the tea trade informed of developments related to exports, as well as, dissemination of market and trade information.
- e) Registration of producers, exporters, traders of Darjeeling tea under Darjeeling CTM Protection Process.
- f) Issuance of Certificate of Origin for all exports of Darjeeling tea based on invoice-wise tracking of garden tea production.
- g) Processing and disbursement of various assistance to trade/industry under Market Promotion Scheme of Tea Board.
- h) Maintenance of accounts and budgeting on various All ocations against activities under Market promotion Scheme.

Information Dissemination

As part of information dissemination, the trade enquiries received at various fairs and exhibition as well as those received from time to time from various sources, were passed on to the industry members through the revamped website.

Market consolidation and Diversification of export market portfolio.

Efforts are on to consolidate position in markets where India has a significant share of the tea market, and also to enter new markets. The Geographic market portfolio needs to be diversified in order to reduce the dependence on the few major importing countries and create a more balanced basket. Efforts are now being focused on tapping the potentials in the Far East and ASEAN region as well as Egypt and Pakistan. Tea Board's participation in events in China are now showing results.

Niche segment opportunities

Value-addition and targeting niche segments in specific markets has been a priority area. Efforts were on to increase orthodox production. 40% of the world's consumers drink orthodox teas whereas 91% of Indian tea produced is CTC. Industry has taken initiatives to increase orthodox production, as well as quality improvement and cost reduction. Speciality teas like Darjeeling have been branded as top end products and protected in terms of Intellectual Property Rights.



Intellectual property Right Protection for Indian tea-Achievement 2010-11

Tea Board has continued its objectives to protect and preserve its various tea names and logos as India's treasured geographical indications and icons of India's cultural and collective heritage. Brief details are given below :-

Registrations obtained during 2010-2011

No.	Country	Nature and Subject Matter of registration	Application/ Registration No.	Date of Application	Date of Registration	Validity
1.	Russia	Trade Mark for INDIA TEA LOGO	41.4383	29.12.2008	23.07.2010	29.12.2018
2.	EU member Countries	Community Collective Mark for Darjeeung	008674327	10.11.2009	23.04.2010	10.11.20`9

Details of pending application :

No.	Country	Nature and Subject Matter of registration	Application/ No.	Status
1.	Japan	Regional Collective mark for DARJEELING WORD	No. 2007 103568	Examined
2.	EU	PGI for DARJEELING word under Regulation 510/06	028913	Advertised but under Objection by third parties

With regard to the pending application in Japan, Tea Board has contacted its various licensees to gather information on use and fame of DARJEELING and filed the same.

The EU application was accepted but received 6 objections upon publications. 4 objections were initiated by the European Tea Commission (ETC) which came from different EU Member States (UK, Germany, Austria and Italy) and dealt with identical issues. One objection was from France and one from an Indian citizen. After negotiations with the ETC and France, a report was furnished to the European Commission. The objection from France is fully resolved and the objection from India is considered outside the scope of the discussion. The decision of the European Commission on the application is awaited.

OPPOSITIONS IN INDIA

Total 28 oppositions were filed by the Tea Board in India during the period 2010-2011 to prevent attempted registrations and misuse of DARJEELING, ASSAM, N1LGIRI tea names and logos as well as the INDIA TEA Logo. During the year 2010-11, in recognition of the Tea Board's rights and to settle the matter, 5 Applicants have removed the objectionable name/logo from their labels. 20 oppositions were decided in favour of the Tea Board because the Applicants did not contest the Tea Board's claims or settled the matter in recognition of the Tea Board's rights in the same period.



Litigation in India

Tea Board filed an action for infringement against ITC Limited to restrain it from using DARJEELING as part of the name of a lounge named DARJEELING LOUNGE in one of its hotel in Kolkata. The interim injunction application of the Tea Board was rejected by the Single Judge of the High Court of Calcutta. However, since the order suffers from errors of law and fact, Tea Board is in the process of filing an appeal.

Oppositions/Cancellation Actions outside India

7 oppositions/cancellation actions were filed by the Tea Board in foreign jurisdictions in the period 2010 - 2011. All these action pertain to use of DARJEELING word/logo marks by third parties. 1 action was in China, 4 in EU, 1 in France and 1 in Argentina. The party in Argentina has decided not to pursue its application after the objection from Tea Board. In addition to the above, an action in South Africa is under

consideration.

Success in Taiwan

The Intellectual Property Court of Taiwan has upheld the decision of the Taiwan Intellectual Property Office through which it had ordered cancellation of the mark DARJEELING in class 25 in the name of Delta Lingerie, France. The IP Court confirmed that not only that the marks of the parties are similar but also confirmed the same of Tea Board's DARJEELING mark. The Court held that DARJEELING mark has obtained high degree of distinctiveness and should be protected from dilution. The Court observed that though there may not be any confusion as the business interests of the parties are not correlated, due to the fame of DARJEELING, use of an identical mark on unrelated goods dilutes and distracts the single source indication and diminishes the distinctiveness of the famous DARJEELING mark.

Participation in International Fairs/Exhibitions from Head Office.

DURING THE PERIOD UNDER REVIEW, PARTICIPATION IN THE FOLLOWING FAIRS AND EXHIBITIONS WAS ORGANIZED FROM HEAD OFFICE:

1. Hong Kong International Tea Fair, Hong Kong	12 th to 14 th August 2010
2. Great Indian Bazar, Almaty	14 th to 22 nd August 2010
3. World Food , Moscow, Russia	14 th to 17 th September 2010
4. China Tea Expo, Beijing, China	20 th to 23 rd September 2010
5. Tea - Coffee, Toronto, Canada	26 th & 27 th September 2010
6. World Food Ukraine, Kiev	26 th to 29 th October 2010
7. India Show, Singapore	14 th to 16 th January 2011
8. Winter Fancy Food, San Francisco, USA	16 th to 18 th January 2011
9. Prodexpo, Moscow, Russia	7 th to 11 th February 2011
10. Foodex, Tokyo, Japan	1 st to 4 th March, 2011

Generic promotion of tea in India

As part of the generic promotion of teas in India, Tea Board participated in the following events during the year under review:

1. Chhalo Jai 2010 Kolkata	July 2010
2. 16 th All India National Expo-2010	August 2010
3. National Expo 2010 Kolkata	September 2010
4. UPASI Annual Conference at Coonoor 2010	September 2010



5. Tea Fest -2010	October 2010
6. Kolaghat Utsav -2010	October 2010
7. Assam Tourism Festival -2010	November 2010
8. Konark Dance Festival -2010 Konark, Orissa.	December 2010
9. India Organic Trade Fair – 2010, Mumbai	December 2010
10. Sonapur Mela – 2010 , Sonapur	December 2010
11. Uttaranchal Trade Fair – 2010, Dehradun	19 th Dec, 2010
12. 2 nd North East Agri Expo 2010, Dimapur, Nagaland	December 2010
13. Sunderban Utsav 2010, Kultali, South 24 –Pgs.	December 2010
14. Indian Science Congress – 2010, Chennai, Tamil Nadu	January 2011
15. KSHMJ -2010, I.I.T, Kharagpur, West Bengal	January 2011
16. Mega	

Tea Board also sponsored BANNER and GATE at the following events :

I. Bishnupur Mela 2010, Bishnupur, Bankura, West Bengal
II. Leather Promotion Fair October 2010 Durgapur, West Bengal

Indian tea advertisements, with articles in some cases, were released in a number of national and other magazines, newspapers, supplements etc, highlighting tea as health and lifestyle beverage.

6.2 Production of Publicity Materials and Gift Items.

The Directorate continued its regular functions of production and printing of promotional literature/items, catering to the request for publicity materials, tea caddies, etc., from the Board's foreign offices and Indian Missions abroad, interacting with the general public, domestic and foreign press and other VIPs/Government Officials, prospective tea buyers, etc.

6.3 Tea Promotion in India.

With the slowdown in the rate of domestic consumption of tea, increasing competition from other beverages and

developments in the global arena, such as, the liberalized regime of imports under WTO obligations, there has been a revised focus of the Board on tea promotion in India. This however, was on a low key on account of paucity of funds.

The Board continued to maintain four Tea Bar/Bufets at Parliament House, Yojana Bhawan, Udyog Bhawan and North Block in New Delhi, a Tea Nook in Tirumala and Tea Room at Tamil Nadu Secretariat, Chennai, which presently function mainly as public relations platforms and serve high quality Indian teas at such venues, frequented by VIPs, foreign visitors and other guests. The Tea Centre opened at Chennai Mofussil Bus Terminus (CMBT) has been functioning since April, 2004.

For running Board's Tea Center in Mumbai, M/s. Sai Food who was appointed as Management Consultant from



1st October 2008, continued managing the Tea Centre on Tea Board's behalf.

6.4 Delegations/Visitors from abroad.

India hosted the 19th Session of the FAO IGG Meet on tea in Delhi from 12th to 14th May, 2010. Representatives from 16 countries participated. Argentina participated for the first time. Apart from the 90 official delegates from the 16 countries, there were four observers from (i) WIPO, (ii) CFC, (iii) ITC and (iv) Tea Research Foundation of Central Africa, as well as seven FAO representatives.

6.5 Delegations/Deputations from India.

1. Mr. B. Banerjee, Chairman, led a trade delegation to Vienna for BSM coinciding with Tea & Coffee World Cup exhibition from 25th to 27th April, 2010 and also presided over Darjeeling tea tasting session and Darjeeling tea auction;
2. Mr. R.D. Nazeem, Executive Director, Coonoor and Shri Joydip Biswas, DDTP were deputed to participate in the Seventeenth Food, Beverages and Hospitality Trade Fair in Tehran, Iran during 30th May to 2nd June, 2010;
3. Mr. P.K. Dash, Law Officer, Tea Board was deputed to New York in May, 2010 for discussion with the US partners of M/s. K & S for sorting out Darjeeling IPR related legal issues;
4. Mr. B. Banerjee, Chairman, visited Hamburg from 4-6, June, 2010 for attending COTECA and/or discussions with members of German tea industry to clarify issues relating to Darjeeling G.I;
5. Mrs. R. Datta, DTP was deputed to Hong Kong for organising Tea Board's participation in Hong Kong International Tea Fair from 12-14 August, 2010;
6. Ms. R. Sen, Deputy Chairman, and Mr. J. Biswas, DDTP, were deputed to participate in 'Great India Bazar' in Almaty, Kazakhstan from 14th to 22nd August 2010;
7. Mr. B. Banerjee, Chairman and Ms. N. Datta, DDTP were deputed to Johannesburg, South Africa from 29th August to 2nd September, 2010 for 'India Show';
8. Mr. Rajiv Roy, FA & CAO and Mr. S.C. Biswas, DTP were deputed to participate in World Food, Moscow from 14th to 17th September 2010;
9. Mrs. R. Datta, DTP was deputed to organize the participation in China Tea Expo, Beijing, China from 20th to 23rd September 2010;
10. Ms. .R. Sen, Deputy Chairman and Mr. S. Mitra, DDTP, were deputed to participate in Canadian Coffee & Tea Show, Toronto, Canada during 26th & 27th September, 2010;
11. Mrs. R. Datta, DTP was deputed to Paris to organize jointly with DTP, London Tea Board's participation in SAIL, Paris, France from 17th to 21st October 2010;
12. Mr. P.K. Dash, Law Officer was deputed to Brussels from 19th to 21st October, 2010 for negotiating with ETC regarding Tea Board's application under E.C. for registration of Darjeeling as PGI ;
13. Mr. K. Halder, Secretary, and Mr. J. Biswas, DDTP, were deputed to participate in World Food Ukraine in Kiev, Ukrain during 26th to 29th October 2010;
14. Ms. .R. Sen, Deputy Chairman led a delegation for a Buyer-Seller-Meet organised by Indian High Commission in Singapore. Ms. N. Datta, DDTP, was deputed to organise India Show in Singapore during 14th to 16th January 2011;
15. Mr. K. Halder, Secretary, Mr. S.C. Biswas, DTP and Mr. S.K. Das, Section Officer, Ministry of Commerce and Industry were deputed to San Francisco to organize Board's participation in Winter Fancy Food Show from 16th to 18th January 2011;
16. Ms. R. Sen, Deputy Chairman, and Mr. J. Biswas, DDTP, were deputed to organise Board's participation in Prodoexpo in Moscow, Russia from 7th to 11th February 2011;
17. Mr. R. Sen, Deputy Chairman and Ms. N. Datta were deputed to Tokyo for organising Tea Board's participation in Foodex from 1st to 4th March, 2011.



6.6 Overseas

Export of tea from India to some major destinations :

MAJOR COUNTRY WISE EXPORTS OF TEAFROM INDIA

Name of the Country	April to March (2010-2011) (Estimated)					April to March (2009-2010)				
	Qty (M.Kgs.)	Value (₹ Crs.)	Value (M US \$)	UP (₹ / Kg)	UP (\$/kg)	Qty (M.Kgs.)	Value (₹ Crs.)	Value (M US \$)	UP (₹ / Kg)	UP (\$/kg)
Russian Federation	34.51	395.09	86.75	114.49	2.51	48.35	616.76	129.45	127.56	2.68
Kazakhstan	10.4	161.83	35.53	155.61	3.42	11.10	170.21	35.73	153.41	3.22
Ukraine	1.49	17.39	3.82	116.71	2.56	1.78	21.25	4.46	119.52	2.51
Uzbekistan	-	-	-	-	-	-	-	-	-	-
Other CIS	0.39	4.75	1.04	121.79	2.67	0.50	8.08	1.70	159.71	3.35
Total CIS	46.79	579.06	127.14	123.76	2.72	61.73	816.30	171.34	132.24	2.78
United Kingdom	12.99	203.21	44.62	156.44	3.43	17.79	242.31	50.86	136.20	2.86
Netherlands	2.72	57.84	12.70	212.65	4.67	2.73	65.90	13.83	241.31	5.06
Germany	4.59	94.64	20.78	206.19	4.53	3.89	92.41	19.40	237.85	4.99
Ireland	1.75	59.36	13.03	339.20	7.45	1.51	48.39	10.16	319.61	6.71
Poland	3.1	38.94	8.55	125.61	2.76	3.42	51.52	10.81	150.72	3.16
U.S.A.	9.48	177.57	38.99	187.31	4.11	9.81	187.46	39.35	191.06	4.01
Canada	2.04	35.66	7.83	174.80	3.84	2.35	40.04	8.40	170.09	3.57
U.A.E.	15.17	246.58	54.14	162.54	3.57	21.97	323.16	67.83	147.08	3.09
Iran	13.69	239.21	52.53	174.73	3.84	13.28	209.61	44.00	157.90	3.31
Iraq	3.86	39.62	8.70	102.64	2.25	17.36	225.19	47.27	129.73	2.72
Saudi Arabia	2.63	38.05	8.35	144.68	3.18	2.82	39.44	8.28	139.81	2.93
A.R.E.	4.87	39.35	8.64	80.80	1.77	5.76	55.78	11.71	96.87	2.03
Turkey	0.11	2.14	0.47	194.55	4.27	0.01	0.43	0.09	394.82	8.29
Afghanistan	4.34	31.33	6.88	72.19	1.59	13.33	98.16	20.60	73.61	1.55
Singapore	0.2	3.46	0.76	173.00	3.80	0.36	7.54	1.58	209.01	4.39
Sri Lanka	3.74	52.54	11.54	140.48	3.08	5.05	67.62	14.19	133.95	2.81
Kenya	3.68	22.26	4.89	60.49	1.33	3.09	21.08	4.42	68.29	1.43
Japan	3.07	81.18	17.83	264.43	5.81	2.95	80.23	16.84	272.23	5.71
Pakistan	20.21	122.39	26.87	60.56	1.33	8.31	78.89	16.56	94.91	1.99
Australia	4.21	114.02	25.04	270.83	5.95	4.56	121.47	25.49	266.21	5.59
Other Countries	15.69	172.08	37.79	109.67	2.41	11.35	165.76	34.79	146.00	3.06
TOTAL	178.93	2450.49	538.07	136.95	3.01	213.43	3038.69	637.80	142.37	2.99

Board's overseas Offices play a strategic role in developing markets and promoting Indian tea in these countries. The aim is to increase sales, exports and market share of Indian teas by building long-term and mutually beneficial relationships between Indian exporters and overseas buyers for commercial advantage to the Indian tea industry.

LONDON OFFICE

Major Activities & Initiatives

The London Office of Tea Board organised and participated in a series of Market Promotion events directed at different sections of the consumers and business interest. For purposes of a sustained approach as well as variations in consumer demands, the broader European market was



segmented into 3 major focus areas – the relatively settled UK / German Market; and the potentially high growth markets of Poland – Hungary – Czech Republic & France as well as the small emerging markets of Spain and Italy. Such segmentation was also necessitated in view of limited financial resources at the disposal of the office.

Fairs & Exhibitions

Participation in Food & Beverages exhibition continued to be one of the major promotional activities. Accordingly, the London Office organised exporters participation in the following events:-

1. Tea & Coffee World Cup, Vienna, Austria 25th to 27th April 2010
2. Coffee, Tea & Cocoa (COTECA), Hamburg 4th to 6th June 2010
3. SIAL Paris 17th to 21st October 2010
4. BioFach Nuremberg 16th to 19th February 2011

CONSUMER AWARENESS & LOGO PROMOTION

Apart from participation in Fairs & Exhibitions which were targeted more at business, the London Office also organised and participated in events which focused on consumer awareness, logo promotion and protection of brands & origins of Indian teas. The events also sought to showcase the products of Indian exporters in the value added segment.

The office continued with the 'Magic of the Leaves' events with tea expert Ms Jane Pettigrew. A number of events were held at Nehru Centre and other venues. Generic sampling events were also held at Covent Garden London and during the Wimbledon 2010.

Outside UK, sampling events were held in Czech Republic and Spain. At the invitation of the Indian mission at Madrid the Tea Board London office also sponsored and participated in the Indian Music and Cultural Festival at Madrid held from the 16th to 18th June 2010. The Festival was graced among others by Her Excellency the Queen Sofia of Spain. Tea Boards participation was organised through Indian Embassy and M/s Tetermundi a leading retailer of teas in Spain. A small and elegant tea corner was created where the range of Indian teas were displayed both in leaf and brewed forms. Sampling was carried out on all the three evenings to the select gathering and was very well received. The cost of organising the event was shared between M/s Tetermundi and the Tea Board.

Tea Board also participated in the tea promotion event organized by the Indian mission in Czech Republic. The event was organized at a theatre in the city of Brno on the 25th and 26th of October 2010. Liquid tea was sampled at the event which was visited among others by the Governor of

the province. This event was followed up with a series of sampling event at 3 of the major cities (Prague, Brno and Ostrava) between the 25th and 30th of November 2010. All the events were graced by the Ambassador to the Czech Republic. Events have led to successful introduction of Indian packaged tea to the Czech market.

In association with the organizers & the Darjeeling Tea Association the Tea Board also organized two special events during Tea and Coffee World Cup at Vienna to showcase some of the best garden teas from Darjeeling. The first event was held on 26th April, 2010. Master taster Krishan Katyal conducted a special tea tasting session with an invited gathering. Participants were informed of the various varieties of tea grown worldwide & the uniqueness of Darjeeling teas. Differences & nuances of various varieties of Darjeeling tea including differences based on seasonality were explained. Participants were able to taste & talk about each of the different varieties of tea which was available for tasting.

The second event was held on 27th April, 2010. Tea Auctions no longer takes place in Europe. They are however an integral part of the tea trade in the tea growing countries. The event sought to showcase some of the best gardens producing Darjeeling teas & at the same time expose the participants to the excitement of participating in a tea auction. The teas used for tasting the previous day were put to auction in lots of 1 kg. All the 21 lots were picked up with a highest bid of 150€ & the lowest of 56€. A total of 1487€ was raised which was passed on through the Indian Embassy at Vienna to the charitable organization - Maher.

LOGO PROMOTION THROUGH GIFT PACKS

Tea Board London Office also initiated steps to have various Indian Missions situated in the EU zone accept the idea of gifting Indian made tea as part of their regular PR activities and more specifically during the Christmas & New year season. One of the exporters of packaged tea, namely M/s Premiers' Tea, Kolkata was commissioned to produce special gift boxes containing 50 gms each of Darjeeling, Assam & Nilgiri teas. Approximately around 1000 boxes were imported and consigned to various Missions. Gifting of Indian tea especially by Head of Missions would hopefully help spread some good word about Indian teas among a distinguished section of the local population.

Logo promotion was also carried out at all the consumer sampling events held in UK and outside of UK.

PESTICIDE RESIDUES

Europe specially the EU, is a major export destination for high value Indian tea. The Pesticide Residue Regulations in the EU have been made stringent. The Tea Board continued to engage the stakeholders through German Tea Council



and the International Tea Committee in order to ensure that the interests of Indian exporters are protected. Efforts are also on to build consensus on the permissible levels of the residues & the methods of measuring the same.

CERTIFICATION TRADE MARK (CTM Scheme)

The Tea Board of India has introduced the Certification Trade Mark Scheme for the purposes of ensuring that the value & cache that is attached to Darjeeling tea is protected. This scheme also aims to ensure that the tea which is claimed to be Darjeeling is authentic anywhere in the world, whether offered in bulk or retail packs. Building on the registration of "Darjeeling logo" & also the word "Darjeeling" as a CTM under the Trade Marks Act 1999; and the registration of the logo as well as the word "Darjeeling" under the Geographical Indications of Goods (Registration & Protection) Act, 1999 the Tea Board is now pushing for international acceptance of Darjeeling tea as a GI. As part of this efforts are on to implement a Darjeeling CTM programme with the UK buyers.

OFFICIAL VISITS

Chairman, Tea Board visited Germany for the Coteca show. The visit was utilised to meet up with the office bearers

of the German Tea Association. Their concerns regarding the notification of Darjeeling as a protected GI by European Commission as well as India's withdrawal from the membership of the Association were discussed. On the former subject misconceptions of the German trade regarding the need and desirability of notifying Darjeeling Teas as a PGI and putting in place a scheme to protect its supply chain integrity in Europe were addressed. It was agreed that any changes in the draft notification would be done by mutual consultations through respective counsels so as to eliminate any unintended consequences of the notification. Chairman clarified in no uncertain terms that it is not the intention of the notification to limit packaging and labelling of Darjeeling Teas to within India.

Chairman also visited Berlin and called upon the Indian Ambassador and briefed him on the efforts of the Tea Board to register Darjeeling Tea as PGI in Europe and the reaction of the German tea importers.

During April and June 2010 the Commerce Minister and the Commerce Secretary also visited London on official work. DTP called upon them.

TEA IMPORTS BY MAJOR COUNTRIES OF EUROPE

Country	Imports in Value 2007	Imports in Quantity 2007	Imports in Value 2008	Imports in Quantity 2008	Imports in Value 2009	Imports in Quantity 2009	Imports in Value 2010	Imports in Quantity 2010
UK	307 million	157177 tons	367 million	157180 tons	397 million	151777 tons	421 million	149831 tons
Germany	154 million	48410 tons	181 million	50771 tons	167 million	46278 tons	NA	NA
Poland	67.5 million	28465 tons	105 million	32671 tons	112 million	41657 tons	NA	NA
Ireland	36.5 million	9472 tons	46.5 million	10487 tons	49.5 million	15094 tons	NA	NA
Czech Republic	19.5 million	3027 tons	21.5 million	3049 tons	22.5 million	3150 tons	23.3 million	2907 tons
Hungary	12.1 million	2375 tons	12.8 million	2845 tons	13.7 million	2970 tons	NA	NA
France	130 million	17972 tons	150 million	18682 tons	153 million	17679 tons	163 million	19133 tons
Italy	56 million	6872 tons	60 million	7324 tons	62 million	7717 tons	NA	NA
Norway	16.2 million	1128 tons	17.9 million	1003 tons	15.9 million	1007 tons	168 million	1080 tons
Denmark	12.6 million	1658 tons	12.8 million	1993 tons	16.2 million	1834 tons	NA	NA

Values indicated in US Dollar terms



London office also continued to support efforts of the Indian Missions in holding events to showcase Indian food and culture of which tea is an integral part.

Market Conditions & Export Performance

UK and Ireland remain the only countries in the developed world with higher per capita consumption of tea than coffee. In U.K the per capita tea consumption is 2.07 kg per year and in Ireland it is 2.23 kg per year.

As one would expect, the European Market is not monolithic – with countries having distinct tastes & preferences. For instance the UK market continues to be dominated by black tea with a fair appreciation of Assam teas. In contrast the German market continues to show a marked shift towards green teas

As far as the Indian exports are concerned the German market has a much larger appreciation for teas from Darjeeling than any other country in the EU. Countries like France, Spain & Italy are evolving towards greater use of tea based infusions – cold as well as hot – and use of green & white teas. The erstwhile Soviet block countries like Poland, Hungary and Czech Republic are poised to move from a predominant choice of low priced CTC products to a more varied basket of teas. Of the three, Poland continues to be the largest importer of tea, with total imports being close to the combined imports of Germany & France.

Within the overall tea market, the top performances (albeit from much smaller bases) have for the past 2 years consistently come from green tea, fruit & herbal teas.

DTP undertook a tea market survey in Spain.

UK

UK is the 2nd largest importer of tea and accounts for 9% of world imports. Kenya alone accounts for around 49% of imports into U.K, while India, Indonesia, Sri Lanka and China account for another 16%. In value terms, these 6 countries account for 74% of imports. India realises the highest unit price per kg vis-à-vis Africa and Indonesia. Tea has the highest per capita consumption (3 units/head),

compared to other beverages. 69% of the population over age 10 drinks tea daily. UK imported around 148 mn kgs tea in 2009 valued at USD 367 mn. India exported 12.99 m. kgs of tea to UK in 2010-11.

Product quality, as defined by the end consumer, is tea colour and liquor strength. Compared to other suppliers, Kenya supplies the best quality teas at the least cost. Hence Importers prefer Kenyan teas in blends. However, the end consumer perceives higher brand equity in Indian (Assam, Nilgiris and Darjeeling) and Ceylon teas. Teas of African origin have low consumer mind share, as they go into blends, not stand-alone brands. Indian tea, because of seasonal availability, increases working capital costs of blender importers.

Germany

Tea imports into Germany in the last few years had increased gradually and the import figure in 2009 stood at 44.28 m. kgs. Germany is one of India's top five markets. It is a quality conscious premium market. India derives a substantial premium compared to other origins. Germany consumes about 55% of imports and re-exports the remaining 45%. Within hot drinks, tea accounts for 11%. Coffee and new tea forms like herbal & fruit tea are the major threats to tea. However, tea is perceived to be a premium product, and consumer tastes are sophisticated.

Black tea accounts for 76% of Germany's imports. Most of the tea is orthodox / leaf variety. Indian tea enjoys a high brand equity.

Unlike the rest of Germany, tea continues to be the beverage of choice in East Friesland (located in North Germany). Per capita consumption of tea in East Friesland is about 3 kg. This is substantially higher than the German average of 300 gm. Consumers drink a minimum of 3 cups of tea, on each occasion. This region has the highest per capita consumption of Assam Tea.

France

France imports around 18 m kgs of tea. The main supplier countries are China, Sri Lanka, UK and Benelux



countries, the last two being non producing re-exporting countries. This indicates that there is scope to develop direct exports especially in the value added format. Even though export from India is less than 1m. kg, Indian tea enjoys high unit price realization. The French are inclined towards consumption of healthy food and drinks. While tea bags and convenience products are the most favoured forms amongst consumers, tea drinking is expected to grow.

U.K. Tea Council

Notice of withdrawal of membership from the U.K. Tea Council was served on November, 2009. As a result DTP was not invited to any of the U.K. Tea Council meetings.

German Tea Association / Tea Council

DTP participated actively in the meetings of the German Tea Council. On the pesticide residue issue India's views were stressed. India withdraw from the German Tea Council from 01.01.2011.

MOSCOW OFFICE

Tea Board's Moscow Office looks after the promotion and the Public Relations work pertaining to Indian tea in the region of CIS which comprises Russia, Kazakhstan, Ukraine, Uzbekistan, Azerbaijan, Turkmenistan, Belarus, Kyrgyzstan, Tajikistan, Georgia, Armenia, Moldova and the Baltic states of Latvia, Estonia & Lithuania. The promotional activities during the year through participation in trade fairs from the H.O. were basically limited to the strategically important markets of Russia, Kazakhstan and Ukraine in the absence of a regular resident Director since April 2010.

Fairs & Exhibitions

During the year under review, Board's Head office organized participation in the following prominent exhibitions within Moscow office jurisdiction :-

1. Great India Bazar, Almaty, Kazakhstan (14 – 22 August 2010)

2. World Food, Moscow (14 -17 September, 2010)
3. World Food, Ukraine, Kiev (26 -29 October, 2010)
4. Prodexpo, Moscow, Russia (7 -11 February 2011)

Other Activities:

Tea Board also participated in the Summer Bazar organized by Indian Women's Association, which was held at the premises of Embassy of India, Moscow on 29th May, 2010. It was basically a charity event, which showcased Indian culture in all its diversity and vibrancy such as the country's exotic food, exquisite varieties of Indian origin teas, resplendent ethnic jewellery, colourful clothes and traditional handicraft amongst other ethnic products. Many Russian nationals, dignitaries as well as foreign nationals including representatives from various Embassies attended the cultural presentations.

Tea sampling with the help of local Tea companies dealing with exclusive Indian blends was organized during the participation, which was attended by more than 1000 people.

Russia

The undivided Soviet Union comprising Russia and other CIS countries have always been the prime destination for Indian tea during 1981 to 1990. Even after disintegration of Soviet Union, the Russian Federation remained the largest export destination of Indian tea.

Russia has been enjoying unprecedented economic prosperity for the last decade, driven by their political stability and booming oil, gas and metal sectors. The affluence has translated into high purchasing power of the Russians. A Russian consumer has now become more quality conscious, demanding and is ready to pay a higher price for the product of his choice.

Russia's market size is estimated to be 182 million kg with a per capita consumption (PCC) of 1.27 kg p.a. The market is estimated to be growing at a compound rate of 1.1% p.a. dominated by tea in bulk form, whereas domestic consumption is expected to grow @1.8% p.a. in the coming years.



The country is traditionally and pre-dominantly an orthodox market with tea being consumed in packets (90%) and in orthodox blends (around ¾th is orthodox and the rest is granulated CTC). Of late, "Green tea" category has been evoking an active interest for its perceived intrinsic health benefits and the segment is expected to grow @ 7% p.a. during the coming years.

Value added teas are the key to growth, although imports will primarily continue to be in bulk form. In terms of convenience, there has been a renewed thrust on tea bags (55% of current tea sales), containing a substantial portion of Assam CTC teas.

As the economy revives post-recession, some structural shift from economy to premium segment is envisaged leading to increased unit price realization. This is because of the enhanced perception of health, wellness & novelty aspects amongst the consumers at large. This would result in intense competition and as a result the price war amongst the major players like Orimi Trade, May Tea Co., Ahmad Tea, Avalon, Sapsan (Akbar), Unilever, Grand etc. would intensify in the coming months.

Establishment of the Custom Union (Russia, Belarus & Kazakhstan) since January 1, 2010 will allow Russian companies to significantly increase their influence on the markets of these three countries. This has meant an increase in the demand for better quality Indian tea in attractive packets.

Challenges that Indian tea faces in Russian market differ from segment to segment. In the orthodox tea - premium segment, Indian teas are losing to Sri Lanka on the physical appearance and image front as the average Russian consumer still perceives the Sri Lankan teas to be of better quality than the Indian teas. In the orthodox tea - economy segment, Indian teas (both North and South Indian) have not been able to match the cheaper prices offered by Indonesia and Vietnam where teas are plucked and processed in a non-plantation nature of industry and thus there are cheaper labor wages against the high social overheads which plantations in India have to cope with. In the CTC tea segment (primarily used in tea bags),

Kenyan teas are competitively priced due to lower labour wages and are of good quality due to younger tea bushes and round the year availability.

Out of the imported volume of 182 million kg during 2009, India accounted for around 25%, whereas Sri Lanka had a share of 30%. Other prominent producer countries like China, Indonesia and Kenya accounted for 10%, 10%, and 8% respectively. Other countries accounted for 17%.

In fact, Indian tea export to Russia decreased from 48.35 million kg valued at ₹ 616.76 crores during 2009-2010 to 34.51 million kilograms valued at ₹ 395.09 crores during 2010-2011.

Kazakhstan

Apart from Russia, Kazakhstan is the other largest of the former Soviet republics, with a strong tradition of tea consumption and high per capita consumption (around 1.5 kg p.a.). While black standard tea accounts for the greatest share (about 94%), there is increasing interest in products with a healthy positioning like green tea (around 4%). There are growing sales of green and black specialty teas too.

Kazakhstan is the only CTC market in the CIS Region with an annual import of 25 million kg of high quality tea (CTC tea->82%, Orthodox tea->12%, and Green tea -> 4%). Even though the Indian brands are very popular, Kenyan Tea is fast gaining ground owing to its distinct flavour, which is grown in high altitudes enriched with rich red/black soil. Kenyan teas are competitively priced and of good quality due to their younger tea bushes and very little climate-induced variations in quality.

Out of the imported volume of 26 million kg during 2009, India accounted for 40%, whereas its nearest competitor Kenya had a share of 39%. In comparison, Sri Lanka attained a share of only 6% in the market because it mainly produces orthodox variety (Orthodox->94% and CTC->5.5% by production).

Ukraine

Ukraine being a traditional tea consuming country is the third important market in terms of volume and value.



With an estimated population of 46 million (2010 estimate) and a largely youth-centric (median age is 40), the country has traditional penchant for black tea drinking on every occasion having dark & strong brew (distinct preference for the CTC type). With moderately high per capita consumption of 0.6 kg per annum, the consumers have a distinct preference for black tea (80%), followed by green tea (20%).

Its effective market demand is estimated to be 20 million kg per annum, which are all imported. It is conservatively estimated to be growing @ 3.5% p.a.

Out of this imported volume, India accounted for around 11%, whereas Sri Lanka had a share of 43%. Other prominent producer countries like China and Indonesia accounted for another 23% together.

The consumer preference has overwhelmingly been for packed teas (70%) with tea bags accounting for the rest (30%).

DUBAI OFFICE

The Dubai office of Tea Board looks after the promotion of Indian tea in the West Asia and the North African region. The region covers the countries of UAE, Saudi Arabia, Iraq, Iran, Syria, Jordan, Morocco, Algeria, Tunisia, Libya, Sudan, Kuwait, Qatar, Bahrain, Oman, ARE, Lebanon and Yemen. Pakistan and Afghanistan have been recently added to the responsibility of the Dubai Office. This office also handles trade enquiries from Turkey and South Africa.

The objective is to promote Indian tea, enhance demand of Indian tea and increase market share, through Field Promotions and Media Campaigns in the region. Field Promotion activities include participation in Fairs and Exhibitions, organizing Buyer-Seller meets, market survey, including collection of statistical data for the benefit of Exporters and respective Governmental agencies, regular interaction with tea importers and being responsive to their requirements, keeping constant contact with the Indian Missions in various countries for logistic support, analysis of consumer preferences and behaviour. Media Campaign includes creating awareness on Indian Tea and its logos through the release of advertisements.

Board's Advertisements

On the occasion of India's Independence on 15th August 2010 Dubai office released advertisements in Khaleej Times, the leading news publication of the UAE and also in Gulf News, UAE, Saudi Gazette, KSA and Bahrain Tribune.

Advertisement was also released in the Middle East Food Magazine.

Fairs & Exhibitions

During the year under review, the following fairs were held in the countries under Dubai office jurisdiction.

1. HORECA, Beirut, Lebanon, 27th to 30th April, 2010
2. Iran Agro Food Fair, Tehran, 30th May to 2nd June, 2010
3. India Show, Dubai, 8th to 10th June 2010
4. Damascus International Fair, Damascus Syria, 14th to 22nd July 2010
5. India Show, Johannesburg, South Africa, 29th August to 2nd September 2010
6. SIAL Middle East in Abu Dhabi, 22nd to 24th November 2010
7. India Show, Istanbul, Turkey, 3rd to 6th February 2011
8. Gulfood Dubai, 27th February to 2nd March 2011

Market overview: -

Middle East market is very competitive in terms of price and quality. Tea is drunk largely without milk and the appearance and colour of tea is the yardstick of first choice. Being a major tea consuming area, stiff competition is faced from Sri Lankan teas besides increasing popularity of Kenyan teas. African teas are finding their way into the market due to their price competitiveness and quality, besides the year round availability of supply. It has however, been noticed that in some countries preferring Orthodox teas like Iran, Syria, Saudi Arabia, there is a growing segment for CTC teas which India can target if we overcome the challenges of cost and quality.

There has been a good increase in exports to Pakistan and a nominal increase in export to Iran.

Export of Indian Tea for last three years to WANA country are as under :-

Year	2010-11		2009-10		2008-09	
	Qty. (M.kgs.)	Value (M.US\$)	Qty. (M.kgs.)	Value (M.US\$)	Qty. (M.kgs.)	Value (M.US\$)
	46.79	57.91	98.39	1981.81	63.63	1638.71



Type of teas imported by WANA countries: -

(a) Middle East: Largely orthodox but now CTC is also gaining acceptance in countries like Saudi Arabia and Iran. In UAE, domestically CTC is popular due to the large expatriate population from India and Pakistan.

(b) Egypt: CTC Dust and Broken

(c) Libya: Black Tea-Orthodox and Green Tea

(d) Tunisia: Orthodox –Black & Green Tea

(e) Morocco: Green Tea

UAE

The indicators affirm that the UAE continues to play a key role in the international tea trade due to its unique geographic location and provision of competitive logistic and storage services, particularly through the Dubai Tea Trading Centre (DTTC) in Jebel Ali Free Zone, one of the most important international tea re-export hubs, said the Ministry in a press release.

UAE is a major intermediary for tea production centres and consumer markets. It provides added value to the industry through several centres, the most important of which is the DTTC. DTTC was established in 2005 in a strategic location near Dubai's seaports in order to provide facilities for all international producers and purchasers. It maintains a central facility for storing, mixing and packaging tea as well as a dedicated office for tea companies and special units such as 'The Tasting Unit' which sorts different types of tea.

DTTC imports tea from 35 Asian and African countries. It is one of main re-export hubs in the world, storing tea for the 13 tea-producing countries of Kenya, India, Sri Lanka, Indonesia, Malawi, Rwanda, Tanzania, Zimbabwe, Ethiopia, Vietnam, Nepal, China, and Iran.

The UAE's tea re-exports accounts for approx. 72% of the global tea re-exports. Around 91 percent of the geographic distribution of UAE re-exports was directed at two countries: Iran at 49 percent and Iraq at 42 percent.

The food and beverage industry in UAE has been one of the fastest growing worldwide, particularly since over 90% of

the Gulf's food is imported. Dubai is the hub of tea trade in UAE. Large volumes of tea are currently transacted through Dubai, both physically cleared into Dubai and re-exported as well as trans-shipped through Dubai ports. Tea is re-exported to markets like Iran, Iraq and Saudi Arabia, besides other Middle East and CIS countries.

There has been considerable increase in imports of green tea. Many of the big tea companies/packing units, including Lipton are located in the Jebel Ali Free Zone, and source their tea there for packing. Besides, some Indian tea companies have also become members of the Dubai Tea Trading Centre (DTTC) and are stocking and re-exporting their teas from the DTTC warehouses in Jebel Ali.

The UAE market is largely dominated by Lipton, which has nearly 70% of the market share. More than 20 brands vie for the remaining share of the market. While the UAE domestic market for tea is not very large due to the small population, the market as a centre for tea re-exports is very large. This market is largely a CTC market preferring mainly the Assam CTCs among Indian teas. However, while in packet tea, pure Assam CTCs are available, the tea bag market comprises largely blends of Indian and Kenyan teas or pure Sri Lankan tea. The main problems facing Indian tea in this region is the quality of tea and the inconsistency of supply through the year due to seasonality of production. This has enabled other origins like Kenya and Sri Lanka, to find increasing acceptance in this market.

Dubai Tea Trading Centre :

The Dubai Tea Trading Centre (DTTC), a subsidiary of the Dubai Multi Commodities Centre (DMCC), located in Jebel Ali, has created an international hub in the region for trading in tea. The 23,731 square metre facility in Jebel Ali Free Zone also includes office space for regional and international tea companies.

DTTC's offers services across the entire value chain of the tea industry ranging from storage, "tea tasting, blending, packaging" as well as networking opportunities leading to increased trade. This facility – a one-stop solution for the tea industry - will further boost tea traded through the emirate,



contributing to the ongoing diversification of the emirate's dynamic economy. As Dubai is neither a producer nor a significant consumer of tea, it is well positioned to offer integrated services across the tea industry.

In addition to providing market infrastructure, DTTC also enables tea traders to access finance through the services of the Global Multi Commodity Receipt (GMR).

In keeping with its mandate to further increase the tea trade in and through Dubai, the DTTC also facilitates sales with buyers in the GCC countries, Iran, Iraq, Jordan, Morocco, Pakistan, Afghanistan and the CIS countries and has plans to expand its services to other Middle East and European markets. The Centre, continues to remain a major tea trading platform.

Arab Republic of Egypt

The Arab Republic of Egypt has traditionally been one of India's most important trading partners in the African continent. It is also one of the major tea consuming countries in the WANA region. The import figure stood at 77.6 m. kgs. in 2009.

The per capita tea consumption in Egypt is nearly 1.2 kg per annum. CTC teas are preferred in this market, mainly the Dust grades. The country has been a big market for Indian teas in the past, with exports of Indian tea crossing 18 million kgs in the 1980s. However, with Egypt becoming a member of COMESA in 1998-99, the duty structure of 30% for Indian and other origin teas vis-à-vis free import of Kenyan and African teas, led to a substantial decline in the quantity of Indian teas exported to this market.

Import duty on tea in Egypt was reduced to 5% in 2004 and further lowered to 2% in 2007. Indian teas are now entering the market with 4.87 m. kgs being exported in 2010-11. Dubai office made persistent efforts by participating in fairs, organizing buyer-seller meets, renewing contacts with major importers, meeting Government authorities, arranging media publicity, in an attempt to reestablish the presence of Indian tea in this market.

In order to increase Indian tea exports to Egypt and

consumption of Indian tea by local consumers, Tea Board opened India Tea Centre in Cairo. This is basically a trade facilitation unit where Indian teas will be displayed and prospective buyers will be put in touch with the supplier in India. This India Tea Centre which was formally inaugurated by Mr. B. Banerjee, Chairman, Tea Board in January 2010 continues to provide trade facilitation services.

Public Sector imports account for a substantial share of the total tea imports into Egypt. Nearly 24,000 MT are imported annually by the Government of Egypt for public distribution purposes. The General Authority for Supply Commodity (GASC) is the body responsible for deciding the quantity of tea required by the Govt. and the same is procured through two public sector organizations viz. M/s El Nasr Export & Import Co. and M/s Misr Export & Import Co. These companies import about 2000 MT each month. Due to the COMESA arrangement, Govt. of Egypt had specified public sector buying of tea only from Kenya and other African countries. This restriction was lifted in March 2007 and Indian tea is also now permitted for Govt. procurement.

Iran

Iran is a major consumer of tea, consuming more than 100 million kgs annually. It is also a tea producing country having about 17,700 hectares under tea plantation. While approximately 17 million kgs of tea is produced per annum, the production has been declining in recent years and is expected to come down to about 10-15 million kgs with some tea factories shutting down.

As per ITC statistics, legal imports of tea into Iran stood at 50.5 million kgs. in 2009. This however, does not include the substantial amounts of tea which are smuggled into the country. While import of packet teas less than 10 kg in weight is banned, an import duty of 30% is levied on bulk tea imports. A concessional duty of 4% is charged for imports of tea against purchase of domestic tea. Sri Lanka is the main supplier of tea to this market. India exported about 13.69 million kgs. to Iran during 2010-11. Iran prefers orthodox tea, specially the Assam Second Flush teas, however, there is also a growing segment of CTC tea consumers. Kenyan tea packets are



becoming visible in the market and some importers feel that the Kenyan CTC is better than the Indian CTC in colour and strength and also because it is available throughout the year. They also feel that Kenyan tea retains its flavour even after two years while Indian tea loses it within months.

Recent developments in the import policy with regard to tea have been of concern to the Indian tea industry. The new quality requirement, viz. the Plant Master File Requirement, which is basically GMP/HACCP, imposed by Iran requires each supplier of tea to register with the Health Authorities after filling in the designated form and paying a onetime registration fee of US\$ 7000. This requirement imposed by the Iranian Govt. in Nov 2006 continued to be valid.

Tunisia

Republic of Tunisia is a small country situated between Algeria and Libya with a total population of about 10.33 million people. Tea drinking along with coffee is a popular pastime. Tea is drunk without milk but with plenty of sugar and with a hint of mint.

It is consumed both in green and black varieties. The Tunisians prefer strong tea with flavour which are medium grown. Sometimes they brew tea more than once from the same leaf. While the Tunisian population is small, this is supplemented by the tourist arrivals which were estimated at 8 million during 2009. Tunisia imported 7.8 million kgs in 2009, with 3.2 mkg from Sri Lanka, 2 mkg from China and small quality from other sources. Of the 7.8 mkg from tea imported, about 6 million being black tea and 1.8 million being green tea. Office du Commerce de La Tunisie (OCT) is the sole tea importing agency in the country. They import in bulk and have their own packaging plant where tea is packeted in their brand for local consumption. Some tea is also packeted by private companies for the local market. However, the tea used in these packets is imported by OCT for the local companies when there is a requirement. These are largely fannings for tea bags.

Morocco

Morocco, is an important tea consuming country in the region, being one of the main consumers of green tea, with

little consumption of black tea. The country imports around 53 million kgs of tea, of which more than 95% is green tea. India too had exported some small amounts of tea to Morocco in the past. Until 1993, the import of tea into Morocco was totally in the hands of the Government through Office Nationale du The et du Sucre (ONTS). ONTS was importing tea from China, Indonesia, Sri Lanka and India. Since liberalization in 1993, ONTS has ceased to import tea from India and Indonesia. At present the primary source of tea import is from China. 53.5 million kgs of tea was imported from China in 2009. Best grades of green tea are gunpowder followed by chunmee and then soumee variety of tea. Revival of Indian tea exports to Morocco has been taken up with the DG of SOMATHES (previously ONTS) through the Indian Embassy in Morocco. It is learnt that though China has a monopoly in tea export to Morocco, SOMATHES is keen to find alternative sources of supply. The Govt. is also in the process of privatizing SOMATHES, and M/s Tata Tea is one of the companies which have shown interest in taking over SOMATHES.

Yemen

Yemen was a coffee exporting country for many years, but due to qat (a narcotic substance) cultivation in rural areas, the export and the popularity of Yemeni coffee dwindled and drinking of tea has become very popular. Yemen is another big tea consuming country in this region. Yemen imported about 18 million kgs of tea in 2009 with Kenya accounting for 15.68 million kgs. A large quantity of tea is re-exported from UAE too. The tea consumed is mostly the dust grades. There is no restriction on import of tea into Yemen. The customs tariff on tea includes customs duty of 5%, sales tax 5%, consumption tax 3%, profit tax 1%:- total rate 14%. With about 22 million population growing at the rate of 3.7%, this market has potential.

Sudan

Sudan is the largest country in Africa, and a big tea consuming country, as well. The total population of the country is about 38 million, and it is importing about 20-23 million kgs of tea annually. The morning and evening cups



are usually taken with milk and sugar, while during the day, the Suleimani Tea is drunk, without milk, but lots of sugar. Due to the civil war situation in the country, between the Arab North and the Christian South, India has recently opened a consulate in Juba, Capital of South Sudan. The market is dominated by Kenyan CTC teas. 90% of the imports are in bulk.

The Sudan remains a key market for pushing exports.

LEBANON

The Indian Ambassador in Lebanon had invited DTP for business meetings with the Director Generals of various Ministries in the Government of Lebanon for discussions on possibilities of strengthening ongoing bilateral relations between both the countries

Market Surveys

DTP conducted tea market surveys in the following countries:-

1. Oman in November, 2010
2. Sudan in December, 2010

MARKET ANALYSIS

Most of the important markets like Iran, Libya, Egypt, Iraq and Morocco are undergoing a process of economic liberalization and the role of their respective Government buying & distributing agencies are getting marginalized. Private importers and distributors have started playing progressively bigger roles. Private trade in tea is now possible even in countries like Libya and Iraq which were earlier totally dependent on Government buying. Even countries like Iran which otherwise do not allow import of packet teas into the country, allow the same in their Free Zone for re-export. Opportunities offered in Free Zones in Turkey, Iran, Kuwait, UAE etc. provide a possibility of joint ventures which Indian tea companies may like to explore.

The Major players of tea in the Middle East want a very different product from what is the norm in Europe and the West. Teas in demand in different markets of the WANA region range from cheaper CTC dust grades and broken to higher

quality Assam Orthodox tea. The market however, remains very price sensitive and it is price, quality and appearance which determine demand rather than origin.

The Retail loose tea sale in the WANA region is gradually coming down. Packet teas and Tea bags are becoming popular. CTC segments are emerging even in those countries like Iran and Syria, which traditionally preferred orthodox teas.

Most of the countries in this region are becoming progressively brand conscious. In the supermarkets and the departmental stores and in the perception of consumers the competition is more among different tea brands rather than in terms of different countries of origin. However, in some countries like Syria, Saudi Arabia, Turkey, etc. origin still matters.

Setting up of free trade zones like the Jebel Ali Free Zone has encouraged value addition and large tea companies are setting up operations in the Middle East. In UAE, tea bags that were once sourced entirely from the UK are now being produced in the Jebel Ali Free Zone (JAFZA). UAE has in fact even started exporting it in the region and has become one of the big producers of teabags in the world. Platforms like the Dubai Tea Trading Centre (DTTC) which has upgraded its facilities to include centralized tea storage, blending and packing facility, facilitates multi-origin teas being available in one place and are also encouraging packing operations to be centralized in Dubai.

Private entrepreneurs in countries like Egypt, Saudi Arabia, Jordan, Oman & Syria are also setting up their own blending and packaging facilities to produce their own brands of tea. Even in Iran, Lipton has set up a packaging factory while brands like Alokozay too are reported to be setting up packaging facility in the country. Such developments encourage blending of teas of different origins. It also affects consumer tastes as the range of products increases and value added products like tea bags, flavoured teas etc. gain acceptance.

USA and Canada

The jurisdiction of the Board's erstwhile New York Office covered USA, Canada and South America. With the closure of Board's New York Office in July, 2004, promotional activities



have been handled from Head Office. During 2010-11 Tea Board participated in the following events in USA and Canada :-

Fancy Food Show, San Francisco (16-18 January, 2011)

Tea Coffee, Toronto, Canada (26-27 September, 2010)

TEA CONSUMPTION PATTERN

The tea consumption pattern in the USA is mostly in the form of ice tea. However, in the recent years, there has been some changes towards the consumption of hot tea also. Trend of overall consumption of tea in USA has also improved because of the health benefits, associated with tea. The import figure stood at 110.86 m. kgs. in 2009. Tea consumption in Canada has declined a little. India's share of the tea market in the USA is small but is increasing gradually.

Assam and Darjeeling teas as speciality teas are becoming popular in this market where flavoured teas play a vital role. Export of teas from South India is also registering a gradual increase. Canada is a hot tea market. About 60% of the population in Canada consumes hot tea unlike USA. The volume of Indian tea export to Canada is low. However, the silver lining is that even though the volume of export was low, the unit value realization was high thereby indicating that speciality teas are becoming popular and is poised for growth.

US Tea Council & Association

India being a founding member of this Council took part in all the deliberations of different meets.

Australia

Tea promotion in Australia is handled from Head Office. Though Australia is primarily a coffee drinking nation, the British habit of tea drinking also prevails. Australia's total import of tea from all sources is around 13 m. kgs. A small quantity of around 1670 m. tons is produced in the country. The country re-exports approx. 0.3 m. kgs tea. This market, is now being

viewed more positively as the new destination that has great potentials for penetration and expansion. Tea Board's promotional efforts over the last several years are now showing good results. Exports from India to Australia have registered an increase of more than 300% from 1.41 m. kgs. in 2002-03 to 4.21 m. kgs. in 2010-11. The growth has been in volume and value realization. Indian tea exports have been in the form of Instant Tea, Tea Bags & Packet teas.

No promotional activity was undertaken in Australia during 2010-11.

Japan

Japan produces 92-93 m. kgs. of green tea per annum which is consumed mainly within the country. Japan also imports black tea. Japan is a market for quality Darjeeling teas. Apart from the high quality leaf grade teas, the market has gradually cultivated the use of Assam CTC teas, used either in Tea Bags or for the production of canned milk teas, a favourite of the younger generation.

The promotional work for 'India tea' in Japan is carried out mainly through the Embassy of India in Tokyo with the assistance of Japan Tea Association.

Tea Board with the active assistance of the Indian Embassy participated in 'Foodex' Japan, 2011 from 01-04 March 2011.

The duty structure for tea imports to Japan are as under:-

Types of tea	Developing countries	Less Developing countries	Others
Black tea in bulk	2.5%	Nil	3.0%
Black tea in packets	12.0%	Nil	12.0%
Instant tea	8.0%	Nil	10.0%
Green tea	17.0%	17.0%	17.0%



LICENSING

7.1 Introduction

The Licensing Branch is a vital wing of the Board for implementation of various statutory and regulatory orders issued by the Government from time to time. In addition, Licensing Branch provides necessary clarification and guidance to the Tea Industry and trade in relation to fiscal policies and different legislation concerning tea. The tea related issues under different Bi-lateral and Regional/ Multilateral Agreement and its implementation on Tea Industry are being examined by the Board from time to time in order to formulate policy decision by the Govt. of India. The different statutory activities performed by the branch during 2010-2011 are enumerated below:

7.2 Exporter's Licence:

In accordance with the provisions of the Tea (Distribution & Export) Control Order, 2005 any person desiring to carry on trading in tea as an exporter, needs an Exporter's Licence. The period of validity of Exporter's Licence has been made effective for 3 (three) years from the date of its issue and every business licence once renewed shall also remain valid for a further period of three years from the date of its renewal unless the business licence is suspended or cancelled during the validity period. Every licensee being an exporter, desiring to convert his business licence into a permanent business licence, shall make an application, in duplicate, to the Licensing Authority in Form B before 3 (three) months of the expiry of the validity of the business licence. The Licensing Authority shall on receipt of such application convert the Licence into Permanent Licence if:

- The business licensee is an exporter ,
- Such licensee has not violated any of the provisions of the Tea Act, 1953 or Tea Rules, 1954 or Tea Board

Bye-laws 1955 or any other rules made under the Act and

- The volume of export of tea by the exporter holding the valid business licence during the last three years was not less than 1,00,000 kgs annually.

Such permanent license is granted in Form G. A fee of ₹ 2500/- is to be paid by the applicant for conversion of Exporter's Licence to Permanent licence.

The total number of tea exporters registered with Tea Board under the Tea (Distribution & Export) Control Order with valid exporter's licence stood at about 1278 as on 31.3.2011 as against 1175 as on 31.03.2010. The total amount collected during the year 2010-2011 was ₹ 1,03,000/- against issue of 103 fresh/temporary exporter's licence compared to issue of 105 fresh/temporary exporter's licence during the year 2009-10 amounting to ₹ 1,05,000/-.

During the year 2010-11, amount collected against renewal of 38 temporary exporter's licence was ₹ 38,000/- compared to renewal of 71 temporary exporter's licence during the year 2009-10 amounting to ₹ 71,000/-.

During the period of from 01.04.2010 to 31.3.2011, no exporters licence was converted to Permanent licence. The total number of Permanent Exporter's licence granted by the Tea Board till 31.3.2011 is 470 [3 (three) Permanent exporters license were cancelled] against 473 till 31.03.2010. The amount collected during the year 2010-11 was nil for issuance of Permanent license compared to 1 (one) Permanent license issued during 2009-10 amounting to ₹ 2,500/-.

7.3 Distributor Licence:

Under the Tea (Distribution & Export) Control Order, 2005 Govt. of India has introduced Tea Distributors' Licence with effect from 1.4.2005. It is issued to all the tea exporters who hold valid exporter's licence for importing tea for re-export or internal sale. Fees for distributor's Licence is ₹2,500/-. Number of Distributor Licence issued during the year 2010-2011 is 7 (seven) and the fees collected against the licenses amounts to ₹17,500/-.

7.4 Tea Waste Licence

The granting of Tea Waste Licence and renewal thereof are considered in accordance with the provisions of the Tea Waste (Control) Order, 1959. The main objective of the Tea Waste (Control) Order, 1959 are to check any misuse of tea waste as also to regulate disposal of tea waste for a certain gainful purposes. Accordingly, licenses are granted only to bonafide persons including buyers and sellers of the tea waste after proper investigation and scrutiny of the application. Under this Order, no person shall purchase, hold



in stock, sell or offer for sale any tea waste except under and in accordance with the terms and conditions of a licence granted by Tea Board in this regard. Tea Waste is generally used by the caffeine and instant tea manufacturers.

For caffeine manufacturers, tea waste is used in denatured form, while for instant tea manufacturers tea waste is used in un-denatured form. Un-denatured tea waste is also being used by the manufacturers of Bio-nutrient and Bio-fertilizer. Tea Waste Licence remains valid up to 31st December of the year of issue, unless suspended or cancelled earlier and is renewable every year. During the year 2010-11 total amount of ₹ 4,600/- was collected against issuance of 46 fresh Tea Waste Licence and renewal of 1044 licenses amounts collected was ₹ 40,500/- as against 57 fresh Tea Waste Licence and 1138 renewed during the year 2009-10.

In order to fulfill the objectives of promulgation of the Tea Waste (Control) Order, 1959 by the Government of India, it is necessary to keep an eye over the availability and disposal of tea waste so that misuse is checked and disposal is regulated. For this, a limited number of Inspectors of the Board are posted in important tea growing regions and tea trading centers. The activities of Tea Board in this direction are supplemental in nature. In fact, checking adulteration of tea, as one of the food items, comes under the purview of the Prevention of Food Adulteration Act 1954 (PFA), implemented by the respective State Government having bigger machinery at their disposal. Nevertheless, Tea Board with its limited strength of Inspectors, detected cases of contravention of the provisions of Tea Waste (Control) Order, and actions were also launched against such offending persons.

In accordance with the amendment made on 31.08.2001, Tea Board's regional office located in Coonoor and Guwahati are also issuing Tea Waste Licenses and renewing Tea Waste Licence on the basis of receipt of applications by the respective office after observing norms. As per the amendment effected from 05.03.2002, there should be a minimum volume of tea waste and made tea at the ratio of 2:100 Kgs. when processed out of the tea leaves, buds and tender stems of plant *Camellia Sinensis* (L) O Kuntze in a factory.

7.5 Registration – Cum- Membership Certificate (RCMC)

Every registered exporter of bulk tea, packet tea, tea bags and instant is required to be registered with Tea Board for obtaining Registration-cum-Membership Certificate under the Export Import Policy of the Government of India with a view to availing import/export entitlement benefits. The issue of such Registration cum Membership Certificate to the

registered exporters is done free of charge. The number of such registered exporter who has obtained Registration-cum-Membership-Certificate from the Tea Board during the period from 01.04.2010 to 31.03.2011 was 22 out of the total number of 937.

7.6 Tea (Marketing) Control Order:

In accordance with the provisions of the Tea (Marketing) Control Order, 1984, no person shall carry on the activities of manufacturing tea except under valid registration granted by Tea Board in respect of tea manufacturing unit owned or controlled by him.

Under the provision of the Tea (Marketing) Control Order, 1984, stakeholders like manufacturers, auction organizers and brokers were required to obtain registration/licence from the Tea Board before manufacturing tea and/or participating / conducting auctions. But the major stakeholder namely buyers who were one of the important players in the primary marketing channel were not within the purview of registration under the said Order. Therefore, there was no statutory provision for obtaining any information on purchase of tea from the buyers who are buying tea from auctions or directly from the gardens. In order to establish transparency in the total transaction (tea auction and direct purchase) at the primary level, it has been felt necessary to get the buyers registered with the Tea Board.

There was no provision in the TMCO 1984 in relation to quality adherence for tea as well as sharing of sale proceeds between the manufacturers and the tea leaf suppliers. So, aiming at above benefits, promulgation of TMCO 2003 in super session of TMCO 1984 was made on 1st January, 2003 containing the following main features:

- a) Registration of buyers and manufacturers of bulk tea with existing provision for registration of manufacturers of loose tea and licensing of brokers and auction organizers.
- b) Cancellation/suspension of registration of buyers with existing provision for cancellation of registration of manufacturers;
- c) Adherence to quality standards of tea as laid down under PFA Act 1954 by manufacturers / buyers and brokers.
- d) Fixation of price sharing formula for sharing of sale proceeds between the manufacturers and the tea leaf suppliers based on sale proceeds of made tea.
- e) Provision for sale of made tea outside public auctions by registered manufacturers to registered buyers (including consignee or commission agent) except sale through own retail outlet or brokers directly to consumers.



- f) Provision for drawing of sample from suspected tea to ensure its conformity to the PFA standard.

Clause 13 of TMCO enables Licensing Authority to issue direction to auction organizers / brokers for improving efficiency of the public auction system. The Tea Board following discussions at the level of Secretary, Ministry of Commerce and Industries, Government of India appointed consultant to undertake a study on primary marketing of tea to suggest the following:

- a) Need to preserve the auction system as the main vehicle for primary marketing of tea;
- b) Need for auction reform and implementation priorities,
- c) Creating variety in auction (including promoting electronic auction).
- d) Post reforms issues.

Based on the recommendations of the consultant, Tea Board has issued directives on 06.01.2003 to all the public tea auction organizers under the provisions of clause 13 of Tea (Marketing) Control Order, 2003 for implementation of following auction rule to improve the efficiency of the auction system.

- a) Catalogue closing time,
- b) Introduction of ex-estate sale,
- c) Rate of advancement of bidding,
- d) Reprinting of bids,
- e) Prompt Date,
- f) Drawing of sample quantity per lot,
- g) Reprinting of unsold lots as well as sample quantity for reprinted lots,
- h) Division of lots,
- i) Proxy bidding,
- j) Withdrawal of lots,
- k) Sale of unsold lots,
- l) Payment of warehouse charges.

The directive issued by the Tea Board on-(a) catalogue closing time, (b) Introduction of ex-estate sale, (c) Rate of advancement of bidding, (d) Reprinting of bids, (e) Prompt Date, (f) Drawing of sample quantity per lot, (g) Reprinting of unsold lots as well as sample quantity for reprinted lots are for reduction in transaction time and cost and for enhancing the speed of auction.

The norms for (h) Division of lots, (i) Proxy bidding are aimed at ensuring competition in the auction system and also to encourage participation of maximum under of sellers and buyers particularly small and medium sellers and buyers.

Norms relating to (j) withdrawal of lots is aimed at to encouraging buyer's participation in the auction, as it will prevent seller to withdraw their lots from the auction after cataloguing. Withdrawal of lots acts as a disadvantage to the buyers to buy their required tea from the auction as it permitted seller to withdraw the lots before sale.

Norms relating to (k) sale of unsold lots was acting as a deterrent to the market price discovery as it aimed at one to one sale and was not open for competition from buyer members.

Norms relating to (l) payment of warehouse rent is aimed at to ensuring the receipt of warehouse charges payable to warehouse owner by the manufacturer (seller) with the service of the brokers attached to auction. It is no way adversely affecting the buyers, as the buyer's payments as per auction sale to seller shall be paid by the brokers deducting the warehouse charges. The system was prevailing 4/5 years ago and re-introduction of the same system will benefit the warehouse owners without affecting the buyers' interest.

Subsequently Govt. of India has amended the Tea (Marketing) Control Order 2003 vide notification no. S.O. 247(E) dated 28.02.2003 and no. S.O. 430(E) dated 10.4.2003 for the following purposes:

1. To register manufacturer and buyer within 90 days from 01.01.2003 instead of sixty days stipulated earlier.
2. To reduce the licence fee / registration fee by 50%.
3. To change the periodicity for submission of returns by buyers from monthly to quarterly. Government of India has further amended the Tea (Marketing) Control Order 2003 vide notification no. S.O. 270(E) dated 27.02.2004 specifying the procedure relating to search and seizure and modifying the para 30 Of TMCO towards fixation of price sharing formula and its compliance.

7.7 Registration of Tea Manufacturers Unit :

While under the provision of TMCO 1984 there was no registration fee to be paid by the intending applicant, TMCO 2003 stipulates a provision of submission of registration fee (@ ₹ 2,500/-) by the tea manufacturing units for the purpose of obtaining registration from Tea Board. During the year under review, Tea Board granted 25 such registration in favour of tea manufacturing units. The total amount collected during the period i.e. 2010-11 from registration of tea manufacturing unit is ₹ 62,500/-. The total number of Tea Manufacturing units registered is **1713** as on 31.03.2011.



7.8 Registration of Auction Organiser/ Auction Brokers:

Clause 9 of the TMCO 2003 stipulates that no organizer of tea auction shall carry on the business of organizing, holding or conducting public tea auction under its control /auspices except under a licence obtained from the Tea Board. Such license is renewable every year and is valid up to 31st December of each year. During the year under review, Tea Board renewed licence in respect of 10 Auction Organizer. The total amount collected during the period under review was ₹ 5,000/- for renewal (@ ₹ 500/-) of ten Auction Organizer.

Clause 10 of the TMCO 2003 stipulates that no person shall carry on the business of a broker of any public tea auction except under a license obtained from the Tea Board. Such license is also valid up to 31st December of each year and is renewable each year. During the year 2010-11, Tea Board renewed licence in favour of 22 brokers and no fresh licence was issued. Total amount collected during the period was ₹ 11,000/-

7.9 Status on E - Auction :

Electronic auction for tea has been introduced **only in India** since April 2009. Sale of teas through auctions are continued to be held **through manual "out cry" system in other tea producing countries.**

Benefit of e-auction for tea are:

- Broad basing the participation of buyers since it is a web-based auction.
- E-auction provides facility for participation of large number of bidders/buyers against the limited number in manual auction system due to limitation of space in any auction hall.
- E-auction helps in ensuring Fair Price since E-auction provides facility to the buyer/bidder to buy required commodity at desired level of price in view of the quality of the commodity, overall Demand-Supply status of the said commodity and the level of quantum requirement of buyer for such commodity against the quantum available for buying at any time

- Improvement in dissemination of auction sale information.
- Reduction in transaction time and cost for pre-auction, auction process and post-auction activities.
- Planning tool in the hands of buyers and other stakeholders as bid history and its analysis is easily available.
- 100% live E-Auction for CTC leaf teas started since 8th April, 2010 at Kolkata Tea Auction Centre in addition to 100% live E-Auction started for Dust category of teas since 17th June, 2009.
- While Coonoor, Coimbatore and Cochin Auction Centre was fully electronic both for leaf and dust category teas since May/July 2009, **thousand lots of leaf tea and 50% of dust tea lots** were initially offered for sale through Siliguri Tea Auction Centre since 17th April, 2010.
- Guwahati Tea Auction Centre has started 100% live E-Auction for all types of leaf tea category since first sale of 2010 along with 100% E-Auction for all types of dust tea category introduced **since 20th May, 2009.**
- Customized software has been released on **14th August, 2010** for the purpose of introducing and running '**Instant auction**' and normal auction at Jalpaiguri Tea Auction Centre.
- Facilities for migration from '**Instant auction**' to '**Normal Auction**' and vice versa is available since **10th September 2010**
- Facility to use "**Uniform Tick Size**" feature by the auction buyers during the bidding time is available since 27th November, 2010.
- The total numbers of functionalities enhanced/modified during **1st April, 2010 to 31st March, 2011 are 38 in number.** The total number of functionalities released since 6th November 2008 and till 31st March 2011 **are 284 in number.**
- **The current status of E-Auction is as under :**

Auction Centre	Status on live e-auction
Kolkata	100% live e-auction for CTC Leaf teas started since 8th April, 2010 in addition to 100% live e-auction started for dust category teas since 17th June, 2009
Guwahati	100% e-auction started for Leaf teas since 5th January, 2010 in addition to 100% live e-auction started for dust category teas since 20th May, 2009.



Auction Centre	Status on live e-auction
Siliguri	Partial Live e-auction for both Leaf & Dust teas discontinued since 29 th August, 2009. Partial live e-auction for Leaf & Dust category teas re-introduced since 16 th September, 2009. Thousand lots of CTC Leaf tea and 50% of Dust tea lots were offered through e-auction since 16th April, 2010 . Fully electronic auction for both leaf and dust category teas since 8th October, 2010 .
Coonoor	Fully electronic auction for both leaf and dust category teas since 7th May, 2009 .
Coimbatore	Fully electronic auction for both leaf and dust category teas since 8th May, 2009 .
Cochin	100% live e-auction started for both leaf and dust category teas since 14th July, 2009 .

- The sales of tea through E-Auction during the financial year 2009-10 vis-à-vis 10-11 is as under :

Auction Centre	April 2009 to March 2010		April 2010 to March 2011	
	Qty. (Kgs.)	Price (₹ /Kg.)	Qty. (Kgs.)	Price (₹ /Kg.)
Kolkata Leaf	5,51,997.30	101.78	8,21,60,585.89	122.93
Kolkata Dust	2,93,33,029.15	123.43	3,61,27,589.76	121.89
Total Kolkata	2,98,85,026.45	123.03	11,82,88,175.65	122.61
Guwahati Leaf	1,80,59,000.60	95.83	8,14,84,638.30	111.73
Guwahati Dust	3,86,72,515.88	115.23	3,61,85,077.65	114.44
Total Guwahati	5,67,31,516.48	109.06	11,76,69,715.95	112.56
Siliguri Leaf	34,34,177.10	104.06	5,63,43,903.68	102.99
Siliguri Dust	6,77,818.00	95.95	95,97,748.13	98.70
Total Siliguri	41,11,995.10	102.72	6,59,41,651.81	102.37
Cochin Leaf	74,33,547.00	96.00	1,08,30,307.30	78.12
Cochin Dust	3,06,60,163.20	87.70	4,54,92,206.80	81.53
Total Cochin	3,80,93,710.20	89.32	5,63,22,514.10	80.88
Coonoor Leaf	2,95,43,091.35	74.21	3,29,47,296.18	60.60
Coonoor Dust	1,27,04,188.05	76.47	1,54,52,651.26	63.87
Total Coonoor	4,22,47,279.40	74.89	4,83,99,947.44	61.64
Coimbatore Leaf	89,17,246.70	77.09	82,06,545.02	59.73
Coimbatore Dust	1,38,13,428.52	79.53	1,18,80,028.12	67.19
Total Coimbatore	2,27,30,675.22	78.57	2,00,86,573.14	64.14
Grand Total	19,38,00,202.85	96.17	42,67,08,578.09	101.54

- The 19th Session of Inter Governmental Group (IGG) on tea was held in New Delhi during 12th to 14th May, 2010 while the 18th Session was held in 2008 in Hanzhou, China.



- Nearly 90 delegates, being the representatives of the 16 tea producing and consuming member countries attended the 19th Session in addition to representatives from World Intellectual Property Organizations (WIPO), Geneva, Common Fund for Commodities, Amsterdam, International Tea Committee, London and Tea Research Foundation of Central Africa. The delegates from Argentina attended IGG Session for the first time.
- IGG on tea of Food & Agricultural Organization (FAO) is a forum for intergovernmental consultation and exchange of views in relation to trends in production, consumption, trade and price of tea.
- It is also a forum for regular appraisal of the global market situation and short-term outlook.
- The IGG on tea, under the auspicious of FAO, considers changes in national policies and examine their international effects pertaining to the current and prospective market situation. The intergovernmental Group on tea facilitates the dialogue between IGG delegates, international policy makers and private sector.
- The following issues were deliberated:
 - Current Market Situation and Medium Term Outlook.
 - FAO World Tea Model.
 - Market Developments in Selected Countries.
 - Preliminary Analysis of the Impact of High Tea Prices on the Global Tea Economy.
 - Analysis of the Impact of Rising Cost of Land and Labour on Cost of Production.
 - Sustainability of Small Holders of Tea production in the United Republic of Tanzania.
 - Report of the Working Group of Tanzania.
 - Report of the Working Group on Maximum Residue Levels (MRLs) including MRL in tea brew.
 - Report of the Working Group on Tea Trade and Quality.
 - Report of the Working Group on Geographical Indications.
 - Internationally Coordinated Actions on Tea Development Projects.
 - Present and Future Role of IGG on Tea.
 - Electronic Auction for tea.
 - Institutions and Policies for managing the production and marketing risks for tea.
 - International Action Plan.
- Electronic Auction for Tea.
- The IGG had noted that India is the first country of the world to successfully start Electronic Auction for Tea. The status and benefits has also been noted by the delegates of IGG.
- Department of Administrative Reforms & Public Grievances, Govt. of India presents National Award on e-Governance every year in order to regularize and promote excellence in the implementation of e-Governance initiatives.
- The purpose of these awards is
 - to recognize achievements of area e-Governance ;
 - to disseminate knowledge on effective methods of designing & implementing sustainable of e-Governance initiatives ;
 - to acknowledge horizontal transfer of successful e-Governance solutions and
 - to promote and exchange experiences in solving problem, resolving issues and planning for success.
- **Tea Board of India has won 14th National Award on e-Governance with both Trophy and Certificate (Bronze) for the project on” E-Auction of Tea” under “Specific Sectoral Award (Focus Sector for 2010-11-Agriculture).**
- Trophy awarding ceremony was held on 10-11th February, 2011 at Aurangabad of the state of Maharashtra.

7.10 Registration of Buyers :

Clause 4 (1) of TMCO 2003 stipulates that no buyer (with a place of business in tea in India) shall carry on the activity of buying tea from any public tea auction licensed by the Tea Board or directly from the manufacturer of tea except under a valid registration obtained from Tea Board.

This registration certificate once granted by the Tea Board remains valid unless cancelled. During the year 2010-11 under review, 182 buyers obtained registration from the Tea Board. The total amount collected was ₹4,55,000/-. The total number of buyers registered with Tea Board under TMCO 2003 as on 31.3.2011 comes to 6,094.

7.11 Certificates of Origin issued towards export of Darjeeling tea

The total number of certificates of origin issued by Tea Board towards export of Darjeeling tea was 1891 during 2010-11 as against 1866 issued in the same period of 2009-10.



7.12 Registration of Manufacturers of tea with Added Flavour :

The sales of flavoured tea in the domestic market remain banned for a long time. Following a directive from the Supreme Court in the case of Nilgiris Tea Emporium –vs- Union of India & Others, the Government of India examined the matter relating to sale of flavoured tea in the domestic market in consultation with the experts of Central Committee for Food Standards for allowing additional flavour in tea for domestic market.

Consequently, Government of India, Ministry of Health and Family Welfare, issued notification no. GSR 847(E) dated 7th December, 1994 amending the PFA Rules 1955. As per the provisions of these amendments, the condition for sale of flavoured tea has been notified as follows:

- i) Flavoured tea shall be sold or offered for sale only by those manufacturers who are registered with Tea Board; Registration No. shall be mentioned on the label.
- ii) It shall be sold only in packed condition with label declaration, viz. I) FLAVOURED TEA common name of permitted flavour/ percentage/Registration No. Initially only one flavour viz Vanillin flavour up to maximum extent of 8.5% by weight has been allowed for sale of flavoured tea in the domestic market.

Subsequently, Government of India vide notification no. GSR698 (E) dated 26/10/1995 allowed few more flavours in addition to Vanillin flavour and their respective percentage in flavoured tea are as follows:

Flavour	% by weight (Max)
Vanillin	8.5
Cardamom	2.8
Ginger	1.0
Bergamot	2.0
Lemon	1.6
Cinnamon	2.0
Mixture of above flavour with each other	The level of individual shall not exceed the quantity indicated above

Ministry of Health and Family Welfare, Government of India amended further the PFA Rules by notification No. GSR 694(E) dated 11/10/1999 which has been effective from 11/4/2000. The said notification was aimed allowing all natural

flavours and natural flavouring substances singly or in combination. The definition of "Natural flavour and Natural Flavouring Substance" is indicated in sub-rule (A) or rule 63 of PFA Rule. The other condition which has been stipulated in the said notification is that "Flavoured Tea manufacturers shall register themselves with the Tea Board before marketing Flavour Tea".

In addition to the above condition laid down in notification dated 11.10.1999. Directorate General of Health Services, Govt. of India vide letter No. P-1501/5/97PH-(Food) dated 18/2/2000 stipulates the following conditions.

- a) Methodology for estimation of flavours in tea shall be supplied by the manufacturer to Tea Board.
- b) The methodology supplied by manufacturer will be tried in Central Food Laboratories for verification.
- c) The manufacturers will be registered thereafter only.

The amendment dated 11.10.1999, in fact, sought to enlarge the scope for use of flavours in tea by linking it to an existing and unaltered definition as mentioned in rule 63 of PFA Rules which was applicable to all food items including tea. While the definition as mentioned in rule 63 of PFA Rules may lead to confusion of using flavours of animal origin in any food item, it is not possible for use flavour of animal origin in flavoured tea because of the condition of registration by Tea Board and Tea Board's reservation of allowing such flavour.

However, to avoid any such confusion Ministry of health and Family Welfare, Govt. of India further amended the PFA Rule by issuing notification No. GSR 770(E) dated 4/10/2000. It aims at using only those "Natural flavours and Natural Flavouring Substances" which are obtained exclusively by physical process from materials of plant origin in their natural state or after processing for human consumption.

Till 31st March 2010, the Licensing Branch granted registration in favour of 103 Manufacturers of tea with added flavour. During 2010-11, 12 manufacturers of tea with added flavour registered with Tea Board totaling to 115 at the end of 2010-11.

7.13 Extension /Replacement Planting Permit :

Permit for Extension and Replacement planting of tea are issued to the existing tea estate by the Licensing Branch. Permit for planting tea to newcomer are also issued. Such permits are issued within the framework of the Tea Act and Tea Rules.

**Position of Permits issued during 2010-11 :**

Region	Extension permit		Replacement permit	
	Number	Area in Hect.	Number	Area in Hect.
North India	3	139.42	48	884.74
South India	Nil	Nil	3	6.35
Total All India	3	139.42	51	891.09

Permission for Planting tea :

Licensing Branch is granting permission for planting tea in favour of tea estates as New Comer along with recording of the change of ownership of the tea estates. The position during the year 2010-11 (till 31.3.2011) is as follows :

	North India		South India		Total	
1. Change of ownership	31		NIL		31	
	North India		South India		Total	
	No	Area in Ha	No	Area in Ha	No	Area in Ha
a) In Non-Traditional tea growing areas (upto 10.12 ha)	Nil	Nil	Nil	Nil	Nil	Nil
b) In non traditional tea growing areas (above 10.12 ha)	1	116.72	Nil	Nil	1	116.72
c) In other than non traditional tea growing areas (upto 10.12 ha)	16	36.959	188	116.0135	204	152.9725
d) In other than non traditional tea growing areas (above 10.12 ha)	12	725.694	3	47.00	15	772.694

7.14 Tea Warehouse License :

Licensing Branch looks after the issuance of Tea Warehouse Licence under the Tea Warehouses (Licensing) Order, 1989. Position of issuance renewal of Tea Warehouse License during the year 2010-11 is indicated below :

Region	Fresh License issued @ ₹ 1,000/-		Fresh License issued @ ₹ 200/-		Total
	Number	Amount (₹)	Number	Amount (₹)	Amount (₹)
North India	12	12,000	94	18,800	30,800
South India	13	13,000	27	5,400	18,400
All India	25	25,000	121	24,200	49,200



STATISTICS

Introduction :

Functions of Statistics Branch of Tea Board are to design and develop Management Information System which could provide required information relating to Production, Export, Import, Prices, Labour etc., in respect of Indian Tea Industry as well as in the perspective of its International Scenario. It provides necessary inputs in decision making process of the policy matters of the Board, the Government and the Industry. The matters like Central Excise, State Sales Tax, Central Sales Tax, Export Incentives, Export-Import Policy, Foreign Direct Investment, Tea (Marketing) Control Order, 2003 etc; are also examined in the Statistics Branch.

Publication :

Statistics Branch publishes Tea Board's Publication viz., "**Tea Statistics**" which provides a data base on tea industry, both National and International. In addition, the Statistics Branch publishes another intermediate Publication viz., "**Tea Digest**" incorporating up-to-date statistical data on tea.

Techno-Economic Survey :

The Techno-Economic Cell was established in 1972 in the Statistics Branch of the Tea Board on the very recommendations of the Estimate Committee of Parlia-

ment, with the objective to undertake techno-economic study into the problems of Tea Industry in different tea growing regions and also to suggest suitable remedial measures for the overall growth of the industry. Till date, eighteen techno-economic surveys were conducted in different tea growing States/ regions of India.

Lastly, the Cell was involved for an in-house study on the economic health of different tea companies covered under the compulsory cost audit by the Government of India.

Monitoring of Tea Prices :

The Branch has been monitoring and providing the information on weekly auction prices to Ministry of Commerce and Ministry of Consumer Affairs, Food & Public Distribution on regular basis in connection with the meeting of the High Powered Price Monitoring Board on Prices. The work relating to monitoring of retail prices of tea at different cities/towns has been entrusted to the Statistics Branch as well. The Statistics Branch of Tea Board has also been providing the weekly auction prices to Ministry of Agriculture and Ministry of Industry on regular basis in connection with the construction of Wholesale Price Indices of Plantation Crops etc.



LABOUR WELFARE

9. Introduction :

The Welfare Branch of the Tea Board undertakes some welfare programmes and schemes for the benefit of tea plantation workers and their dependants. The labour welfare activities undertaken by the Board are supplemental and cover such areas not specifically addressed by the Plantation Labour Act and the rules framed thereunder.

9.1. Objectives :

The labour welfare activities of the Board are funded through the Human Resource Development Scheme. The HRD Scheme aims at achieving improvements in the living conditions of the Tea Plantation labourers and their dependants. The activities are categorized in three broad heads e.g. (1) Health (2) Education and (3) Training Schemes. While the Health related activities/schemes aim to improve the general health of the tea plantation workers and their dependants, the education related schemes and activities aim at encouraging wards/dependants of tea garden workers and their dependants to achieve not only basic education but also higher education. Assistance is also given for undertaking professional qualifications. Under the training schemes the workers, labourers, office and managerial staff, managers etc., were given training with a view to improve their skill and ultimately the productivity. There is a provision to give vocational training to wards and dependants of tea garden labourers with a view to equip them for alternate employment outside the tea areas. A total sum of ₹ 1,92,94,706/- was disbursed for Labour Welfare measures during the year 2010-11 under the HRD scheme.

9.2. HEALTH

Under the Health related activities, financial assistance is given by the Board to hospitals located in tea gardens and

also general hospitals, clinics in areas contiguous to tea gardens. For transportation of patients belonging to tea garden population especially in non-traditional tea areas assistance is provided for purchase of Ambulance/medical equipments/accessories. Financial assistance is also provided to plantation workers and their dependants for undergoing treatment on critical diseases like cancer, cardio-vascular diseases, kidney ailments etc. A sum of ₹ 17,58,264/- has been disbursed on this scheme during the year under review.

The Board also provides capital grant to the institutions that are running rehabilitation and therapy center for the physically challenged persons amongst tea garden population towards expenditure for construction of building, purchase of equipments and accessories. No application was received under this scheme during the year.

A scheme of financial assistance for disabled plantation workers and their dependants for purchasing crutch (wooden) calipers, shoes, artificial limb (wooden), hearing aids, wheel chairs and tri-cycle with hand pedaling system is also in operation. However, maximum pay out under this scheme is restricted to ₹ 2500/- per person. One application for hearing aid was sanctioned during the year.

Financial assistance is also provided to different Tea Associations and others for the purpose of family welfare education programme.

The details of assistance provided to various institutions during the year are as under :-

(i) S.B. Dey Sanatorium:

The Board reserved 5 beds at S.B. Dey Sanatorium, Kurseong, Darjeeling for treatment of tea plantation workers and their dependants suffering from T.B. The beds were allotted in favour of Tea Producers' Associations in North Bengal who share 1/3rd part of maintenance charges. The balance 2/3rd share is being borne by the Board.

(ii) Ramalingam T.B. Sanatorium:

In the year 1956-57, the Board reserved 15 free beds in the Ramalingam T.B. Sanatorium, Perundurai, Tamil Nadu permanently for the benefit of tea garden workers and their dependents suffering from T.B. against a capital grant of ₹ 92,124/-. Since 15 free beds reserved by the Board at the Sanatorium were found to be inadequate to cope with the demand, from 1962 the Board has been maintaining 17 additional beds at the sanatorium on payment of hospital stoppages at the rate of Rs. 16/- per patient per day against the actual occupation of bed. This stoppage charge was revised to ₹ 30/- by the Board at its meeting held at Bangalore on 24-5-88, and subsequently to ₹ 50/- at its meeting held in Kolkata on 29-9-1993. Thereafter, Board at its meeting held at Bangalore on 29-12-1999 enhanced the rate of hospital



stoppages to ₹ 75/- per patient per day against actual occupation w.e.f. 01-01-2000. No payment was made during the year under review.

(iii) Kalimpong Sub-divisional Hospital:

The Board continued to reserve 3 beds in the leprosy wing of Kalimpong Sub-Divisional Hospital for the treatment of leprosy patients of tea garden workers and their dependants on payment of ₹ 12,000/- per bed per annum.

(iv) The Palampur Rotary Eye Foundation, Kangra, H.P. :

The Board at its meeting held in Kolkata on 28-12-2010 sanctioned one time capital grant of ₹ 5,70,192/- to the said institution for purchase of an Ambulance. A sum of ₹ 5,70,192/- being the one time grant in full was released during the year under review.

(v) Uralikal Central Hospital, Valparai, Coimbatore (Tata Coffee Ltd):

The Board in its meeting held in Kolkata on 29-3-2011 sanctioned one time capital grant of ₹ 4,18,796/- for purchase of medical equipments in favour of the said hospital. A sum of ₹ 4,18,796/- being the one time grant in full was released during the year under review.

(vi) Iyerpadi Garden Hospital, Coimbatore (Parry Agro Inds. Ltd):

The Chairman has sanctioned a sum of ₹ 92,310/- being the one time grant for purchase of medical equipments in favour of the said hospital and the amount was disbursed during the year under review.

(vii) Priyadarshini Tea Estate of Mananthavady Tribal Plantation Co-operative Ltd., Wynad, Kerala :

The Board at its meeting held in Kolkata on 28-12-10 sanctioned a one time capital grant of ₹ 5,84,656/- to the said institution for purchase of an Ambulance. A sum of ₹ 5,84,656 was released during the year for the said purpose.

(viii) Sheikalmudi Garden Hospital, Valparai, Coimbatore (Parry Agro Industries Ltd.):

The Chairman has sanctioned a sum of ₹ 92,310/- for purchase of medical equipments to the said Hospital. A sum of ₹ 92,310/- was released during the year for the said purpose.

9.3. EDUCATION :

Under the educational stipend schemes, the wards of tea garden workers are given grant for pursuing studies from primary level in schools, colleges and higher studies at universities and also in professional institutions. Actual tuition fees restricted upto ₹ 20,000/- per annum and 2/3rd of hostel charges restricted upto ₹ 20,000/- per annum are paid to children of persons directly employed in registered tea estates provided the monthly wage and income of parents do not

exceed ₹10,000/- per month. This benefit is provided to only 2(two) children per worker. The Board also provide lump-sum grant in the name of "Nehru Award" @ ₹ 2,000/- and ₹ 2,500/- as prize money to selected wards of tea plantation workers (on merit basis) who secured at least 75% marks in the Class X (Madhyamik or equivalent) and Class XII (Higher Secondary or equivalent) examination and thereafter undergoing studies for Class XI (Higher Secondary) and Degree/professional courses. This is applicable to wards of tea plantation workers whose annual income does not exceed ₹ 1,20,000/-. A sum of ₹ 1,09,25,530/- was disbursed in respect of educational stipend and "Nehru Award" during the year 2010-11.

The details of the beneficiaries under the Educational Stipends and Nehru Award are as under :

Area	Male	Female	Total
North East	77	50	127
North India	183	137	320
South India	363	242	605
Total	623	429	1052

9.3.1. Financial assistance is also given to schools/colleges for construction and extension of school/ college buildings in the tea garden areas with a view to provide additional seats to tea garden community.

The following institutions were provided with financial assistance during the year:

i) Tyagbir Hem Baruah College, Sonitpur, Assam:

The Board in its meeting held in Kolkata on 27-03-2004 sanctioned capital grant of ₹ 8.00 lakhs for construction of the said college building. A sum of ₹ 2.00 lakhs being the 2nd installment of grant was released during the year under review.

ii) Chaiduar College, Gohpur, Assam :

The Board in its meeting held in Kolkata on 17-03-2007 sanctioned capital grant of ₹ 10,79,400/- for construction of the said college building. A sum of ₹ 2,69,850/- being the 3rd/ final installment of grant was released during the year under review.

iii) Women's College, Tinsukia, Assam :

The Board in its meeting held in Kolkata on 26th Sept'2005 sanctioned capital grant of ₹ 8.00 lakhs for construction of



classrooms-cum-auditorium hall of the said college building. A sum of ₹ 4.00 lakhs being the 2nd & 3rd installments of grant was released during the year under review.

iv) Donikana High School, Jorhat, Assam :

The Board in its meeting held at Delhi on 23rd Dec'2004 sanctioned capital grant of ₹ 7,35,000/- for construction of the said school building. A sum of ₹ 1,83,750/-being the 2nd installment of the grant was released during the year under review.

v) Melamora High School, Golaghat, Assam :

The Board in its meeting held in Kolkata on 11-9-2009 sanctioned capital grant of ₹ 8.00 lakhs for construction of the said school building. A sum of ₹ 4,00,000/-being the 1st installment of grant was released during the year under review.

vi) Dr. Birinchikumar Barooah College, Puranigudam, Assam :

The Board in its meeting held at Kochi (Kerala) on 27-09-2007 sanctioned capital grant of ₹ 8,75,000/- for construction of 'Auditorium Hall' of the said college. A sum of ₹ 2,18,750/- being the 2nd installment of grant was released during the year under review.

vii) Machkhowa Degree College, Machkhowa, Assam :

The Board in its meeting held at Jorhat on 23-06-2007 sanctioned capital grant of ₹ 7,84,945/- for construction of the said college building. A sum of ₹ 1,96,237/- being 3rd/final installment of grant was released during the year under review.

viii) Simkuna Sai Jr. High School, Ghoom, Darjeeling, W.B.:

The Board in its meeting held in Kolkata on 08-11-08 sanctioned capital grant of ₹ 7,68,100/- for construction of the said school building. A sum of ₹ 1,92,025/- being the 2nd installment of grant was released during the year under review.

ix) St. Joseph's High School, Idukki, Kerala :

The Board in its meeting held in Kolkata on 11-9-2009 sanctioned capital grant of ₹ 10,07,400/- for construction of 'Audio Visual-cum-Reading Room and Office Room' of the said school. A sum of ₹ 5,03,700/- being the 2nd & 3rd installments of grant was released during the year under review.

x) D.A.V. Public School, Palampur, H.P. :

The Board in its meeting held in Kolkata on 08-11-2008 sanctioned capital grant of ₹ 12,00,000/- for construction of the said school building. A sum of ₹ 6,00,000/- being the 1st installment of grant was released during the year under review.

xi) Tengakhat College, Dibrugarh, Assam :

The Board in its meeting held at Coonoor on 30-12-2009 sanctioned capital grant of ₹ 11,94,200/- for construction of the college school building. A sum of ₹ 5,97,100/- being the 1st installment of grant was released during the year under review.

xii) Ghoom Boys' H.S. School, Darjeeling, West Bengal :

The Board in its meeting held at Coonoor on 30-12-2009 sanctioned capital grant of ₹ 12,00,000/- for construction of the said school building. A sum of ₹ 6.00 lakhs being the 1st installment of grant was released during the year under review.

xiii) Sacred Heart Girls H.S. School, Valparai, Coimbatore:

The Board in its meeting held in Kolkata on 30-6-2010 sanctioned capital grant of ₹ 11,37,500/- for construction of classrooms building of the said institution. A sum of ₹ 11,37,500/-being the one time full payment of grant was released during the year under review.

xiv) Rangachakua H.S. School, Sonitpur, Assam :

The Board in its meeting held in Kolkata on 30-6-2010 sanctioned capital grant of ₹ 12,00,000/- for construction of the said school building. A sum of ₹ 6,00,000/-being the 1st installment of grant was released during the year under review.

xv) Chamraj H.S. School, Nilgiris :

The Board in its meeting held in Kolkata on 08-11-2008 has sanctioned one time capital grant in full of ₹ 12.00 lakhs for construction of said school building. Due to non-availability of fund, a sum of ₹ 2.00 lakhs being the part payment was released during the year under review.

9.3.2. Admission in Jalpaiguri Polytechnic Institution :

Since 1979-80, the Board has been maintaining three reserved seats in the Jalpaiguri Polytechnic Institute, Jalpaiguri, West Bengal for the wards of tea garden employees for admission during each academic year in diploma courses. During the period under review, three (3) wards of tea garden employees were selected against these reserved seats on merit basis.



9.3.3. Scouting and Guiding :

The Board has been granting financial assistance to the State Association of Bharat Scouts & Guides, in West Bengal, Kerala, Tamil Nadu Tripura, and Assam for the last 45 years. The purpose of this scheme is to inculcate a sense of discipline, self-reliance, self-respect, freedom from fear and development of scouting and guiding activities amongst the tea plantation workers. The financial assistance includes

(i) salary and conveyance allowance for district Scouts/ Guides Organizers in tea plantation area,

(ii) charges for holding various training camps;

(iii) uniform grant for the tea garden scouts/guides/cubs and bulbuls and

(iv) financial assistance for holding rallies, rally-cum-camps, camporee, jamboree etc.

The scheme of granting financial assistance towards scouting and guiding in the tea plantation area is renewed on a year to year basis. During the year under review the

Board has disbursed a sum of ₹ 3,12,000/- for scouting and guiding activities. 3374 participants were trained during the year.

9.3.4. Sports :

In order to improve physical fitness and mental upliftment amongst the tea plantation workers, the Board has a scheme for rewarding the District level /State level/National level sports personalities from amongst the tea plantation workers or their wards and provide assistance as provided to in the Board's scheme. No grant was disbursed during the year under review.

9.4. Training:

During the year the Board has approved three courses of Vocational Training, viz. (i) Mobile & CD/DVD repairing, (ii) Fabrication & (iii) Bag making etc. for the wards of tea garden workers for a duration of 6 months or so upto 100 students per course at a grant of ₹ 1.50 lakhs per course totaling upto ₹ 4.50 lakhs covering 300 beneficiaries altogether through Jan Shikshan Sansthan, Jalpaiguri. No payment was made during the year under review.

The details of expenses incurred on training of tea garden workers/staff/managers are provided under the chapter "Tea Development".



HINDI CELL

Introduction

With the enforcement of the constitution on 26 January, 1950, Hindi became the Official Language of the Union of India according to Article 343(1) of the constitution of India. Government of India was entrusted with the duty to promote the propagation and development of the Official Language Hindi, so that it may serve as a medium of expression of all the elements of the composite culture of India. It was natural to make continuous efforts for the use of Hindi Language. Right from its inception, Hindi Cell of the Board has been looking after the implementation of constitutional provision pertaining to Official Language Act 1963 and rules 1976 made there under.

Compliance of Sec.3 (3) of O.L .ACT 1963 :

All relevant documents etc as mentioned in sec.3 (3) of O.L. Act 1963, were issued bilingually, i.e. in Hindi & English simultaneously in the year under review.

Purchase of Hindi Books:

In order to create a favorable atmosphere for implementation of Official Language and to make reference literature for Hindi teaching available, a Hindi Library is being maintained by the Hindi Cell. Books worth Rs. 35,000/- were bought for the Head Office as well as its Regional Offices. Among these reference materials and Glossaries/Dictionaries are included.

Correspondence in Hindi:

All letters received in Hindi were invariably replied to in Hindi itself during the year under review. Vigorous efforts were made for achievement of programme and target laid therein.

Report in Hindi :

Various reports like Annual Administrative Report, Annual Accounts, and Annual Audit Report of the Board were prepared in Hindi for submission to the parliament. Apart from this, Quarterly Progress Report and Annual Assessment Report regarding progressive use of Hindi, were prepared in Hindi and sent regularly to Ministry of Commerce, New Delhi.

Organising Hindi Workshop :

During the year the officer/employees who have got working knowledge or proficiency in Hindi were nominated for attending Hindi workshop. Faculties from different Government offices conducted the classes. This resulted in a favourable orientation and inclination amongst personnel towards functional Hindi.

Hindi Training :

With a view to achieving the prescribed target for imparting training to the untrained staff of the Board, some of the employees were nominated for PRAVEEN & PRAGYA course.

Organising Hindi Week :

With a view to create awareness regarding official Language and accelerate its use in Official work, Hindi week was organized in the month of March, 2011. During the course of the week, several competitions were held and there was active participation whole heartedly from amongst all. Similar programmes were organized in regional offices of the Board in India.

Publication of In-House Journal :

Since 1987 two issues of Hindi in-house journal "CHAI AUR BHARAT" are being published every year. This year also,



Tea Board continued its publication in Hindi related to in the direction of tea labour welfare, Special article related to tea in addition to the regular reports in Hindi were published. As a consequence there was considerable literary inclination in the office. The copies of this journal were sent to the regional offices in India as well as abroad offices of Tea Board.

Annual programme for Transacting The Official Work of the Union in Hindi.

In pursuance of official Language Resolution, 1967 Department of official Language issues programme every year to speed up propagation and development of official Language Hindi and also to accelerate its progressive use for official purpose. The Annual programme of the year 2010-11 is a continuation of this, whereby considerable progress has been made in the use of Hindi in the Official transactions. The prescribed target has been achieved to some extent. However English continues to be in use in the Board.

Meeting of OLIC of the Board :

The meeting of Official Language Implementation Committee (OLIC) were held in each quarters wherein useful decisions were taken.

Provision for Bilingual Computer :

During the year bilingual software were made available to all the computers of the Board's office.

Incentive Scheme For Use of Hindi in Official Work :

Tea Board promoted and propagated the incentive scheme in Head Office as well as regional offices in India in order to accelerate the use of Hindi the official and the employees were benefited by these Schemes.

Quarterly Progress Report :

All regional/Sub-regional offices controlled by Tea Board, Head office , submitted quarterly progress reports regarding progressive use of Hindi in the prescribed proforma. All reports were reviewed and action were taken to remove the deficiencies.

Inspection of Regional Offices :

During the year 2010-11 some of the departments of Tea Board's Head Office were inspected.

Inspection of Parliamentary Committee on O.L. :

Efforts to comply with the assurances given to the parliamentary Committee on O.L. were taken up.

Special Achievements :

The process of creating bilingual website is continuing and all the computers are being made available with the bilingual softwares.



SUPPLY

The main function of the Supply Branch, Tea Board, Kolkata is to render assistance to the Tea Industry in the matter of procurement, movement and distribution of various inputs, viz., Fertilizers (especially Urea, Purulia Phos and Rock Phosphate) etc.

1. FERTILIZER :

Fertilizer for the Tea Industry is allocated by the Ministry of Agriculture, Government of India under the Essential Commodities Act on the basis of the requirements indicated by the Board, through the respective State Government. Allocation of Fertilizer to Tea Gardens are done on half-yearly basis – one for Kharif Season (i.e., from April to September) and the other for Rabi Season (i.e., from October to March).

As per the information available with the Board, the controlled fertilizer (i.e. Urea) which is used in Tea Gardens as one of the important fertilizer was supplied to Tea Gardens in the State of Assam and Tripura (i.e., under North Eastern Zone) and West Bengal (i.e., under East Zone) by The manufacturers, viz., (1) Brahmaputra Valley Fertilizer Corporation Limited (BVFCL) (2) Nagarjuna Fertilizers and Chemicals Limited (NFCL) and Krishak Bharati Cooperative Limited (KRIBHCO) the quantity of Urea supplied by each of them to Tea Gardens of Assam and West Bengal during the period from April, 2010 to March, 2011 is given hereunder in a tabular form:-

(Figures in M.T.)

Name of the Manufacturer/ supplier	QUANTITY OF UREA SUPPLIED DURING THE YEAR 2010-11							
	Assam		West Bengal		Tripura		TOTAL	
	Fertilizer	Nutrient	Fertilizer	Nutrient	Fertilizer	Nutrient	Fertilizer	Nutrient
BVFCL	43,226	19,883	100	46	140	64	43,466	19,993
NFCL	-	-	15,813	7,273	-	-	15,813	7,273
KRIBHCO	-	-	5,478	2,520	-	-	5,478	2,520
TOTAL	43,226	19,883	21,391	9,839	140	64	64,757	29,786

Further, another important ingredient of Fertilizer which is commonly known as " Purulia Phos " is also used in Tea Gardens. Purulia Phos is supplied by M/s. West Bengal Mineral Development & Trading Corporation Ltd., (W.B.M.D.T.C.L.). The supply of Purulia Phos to the tea garden in the state of Assam and Tripura (under North Eastern Zone) and tea garden in North Bengal (under East Zone) is given below



(Figures in M.T.)

Assam		West Bengal		Tripura		TOTAL	
Fertilizer	Nutrient	Fertilizer	Nutrient	Fertilizer	Nutrient	Fertilizer	Nutrient
–	–	1,304	261	–	–	1,304	261

Besides the controlled Fertilizer, Supply Branch is also looking after problems of short supply of de-controlled Fertilizer viz., MOP , DAP etc., which are used in the Tea Garden in the State of Assam and Tripura (under North Eastern Zone) and West Bengal (under East Zone) .

2. OTHERS.

Supply Branch is also looking after and sorting the matters relating to Coal, Food Grains, L.P.G Cylinder / Natural Gas , HSD Oil etc., required by the tea estates in case of any problems being faced by the Tea Industry due to disruption of supply of the same to Tea Gardens.



HUMAN RESOURCE DEVELOPMENT

Human Resource Development Cell of Tea Board Head Office at Kolkata and other departments arrange various types of training programmes, workshop, seminar etc. from time to time for the employees, officers & different stakeholders of Tea Industry.

During 2010-11 the under-noted activities were undertaken by Tea Board relating to HRD:

1. Four Development officers underwent training in TRA in the month of August 2010 in Tea Factory and Management.
2. Two Accounts Officers were trained in Controller and Auditor General of India in the Month of December, 2010.
3. The FA&CAO, Director of Tea Promotion and Deputy Director, Tea Development attended the training cum workshop on 'Result Framework Document organized by Performance Management Division of Cabinet Secretariat.
4. Two Deputy Director, Tea Development attended two days training programme organized by APEDA on evaluation of Certification Bodies.



VIGILANCE CELL

The Deputy Chairman of Tea Board is the Chief Vigilance Officer(part-time) appointed so by the Central Vigilance Commission. The overall activities of the Vigilance Cell are being done under the supervision of chief Vigilance Officer. The main function of the Vigilance Cell is to implement the directives of the Government/Central Vigilance Commission. The Vigilance Cell also attends the various queries and submits monthly and quarterly report to the Government as and when required. The Law Officer of the Board is also working as Vigilance Officer. This Cell is also taking care of the overall Vigilance Surveillance activities of the Board. There is no such vigilance case pending with this cell as on date.



REPORT ON LEGAL CELL / RTI ACT, 2005

The main function of Legal Cell is to attend all kinds of legal matters both headquarters and outstation offices of the Board. The Legal Cell is also maintaining Liaison with Board's Solicitors/ Law Firms viz. M/S Fox & Mandal, M/S Rajesh Khaitan & Co. and K&S Partners and other Legal Consultants pertaining to the various legal issues of the Board. The Cell is also looking after all matters relating to the Intellectual Property Rights including administration of various logo mark/ word mark registered by the Board under different statutes in India and abroad. The cell is also actively involved in the recovery of outstanding loan and in the year 2010-2011, more than 25 lakhs of rupees have been recovered by the Board. This Cell is also responsible for performing the job pertaining to the disposal of applications made under Right to Information Act, 2005 and sending return periodically to the Ministry as well as the central Information Commission. During the year under review, Board has not lost any court case of major importance.


List of the Board Members for the Period from 26.08.2008 to 31.03.2011

1. Shri Basudeb Banerjee, IAS Chairman, Tea Board upto 19-06-2010 Ms. Roshni Sen, IAS, Chairman In-charge from 19-06-2010 to 28-12-2010 Shri Dinesh Sharma, IAS, Chairman, Tea Board from 29-12-2010
2. The Principal Secretary,
Commerce & Industries Department,
Govt. of Assam, Dispur,

Guwahati - 6
3. The Secretary,
Industries (Investment promotion), Govt. of Kerala
Secretariat,
Thiruvananthapuram,
Kerala-695001
4. The Commissioner and Secretary, Department of In-
dustries & Commerce,
Govt. Of Tripura,
Agartala-799001
5. The Secretary,
Small Industries Department,
Govt. of Tamil Nadu,
Chennai-600009
6. The Principal Secretary,
Commerce & Industries Department,
4, Camac Street,
Kolkata-700017.
7. The Principal Secretary,
Department of Agriculture,
Govt. of Himachal Pradesh,
Simla-171002
Himachal Pradesh.
8. Shri Adhir Ranjan Chowdhury,
Hon'ble Member of Parliament, Lok Sabha,
82, South Avenue, New Delhi- 110 011.
9. Shri Rajen Gohain,
Member of Parliament, Lok Sabha.
185, South Avenue,
New Delhi – 110 001.
10. Shri Saman Pathak,
Hon'ble member of Parliament, Rajya Sabha,
Suites 207, 523, V.P. House, Rafi Marg,
New Delhi – 100 001
11. The Chairman,
Indian Tea Association,
"Royal Exchange", 6, N.S. Road,
Kolkata – 700 001
12. The President,
United Planters' Association of South India,
"Glennview", Coonoor – 643 101,
Nilgiris, Tamil Nadu.
13. Shri Kapil Kapoor,
6, Alipore Avenue,
Kolkata – 700 027
14. Shri J. L. Butail,
Kangra Valley Small Tea Planters' Association,
Kangra Valley Tea Estate, Gopalpur,
Dist: Kangra, Pin – 176 059,
Himachal Pradesh.
15. Shri Rajib Chandra Barooah,
Holong Tea Estate, P.O. Mohanaghat,
Dibrugarh Town, Pin – 786 008,
Assam.
16. Shri P.V. Balachandran,
President: Dist. Congress Committee,
P.O. Kalpetta North, Wynaad,
Pin – 673 122, Kerala.
17. Shri Koshy Baby,
Gudalur Bazaar, Nilgiris – Distt.,
Pin – 643 212, Tamil Nadu.
18. Shri Rajinder Singh Thakur,
P.O. Khalet, Teh.: Palampur,
Distt.- Kangra, Pin – 176 061,
Himachal Pradesh.
19. Shri Subrata Mukherjee,
President, Indian National Trade Union Congress (INTUC),
West Bengal, 15/1A, Gariahat Road,
Kolkata – 700 019.



20. Shri Shankar Malakar,
President, Darjeeling District Congress Committee,
Babupara, Siliguri,
Dist – Darjeeling, Pin- 734 001,
West Bengal.

21. Shri A.K. Mony,
Ex-MLA, Top Station Road,
Munnar, P.O. Idukki,
Pin – 685 612, Kerala.

22. Shri Mani Kr. Darnal,
General Secretary,
Indian National Plantation Workers Federation,
Birpara, Pin – 735 101.
Jalpaiguri, West Bengal.

23. Shri Aloke Chakraborty,
Secretary, INTUC, West Bengal Branch,
"Putul Ghar" Durgapuri, Siliguri,
P.O. Pradhan Nagar,
Pin – 734 001, West Bengal.

24. Shri Vijay Jagannath,
McLeod Russel (India) Ltd.,
Tea Marketing Deptt. (9th Floor),
4, Mangoe Lane,
Kolkata – 700 001.

25. Shri Rajiv Krishan Puri,
C/o. Parcon (India) Pvt. Ltd.,
207, A.J.C. Bose Road, 2nd Floor,
Kolkata – 700 020.

26. Shri Karan Paul,
Chairman, Apeejay Surendra Group,
15, Park Street,
Kolkata – 700 016.

27. Shri Shiv Kumar Sarica,
17, Ganesh Chandra Avenue, 2nd Floor,
Kolkata – 700 013.

28. Shri Nivedith Thomas Alva,
No.253, 2nd Block, 5th Cross,
Rajmahal Vilas II
Bangalore - 560 097.
Karnataka.

Four Meetings were held during 2010-11 i.e. on 30.06.10, 10.09.10, 28.12.10 and 29.03.11)

29. Ms. Bobbeeta Sharma,
Office: Sangeeta Advertising,
Anuradha Complex, Bamuni Maidan,
Guwahati – 781 021.

30. Smt. Deepa Dasmunshi,
6-A, Rani Bhavani Road,
Kolkata – 700 026, West Bengal.

31. Shri D. P. Roy,
Member, West Bengal Legislative Assembly,
Jalpaiguri – 785 101,
West Bengal.

Special Invitees of the Board

(1) Representative to the Govt. of India,
Ministry of Commerce & Industry,
Deptt. Of Commerce, "Udyog Bhawan"
New Delhi.

(2) The Chairman & Managing Director,
North Eastern Development Finance Corporation Ltd.
(NEDFI),
Basundhara Enclave,
B.K. Kakati Road, Ulubari,
Guwahati – 781 007.

(3) The President,
Tea Association of India,
6, N.S. Road,
Kolkata – 700 001.

(4) The President,
Confederation of Indian Small Tea Growers' Association (CISTA),
6th Lane, "MANIK BHAWAN", Ganapatti,
Dist.- Sibsagar, Pin – 785 640, Assam.

(5) The Chairman,
United Planters' Associations of Southern India (UPASI –
Tea Committee),
"Glensview", Coonoor – 643 101, Nilgiris,
Tamil Nadu.

(6) The Chairman,
Darjeeling Tea Associations (DTA),
6, N. S. Road,
Kolkata-700 001



Composition of the Standing Committees for the year 2008–2011 (upto 31st March, 2011)

Executive Committee

1. Chairman, Tea Board (Ex-Officio Chairman of the Committee).
2. Shri J.L. Butail, Vice-Chairman, Tea Board & Chairman, Kangra Tea Planters Association, Kangra Valley Tea Estate, Gopalpur, Dist.- Kangra, Pin – 176 059, H. P.
3. Shri Adhir Ranjan Chowdhury, Hon'ble Member of parliament, Lok Sabha, 82, South Avenue, New Delhi- 110 011.
4. Shri Saman Pathak, Hon'ble member of Parliament, (Rajya Sabha), Suites 207, 523, V.P. House, Rafi Marg, New Delhi – 100 001.
5. Shri D. P. Roy, Member, West Bengal Legislative Assembly, Jalpaiguri – 785 101, West Bengal.
6. Shri Kapil Kapoor, 6, Alipore Avenue, Kolkata – 700 027.
7. Shri Rajiv Krishan Puri, C/o. Parcon (India) Pvt. Ltd., 207, A.J.C. Bose Road, 2nd Floor, Kolkata – 700 020.
8. Shri Rajjinder Singh Thakur, P.O. Khalet, Teh.: Palampur, Distt.- Kangra, Pin – 176 061, Himachal Pradesh.
9. Shri Shiv Kumar Saria, 17, Ganesh Chandra Avenue, 2nd Floor, Kolkata – 700 013.
2. The Chairman, Indian Tea Association, "Royal Exchange", 6, N.S. Road, Kolkata – 700 001
3. The President, United Planters' Association of South India, "Glenview", Coonoor – 643 101, Nilgiris, Tamil Nadu.
4. Shri Subrata Mukherjee, President, Indian National Trade Union Congress (INTUC), West Bengal, 15/1A, Gariahat Road, Kolkata – 700 019.
5. Shri Shankar Malakar, President, Darjeeling District Congress Committee, Babupara, Siliguri, Dist – Darjeeling, Pin- 734 001, West Bengal.
6. Shri A.K. Mony, Ex-MLA, Top Station Road, Munnar, P.O. Idukki, Pin – 685 612, Kerala.
7. Shri Alope Chakraborty, Secretary, INTUC, West Bengal Branch, "Putul Ghar" Durgapuri, Siliguri, P.O. Pradhan Nagar, Pin – 734 001, West Bengal.
8. Shri Mani Kr. Darnal, General Secretary, Indian National Plantation Workers Federation, Birpara, Pin – 735 101. Jalpaiguri, West Bengal.
9. Shri Koshy Baby, Gudalur Bazaar, Nilgiris – Distt., Pin – 643 212, Tamil Nadu.

Four Meetings were held during 2010-11 i.e. on 30.06.10, 10.09.10, 28.12.10 and 29.03.11)

II. Labour Welfare Committee

1. Chairman, Tea Board (Ex-Officio Chairman of the Committee).

Three Meetings were held during 2010-11 i.e. on 30.06.2010, 28.12.10 and 29.03.11)

III. **Development Committee**

1. Chairman, Tea Board (Ex-Officio Chairman of the Committee).
2. Shri Rajen Gohain,
Member of Parliament,
Tilak Deka Road, Itachali,
P.O. Dist. Nagaon – 782 001
Assam.
3. Chairman, Indian Tea Association, Kolkata.
4. President, United Planters' Association of
Southern India, (UPASI), "Glenview",
Coonor – 643 101,
Nilgiris, Tamil Nadu.
5. Shri Vijay Jagannath,, McLeod Russels (I) Ltd.,Kolkata.
6. Shri Rajib Chandra Barooah,
Hollonghabi Tea Estate Pvt. Ltd.,
P.O. Mohanaghat,
Dibrugarh – 786 008, Assam.
7. Shri P. V. Balachandran,
Chandra Estate, P.O. Narikundu,
Ambalavayal – 673 593,
Wayanad.

**Three Meetings were held during 2010-11
i.e. on 30.06.10, 28.12.10 and 29.03.11)**

IV. **Export Promotion Committee**

1. Chairman, Tea Board (Ex-Officio Chairman of the Committee).
2. Shri Saman Pathak,
Hon'ble member of Parliament,(Rajya Sabha),
Suites 207,523, V.P. House, Rafi Marg,
New Delhi – 100 001
3. The Chairman,
Indian Tea Association,
"Royal Exchange", 6, N.S. Road,
Kolkata – 700 001
4. Ms. Bobbeeta Sharma,
Office: Sangeeta Advertising,
Anuradha Complex, Bamuni Maidan,
Guwahati – 781 021.
5. Shri Vijay Jagannath,
McLeod Russel (India) Ltd.,
Tea Marketing Deptt. (9th Floor),
4, Mangoe Lane,
Kolkata – 700 001 .
6. Shri Kapil Kapoor,
6, Alipore Avenue,
Kolkata – 700 027
7. Shri Rajiv Krishan Puri,
C/o. Parcon (India) Pvt. Ltd.,
207, A.J.C. Bose Road, 2nd Floor,
Kolkata – 700 020.

**Three Meetings were held during 2010-11
i.e. on 30.06.10, 28.12.10 and 29.03.11)**



Addresses of Tea Board Offices in India and Abroad:

OFFICES IN INDIA**KOLKATA**

Tea Board
14, BTM Sarani,
Kolkata - 700 001.
Tel. :033-22351411/Fax:033-22215715
E-mail : secyteaboard@vsnl.net
Website :www.teaboard.gov.in

DELHI

Tea Board
13/2 Jam Nagar House, Sajahan Road,
New Delhi - 110 011
Tel. : 011-23074179, 23625930-F
Mob. : 09811100236, 23543513-R

COONOR

Executive Director, Tea Board,
Shelwood Coonoor Club Road,
Post Box No. 6,
Coonoor - 643 101, Nilgiri, South India
Tel. : 0423-2231638/2230316*[D]
Fax : 0423-2232332, 2231484-Res.
E-mail : teaboardcoonoor@rediffmail.com

KOCHI

Joint Controller of Licensing
Tea Board
Indira Gandhi Road, Willingdon Island,
Kochi - 682 003, Kerala.
Tel. :0484-2666523/2340481
Fax :0484-2666648
E-mail : teaboardkochi@hotmail.com

KOTTAYAM

Assistant Director of Tea Development,
Tea Board, College Road,
Kottayam - 686 001, Kerala.
Tel.: 0481-2567391
Fax: 0481-2301223
E-mail : teaboard.kottayam@gmail.com

CHENNAI

Welfare Liaison Officer (South)
Tea Board
139, Eldams Road (2nd floor),
Chennai - 600018.
Telefax : 044-24341650
TEL : 044-24342754
E-mail : teaboardchennai@gmail.com

GUWAHATI

Executive Director,
North Eastern Zonal Office
Housefed Complex, 5th floor,
Bellola-Basistha Road,.
Dispur, Guwahati-781006
Tel: 0361-2234257/2234258
Fax: 0361-2234251
E-mail : teaboardghy@hotmail.com

JORHAT

Dy. Director of Tea Development (Plantation),
Tea Board, Tea Research Association Complex,
Cinnamara Jorhat-785001,
Assam
Tel: 0376-2360066/Fax 2360068
E-mail : teaboardjorhat@gmail.com

DIBRUGARH

Dy. Director of Tea Development (Plantation),
Tea Board, West Chowkidingee
T.R. Phukan Road, Dibrugarh – 786 001
Tele fax: 0373-2322932
E-mail: teaboarddibrugarh@gmail.com

TEZPUR

Asst. Director of Tea Development
Tea Board
Mission Charali, Opp. Trade & Industry Building,
P.O. Dekargaon, Tezpur-784 501,
Dist. Sonitpur, Assam.
Tel : 03712-255664
E-mail : teaboardtezpur@yahoo.com

**SILCHAR**

Asst. Director of Tea Development,
Tea Board
Club Road, Silchar - 788 001,
Dist. : Cachar, Assam.
Tel. : 03842-232518
E-mail : silchar_tboard@rediffmail.com

AGARTALA

Assistant Director of Tea Development,
Akhaura Road, Fire Brigade, Chowmuhan
Agartala - 799 001, Tripura (West)
Tel. : 0381-2324182

SILIGURI

Dy. Director of Tea Development (Plantation),
Sahid Bhagat Singh Commercial Complex, (3rd floor),
2nd Mile, Sevoke Road,
Siliguri, West Bengal
Tel/Fax : 0353-2544778/2540209
E-mail : kkbkolkata@gmail.com

JALPAIGURI

Assistant Director Tea Development,
Tea Board, Ruby Cottage
Shibajee Road, Hakimpura
Jalpaiguri
Te: 03561 225146
E-mail: teaboardjal@gmail.com

PALAMPUR

Assistant Director Tea Development,
Tea Board, Mission Road,
Palampur - 176 061
Kangra,
Himachal Pradesh.
Tel : 01894-230524
Fax : 01894-231748
E-mail : csmtteaboard@gmail.com

DARJEELING (DTR & D.C.)

Project Director,
Tea Board,
Acharya Bhanu Path,
Kurseong - 734 203, Darjeeling.
Tel.: 0354-230287
Fax : 0354-230218-Fax & Tel
E-mail: tea2darjeeling@yahoo.co.in

MUMBAI

Superintendent
Tea Board, Resham Bhavan,
78, Veer Nariman Road,
Mumbai - 400 020.
Telefax.: 022-22041699
G.H. (Tel): 2367 5401
E-mail : mumtea@vsnl.net

**OFFICES ABROAD
UNITED KINGDOM**

Mr.Ali Raza Rizvi, IAS,
Director of Tea Promotion
Tea Board of India, India House, Aldwych,
London - WC2B 4NA.
Tel. : 0044207-2402394
Fax : 00 44207-2402533
Res. : 01372476967
Mobile : 00447788420995
Residence : 4, Carrick Gate,
Esher, Surrey KT10 9 NE, U.K.:
E-mail : teabordlon@aol.com

DUBAI

Sri Manish Sharma, I.P.S.,
Director of Tea Promotion
Tea Board of India
P.O. Box No. 2415, Flat No. 5, Al Abbas Buildings,
Bank Street, Bur Dubai, Dubai UAE.
Tel. : 009714 3522612/3522613
Fax : 00 9714 3522615
Mobile : 0097154575283, 513275
E-mail : teaboard@emirates.net.ae

MOSCOW

Director of Tea Promotion
Tea Board of India
C/o Embassy of India,
4, Vorontsovo Polye,
Russian Federation,
Moscow.
Tel : 007095-9171657
Fax : 007095-9163724
Res. : 007095-2543743
E-mail : teaboard@com2com.ru



Annexure - IV

Expenditure statement under Grant-in-Aid and Research Schemes during 2010-11

ITEM	AMOUNT ₹
Grant-in-aid to TRA	11,70,42,664.00
Grant-in-aid to UPASI-TRF	1,52,03,593.00
Research grant to TRA	2,44,85,000.00
Research grant to UPASI-TRF	43,50,000.00
Research grant to HPKV	3,50,000.00
Research grant to AAU	3,00,000.00
Research grant to CDAC	14,50,000.00
Research grant to IIT-Kharagpur	1,75,00,000.00
Research grant to B.C.Guha Centre	10,00,000.00
Research grant to DTR & DC	9,01,000.00
DTR & DC (Upgradation)	39,01,291.00
Seminar/Workshop	7,68,926.00
TRA Centenary Grant	15,00,00,000.00
AED to TRA	90,67,000.00
AED to UPASI	64,55,335.00
ASIDE Scheme	2,50,00,000.00
Total	37,77,74,809.00



**SCHEMEWISE DISBURSEMENT SEPARATE POOL UNDER THE BOARD'S
LABOUR WELFARE ACTIVITIES DURING THE YEAR 2010-11.**

Sl. No.	Description	North India Amount ₹	South India Amount ₹	All India Amount ₹
1.	Educational Stipend & Nehru Award	17,70,416.00	91,55,114.00	1,09,25,530.00
2.	Bharat Scouts & Guides	2,40,000.00	72,000.00	3,12,000.00
3.	The Palampur Rotary Eye Foundation Kangra, H.P.	5,70,192.00		5,70,192.00
4.	Sheikalmudi Garden Hospital, Coimbatore, (Parry Agro Inds)	-	92,310.00	92,310.00
5.	Uralikal Central Hospital, Valparai, Coimbatore(Tata Coffee)	-	4,18,796.00	4,18,796.00
6.	Iyerpadi Garden Hospital, Coimbatore (Parry Agro Inds)	-	92,310.00	92,310.00
7.	Tyagbir Hembaruah College, Sonitpur, Assam	2,00,000.00	-	2,00,000.00
8.	Chaiduar College, Gohpur, Assam	2,69,850.00	-	2,69,850.00
9.	Women's College, Tinsukia, Assam	4,00,000.00	-	4,00,000.00
10.	Donikana High School, Jorhat, Assam	1,83,750.00	-	1,83,750.00
11.	Melamora High School, Golaghat, Assam	4,00,000.00	-	4,00,000.00
12.	Dr. Birinchikumar Barooah College, Puranigudam, Assam	2,18,750.00	-	2,18,750.00
13.	Machkhowa Degree College, Machkhowa, Assam	1,96,237.00	—	1,96,237.00
14.	Simkuna Sai Jr. High School, Ghoom, Darjeeling, W.B.	1,92,025.00	-	1,92,025.00
15.	St. Joseph's High School, Idukki, Kerala		5,03,700.00	5,03,700.00
16.	D.A.V. Public School, Palampur, H.P.	6,00,000.00	-	6,00,000.00
17.	Tengakhat College, Dibrugarh, Assam	5,97,100.00	-	5,97,100.00
18.	Ghoom Boys' H.S. School, Darjeeling, W.B.	6,00,000.00	-	6,00,000.00
19.	Sacred Heart Girls H.S. School, Valparai, Coimbatore	-	11,37,500.00	11,37,500.00
20.	Rangachakua H.S. School, Sonitpur, Assam	6,00,000.00	-	6,00,000.00
21.	Priyadarshini Tea Estate of Mananthavady Tribal Plantation Co-operative Ltd. Wynad, Kerala	-	5,84,656.00	5,84,656.00
22.	Chamraj H.S. School, Nilgiris		2,00,000.00	2,00,000.00
	Total	70,38,320.00	1,22,56,386.00	1,92,94,706.00