

FOR OFFICIAL USE ONLY

58TH ANNUAL REPORT 2011 - 2012



CONTENTS

	Page No		Page No
CHAPTER-1			
Organisational set-up & functions	1	ment Committee	22
Constitution of the Board	1	Developmental Schemes	23
Organisation of the Board	1	Physical and Financial achievements	23
Tea Board-Composition & Committees	1	Tea Plantation Development Scheme	23-26
Election of Vice Chairman	1	Special Purpose Tea Fund Scheme	26
Functions of Tea Board	2	Quality Up-gradation and Product	
Source of funds	2	Diversification Scheme	27-29
Administrative set-up	2	Human Research Development Scheme	29-31
Functional activities of Head Office	3	Development Grant	31-33
Salient features of the services		Scheduled Caste Sub-Plan Scheme	33-34
being rendered by Tea Board	3	Baseline Survey	35
Man power of Tea Board	5	Revolving Corpus for Loan Scheme	35
Scheduled Caste/Scheduled Tribe and		Progress under other ongoing Projects	36
other backward class	6	Mapping of tea areas through GIS	
Recruitment Drive	6	and remote sensing	36
Changes in Administration	7	Energy conservation in small tea processing units in South	
		India	36
		Organic Tea Development Project	37-38
CHAPTER-2		CHAPTER-5	
India tea in International perspective		Tea Research	
Broad over view	8	Introduction	39
Global Tea Scenario	8-11	Grant-in-aid	39
Global tea situation in 201 1	11-12	Plan Schemes	39
Indian Tea scenario	13-16	Progress of XIth Plan Research Projects at UPASI-TRF	40
Primary Marketing	16-18	Construction of Hi-Tech tea factory	
		at UPASI-TRF, Coonoor	40
CHAPTER-3		Development of Integrated Pest and Disease	
Finance		Management (IPDM)	40
Introduction	19	Analysis of Gene expression during	
Non-Plan Budget Allocation	19	phytopathogenic stress in tea using	
Research & Development Grant	19	transcriptomic approach	40
Research (AED)	19	Studies on the residues of certain pesticides	
Subsidy	19	and heavy metals in tea	41
Market Access Initiative Scheme	19	Progress of XIth Plan Research Projects at TRA, Tocklai,	
Loan Corpus Fund	19	Assam	41
Special Purpose Tea Fund- Corpus	19	Sustaining soil productivity-some strategies	41
Receipt	20	Establishment of chain of quality testing laboratories	
Expenditure (Non-Plan)	20	and strengthening of existing analytical facilities at	
Expenditure Research & Development Grants	20	regional centers and Tocklai	42
Expenditure- Subsidy	20	Development of methodologies for the extraction	
Special Fund (AED)	21	of food grade secondary metabolites from	
Research & Development (TRA Centenary Grant)	21	tea and upscaling the methods for commercial	
Market Access Initiative Scheme	21	purpose	42
Expenditure- Loan Scheme	21	Molecular basis of stress linked biochemical	43
		change during processing of tea shoots and their	
		relation to the quality of made tea	
CHAPTER-4		Development of alternative strategies for	
Tea Development		management of tea mosquito bug and blister blight	
Introduction	22		
Development Committee	22		
Important recommendation made by Develop-			

CONTENTS

disease in tea plantation of North East India	43	Indian tea- achievements	51
Establishing a pesticide residue testing laboratory	44	Participation of Tea Board in Domestic	
Studies on heavy metals- Phase II	44	promotion in India	52
Biotic & Abiotic stress analysis for development of		International events participated during the year	
stable quality genotypes	44	under report	52
North Bengal Regional R&D Center, Tea Research		Promotional activities in countries other than those	
Association, Nagrakata	44	covered by the overseas offices	52
Current pest problem in tea of North Bengal and their		USA	52
possible management studies	45	Canada	52
Studies on drought in tea areas of Dooars and Terai in		Australia	52
respect of soil properties, physiology and yield with		Japan	53
a view to schedule irrigation in cost effective way	45	Promotion work carried out by foreign offices	53
Study the biochemical aspects of tea processing		London Office	53-54
in respect of CTC as well as green tea manufacture	45	United Kingdom	54-55
Dr B.C. Guha Center for Genetic Engineering &		Germany	55
Biotechnology, University of Calcutta	46	Poland	55
Evaluation of the health beneficiary effects of tea		France	55
products and modulatory role of tea flavonoids on		Moscow Office	55
emphysematous lung damage for the formulation of		Market conditions and export performance	56
a high potency tea tablet	46	Russia	56
NT, Kharagpur- Standardisation of process		Kazakhstan	56
parameters in withering, maceration, rolling,		Ukraine	56
fermentation and drying of tea	46	Dubai Office	56
DIRDC, Kurseong and UVKV, Pundibari,		Types of teas imported by WANA countries	57
Coochbehar, West Bengal	47	UAE	57
Development of phosphate solubilising biofertiliser		A.R.E(Egypt)	57
for tea in acid soil of North Bengal	47	Iran	57
Nitrogen Mineralization of Scheme in acid soil of		Saudi Arabia	58
North Bengal	48	Major Country-wise exports	59
Corpus creation of measurable physical parameters of			
Indian Tea (CDAC project)	48	CHAPTER-7	
Regulatory issues and technological support	48	Licensing	
Participation in council of management/board of		Introduction	60
trustees/Scientific Advisory committee	48	Exporter's License	60
		Distributor's License	61
CHAPTER-6		Tea West License	61
Tea Promotion		Registration-Cum- Membership (RCMC)	62
Introduction	49	Tea (Marketing) Control Order	62
Tea Promotion Committee	49	Registration of tea Manufacturer's unit	63
Launching of the 5-5-5 Project	49	Registration of Auction Organiser/Auction Broker's	64
Overview of tea exports from India	49	Status of E-Auction	64
Promotion activities carried out under Market Promotion		Current E-Auction Activities In relation To bidding	65
Scheme(MPS)	50	Status of e-Auction Centres	65
Domestic Promotion	50	The sale of tea through e-Auction during the	
Overseas Promotion	50	financial year 2010-11 vis-a-vis 2011-12	66
Production of Publicity material	50	Registration of Buyers	66
Incentive to Exporters	50	Certificates of Origin issued towards export of	
Legal/Consultancy charges	50	Darjeeling tea	67
Activities undertaken by Board's H.Q.	51	Registration of manufacturer of tea with	
Protection of Intellectual Property Rights for		Added flavour	67

CONTENTS

Extension/Replacement Planting Permit	68	Publication of in-house journal	83
Permission for planting tea	68	Annual Programme of transacting of the union in Hindi	84
Tea ware-house license	69	Work	84
		Quarterly Progress Report	84
CHAPTER-8		Inspection of parliamentary committee on official language	84
Statistics		Special Achievements	84
Introduction	70	CHAPTER-11	
Publication	70	Supply	
Monitoring of Tea Prices	70	Introduction	85
Taxes & Duties	70	Fertilizer	85-86
Tea Cess	70	Others	86
Status of Tea Industry and Trade during the year 201 1-12	71	CHAPTER-12	
Area & production as on 31.12.2011	71	Human Resource Development	87
Production of tea in India during last three financial years(2009-10 to 201 1-12)	71	CHAPTER-13	
Category-wise Production of Tea In India during 2011	72	Vigilance Cell	88
Exports of tea from India	72	CHAPTER-14	
Import of Tea into India	74	Report on Legal Cell/RTI Act, 2005	89
Tea price at Auction	74	ANNEXURES	
Workers on the roles of the tea estates	74	Annexure-I	
Production share of major producing countries in 2011	75	List of Board Members for the period from 01.04.2011 to 31. 03.2012	90-91
Exports share of major producing countries in 2011	75	Special Invitees of the Board	91-92
World auction price of tea sold	76	Annexure-II	
Price of tea in India Vs World Auctions	76	Composition of Standing Committees for the year 2011-12	93-94
World demand and supply of tea	76	Annexure-III	
		Addresses of Tea Board offices in India and Abroad	95-96
CHAPTER-9		Annexure-IV	
Labour Welfare		Expenditure statement under grant-in-aid and research schemes during 2011-12	97
Introduction	77	Annexure-V	
Objectives	77	Disbursement under Tea Board's Labour Welfare activities during 201 1-12	98
Health	77-78		
Education	78-80		
Sports	80		
Training	80		
Summary of Performance during xi plan period	81		
Break-Up of target and achievement of welfare activities	81-82		
CHAPTER-10			
Hindi Cell			
Introduction	83		
Purchase of Hindi books	83		
Organising Hindi workshop	83		
Hindi training	83		
Organising Hindi Week	83		



ORGANISATIONAL SET-UP & FUNCTIONS

Constitution of the Board

The Tea Board, set up under section 4 of the Tea Act, 1953, was constituted on 1st April 1954. It had succeeded the Central Tea Board and the Indian Tea Licensing Committee which functioned respectively under the Central Tea Board Act, 1949 and the Indian Tea Control Act, 1938 which were repealed. It was, however, felt that the activities of the two previous bodies had been 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.

Organisation of the Board :

The Board consists of a Chairman and 30 members appointed by Government of India representing the different sections related to the Tea industry. The Board is reconstituted every three years. The list of current members of the Board (2011-12 to 2013-14) is annexed (Annexure-1)

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 following are the standing committees of the Board:

1. Executive Committee
2. Tea Promotion Committee
3. Labour Welfare Committee and
4. Development Committee.

Executive Committee

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

Tea Promotion Committee

This committee comprising of 7 members including Chairman advise Board on export promotion issue and monitors implementation of various promotional schemes.

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 guides the Board in implementation of various welfare schemes for the benefit of the plantation workers and their wards.

Development Committee

This committee comprising of 7 members including Chairman advice the Board on issues relating to improvement in tea production and productivity and this Committee is responsible for overseeing the various development schemes run by the Board.

Election of Vice Chairman :

Shri C.N. Nataraj, President, United Planters Association of Southern India (UPASI), Glenview, Coonoor, Nilgiris, Tamil Nadu acted as the Vice Chairman of the Board ending

31.03.2012, in terms of Rules 9(1) of the Tea Rules, 1954.

Functions of Tea Board:

Briefly the primary functions of the Tea Board are as under:

- a) Rendering financial and technical assistance for cultivation, manufacture and marketing of tea.
- b) Export Promotion.
- c) Aiding Research and Development activities for augmentation of tea production and improvement of tea quality.
- d) Extend financial assistance to the plantation workers and their wards through labour welfare schemes.
- e) To encourage and assist both financially and technically the unorganised small growers sector.
- f) Collection and maintenance of Statistical data and publication
- g) Such other activities as are assigned from time to time by the Central Government.

Source of Funds:

Funds for the aforesaid functions are provided 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 for which cess levied on tea is the major source. Funds for all other activities involving implementation of different schemes, mentioned above are met from Plan Budget allocation.

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 has been revised with effect from 1st June, 2011 to 50 paise per kg for all teas produced in India except darjeeling teas and 20 paise per kg. for Darjeeling. 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 are released by the Central Government in favour of Tea Board from time to time on the basis of the sanctioned budget after due appropriation by the Parliament.

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 based in Kolkata and two Executive Directors who are stationed at Guwahati and Coonoor. The Board has sixteen (16) offices within India and three (3) abroad located in the following places:

Offices within India:

Agartala, Chennai, Cochin, Coonoor, Dibrugarh, Guwahati, Jalpaiguri, Jorhat, Kottayam, Kurseong, Mumbai, New Delhi, Palampur, Silchar, Siliguri, and Tezpur,

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 of Indian tea. These offices also act as a liaison office for interaction between importers of Indian tea of the respective regions as well as Indian Exporters.

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 Mumbai Siliguri Palampur Kurseong Jalpaiguri	Guwahati Silchar Jorhat Dibrugarh Tezpur Agartala	Coonoor Chennai Kochi Kottayam



Tea Board Research Centre.

The Darjeeling Tea Research & Development Centre is located at Kurseong under the charge of a Project Director.

Functional activities of the Head Office:

i. Departments:

a) **The Secretariat** headed by Secretary looks after Establishment / administrative work 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 conducting 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/tea estates in the procurement, distribution and movement of essential inputs/machineries etc.

d) **The Promotion Directorate** headed by the Director of Tea Promotion looks after the work 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 (North) 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 Deputy Director (Hindi) is responsible for the implementation of the provisions of Official Language 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, flavour components and manufacturing technique of flavour 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.

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 i. e. 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, the Board has been extending financial assistance 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.

Tea Research :

Research is an essential input for development of tea industry. Traditionally, the research on tea is being carried out by the 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 Vidyalyaya (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 and others. Tea Board also provides grants-in-aid to different universities and technical institutions such as Indian Institute of Packaging, CFTRI 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 as well as providing financial assistance for construction/extension of school building, 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. While the promotional activities are confined to popularize Indian tea with emphasis on promoting teas in value-added form like packet, tea bags and instant tea, Tea Board also extends support to popularize tea as a beverage through Tea Council of USA and Japan Tea Association. Besides, Tea Board has successfully launched three distinct logos viz: Darjeeling,



Assam, and Nilgiris to popularize the teas from these origins.

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 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.

Man-Power of Tea Board

The total man-power of the Board as on 31.03.2012 was 570. The break-up of 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 31.03.2012

Sl. No.		Group A	Group B	Group C	Group D	Group D (Safai Kamachari)	Total
1	Head Office	18	139	69	82	8	316
2	Regional/Sub Regional Offices	25	80	66	73	2	246
3	Officers on deputation to Tea Board	6	-	-	-	-	6
4	Staff member on deputation to other organization	-	1	-	-	-	1
	Total	49	220	135	155	10	569

Number of India-based Officials in Board's Offices abroad under (as on 31.03.2012)

Group A	London	Dubai	Moscow	Total
Director of Tea Promotion (Gr.I)	01	-	-	01

Scheduled Castes & Scheduled Tribes and Other Backward Class

Category	SC	ST	OBC	Total
Group A	7	3	4	14
Group B	32	5	8	45
Group C	17	3	10	30
Group D	33	16	7	56
Group D (Safai Karmachari)	07			
Total	96	27	29	152

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

GROUP A	03
GROUP B	17
GROUP C	04
GROUP D	02



Changes in administration during the year under review :

1	Shri Anirban Basu Majumder was appointed as Research Officer with effect from 01.06.2011.
2	Shri B. K. Biswas, Supply Officer was promoted as Assistant Secretary with effect from 06.06.2011
3	Shri Prahlad Ch. Boro, Section Officer was promoted as Suuply Officer with effect from 15.06.2011
4	Shri Pradip Kr. Das, Accountant was promoted as Accounts Officer with effect from 16.06.2011
5	Shri Pradip Kumar Ghosh, Accounts Officer superannuated from the services of the Board with effect from 30.06.2011.
6	Ms. Shima Roy Chowdhury, Superintendent(GD), was promoted as Section Officer with effect from 08.07.2011
7	Shri Ram Krishna Acharya, Accountant was promoted as Accounts Officer with effect from 13.07.2011
8	Shri Dina Moni Kakati, Development Officer was promoted as Assistant Director of Tea Development with effect from 21.07.2011
9	Shri Kamal Ch. Baishya, Development Officer was promoted as Assistant Director of Tea Development with effect from 26.07.2011
10	Shri S C Biswas, Director of Tea Promotion (Gr.II) superannuated from the services of the Board with effect from 31.07.2011.
11	Shri Sanjib Rajbongshi, Development Officer was promoted as Assistant Director of Tea Development with effect from 08.08.2011
12	Shri Abhijit Sarkar, Development Officer was promoted as Assistant Director of Tea Development with effect from 09.08.2011
13	Shri Rituraj Hazarika, Development Officer was promoted as Assistant Director of Tea Development with effect from 12.08.2011
14	Shri H Gurumurthy, Welfare Liaison Officer (South), superannuated from the services of the Board with effect from 31.08.2011.
15	Shri P John Patrick, Superintendent(GD) was promoted as Welfare Liaison Officer (South) with effect from 07.09.2011
16	Shri Nipun Burman, Development Officer was promoted as Assistant Director of Tea Development with effect from 12.09.2011
17	Shri K P Vijaya Kumar, Section Officer was promoted as Joint Controller of Licensing with effect from 01.11.2011
18	Shri Siddharth, IAS, relinquished charge of the post of Chairman, Tea Board with effect from 17.11.2011
19	Shri M G V K Bhanu, IAS, joined as Chairman, Tea Board with effect from 17.11.2011
20	Ms. M Goonabhushanam, Joint Controller of Licensing, superannuated from the services of the Board with effect from 30.11.2011
21	Shri Swapan Kumar Das, Superintendent(GD) was promoted as Section Officer with effect from 16.12.2011
22	Shri P V Narayanan, Welfare Liaison Officer(North) and Liaison Officer to Chairman was promoted as Special Officer for North West India with effect from 05.01.2012
23	Shri P V Narayanan, Special Officer for North West India superannuated from the services of the Board with effect from 31.01.2012
24	Syed S M Nasrullah, Research Officer (Statistics) was promoted as Special Officer for North West India with effect from 01.02.2012
25	Shri Chinmoy Bandopadhyay, Controller of Licensing, superannuated from the services of the Board with effect from 29.02.2012.
26	Shri Biswa Ranjan Sah Gond, Superintendent(GD) was promoted as Section Officer with effect from 16.03.2012
27.	Shri Tapan Kr. Baruah, Dy. Director of Tea Development (Plantations), superannuated from the services of the Board with effect from 31.03.2012.



INDIA TEA IN THE INTERNATIONAL PERSPECTIVE

Broad over view of the Global and Indian Tea Scenarios:

Global Tea Scenario

More than 30 countries spread over all the continents except North America with wide range of agro-climatic conditions between 42°N (Georgia) and 35°S latitude (Argentina) grow tea. The estimated global production in 2011 was 4299

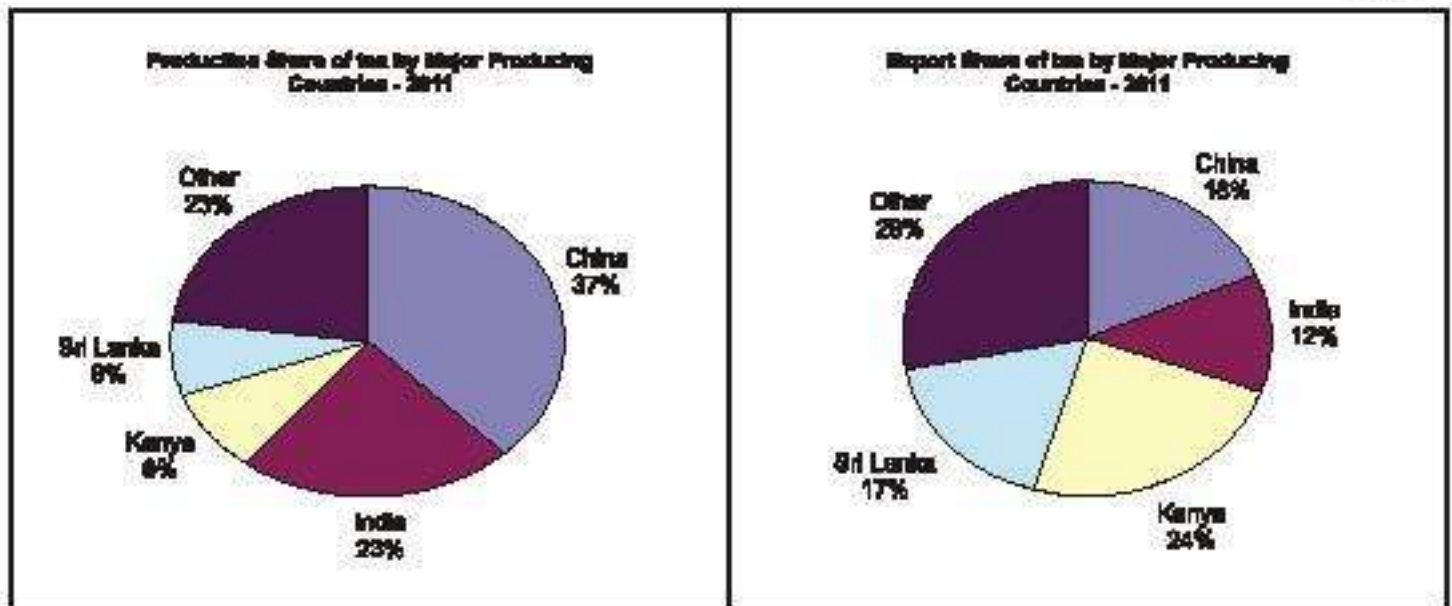
million kgs. With the world consumption around 4106 million kgs. the global production and absorption remained finely balanced .

Major tea producing and exporting countries are China, India, Kenya, and Sri Lanka and they account for 77% and 72% of world production and exports respectively. (Table -1)

Table-1.

Production and Export share of major producing and exporting countries

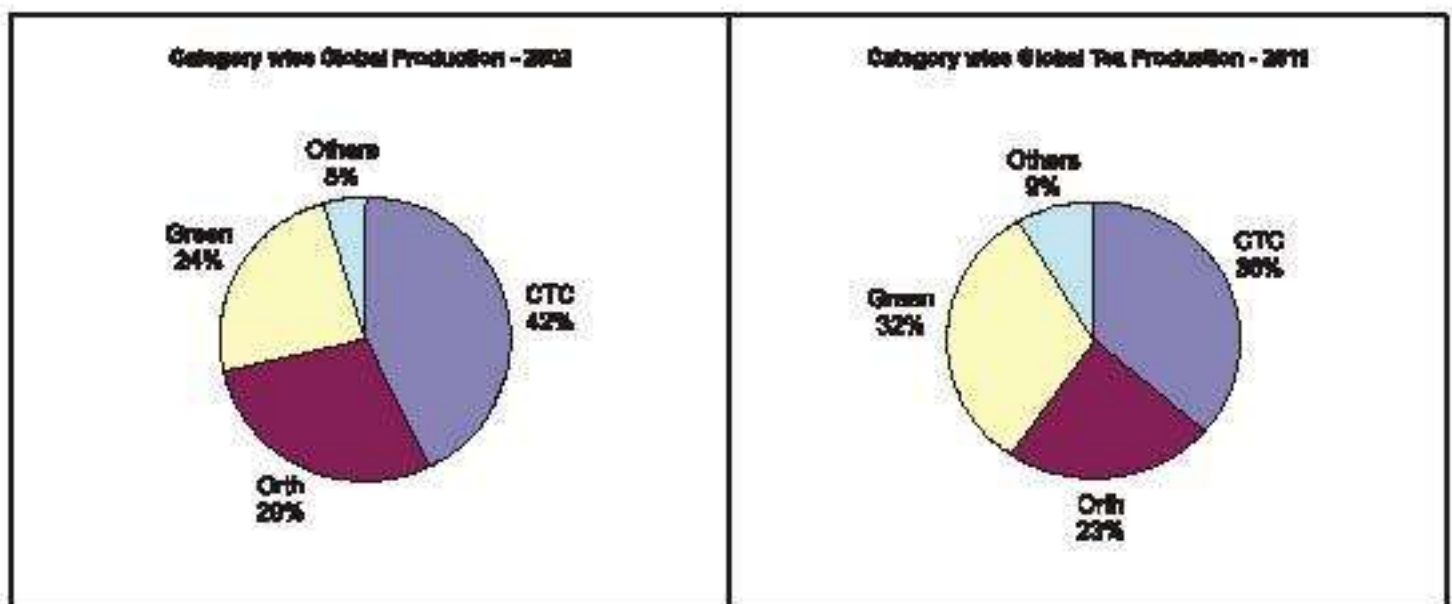
Country	2011			
	Production		Export	
	Million Kg	%share	Million Kg	%share
China	1623.21	37.76	322.58	18.44
India	988.33	22.99	211.91	12.11
Kenya	377.91	8.79	421.27	24.08
Sri Lanka	328.63	7.64	301.27	17.22
Total	3318.08	77.18	1257.03	71.85
Others	981.14	22.82	492.49	28.15
World Total	4299.22	100.00	1749.52	100.00



The global production over the last ten years (between 2002 and 2011) increased by 1213 million kg, of which 636 million kgs was of green tea and 587 million kg block tea

The significant changes that have taken place over the last 10 years (2002 to 2011) include the following :

- I. Share of green tea in total world production had gone up from 24% to 32%
- II. The share of both CTC and Orthodox tea decreased to 36% & 23% from 42% & 29% respectively.





- iii. China became the leading producer of tea in the world in 2006 surpassing the record held by India.
- iv. Kenya and China increased their export volume to become the 1st and 2nd leading exporting countries with respective share of 24% & 18% in total global exports. Sri Lanka lost its leading position and was relegated to third position with share of 17% in the total global exports. India remained at fourth position in the ranking of exporting countries with 12% share (Table - 2).

Table-2 Change in Production and Export share over last 10 Years

Country	Production in Million kgs			Exports in Million kgs		
	2001	2011	% > over 2001	2001	2011	% > over 2001
China	701.70 (2)	1623.21 (1)	131.32	249.68 (3)	322.58 (2)	29.20
India	853.92 (1)	988.33 (2)	15.74	182.59 (4)	211.91 (4)	16.05
Kenya	294.63 (4)	377.91 (3)	28.27	270.15 (2)	421.27 (1)	55.94
Sri Lanka	296.30 (3)	328.63 (4)	10.91	287.50 (1)	301.27 (3)	4.79

- v. 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 2002 & 2011.
- vi. Global tea prices which were sluggish from the beginning of the decade started firming up and remained stable since 2009. The buoyancy in the tea prices over the last three years helped the tea industry particularly in India in consolidation of the financial losses suffered over the crisis period from 1999 to 2008.

TABLE-3 : WORLD AUCTION PRICE OF TEA

Year	International price (US\$/Kg)					
	India	Bangladesh	Sri Lanka	Indonesia	Kenya	Limbe
2009	2.18	1.98	3.15	1.80	2.29	1.58
2010	2.29	2.61	3.28	1.82	2.54	1.58
2011	2.23	2.14	3.25	1.97	2.72	1.61



The average per head consumption of tea varies widely from country to country. The consumption is about 2 kg in Kuwait, Ireland, Afghanistan, and the U.K. and around 1 kg in Sri Lanka and Pakistan and in India it is around 800 grams. Despite per head consumption being one of the lowest in the world, the total consumption in India, due to its population, is the largest and almost 80% of the total production is consumed within the country. Indian consumption accounts for 21% 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 hence they are able to export 95 to 98% of their production.

The Global Tea situation in 2011

Production

As against decennial average of 121 million kg, the actual increase in global production in 2011 over 2010 was 129 million kgs of which black tea accounted for 42 m.kgs and green tea 87 million kgs. (Table-4). Bulk of the increase in green tea production came from China. In regard to black tea production, there was an increase in India compared to previous year while there was drop in Sri Lanka and Kenya (Table-5).

Table-4: World's Total Product mix (in Million Kgs.)

	2010	2011	Increase over 2010
Green Tea	1277.40	1364.09	86.69
Black Tea	2892.80	2935.13	42.33
Total	4170.20	4299.22	129.02

Table-5

Tea production in major black tea producing countries (in Million Kgs)

Country	2010	2011	>/< over 2010
India	966.40	988.33	21.93
Sri Lanka	331.43	328.63	- 2.80
Kenya	399.01	377.91	- 21.10

Source: ITC Annual Bulletin of Statistics 2012

Exports

Total global exports in 2011 decreased by 1.63 % - 29 million Kgs down over 2010 (Table-5). Kenya, China, Sri Lanka and India retained their leading position in the order of 1st, 2nd, 3rd, 4th in the total global exports.



Table-6

% Exports in total production of major producing countries(Million Kgs.)

Country	2010	2011
Kenya export in M.kg	441.0	421.3
% of production	111%	111%
China export in M.kg	302.5	322.6
% of production	21%	20%
Sri Lanka export in M.kg	296.4	301.3
% of production	89%	92%
India export in M.kg	222.0	211.9
% of production	23%	21%
Others export in M.kg	516.7	492.5
% of production	52%	50%
Total world Exports	1778.6	1749.6
% of Global production	43%	41%

Source : ITC Annual Bulletin of Statistics 2012

Tea Prices:

During the year under review the international tea prices remained stable and were either at par or moderately higher than the levels of 2010 (Table-7). However, prices for North Indian teas declined by Rs.1 to 4 per kg and there was significant drop in prices of teas sold in Chittagong, Jakarta and Colombo auctions in 2011 when compared to 2010.

Table-7
Tea prices during 2011 in respective currencies per kg

Auction Center		2010	2011
Kolkata	Rs	132.97	131.12
Guwahati	Rs	112.93	108.47
Siliguri	Rs	104.44	103.46
Kochi	Rs	77.45	80.21
Coimbatore	Rs	63.49	65.95
Coonoor	Rs	61.11	64.05
Chittagong	Taka	183.55	156.23
Colombo	Rs	370.48	359.68
Jakarta	US \$ c	181.69	160.75
Mombasa	US \$ c	254.00	272.00
Limbe	US \$ c	158.45	160.75

Source : ITC Annual Bulletin of Statistics 2012 except Indian auction



Indian Tea Scenario

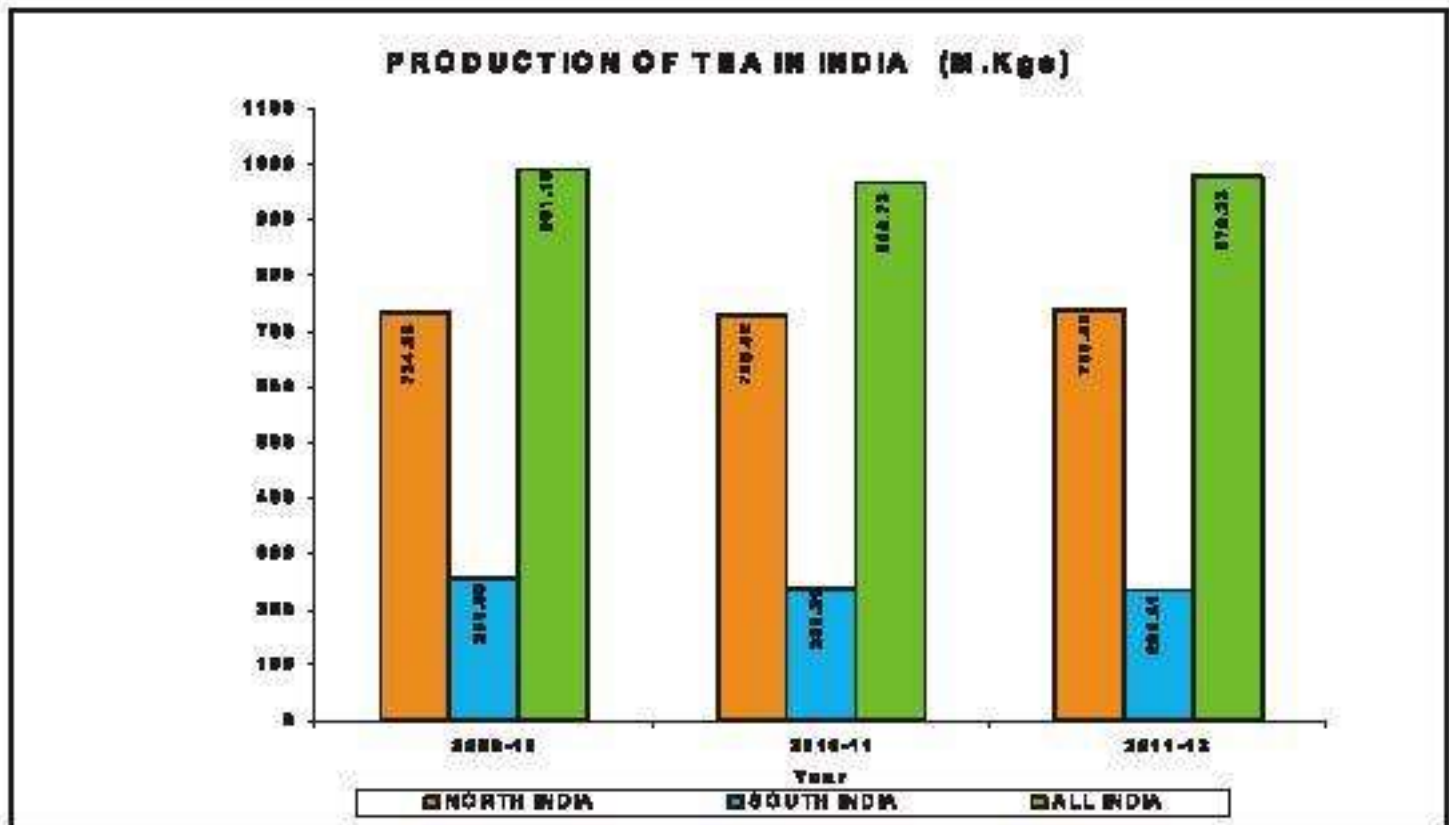
Assam, West Bengal, Tamil Nadu and Kerala are the major tea growing states. They account for 96% of the total production. Other traditional states where tea is grown to a small extent are Tripura, Himachal Pradesh, Uttaranchal, Bihar and Karnataka. The non-traditional states that have entered the tea 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 – Darjeeling, Assam and Nilgiris famous for their delicate flavour, strength and brightness. With diverse agro climatic conditions, India produces medley of teas suited to different tastes and preferences of consumers. The characteristics of each region are distinct, which sets them apart from one another in many different ways.

Production: During 2011, overall tea production increased by 21.99 m.kgs over 2010 because of better climatic conditions that prevailed in major tea growing areas in North India. However, the production was down by 2.5 million kgs in South India when compared to 2010 (Table-8).

Table-8.
Estimated Production of Tea in India (in Million Kgs)

Calendar Year	North India	South India	All India	Financial Year	North India	South India	All India
2009	734.87	244.13	979.00	2009-10	734.98	256.80	991.18
2010	728.08	243.37	966.40	2010-11	728.52	238.21	966.73
2011	747.48	240.66	988.33	2011-12	739.42	236.81	976.23



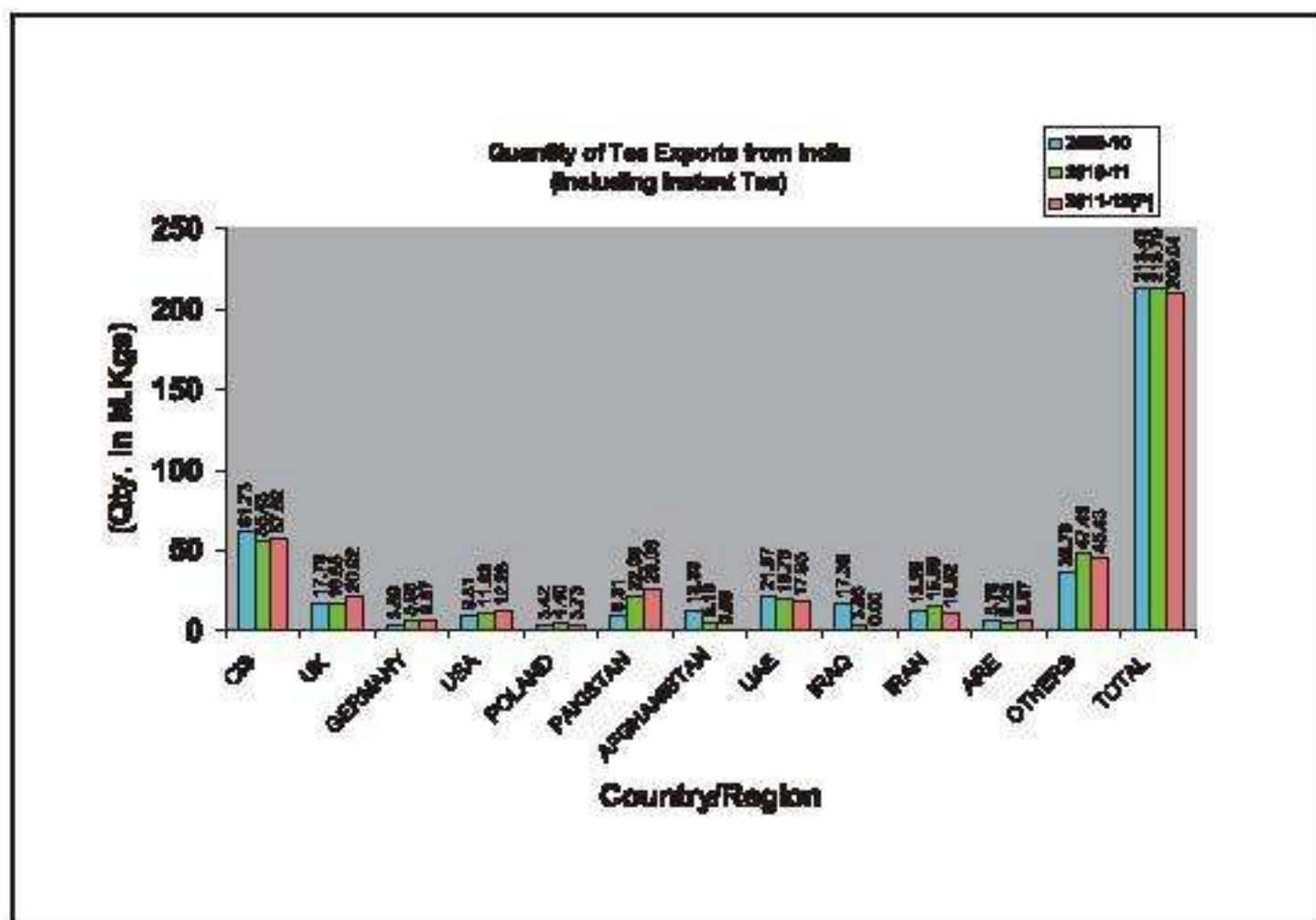


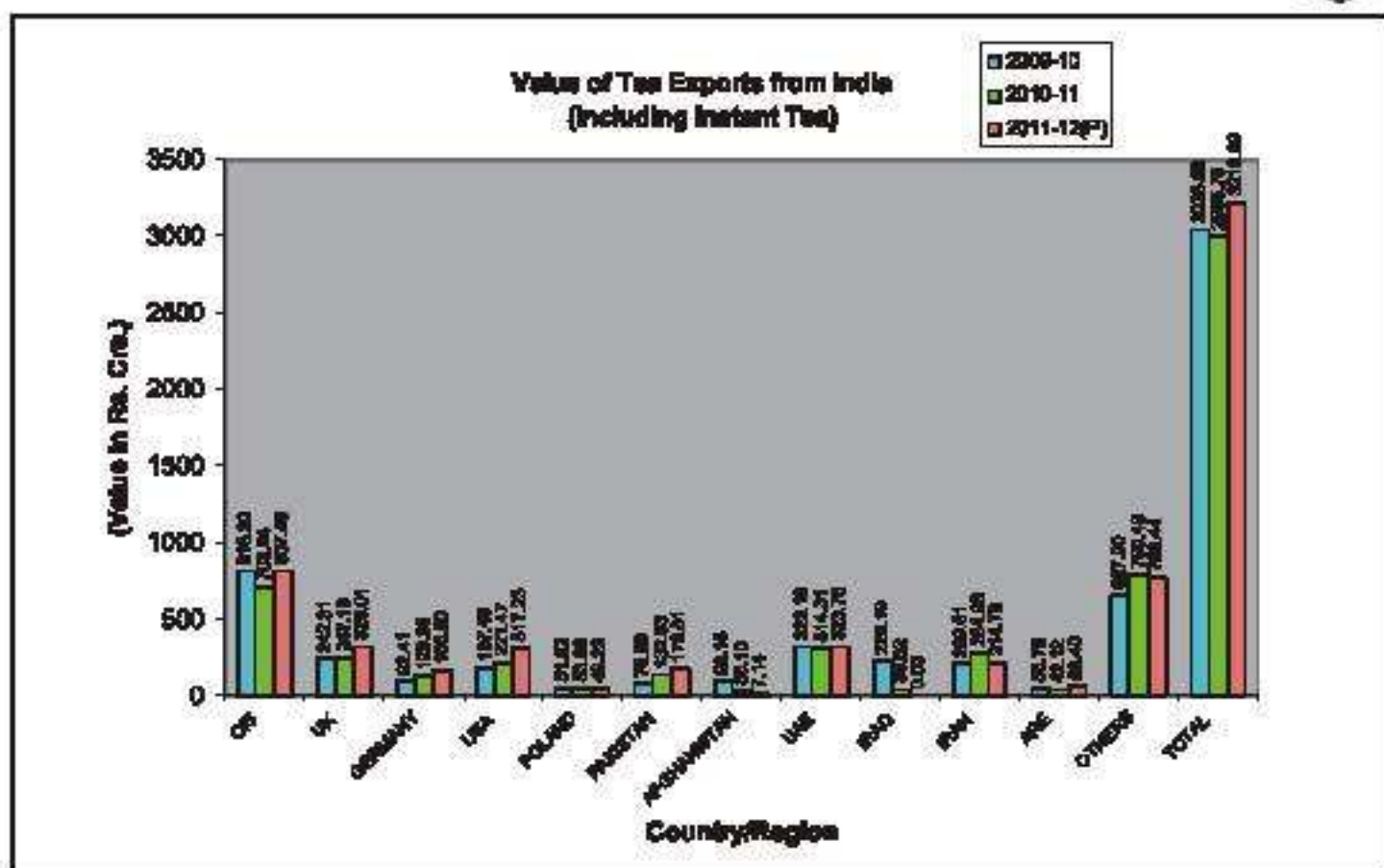
Exports: Tea export from India during 2011 was down by 10.11 m.kgs over 2010 and by 4.76 m.kgs in the financial year 2011-12 when compared to previous year. (Table-9)

Table-9.
Exports of Tea from India during the last 3 years
Qty= Million Kgs; Value=Rs. in crores, U.P= unit price in Rs./kg

Calendar Year	Qty.	Value	U.P.	Financial Year	Qty.	Value	U.P.
2009	197.93	2785.85	140.77	2009-10	213.43	3038.69	142.37
2010	222.02	3058.51	137.75	2010-11	218.79	2996.79	140.18
2011 (P)	211.91	3230.13	152.43	2011-12 (P)	209.04	3212.89	153.70

(P) – Provisional and subject to revision





Exports over last three years in different forms [Tables 10 to 13.]

**Table-10
Bulk Tea Export**

Year	Quantity (M.Kgs.)	Value (Rs Cro.)	Unit Price (Rs /Kg)
2009-10	183.27	2328.73	127.07
2010-11	162.80	2220.54	121.47
2011-12 (P)	184.69	2514.80	136.17



Table-11
Packet Tea Export

Year	Quantity (M.Kgs.)	Value(Rs Crs.)	Unit Price (Rs /Kg)
2009-10	17.72	297.11	167.65
2010-11	17.14	307.03	179.13
2011-12 (P)	11.69	300.61	257.11

Table-12
Tea Bags Exports

Year	Quantity (M.Kgs.)	Value(Rs Crs.)	Unit Price (Rs /Kg)
2009-10	9.50	295.10	310.50
2010-11	10.79	341.06	316.09
2011-12 (P)	10.36	306.26	295.50

Table-13
Instant Tea Exports

Year	Quantity (M.Kgs.)	Value(Rs Crs.)	Unit Price (Rs /Kg)
2009-10	2.94	117.75	400.09
2010-11	3.06	127.16	415.56
2011-12 (P)	2.30	91.22	396.13

Primary Marketing:

During the year under report 55% of total tea produced in the country was sold through public auctions, 8% was directly exported through forward contract and the remaining 37% 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-14 & 15



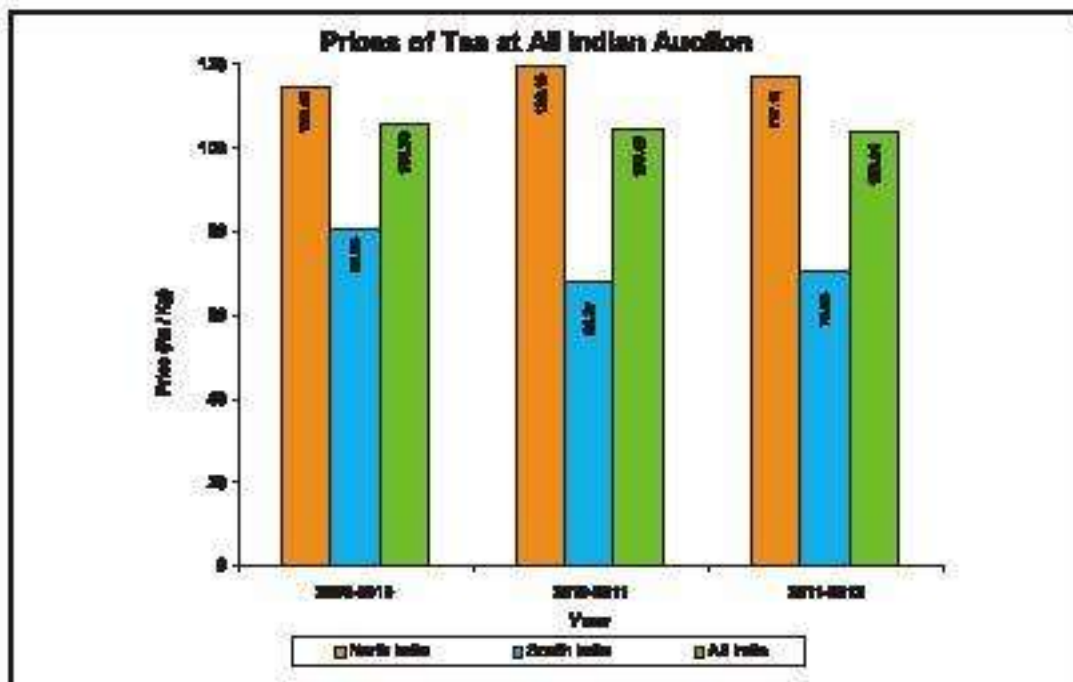
Table-14
Mode of disposal of Tea produced in India

Year	Qty. of tea sold through Auction	Ex-garden export under forward contract	Ex-garden private sale
2009	818 (52.91)	42 (4.29)	419 (42.80)
2010	630 (64.67)	41 (4.24)	395 (40.89)
2011	542 (54.86)	79 (7.97)	367 (37.17)

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

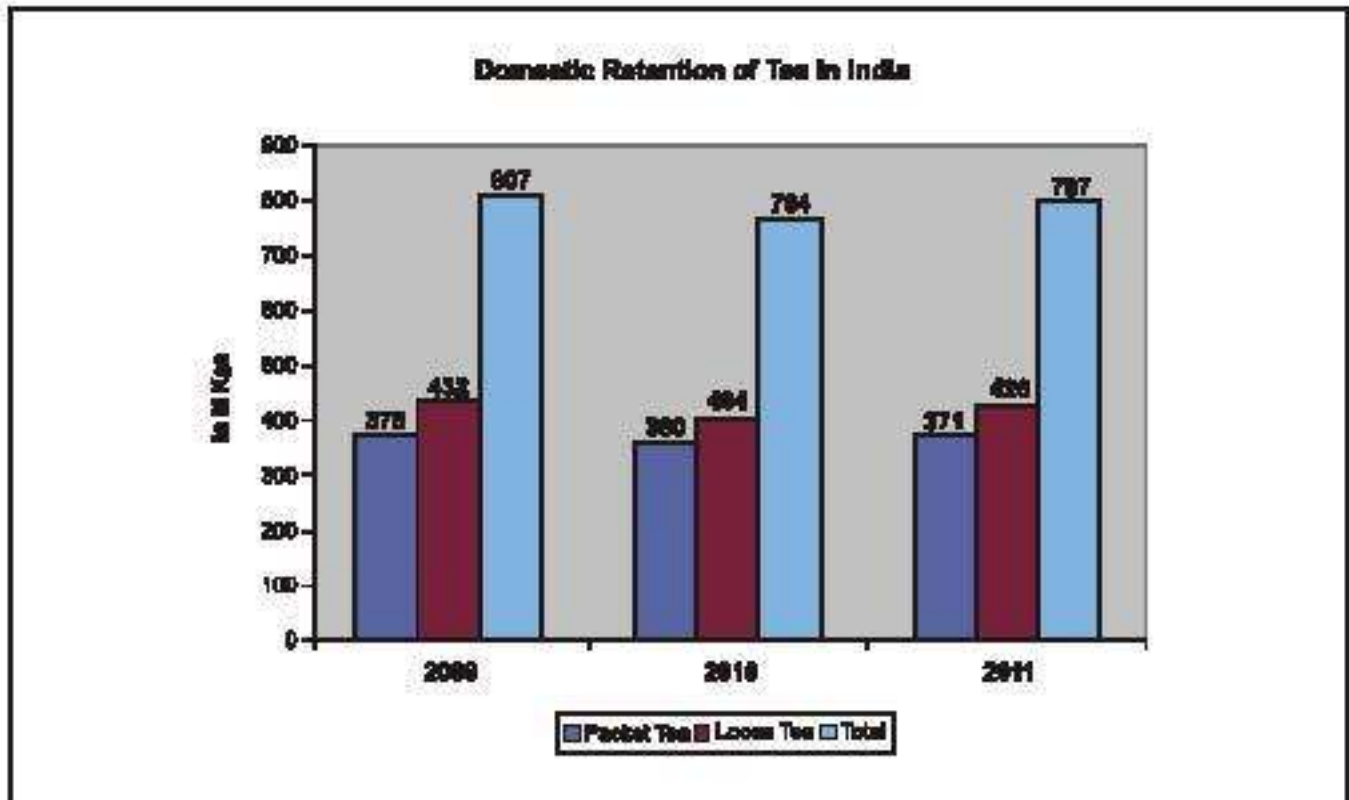
Table-15
Average price Rs per kg of tea sold through Auctions

Calendar Year	North India	South India	All India	Financial Year	North India	South India	All India
2009	114.66	81.03	105.60	2009-10	116.46	80.26	106.36
2010	119.51	67.69	104.65	2010-11	120.16	68.57	105.40
2011	117.19	70.17	104.05	2011-12	117.01	70.26	103.94



**Domestic Retention :**

The estimated domestic retention of tea for the year 2011 was around 797 M.Kgs. as against 754 M.Kgs in 2010





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 funds to the Board under Annual Budget of Ministry of Commerce & Industry. The rate of cess on Darjeeling and other than Darjeeling varieties of made teas was @ ₹ 0.12 per kg and ₹ 0.30 per kg respectively with effect from 1st April, 1997. However, the rate of cess has been enhanced with effect from 1st June, 2011 and at present is charged on Darjeeling and other than Darjeeling varieties of made teas @ ₹ 0.20 per kg and ₹ 0.50 per kg respectively in terms of the enabling provision contained in Section 25 of the Tea Act.

So, the after 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. Proceeds on all such accounts go to IEBR.

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.

The Budget of the Board comprises of two constituent elements Viz. Non-Plan and Plan.

NON-PLAN BUDGET ALLOCATIONS

The collection of cess during the year under review was Rs. 4743.00 lakh as per receipt budget of Department of Revenue, Ministry of Finance. During the year 2011-12 an amount of Rs. 3810.00 lakh (include opening balance) was released by the Government towards non-plan contribution to the Tea Board.

RESEARCH & DEVELOPMENT GRANTS

During the year 2011-12, a sum of Rs. 1200.00 lakh (include opening balance) was received from Government towards Research and Development Grants for old and ongoing schemes and new schemes under Section 26A of the Tea Act.

RESEARCH (AED)

During the year an amount of Rs. 620.00 lakh was received from the Govt towards grant. There was an opening balance of Rs.25.92 lakh.

S U B S I D Y

A sum of Rs. 20915.00 lakh (include opening balance) was received from Government towards subsidy during the year under Section 26A of the Tea Act.

MARKET ACCESS INITIATIVE SCHEME

During the year under review a sum of Rs.200.00 lakh was received from the Government.

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, no amount was received from Govt. towards SPTF Capital Contribution.



Receipts during the year 2011-12 under different heads of Non-Plan were as under:

A. Receipts (₹ in lakh)

Money received under Section 26 of Tea Act	3810.00
Fees realized on account of licenses	4.00
Fees realized on account of TMCO, 2003	6.65
Miscellaneous Receipts including sale of liquid tea, sale of green leaves, sale of publications, interest on fixed deposit etc.)	230.84
Interest on Advance	14.76
Registration fees realized on account of HACCP/ DCTM	4.27
TOTAL	4070.52

B. Expenditure (Non-Plan) (Rs. in lakh)

Administration including Library	2375.37
Tea Promotion in India	544.17
Tea Promotion outside India	34.45
Pension including 6 th CPC Arrear	1129.70
Advances to employees	30.52
Employer's contribution to New Pension Scheme	23.36
Repayment of liability	1.00
Works	8.16
TOTAL	4146.73

C. Expenditure Research & Development Grants (₹ in lakh)

Grant in aid to TRA	283.22
Grant in aid to UPASI	88.85
Research Grant UPASI	80.14
Research Grant TRA	41.68
Research Grant to HPKVV	6.52
Research Grant to AAU	3.00
Research Grant C-DAC	0.48
Research Grant IIT, Kharagpur	41.96
Research Grant B.C. Guha Centre	10.91
Darjeeling Tea Research & Dev. Centre, Kurseong (Regular)	195.12
Workshop/Seminar	38.10
Development Grant-ISRO	143.73
Development Assistance	948.45
Bank Charges	0.07
Total	1882.23

D. Expenditure - Subsidy (₹ in lakh)

Plantation Subsidy Scheme	1844.71
Quality Up-gradation & Product Diversification Scheme	4254.99
Human Resource Development Scheme	466.15
Orthodox Tea Production Subsidy Scheme	7233.59
Market Promotion Scheme	1901.55
Special Purpose Tea Fund	3858.12
Scheduled Caste Sub Plan	931.42
TOTAL	20490.53

**E Special Fund (AED)**

(₹ in lakh)

Research	636.43
TOTAL	636.43

F. Research & Development (TRA Centenary Grant)

(₹ in lakh)

Research	5.00
TOTAL	5.00

G. Market Access Initiative Scheme

(₹ in lakh)

Expenditure	60.73
TOTAL	60.73

H Expenditure - LOAN SCHEME

(₹ in lakh)

Revolving corpus fund for loan scheme	Nil
TOTAL	Nil

TOTAL EXPENDITURE ON PLAN DURING THE YEAR

(C+D+E+F+G) = ₹ 23074.92 lakh



TEA DEVELOPMENT

Introduction:

One of the primary 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.

Development Committee:

The Development Committee of the Board guides in its capacity as an Advisory body, in discharge of the developmental functions of the Board. During the year under report, the development committee consisted of the following members and met three times at the below noted dates and venue:-

1. Chairman, Tea Board, Ex-officio Chairman of the Committee
2. Shri C.N. Natarajan, Vice Chairman ;
3. Shri C.S. Bedi, Chairman, Indian Tea Association;
4. Shri Samir Roy, Jalpaiguri, West Bengal-735 101;
5. Dr. Ajit Kumar Agarwala, Siliguri, West Bengal;
6. Dr. S. Ramu, Coonoor, Tamil Nadu;
7. Shri Hiranya Bora, Guwahati, Assam-781 005

Special Invitees,

1. Shri Hemant Bangur, President, TAI;
2. Shri D.P. Maheshwari, Chairman, TRA, Kolkata
3. Shri Bijoy Gopal Chakraborty, President, CISTA;

4. Shri Bidyanand Barkakoty, Joint Forum of ATPA, NETA and BCP;
 5. Shri D. Hegde, President, UPASI, Coonoor;
 6. Shri Peter Mathias, Chairman, UPASI Tea Committee
 7. Shri S.S. Bagaria, Chairman, Darjeeling Tea Association
- Dates and place of the meetings of the Development Committee

Date of Meeting	Place
22 nd September, 2011	Kolkata
29 th December, 2011	Coonoor
2 nd March, 2012	Kolkata

Important recommendations made by the Development Committee:

In addition to reviewing the progress made under the XI Plan Development Schemes of the Board, the Development Committee made the following recommendations to the Board during the year under report:

1. Organizing tea conventions/workshops/seminars in all the major tea growing districts, where small growers are concentrated;
2. Revision of Orthodox subsidy scheme-changing the rate of subsidy @Rs. 3 per kg and the incremental subsidy to be determined on the basis of average production of the applicant garden over the immediate preceding 5 years. The rate of incremental subsidy to be considered in the range of Rs. 1-5 per kg depending upon the increase over the base production;
3. To link the subsidy payments to regular discharge of liabilities and payment of workers' dues;
4. Waiver of application fees for the small growers under the ongoing schemes of the Board;
5. Inclusion of tea harvesting machines as one of the eligible items for subsidy for the tea plantations in South India and Himachal Pradesh and small holdings in the states of Assam and West Bengal;



6. Opening of new offices of the Board at Gudalur, Kumily and Itanagar;
7. Survey of small tea growers in Himachal Pradesh, Tripura through the respective State Governments;
8. Enumeration of small tea growers by the Zonal Offices of North East and South India;
9. Instituting an award scheme for recognition of the progressive small growers/self help groups/Bought Leaf Factories;
10. Waiver of defaulted dues under the erstwhile loan schemes of the Board for the re-opened closed tea estates ;
11. Evaluation of the plan schemes of the Board by engaging an accredited consultancy agency;
12. Launching of a special scheme for the benefit of Scheduled Caste small growers under the Scheduled Caste Sub Plan (SCSP);
13. Suggested placement of sanctioned posts and the functional responsibilities of the Small Grower Development Directorate;
14. Provision of computers to the progressive Self Help Groups;
15. Revision of Unit Cost of replanting on the basis of the cost estimates made by NABARD for adoption under the SPTF.

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

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

ii) 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 installments after completion of the field operation.

Developmental Schemes

The following schemes were implemented during the year under review.

Sl.No	Name of the Scheme
1	Tea Plantation Development Scheme
2	Special Purpose Tea Fund Scheme
3.	Quality Up-gradation and Product Diversification Scheme
4	Human Resource Development Scheme
5	Developmental Assistance to Small Growers

Physical and Financial achievements:

The physical and financial achievements during the year under report as well as cumulative achievements during the five years of the XI plan under the aforementioned schemes were as under:

1. Tea Plantation Development Scheme:

The main objective of the Tea Plantation Development 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:



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 per centre
2. Input Storage godowns	Grant-in-aid @ 100% of the cost subject to a ceiling limit of ₹ 50,000 per centre
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 @ ₹ 10,000/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 per trainee per month for six months after completion of training.

Table 1: Physical and Financial Achievements during 2011-12.

Activities	Target		Achievement					
	Physical (ha/no.)	Financial (Lakh ₹)	NE		ONE		Total	
			Physical (ha/no.)	Financial (Lakh ₹)	Physical (ha/no.)	Financial (Lakh ₹)	Physical (ha/no.)	Financial (Lakh ₹)
New Planting	2200	1500	301.57	454.55	351.67	236.70	653.24	691.25
Irrigation	2000		11085.34	428.53	6820.03	204.16	17905.4	632.69
Transport			207	306.46	84	111.93	291	418.39
Self Help Group	67		1	5	33	79.43	34	84.43
50% subsidy to unemployed youth			0	0	64	17.76	64	17.76
Total				1194.54		649.98		1844.52



Table 2 : Cumulative Physical Achievement during XI Plan (2007-12)

Year	Physical Target			Physical Achievement			
	Hectare		Number	Hectare		Number	
	Irrigation Drainage	New Planting	SHG	Irrigation	New Planting	Transport	SHG
2007-08	1200	250	20	1664.95	183.84	0	45
2008-09	1500	1000	30	4325.37	694.61	11	17
2009-10	1600	2000	35	2460.30	863.01	114	57
2010-11	1700	2000	60	1181.27	1158.26	127	38
2011-12	2000	2200	67	17905.4	653.24	291	98
Total	7900	7450	212	27427.29	3757.96	643	260

Fig. 1 : Physical Target and Achievement during 2007-12

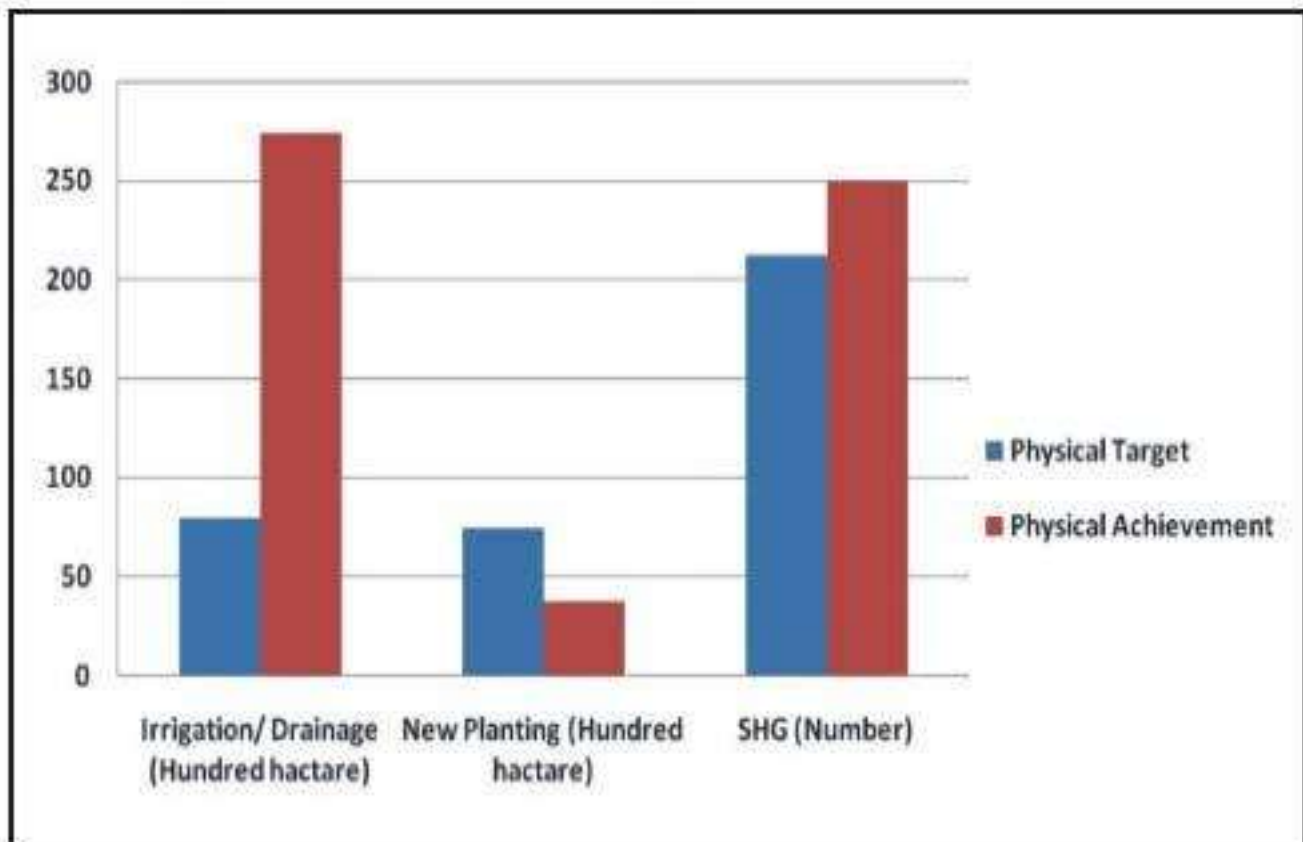




Table 3 : Financial Achievement during XI Plan (2007-12)

Year	Target				Financial Achievement (Lakh)					
	Irrigation	New Planting	SHG	Total	Irrigation	New Planting	Transport	SHG	Others	Total
2007-08	125	25	50	200	94	137	0	49	-	280
2008-09	550	400	150	1100	236	432	29	31	50	778
2009-10	150	1050	100	1300	89	441	196	44	-	770
2010-11	170	1050	180	1400	62	570	19	50	-	701
2011-12	200	1100	200	1500	633	691	418	102	-	1844
Total	1195	3625	680	5500	1114	2271	662	276	50	4373

2. Special Purpose Tea Fund scheme :

This 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. The target set for the XI Plan period was 40992 ha comprising of replantation in 32560 ha and rejuvenation in 8432 ha. Rejuvenation pruning was 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) Replanting /Replacement planting and Rejuvenation of old tea areas	1) 50 % of the unit cost as long term loan with 9.5 % interest, moratorium on principal during the first 5 years and repayable in 16 half yearly installments from 6 th to 13 th year
	2) 25 % of the unit cost as subsidy payable in two installments after completion of field operation

Table 4 : Physical and financial achievements during XI Plan

Year	Physical (ha)				Financial (subsidy) (₹Crores)	
	Replanting		Rejuvenation		Target	Achievement
	Target	Achievement	Target	Achievement		
2007-08	4840	3196.69	810	1427.54	15.00	16.02
2008-09	4592	4020.20	1579	1553.27	20.50	21.33
2009-10	5102	5125.00	2632	1122.00	21.37	22.84
2010-11	8673	6349.22	1716	1600.43	29.78	30.76
2011-12	9353	6504.28	1695	1113.26	60.00	43.17
Total	32560	25195.39	8432	6816.50	146.65	134.12

In addition to subsidy, ₹ 48.48 crores of term loan has been disbursed during the XIth Plan period.



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 Producers' 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 Up-gradation and Product Diversification Scheme (QU&PDS):

The main objective of the 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 speciality 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:

Table : 5 : Activities supported

Sl. NO.	Activity	Nature of Assistance
I	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.	Subsidy @ 25% on the actual cost of machinery subject to a ceiling of ₹25 Lakhs per factory per annum.
	2. In case of machinery for orthodox tea in 100% CTC factories.	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 speciality 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/-.

Table 6 : Physical and Financial Achievements during 2011-12.

Activities	Targets 2011-12		Achievements 2011-12	
	Physical/units	Financial ₹Cr.	Physical/units	Financial/₹Cr.
Factory modernization	59	14.75	424	36.49
Value addition	22	5.5	49	5.23
Quality Certification	15	0.15	80	0.32
Product diversification/New factory	3	0.75	2	0.5
Total	99	21.15	555	42.54

Table 7: Year wise achievement for the XIth plan period (₹ Crores)

Year	Modernization		Value Addition		Certification		New factory		Total disbursement	
	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.
2007-08	443	26.81	7	0.27	27	0.15	0	0	477	27.23
2008-09	260	16.25	31	2.68	25	0.11	0	0	316	19.04
2009-10	169	16.26	28	2.43	40	0.19	1	0.07	238	18.95
2010-11	189	17.04	27	2.9	52	0.12	0	0	268	20.06
2011-12	424	36.49	49	5.23	80	0.32	2	0.5	555	42.54
Total	1485	112.85	142	13.51	224	0.89	3	0.57	1854	127.82



Table 8: Cumulative progress during XI Plan Period (01.04. 2007 to 31.3.2012)

Activities	Targets		Achievements	
	Physical/units	Financial/₹Cr.	Physical/units	Financial/₹Cr.
Factory modernization	349	87.25	1485	112.85
Value addition	147	36.75	142	13.51
Quality Certification	100	1	224	0.89
Product diversification	20	5	3	0.57
Total	616	130	1854	127.82

3.1 Orthodox Tea Production Subsidy Scheme:

The initial outlay approved for the XI plan period was ₹120.50 Crores including ₹ 20.50 Crores from AED fund. As the claims received were far in excess of the approved outlay, an additional sanction was accorded for a sum of ₹ 24 crores.

Table 9: Target and achievement during XI Plan period (2007-2012)

Year	Application details			Total Expenditure		
	No.	Vol. (M.Kg)	Amount (₹Cr.)	No.	Vol. (M.Kg)	Amount ₹(Cr.)
2007	702	97.37	29.21	687	88.44	14.00
2008	725	100.41	30.13	690	95.01	22.32
2009	607	97.29	29.93	599	97.14	10.65
2010	563	94.70	27.17	545	93.79	24.37
2011	586	92.33	27.16	561	90.19	72.32
Total	3183	482.10	143.60	3077	464.57	143.66(*)

(*) includes operating cost for 5 year /incremental payment etc.

4. Human Research Development 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 :

**Table 10: Training/seminars under HRD Scheme during 2011-12**

Activities	Targets		Achievements	
	Physical(nos.)	Financial(₹Cr.)	Physical(nos.)	Financial(₹Cr.)
Training of Small growers	2000	3.00	4500	1.90
Training of garden managers	500		500	
Training of Trainers (Extension Service providers)	85		20	
Councils, seminars & conference & National Commodity information Grid	3		7	

Table 11: Year wise Training/seminars during XI Plan (2007-12)

Activities	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Training of Small growers	16129	9034	11526	8500	4500	49689
Training of garden managers	447	169	325	175	500	1616
Training of Trainers (Extension Service providers)	0	30	139	65	20	254
Councils, seminars & conference & National Commodity information Grid	0	12	8	3	7	30

Table 12 : Funds utilized for training /seminars during XI Plan (2007-12): ₹ Cr

	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Targets	1.25	2.50	2.75	3.00	3.00	12.50
Achievements	0.52	0.91	1.98	0.39	1.90	5.70



Table 13 : Training conducted by different agencies with financial support from Tea Board during 2011-12.

Agency	Beneficiaries	No. of people trained	Amount released (₹Lakhs)
IIPM	Tea garden manager, workers	2846	150.00
UPASI-KVK	Small tea workers and Development Officers of Tea Board	3282 and 11	48.56
AAU	Small Tea Growers	58	4.99
TRA	Development Officers of Tea Board	12	1.44
	Total		204.99

Vocational Training—vocational training courses of six month duration conducted for 283 nos. of tea plantation workers at Jan Shiksan Sansthan in Jalpaiguri District.

4. 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 ₹ 1261.68 lakhs was disbursed as per the breakup of particulars as noted below:

Table 14 : Development grant disbursed during 2011-12 (₹lakhs)

Sl. No.	Particulars	Amount released (₹lakhs)
1.	Advisory Service—grant in aid provided to TRA/UPASI/AAU/IHBT-Palampur/IIT-Kharagpur	39.47
2.	Study tours and workshops	113.15
3.	Strengthening of Zonal and Regional Offices of the Tea Board	741.20
4.	Nursery & Demonstration pruning in small holdings in Nilgiri, Tamil Nadu	0.00
5.	Base line survey	70.54
6.	Others (Miscellaneous including ISRO, e-auction project, etc.)	297.22
	Total	1261.58

**Table 15 : Development grant disbursed during 2007-2012 (₹lakhs)**

Sl. No.	Particulars	Amount released					
		2007-08	2008-09	2009-10	2010-11	2011-12	Total
1	Advisory Service-grant in aid provided to TRA/ UPASI/AAU/ IHBT-Palampur/IT-Kharagpur	11.00	119.62	100.08	0.00	39.47	270.17
2	Study tours and workshops	5.18	7.47	11.89	35.77	113.15	173.46
3	Strengthening of Zonal and Regional Offices of the Tea Board	53.21	103.73	59.28	38.25	741.20	995.67
4	Nursery + Demonstration pruning in small holdings in Nilgiri, Tamil Nadu	17.04	24.09	20.98	10.00	0.00	72.11
5.	Baseline survey	0.00	0.00	0.00	0.00	70.54	70.54
6	Others (Miscellaneous including ISRO, Baseline survey, CFC, e-auction project, etc.)	176.33	11.05	254.19	259.24	297.22	998.04
Total		262.76	265.96	446.42	343.26	1261.58	2579.99

Table-16 : Workshop-cum-training programmes conducted for small tea growers in North East region and West Bengal.

Sl. No.	Zonal/Regional Office	Number of Training programme	No of Growers benefited/participated	Amount (₹ Cash)
1	Guwahati	7	602	1.42
2	Dibrugarh	7	506	1.23
3	Jorhat	12	1024	2.16
4	Tezpur	6	459	1.14
5	Silchar	1	69	0.30
6	Agartala	2	120	0.58
7	Siliguri	19	1400	3.36
	Total	54	4180	10.19



Table-17 Study tours organized for Small Tea Growers during 2011-12

Sl. No.	Name of SHG/Associations	Place of Visit	Nos. of Growers	Amount involve (₹ lakhs)
1	Small Tea Growers of Meghalaya	Darjeeling, W.B.	17	3.30
2	Small Tea Growers of Tripura	Kottayam, Kerala	15	3.11
3	Small Tea Growers of Jalpaiguri	Assam	15	1.53
4	Small Tea Growers of Jalpaiguri	Assam	15	1.28
Total			62	9.22

Scheduled Caste Sub-Plan Scheme:

During the year under report Tea Board received a sum of ₹ 10 cr. under this sub-plan (SCSP) for the first time for extending assistance to SC small tea growers. Accordingly a special Scheme was formulated with the guidance from the Development Committee.

Table-18 : The eligible items under the SCSP scheme :

Sl. No.	Components/ Items eligible	Number of items eligible	Amount of subsidy eligible for SHG	subsidy eligible for individual SC grower
A.	Purview of Plantation Development Scheme			
1.	Transport Vehicles Trucks, Tractors, Trailers for haulage of green leaf from field to factory and carrying inputs to field.	One vehicle allowed for every 5000 kgs. green leaf handled per day (during June to September).	50% subsidy for the actual cost of the vehicle	
2.	One year input cost per ha. for fertilizer, pesticide, weedicide, sprayers		One time grant @ ₹ 10000.00 /ha.	
3.	Input Storage Godown	One input storage godown per SHG/ per grower for safekeeping of the field equipments and storage inputs	One time grant @ ₹ 50,000/SHG	
4.	Leaf Collection Shed	One leaf collection shed for every 5000 kgs. leaf harvested in a day	One time capital grant of ₹ 30000 per shed (Ceiling limit) /SHG	



Cont. 17

5.	Leaf Weighing scales	Two leaf weighing scales Per SHG	One time capital grant of ₹ 3000 for two scales (Ceiling limit) / SHG
6.	Plastic Crates/ Leaf Carry Bags	One Plastic crate for every 20 kg green leaf handled per day or one nylon bag for every 15 kg green leaf handled per day.	One time capital grant of ₹ 210 for each crate (Ceiling limit) or ₹ 30 each nylon bag
7.	Pruning Machine	One pruning machine per 10ha. of tea area/SHG and one pruning machine per grower.	One time capital grant of ₹ 35000 for each pruning machine.
B	Purview of Quality Up-gradation and Product Diversification Scheme		
1.	Setting up of new factories by SHGs	For the SHGs having more than 50 members and a minimum of 50% of the group belonging to SC category.	Rate of subsidy on pro-rata basis according to the total strength of the SHG i.e. subsidy @ ₹ 25 lakh for every 50 members of the group or 40% of the actual cost of factory setting, whichever is lesser.

Table 19 : Physical and financial achievement of SCSP Fund in 2011-12

Disbursing Offices	No. of individual Scheduled caste beneficiaries	Financial (₹ Cr.)	Financial achievement (₹ Cr.)	
			NE	ONE
Guwahati	132	0.35	0.35	8.96
Jalpaiguri	1045	7.00		
Siliguri	38	0.07		
Coonoor	201	1.65		
Kottayam	63	0.24		
	1479	9.31		



6. Base line survey :

During 2011-12 , a baseline survey work was initiated through field offices of the Board for collecting comprehensive information of tea gardens throughout the country. It covered ownership profile, particulars of land usage production pattern, infrastructure available for labour housing, medical care, primary education etc.

7. Revolving Corpus for Loan schemes :

During the year there was a good response to the restructuring package offered by the Tea Board and the default position decreased significantly with the recovery of ₹ 9.32 Cr. during 2011-12. The year wise recovery position is shown below.

Year	Recovery in ₹ Lakhs			
	Machinery	Plantation	Irrigation	Total
2007-08	297.85	319.22	124.36	741.43
2008-09	480.74	456.45	76.64	1013.83
2009-10	624.43	640.76	90.15	1355.34
2010-11	500.58	484.44	178.50	1163.52
2011-12	319.27	516.70	96.75	932.72
Total	2222.87	2417.57	566.40	5206.84

8. Closed Tea Gardens :

During the year under report there was no fresh case of closure of any garden. Only four gardens which were closed earlier during the crisis period (between 1999-2008) remained closed.- 2 each in West Bengal and Kerala. The year-wise re-opening of closed tea estates are given below.

Year	Number of gardens reopened
2007-08	11
2008-09	5
2009-10	6
2010-11	9
2011-12	Nil
Total	31
Number of gardens that still remain closed	4



PROGRESS UNDER OTHER ONGOING PROJECTS

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.

The activities carried out during the year under report were as under:

- Mapped 60% of tea growing areas in West Bengal and Assam and digitized using high resolution satellite data and field verification. The outputs in 1:50,000 scale were sent across to various regional offices of Tea Board for field validation for Ground truth collection and interaction of small growers and various grower's associations. Geo-referenced 250 Tea garden maps received from the Tea Board. Digitization of garden boundary, section boundary and labeling of various attributes of tea gardens

as was received from Tea Board. Generated land use maps at detailed level for 250 tea gardens.

- Generated spatial database viz. Road network, railway, drainage and rivers, settlement location, watersheds, location of the tea processing factories, location of different tea growers' societies in tea growing districts.
- Carried out refinement of section boundaries and land use classes.
- Created RDBMS using FORM-1 received from various tea gardens and integration with spatial database.
- Developed Tea GIS MIS portal / software package.
- Prepared draft Tea Atlas for the districts of Dibrugarh, Jalpaiguri
- GPS training provided to the Tea Board officers.
- Provided value added outputs to 6 tea garden managers and NWDA as per the direction of Tea Board.
- Comparison of the uprooted areas as reported by the

tea gardens and measured from satellite data.

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, this four year project was implemented in collaboration with M/s TIDE- Bangalore.

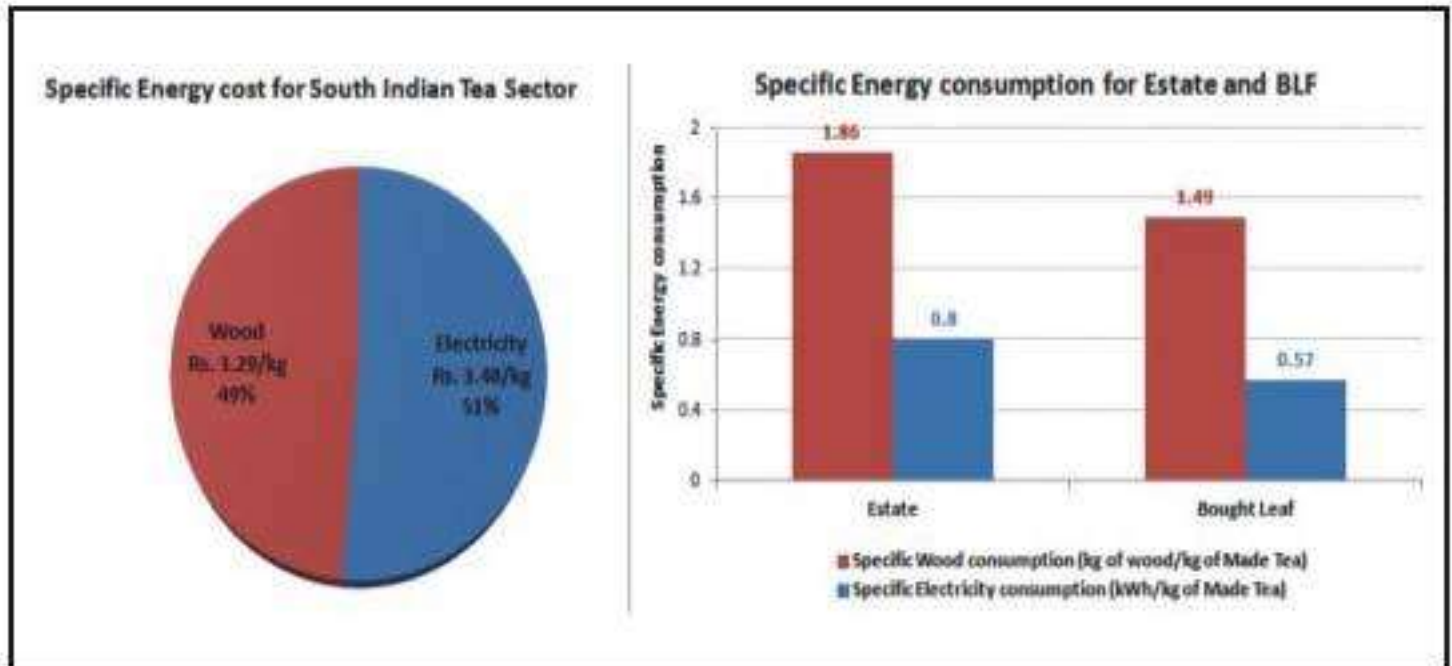
During the year under report with the tea industry showing acceptance of energy conservation measures, new technologies like dual speed motors, solar pumping, use of briquettes in hot water generators were successfully demonstrated and energy conservation established. There was also a lot of focus on data collection, documentation and dissemination of information. Some of the documentation produced in the year were:

- Destination efficiency: A video tutorial explaining about the 10 most significant energy conservation measures
- Two films on the project - one a promotional film and the second film analyzing the project processes
- A process documentation on the project
- Reports on Baseline Analysis and Impact Analysis of the project

The achievements of the project were:

- Investment of about USD 2.5 million for more than 1100 energy efficient equipment
- Interventions currently saving 10 million KWH / yr and 25,000 tons firewood yr valued at USD 2.3 million by south Indian tea factories
- CO₂ emission reduction estimated to be more than 200,000 tons in the project period (2008-12)
- Shift to sustainable fuel: briquette consumption increased by about 30,000 tons in the last two years of the project

The project also demonstrated a success multi stakeholder engagement with civil society, academic institutions and private sector working together under the guidance of the Tea Board.



C. Organic Tea Development Project:

This project supported by the FAD-IGG, CFC and IFOAM was launched in September 2008. The initial sanctioned duration of the project was three years but was subsequently extended for a further period of two years. 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 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 conduct-

ing 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.

Total sanctioned outlay for the project was USD 4,047,833 of which 39.8% to be provided by CFC by way of grant USD 643,926 (15.9%) and loan USD 965,888 (23.9%). The remaining 60.2 % USD 2,438,019 to come from the model farms and all host institutes.

Funds received from CFC since inception include USD 466,334 as grant and USD 965,888 as loan. While the entire loan amount has been disbursed to the model farm owners, the total expenditure against grant component up to 31 March 2012 was USD 459,348.

Forty two field and lab experiments (short and long term duration) have been laid out under the project. While short term experiments have since been completed, long term experiments are being continued. About 40 scientists are involved and areas of study included nutrition and uptake by tea plants, soil fertility and microbial position, bio-fertilizers and herbal extracts as plant protection



elements, soil rehabilitation, plant physiological conditions and analysis of attributes for growth, shoot production, responses to compost and its component analysis, soil dynamics and so on.

Capacity building Centre at Siliguri: The civil construction of the building with total floor space of 2700 sqft has been completed. It has provision for lecture hall, library/information center and office room. Estimated construction cost was USD 162000, and it was met by grant contribution from CFC (USD 100,000) and in kind contribution from Tea Board of India (USD 62000). Interior work is under progress.

Capacity building centre in South India at TRF, Valparai: The civil construction work is under progress and expected to be completed by Sept 2012. Training programmes are being organized in the campus of UPASI-TRF at tea garden sites.

Human Resource Development -Trainings, Seminars and Workshops :

Initially all the senior level scientists involved in the organic project were trained first at ICCOA on organic principles and steps involved, and then at APEDA about certification requirements. Subsequently, these trained personnels imparted training to the junior staff and field supervisors on input preparations, biodynamic, operational aspects, and record maintenance and so on.

Elaborate training programmes were designed for Darjeeling hilly region by DTRDC; by TRA for North Bengal and Assam area and by UPASI Tea Research Foundation for South India. The courses was attended by representatives from the top, middle and lower level management including

workers from the tea gardens to acquaint with the organic cultivation. Study material was printed in English as well as in local languages and distributed to the trainees. Total number of persons trained so far adds to 1140 in Assam, 560 in South India and 160 in Darjeeling. Training material were printed both in English and in local languages. 15 programmes were conducted at IIT, Kharagpur, on vermi-composting, for the benefit of organic input producers.

Exchange visits : A delegation of four scientists from tea research institutes in India was deputed to China to participate in the International organic tea conference in June 2011. Indian scientists also presented results of organic experimentations in the conference and visited the organic tea farms in China.

Market Developments: During the year a base line survey to identify the domestic demand for organic tea was carried out through an accredited agency in four class I cities of India. The survey covered the following issues:

- Level of awareness / knowledge
- Demographic and psychographic profiling of both organic tea drinkers and non drinkers
- Purchase behavior/buying process
- Consumption pattern (occasions and frequency) and trend
- Diagnostics (triggers and barriers, intention to buy)
- Effect of pricing and its implications (pricing points and sensitivity)
- Measurement of indicative demand in India in the coming years.



TEA RESEARCH

Introduction :

Tea Board of India is the apex body of the Indian tea industry that plays a pivotal role in the regulation and promotion tea research in the country. In the wake of the recent global developments in the tea industry, it is necessary for Tea board to embark on some major projects which have relevance to cater the need of tea industry. The Research Directorate of Tea Board has been promoting and accelerating the pace of development of tea research in the country which covered spectrum of studies and innovative activities in various aspects of basic, applied and regulatory research. Thus the remarkable growth of Indian tea industry can be partly attributed to the supportive role of Research Directorate which coordinates research activities of various 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 impact of the tea research related developments in the areas of plant improvement (breeding and biotechnology), plant production (agronomy and soil science), plant protection (mycology and entomology), tea quality aspects (biochemistry and tea tasting) and tea processing (including electronics and engineering aspects of tea manufacturing) has already been visible and the efforts are now culminating into

products and processes. A unique feature of the department has been the deep involvement of the scientific community of the country in tea research through a number of research grants to various National R&D Institutes and Universities, advisory committees, individual experts in identification, formulation, implementation and monitoring of various programs for improvement of the productivity of small tea holdings, estates and factories.

Grant-in-aid

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

The fund allocation on account of R&D for the year 2011-12 was Rs. 18,82,22,892.00. The financial support given to TRA on account of Grant-in-aid was Rs 2,83,21,685.00 and AED Rs. 54,858,621.00 during 2011-12. Similarly, UPASI was granted Rs 88,84,499.00 as Grant-in-aid and Rs 86,84,071.00 as AED.

Tea Board has also granted to Himachal Pradesh Krishi Viswa Vidyalaya (HPKVV) Rs 6,52,400.00 and Assam Agricultural University (AAU) Rs 3,00,000.00 for research on Indian tea during the year 2011- 2012. An amount of Rs 1,95,12,372.00 was released in favour of DTR&DC for upgradation of infrastructural development and procurement of modern equipment 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 projects were



given each to Indian Institute of Technology (IIT), Kharagpur; Centre for Development of Advanced Computing (CDAC), Kolkata and Calcutta University. The projects were mainly aimed at applied research. However, basic and regulatory aspects of tea research were 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 at UPASI-TRF

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

Trials on ENV system was completed that helped us to determine the optimum fermentation time using E-Nose and development of fermentation colour palette using E-vision. Studies were conducted on the effect of processing techniques on various quality, pigments flavour related enzymes and their respective substrates, clonal, component and processing variation on total amino acid. Effect of different manufacturing stages on the transformation of individual flavanols and flavour compounds during processing of clonal black tea manufacture have been evaluated. The approval for construction of HTF factory from local municipality is awaited.

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

Natural enemies such as predatory mite (*Neoseiulus longispinosus*) and green lacewing (*Mallada boninensis*) collected from the fields were brought to UPASI TRI laboratory and studies revealed their predatory potential on red spider mites.

Entomopathogenic bacterium, *Pseudomonas* fluorescence and the fungus *Lecanicillium lecanii* were isolated from the infested mites and thrips respectively collected from the tea ecosystem and their bio-efficacy against the respective pests was ascertained. Resistance status of red spider mite collected from various tea growing areas of southern India were evaluated against

commonly used pesticides using LD₅₀ values and enzyme variations (Esterase Glutathione S transferase and mono oxygenase). Micro-plot with multi location field trials on the evaluation of predatory potential of the predatory mite, *N. longispinosus* and *Mallada boninensis* were conducted to assess their establishment in different agro-climatic conditions under normal estate practice as well as in organic tea gardens. Training on familiarizing integrated pest and disease management techniques for incorporation in the IPDM strategies for efficient management of tea pests and diseases were conducted. Germplasm of some biocontrol agents like *Trichoderma* sp., *Pseudomonas* sp., *Bacillus* sp have been maintained. Sensitivity and tolerance studies were done. *Bacillus* sp. and *Pseudomonas* were found compatible with selected pesticides (Propargite, Fenpyroximate, Hexythiazox, Thiamethoxam and Deltamethrin) and fungicides (Hexaconazole, Carbendazim, Mancozeb, and Copper oxychloride, Nativo, Tridemorph, Benomyl and Tebuconazole). *In vitro* studies on the antagonistic potential of the biocontrol agents against tea pathogens such as *Pestalotiopsis* sp., (Grey blight), *Hypoxyton* sp., (Wood rot) and *Macrophoma* sp., (Branch canker) were conducted where five species of both *Pseudomonas* sp. and *Trichoderma* sp. showed higher inhibition against grey blight pathogen compared to *Bacillus* sp. under *in vitro* conditions. 5 *Bacillus* strains showed higher antagonism against wood rot pathogen. Three each of *Bacillus* sp, and *Pseudomonas* sp. produced higher antagonism against branch canker pathogen under *in vitro* conditions. Selected biocontrol strains were tested for their bio-efficacy against grey blight under laboratory and glass house conditions. Straight application of efficient biocontrol agents, *Bacillus* sp. (HBCWR-3 and WR46-2) showed well inhibitory effect on wood rot and branch canker pathogens under glass house conditions.

3. ANALYSIS OF GENE EXPRESSION DURING PHYTOPATHOGENIC STRESS IN TEA USING TRANSCRIPTOMIC APPROACH

Construction of cDNA library, sequencing of the ESTs and analysis from disease infected plants with reference



to blister blight and grey blight diseases were done. Differential display (DD) analysis of control and disease infected plants using suppressive subtractive hybridization (SSH) library and DD PCR was done. Differentially expressed genes were isolated and sequenced, their analysis and identification of candidate genes were then completed. The ESTs obtained from the SSH library specific to blister blight infection were sequenced and analyzed. A total of 306 (166 + 140) ESTs were submitted to the NCBI database. It was found that the ESTs obtained from both the SSH libraries correspond to various stress related proteins and pathogenesis related proteins. RACE reaction was performed for the chitinase gene and the sequence obtained was submitted to the NCBI database. A complete CDS encoding metallothionin like protein has been obtained from the grey blight specific cDNA library, sequenced and submitted to the NCBI database. Generation of the full-length sequence of genes encoding β 1,3-glucanase has been achieved from the blister specific SSH library. The levels of gene expression for the genes related to PR (Pathogenic Related) proteins were studied in the different stages of blister blight infection. Enzyme assays were also carried out for the various enzymes related to PR proteins in the different stages blister blight incidence.

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

The methodologies for the quantification of residues of abamectin, bifentazate, dimethoate, thiacloprid, thiamethoxam, clothianidin, carbendazim, spiromesifen and oxyflurofen were identified and validated. Field trial with abamectin (1 season), bifentazate (2 season), dimethoate (2 season), thiacloprid (2 season), thiamethoxam (1 season), spiromesifen (2 season), mancozeb (1 season), carbendazim (2 season) and oxyflurofen (2 season) were conducted. The pesticide residues both in black tea and tea infusion for abamectin, bifentazate, dimethoate, thiacloprid, thiamethoxam, clothianidin, carbendazim, spiromesifen and oxyflurofen were determined. Dissipation study during the different stages of processing was completed for the pesticides abamectin,

bifentazate, dimethoate, thiacloprid, thiamethoxam, clothianidin, carbendazim, spiromesifen and oxyflurofen. Soil enzymes regulate ecosystem functioning and in particular play a key role in nutrient cycling. Studies on the impact of Pb on the activity of the enzymes protease and urease in soil were done.

Progress of 11th Plan Research projects at TRA, Tocklai, Assam

5. SUSTAINING SOIL PRODUCTIVITY-SOME STRATEGIES

Field trial were conducted at commercial tea estate of South Bank (Bokahola TE) Studies revealed that all the treatments maintained a satisfactory level of organic carbon status, the treatment included 75% of recommended dose of fertilizer (RDF) + 6t vermicompost (VC) and 100 RDF .This helped in maintainance of highest build up of organic carbon level in soil after one year of experimentation. All the integrated treatments maintained bulk density and water stable aggregates at par with 100% RDF after one year of Imposition of treatments. Crop data indicated that 25% replacement of RDF either by 6t VC or mixed biofertilisers maintained yield at par with 100% inorganic. Soil aggregate collapsed when virgin soils are clear felled and planted with tea. Though the variation in state of aggregation between two sites was found to be appreciable, the extent of deterioration between virgin and old in all the three sites were of the same order. Field trial initiated at Ghiladhari tea estate (South Bank) indicated that bulk density (compaction) was at par before and after the application of treatments. With respect to yield data (KMT) during 2010, the treatment effects were not found to be significant though all the treatments maintained higher crop over control. The treatments deep hoed/fork hoed to a depth of 10-15 cm (Pruned year) + Pruning litter, trenching between rows or hedges to a depth of 25-30 cm and putting vermicompost at 4t/ha mixed with soil and trenching between rows or hedges to a depth of 25-30cm and putting earthworm with its semi decomposed substrate maintained higher yield over control and rest of the treatments. New methodology for the preparation of quality organic manure (P and microbial



enriched) was developed using cowdung slurry, rock phosphate and bio-fertilisers. Application of P-enriched vermin-compost @250-300g/pit found to be viable alternative to conventional planting pit mixture and found to be cost effective. A manual on this technology is being made for distribution to the member tea estates.

Methodology for the preparation of vermiwash liquid manure was standardized. Vermiwash produced from the several biowaste collected from tea garden contained sufficient amounts of plant nutrients. Foliar application of vermiwash (5-10%) has been found to be effective on the growth and productivity of young and unpruned mature tea. It is easily producible, eco-friendly and may be one of the best liquid organic manure for foliar application in tea. Profile survey under high yielding showed that the soil texture remained uniform throughout the depth of the excavated profile. As the soil texture is silt loam, bulk density figure greater than 1.40 g/cc seems to be high and indicated compaction. No hard pan was observed upto 120 cm depth. Water stable aggregates (>2-0.5 mm) seemed to follow a decreasing trend beyond 60 cm. Technology for the preparation of quality organic manure (enriched/ non-enriched Vermicompost) was standardized. Mixed grass, Guatemala grass and mikania were found to be the most suitable biowaste for preparation of vermicompost both from maturity and nutrient content point of view. Effect of application of vermicompost @ 250-300 g/pit, at the time of planting, on the growth of young tea was comparable to conventional planting pit mixture i.e. cattle manure @4-5 kg/ha/pit plus 30 g SSP and 30 g rock phosphate. Methodology for the preparation of quality vermicompost from different biowaste /available biowaste was standardized and manual was prepared. The technology was transferred to many tea estates.

6. ESTABLISHMENT OF CHAIN OF QUALITY TESTING LABORATORIES AND STRENGTHENING OF EXISTING ANALYTICAL FACILITIES AT REGIONAL CENTERS AND TOCKLAL

Polyphenolic content of black tea were evaluated Theaflavin (TF) content of CTC black tea from the regions of Assam except Barak valley was comparable. Black tea

from Barak valley contained the lowest TF. Total soluble solid (TSS) content was the highest in North Bank and lowest in Barak valley teas. Darjeeling tea contains lowest amount of TF, STR with respect to other regions as epigallocatechin gallate (EGCG) and total catechin contents was found higher. Total polyphenol content of Darjeeling teas was higher than orthodox teas from other regions. Low molecular weight Thearubigin (TR) of black tea from North Bank was higher. Theaflavin 3,3'-digallate is the highest in black teas from Upper Assam followed by North Bank and South Bank. Darjeeling teas contained higher total catechin, EGCG and epicatechin gallate (ECG) than orthodox teas from other three regions of Assam with average levels of 7.59%, 3.99% and 2.11% respectively.

Darjeeling tea contained lowest TF, total TR, low molecular weight TR (TR1) and high molecular weight TR (TR2) among the regions, with the average values of 0.35%, 6.42%, 1.64% and 3.68% respectively. The common VFC of all the regions were n-hexanal, t-2-hexenal, linalool, benzene acetaldehyde, 1, 2-benzene dicarboxylic acid and bis-(2-methyl propyl) ester. t-2-hexen-1-ol, linalool oxide, linalool, hotrienol, trans-geraniol, and tetratricontane of Darjeeling tea found higher than the other regions.

Method of amino acid analysis using UHPLC has been standardized. Following the method, 43 black tea samples were analyzed. Development of technology for extraction of black tea constituents to be used as cosmetics and health care products is under progress.

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

Upscaling methods for extraction, concentration and preparation of soluble tea were standardized. Value added spray dried black and green tea powder were prepared by using different additives. Tea tablets were in Prepared in tableting machine 300 tab/hour. Tablets of three different sized were prepared. Attempt has been made for the preparation of milk tablets. Value addition of tablets



was done by using different additives. More than thousand tea tablets were prepared for commercial evaluation.

The methods for the extraction of black tea pigments such as TF, TR, carotenoids and flavonols etc. which can be used as natural tea color by using SCFE (Super critical fluid Extractor) were standardized . Different tea colors were extracted by using SCFE. Incorporation of different tea color in different diversified products such as Tea tablets, Tea Ice cream, Tea soft drink, tea confectionary items is being continued. The technology for preparation of flavored instant tea has been developed. Quality evaluation of flavored instant tea was done by hedonic scale and tea taster.

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

With the rise of leaf temperature during withering PPO activity gets declined while peroxidase activity is enhanced. Decline in PPO activity with the rise of temperature could be reduced by restricting the moisture loss in the initial hours of withering. A considerable loss in catechin content was observed at 35°C as compared to 25 °C during withering. Restriction of moisture loss in the initial hours reduces the loss of catechin. Gallocatechin oxidation in the initial 30 minutes of fermentation time varies from 70% to 90% due to change in fermentation temperature from 25°C to 35°C. Temperature of fermentation was found to be cultivars specific. Eg. TV1 & I.3E/3 give better result at 25°C while for TV23 & TV26 it is 30°C. With the rise of temperature, there was decline in PPO activity, catechin content and theaflavin digallate in corresponding black tea. Formation of low molecular weight TR is also affected by rise of withering temperature. Variation in enzyme activity as well as the formation of TF and TR during fermentation was related to the moisture content of withered leaf.

S₃A/3 produces better quality tea at moisture content higher than 70% of withered leaf while for TV9 it is lower

than 70%. TF content was reduced with the increase in the degree of CTC cut while TR content increased. Formation of four TFs was faster in enhanced oxygen level than in the controlled condition. Study on the effect of degree of pressure applied on leaf during withering and consequent effect on black tea is under progress.

The genotypes tolerant/ susceptible to waterlog stress and *Helopeltis* infestation have been identified. Selection of plant materials for waterlog stress was done in a DBT project. The trial was performed again with six different germplasms for molecular analysis taking BTGR as tolerant and TV1 susceptible. Waterlog stress was induced for 45 days, data of water potential and tissues for molecular analysis were taken at 15 days interval. Ten different germplasms namely in replica were taken for studying the variability under biotic stress (*Helopeltis* infestation). Regular observation had been taken into account and sampling had been done in a regular interval (1hour, 5 hours, 10 hours, 1day and 2 days). Plant materials were selected as tolerant (111/1) and susceptible (TV1). Transcript analysis of leaves of flooding stress and leaves of *Helopeltis* stress was done. Transcript analysis has been completed using stress related construction of subtractive cDNA libraries for waterlog stress and *Helopeltis* stress.

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

Ten lends of semiochemicals received from UPASI were evaluated in laboratory using Y- tube olfactometer and male *Helopeltis theivora* has shown response only towards the blend no. 6. Volatile extraction of pheromone compound from female *Helopeltis* was done with PORAPAK Q. The GCMS analysis of the samples has been outsourced from C- Tech Environmental Laboratory, Chennai. Pheromone compounds have been evaluated in collaboration with a pheromone specialist at the Asthagiri Herbal Research Foundation, Chennai and were tested under laboratory conditions. Preparation of slow releasing dispensers (impregnated with the compounds) has also been completed for field trials using sticky traps. Five



tea rhizosphere soil and tried against blister blight. Results showed the effectiveness of *Aspergillus niger* in controlling development of number of blisters up to 57% and 52.9% in number of infected shoots respectively. Different fungal species were encountered associated with surface mycoflora of *Helopeltis*. Among the isolates *Aspergillus* sp., *Cladosporium* sp., *Alternaria* sp. and one pink yeast are subjected to pathogenicity trial against *Helopeltis* under laboratory condition. Efficacy of different entomopathogenic fungus isolated from the surface and gut of *Helopeltis theivora* was studied in the laboratory. Spore suspension was sprayed on tea shoots fitted in a glass tube containing water and placed inside a glass chimney to maintain humidity. Later *Helopeltis* were released in the chimneys and observations on the feeding rate and mortality were recorded.

Different spore concentrations (100 %, 50%, 10%, 5%, 1% and 0.1 %) were applied as treatments along with a set of control. Acetone and Methanol extract of *Polanisia icosandra* recorded maximum of 82.0 and -77.4% reduction of feeding spot after 72h of treatment respectively at the highest concentration tested. Petroleum Ether extract of *P. hamiltonii* and *P. viviparum* recorded 69.2-81.5% and 60.4 -80% reduction of feeding spot after 72h of treatment respectively. Among the 21 native plant spp. evaluated against tea mosquito bug six were found more effective with aqueous, petroleum ether, acetone and methanol extracts in the field.

10. ESTABLISHING A PESTICIDE RESIDUE TESTING LABORATORY

Laboratory set up completed procedure manuals and SOPs completed. Tea Industry were notified about the service by circular (Annexure II) and analyzed 52 samples received from industry. Initiated inter laboratory comparison for testing with 6 accredited and referral laboratories. Applied to NABL for accreditation under ISO/IEC 17025: 2005 standards in Dec 2011. Calibration data for 65 pesticides by GC-MS/MS and LC-MS/MS were generated.

11. STUDIES ON HEAVY METALS – PHASE II

Analysis of 65 made tea samples carried out for

Arsenic (AS) content. The average chromium content was 9.04 mg/kg and ranged from 0.3 to 35.3 mg/kg. The maximum frequency of occurrence was in the 5 to 10 mg/kg range. The arsenic content ranged from 0.001 to 0.405 with a mean of 0.111mg/kg. A total of 32 made samples collected from Darjeeling, Dooars and Terai for chromium and arsenic analysis. A total of 30 soil samples are being processed and analysis is still in progress. Water samples were collected from 40 tea estates located in Assam and Dooars and 92 samples were screened for arsenic content. 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. A total of 50 organic manure samples were collected and 15 samples were processed for analysis. The work is under progress.

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

The genotypes tolerant/ susceptible to waterlog stress and *Helopeltis* infestation have been identified. Selection of plant materials for waterlog stress was done in a DBT project. The trial was performed again with six different germplasms for molecular analysis taking BTGR as tolerant and TV1 susceptible. Waterlog stress was induced for 45 days, data of water potential and tissues for molecular analysis were taken at 15 days interval. Ten different germplasms namely in replica were taken for studying the variability under biotic stress (*Helopeltis* infestation). Regular observation had been taken into account and sampling had been done in a regular interval (1hour, 5 hours, 10 hours, 1day and 2 days). Plant materials were selected as tolerant (111/1) and susceptible (TV1). Transcript analysis has been completed using stress related construction of subtractive cDNA libraries for waterlog stress and *Helopeltis* stress. Waterlog stress related SSR markers have been developed.

North Bengal Regional R & D Centre, Tea Research Association, Nagrakata



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

Trial on seasonal distribution of lepidopteran pests by alternate day light trap was completed in two years. Amongst different Lepidopteran pests, like looper caterpillars, red slug, hairy caterpillar, *H. talaca* was found to be the dominant species. Its incidence was highest during early part of the season followed by depression during monsoon and another small peak in autumn. These findings are of utmost importance emphasizing on looper management during November – April. Field study was conducted on pupation of looper in UP, DS & LP sections of tea by forking the collar region of tea plants. The studies revealed that out of the total collected chrysalids, 48%, 28% and 23% of the same were in UP, DS & LP sections respectively indicating that infestation was more in unpruned condition. Study on natural enemies of red slug revealed parasitisation of field collected pupae by a Tachinid fly are now in progress. A braconid was found to parasitize the field collected red slug caterpillars up to 1.08%. The average adult emergence of braconid wasp per parasitized caterpillars was found to be 21.42 on an average (N=7). The study is in progress. Infection by a *Fusarium* sp was noticed on field collected red slug caterpillars. The fungus have been cultured in laboratory & preserved for future study. In laboratory, feeding potentiality of larvae of *Chrysoperla* on eggs of *Hyposidra* sp was found in the range of 63.15 % - 100 % by a single larva in 15 days. Water extract of a commonly available botanical against red spider mites in laboratory was found to be effective. Field level work on this will be carried out in near future.

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

Data revealed that rainfall received from October-March greatly varies in Dooars. It was significantly low (around 200 mm) during the periods like 1983-84, 1994-95, 1998-99, 2008-09 etc. Hence, irrigation has become

an important input in the region. The meteorological data analyzed during October-March of 2010-2011 has shown considerable decrease in rainfall. With an objective to study crop response to irrigation, plant physiological parameters were investigated under various irrigation treatments during 2011. The investigation during 2010-2011 showed that 50mm irrigation at 30 days interval is preferential for high water use efficiency and higher yield. Soil moisture status was determined after imposing different irrigation treatments during 2010-2011. Soil moisture decreased with increasing the interval of irrigation. Variations in soil moisture within treatments are not significant. Correlations of soil moisture with various other physiological parameters were analyzed. The results revealed that soil moisture, stomatal conductivity, transpiration rate and yield are significantly correlated.

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

Green teas processed from cultivars viz. AV2, B157, T383, CP1, T78, P1258, B668, ROH1, P312, Teenali17, K1/1, B777, R17/144, G. O. China, T Valley1, ROH2, ROH3 by steaming and panning methods in replicates were analyzed for biochemical parameters like moisture content, soluble solid, caffeine content and total polyphenol. Significant variation in quality parameters like TSS and Total polyphenol were observed among the clones under both the manufacturing processes. Catechin profiling by HPLC were completed for green teas of AV2, B157, T383, CP1, T78, P312 and Tin17. It is observed that catechin (+C), EGCG and ECG are more in panning processed teas whereas EGC and Epicatechin (EC) are more in the steam processed teas. Total polyphenols were estimated from green teas manufactured by steaming taking ten commonly used varieties like TV1, TV9, Teenali 17, TV20, TV25, TV26, St 462, St463, St491, St520 at the miniature factory. Three different steaming times were adopted for manufacturing of green tea from each cultivar. It was observed that polyphenol contents are highest in the steaming time T2 for all the cultivars. These findings indicates the importance of steaming period while manufacturing green tea.



Experiments were carried out on different fermentation regime and various quality parameters were evaluated for four cultivars under controlled condition through environmentally controlled manufacturing unit (ECM). It was observed that fermentation time F2 (55 – 60 minutes) had got superior quality components as compared to F1 (45 – 55 minutes) and F3 (65 – 70 minutes). TF content is the highest in TV23 in conformity with the earlier finding of Tamuly et.al.(2005) followed by Tinali 17, St 520 and TV1 respectively. In another experiment two different rolling period were tested in combination with two fermentation time. Made tea were produced from these combinations with cultivars TV1, TV23, Tin 17, ST520 and TV9. Best quality parameters were observed in R2F1 followed by R1F2.

Dr. B. C. Guha Centre for Genetic Engineering & Biotechnology (GCGB), University Of Calcutta

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

Results from our animal model study, clearly establish the protective role of black tea tablets on oxidative damage. However, as it is quite evident from the experimental data, the preventive action by the black tea tablets were at best partial, which is not fully adequate for subjects exposed to increased oxidative stress like cigarette smoking (CS), oxygen toxicity associated with senility (aging) etc. Our data indicate scope of increasing the antioxidants both quantitatively and qualitatively. Hence using a higher potency tea tablet formulated out of the most bio efficacious and bioavailable tea antioxidant component we can envisage accomplishing higher level of protection against such oxidative damage. The bioavailability index of black tea polyphenols in blood and organs have been determined.

Black tea tablets showed significant protection against the p-benzoquinone (PBQ) induced lung damage proving that black tea components were capable of countering the damaging components involved in cigarette smoke

induced emphysematous lung damage. This objective, involves determination of the most effective tea component (s) that can interact and neutralize the major damaging component of cigarette smoke, PBQ during emphysematous lung damage. The bioavailability index of black tea polyphenols in blood and organs have been determined

Indian Institute of Technology, Kharagpur

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

Development of customized withering trough for reducing withering time in orthodox and CTC tea. As per the design, a rotating circular withering trough has been fabricated and installed. This trough area is equivalent to two trough segments of the customized horizontal trough. This trough has the advantage of withering floor space saving by 2/3rd of the conventional design. Faster moisture loss was observed in this trough as compared to the customized withering trough during preliminary trials. Further study will be conducted with and without using fan in both the circular and customized troughs.

The experimental setup (horizontal, inclined or vertical) of single cut maceration device for the studying the process variables is under development. Torque sensor, couplings, rotary encoder and a 10 hp motor were mounted on a frame and Data Acquisition System was installed. Different types of rotor blades are under fabrication for testing as per experimental design. Fabrication of uniform feeding system is under development. Physical characteristics (shape) of the made tea was assessed by measuring the fractal dimension of granules of various grades of made tea produced from this unit. Fractal dimension depends on the fineness of leaf, degree of withering and processing machine parameters. The chemical characteristics of the made tea was also determined (leaf harvested from existing Institute garden).

A horizontal maceration machine (capacity 100 kg/



h) has been designed and is under fabrication. The various parts will be assembled within two months and thereafter machine testing will be carried out. The pilot maceration device will be scaled up with to an output capacity of 450kg leaf per hour. The roller profile was successfully cut on aluminum blank using gear hobbing method. Further, the applicability of the proposed method will be assessed on a roller whose diameter is reduced due to several resharpening. This work is in progress. The trial on chromium coating will be applied in various types of rotor cutting blades in newly developed trail maceration machine. Further, a comparison will be made between mild steel versus chromium coated mild steel rotor blades.

Experiments of rolling withered leaves in the flat belt tea roller have been conducted. The pressure plate of this device was divided into three parts to provide differential pressures for better rolling. During experiments it was found that tea leaves were getting rolled but partially crushed because of heavy mild steel pressure plates. To overcome this problem, the mild steel pressure plates have been replaced with water proof wooden ply. Tea leaves were rolled satisfactory without much crushing. The Disc type tea roller is under fabrication.

Experiments of fermentation of withered macerated leaves of TV25 at different temperatures (20, 25, 30, 35 °C) have been conducted taking samples at 20 min interval up to 2 hours. Analysis of different biochemical compounds from the samples has been done. Different compounds like catechins, caffeine, TF and its mono- and di-gallates have been done using HPLC from the samples taken at different time interval. The results have shown that degradation rate of catechins are higher at 30 °C air temperature. Total TF (TF, TF3MG, TF3'MG, TF33'DG) formation was found to be higher within 40 min at 30 °C. From the experimental data optimized air temperature and fermentation duration will be attained. An industrial scale versatile air temperature humidity controller will be designed in future

Installation of the RF dryer is

completed. Hybrid drying of tea was done using ECP and RF dryer. The moisture content of fermented CTC leaves was brought down from 30% (wb) to around 3%, using RF dryer after completing initial drying in ECP dryer. The bed thickness was kept constant at 10 cm. Moisture reduction pattern during RF drying of leaves with stagnant bed and in mixed bed was studied.

Comparative study of the three dryers namely, ECP dryer, vacuum dryer and radio frequency dryer have been done on drying curve, liquor colour and aroma index values. Aroma index values for ECP, vacuum and RF dried tea samples were 7.2, 16.0 and 11.9 respectively. Experiments were conducted in RF drying by varying power i.e. 16 KW and 20KW and total drying time, colour change and aroma indices of the dried tea samples were monitored. The colour and aroma were better for the sample, when the power was set up at 16KW

DTRADC, (Tea Board,) Kurseong, West Bengal and UBKV, Pundibari, Cooch Behar, West Bengal

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

Isolation and purification of phosphate solubilizing bacteria from different tea garden of Darjeeling and Dooars have been completed. Total 455 cultures were isolated from 131 soil samples. Screening program based on the solubilization of tri-Calcium phosphate, Rock phosphate, Aluminium Phosphate and Ferric Phosphate in liquid culture have been completed for 41 bacterial cultures under laboratory condition. The screening program was based on the solubilizing capacity after 5, 10 and 15 days of incubation. All the cultures (PSB) have been tested for their ability to produce IAA but none of the cultures produce IAA in tryptophan amended media. Work is being done to develop biofertilizer with phosphate solubilizing bacteria which can perform well in Darjeeling tea garden and considering the low soil temperature of hills. All the potential bacterial isolates (eleven isolates) were assessed for their growth performance at different growing



temperature under laboratory condition. Growth performance of phosphate solubilizing microorganisms at low pH (4.0), at different levels of Al concentration and at various levels of desiccation (with polyethylene glycol 600) were studied to assess their survivability under adverse condition. Utilization of various carbohydrates by selected phosphate solubilizing bacteria was also done..

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

A data base have been developed for nutrients (N, P, K, micronutrients) and heavy metals content of organic matters collected from different sources were analyzed. Wide variation in nutrient content was observed in organics collected from different sources. Studies on submerged fermentation of organic matters (Fish meal, Neem cake, Mustard cake and Karanja cake) for further use as liquid organic fertilizer have been completed. Experiments were conducted to study the N-mineralization from 15 different organics in acidic tea soils. The nitrogen released were measured upto 91 days with weekly interval. It was observed that aerobic nitrogen mineralization was higher from organic matters like Fish meal, Meat and bone meal, Soybean cake, Mustard deoiled cake, Groundnut cake, Til cake, Karanja cake. Nitrogen mineralization was lower in soils treated with Neem cake, Mahua cake, Copra cake and the stabilized organic matters like Farm Yard Manure, Vermi compost and Poultry manure. Two organic fertilizer formulations for Darjeeling Tea considering the nutrient content (N, P and K), mineralizable-N and C-mineralization of different organics were developed.

20. CORPUS CREATION OF MEASUREABLE PHYSICAL PARAMETERS OF INDIAN TEA (CDAC project)

Research on aging study of black tea has been completed & report on the above analysis has been compiled. Correlation with E-Vision data with TF TR analysis has been performed. Correlation with E-Nose & E-Tongue

data with TF/TR analysis has been performed. An Image database for different liquor, infusion, appearance, tea grades etc. Flavor and aroma database created for all the teas produced in various geographic regions of India. Web enabled tea corpus database for measurable physical parameters of Indian Tea has been created.

Regulatory Issues and Technological Support:

Research Directorate of Tea Board has been pursuing regulatory issues of tea including fixation of MRL, addressing problem associated with pesticide residue, iron filing, 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 officials attended various national (PFA, BIS, Shadow Committee etc) and international (Codex, ISO etc) meetings and participated in the deliberation for updating latest information/regulation which is of enormous concern to both the industry and government. Workshops on FSSR, 2011 for tea industry were conducted.

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

In order to ensure scientific excellence for the benefit of all stake holders of tea industry, officials of Research Directorate, Tea Board attended various Meeting of research/scientific advisory committee, council of management and planters committee of tea research institutes in the country. Directors and Scientists of tea research institutes and Project Investigators of the all the 11th plan research schemes were invited to Tea Board for attending and presenting their progress report in the Tea Research Liaison Committee (TRLIC) meeting, in March, 2012. This helped in the evaluation of the projects wherein representatives of the Industry and expert scientists also participated.



TEA PROMOTION

Introduction:

One of the main functions of the Tea Board is to carry out promotion activities aimed at improving the consumption of tea and to boost Indian tea exports. Promotional measures have been geared up to highlight the excellence of Indian tea as the finest in the world. Focused attention is being paid on selected countries, where there is greatest scope for increasing export. Indian exporters are being provided with all possible support to encourage exports and marketing of Indian brands abroad. Introduction of pure or predominantly Indian brands by foreign packers is also being encouraged.

Tea Promotion Committee: Promotion policies are being guided by the Tea promotion committee of the Board. During the year under report, Committee consisted of the following members.

1. Chairman, Tea Board; Ex-officio, Chairman of the Committee
2. Shri P. Vishwanathan, Hon'ble MP;
3. Shri P.V. Balachandran;
4. Shri M. Chandrakant;
5. Shri Anshuman Kanoria;
6. Shri Sanjiv Sarin;

7. Ms. Chitra Ramesh.

The Committee met three times during the year on the dates and places noted below :

Date of Meeting	Place
22 nd September, 2011	Kolkata
29 th December, 2011	Coonoor
2 nd March, 2012	Kolkata

Launching of the 5-5-5 project:

One of the significant steps initiated during the year under report was the launching of the 5-5-5 project. This project is aimed at positioning "Indian Tea" as an over-arching umbrella brand to connect amongst the target trade and consumers. This is expected to result in prominent brand recall for "Indian Tea" over the short to medium term so as to translate into significant increase in value market shares in the targeted markets for years to come. Under this project keeping in view the increasing competition in the world market, five strategically important markets viz. U.S.A., Russia, Kazakhstan, Iran and Egypt have been selected. Five specific activities spread over five years would be pursued over the five year period. The activities being pursued are 'Extensive promotion of India Tea Logo (familiarization/creating awareness)', 'Engagement with the local trading community', 'Consumer-oriented promotion', 'Utilisation of Social Media' and 'Focus on export of value-added teas by putting in place infrastructure enablers'. The above countries were selected based on the parameters of "Market Attractiveness & Potentiality" and "Ability to compete by the Indian Tea Industry".

Overview of Tea Exports from India:

During the year under report there was a marginal drop in volume of exports by 5 million kg when compared to last year. The total volume of exports during 2011-12 was 209 million kgs as against 214 million kgs in 2010-11. However, because of higher unit price, the total value of exports during 2011-12 was significantly higher than the previous year. Total foreign exchange earned during 2011-



12 was Rs.3213 Cr with an average unit price of Rs.154 per kg as against Rs.2995 Cr in 2010-11 with an average price of Rs. 140 per kg. Despite weakening of Rupee,

the earnings and unit price in US \$ terms were also higher during 2011-12 as compared to previous year. The country wise export details for the year under report and the comparative position of the previous are furnished in

2011-12 (Provisional)					2010-11				
Qty M. Kgs.	Value Rs. Crs.	Value M US \$.	UP Rs/Kg.	UP (\$/Kg.)	Qty M. Kgs.	Value Rs. Crs.	Value M US \$.	Up Rs/Kg.	Up (\$/Kg.)
209	3213	671	154	3.21	214	2996	658	140	3.08

Annexure-1. In brief the comparative position was as under:

During the year under report, improvement in the exports took place in respect of Kazakhstan, U.K., U.S.A., Egypt and Pakistan. The increase ranged from 3% (USA) to 16% (Egypt). Markets such as Russia, Kazakhstan, UK, USA, Iran, UAE, A.R.E. (Egypt) and Pakistan continued to be crucial considering the market potentiality and the ability of India to fulfill the respective market demand.

Promotion activities carried out under Market Promotion Scheme (MPS):

During 2011-12, the following tea promotion activities were carried out :

Domestic promotion:

- Participation in domestic fairs & exhibitions and insertion of advertisements in various print media
- Tea Board's "Tea Centre" in Mumbai continued to serve and sell quality teas for propagating the quality image of Indian tea amongst the masses

Overseas promotion:

- The activities undertaken by the Board from the H.O.

and the three foreign offices primarily included generic promotion through Tea Council in U.S.A. and Japan Tea Association, participation in fairs & exhibitions, trade facilitation through arranging Buyer-Seller Meets, information dissemination

- 5-5-5 project proposal has been drawn up in consultation with the Tea Industry with regard to 5 countries identified, where 5 focused activities will be implemented in 5 years

Production of publicity material

- Various publicity material/brochures on different facets of Indian tea were produced and printed, which were well-accepted by the Industry

Incentive to exporters

- Transport subsidy given for teas exported from ICD Amingaon
- Reimbursement of travel and participation costs to the eligible exporters in trade exhibitions in the overseas markets was effected

Legal/Consultancy charges

- Close monitoring mechanism was put in place for protecting Darjeeling teas in key export markets which



Expenditure incurred during the year under review and cumulative expenditures for the 11th 5-Year Plan Period was as under:

(Rs. Crores)

Major head	2011-12	Cumulative (2007-12)
Domestic Promotion	0.38	19.48
Overseas Promotion	2.50	19.71
Trade Related Activities	1.66	13.39
Incentive to Exporters/Associations	8.18	23.20
Publicity Material	0.84	5.27
Legal / Consultancy	1.53	3.43
E-auction	3.93	16.39
Others	-	7.61
Total	19.02	108.48

ensured (i) all sellers of genuine Darjeeling tea are licensed under CTM, and (ii) Teas being sold as Darjeeling tea in India and abroad are genuine

Activities under taken by Board's Headquarters

1. Organising the Board's participation in Trade Fairs and Exhibitions not covered by the Overseas Offices
2. Arranging visits of the Board's representatives, tea delegations to foreign countries to participate in International Meetings and Buyer-Seller Meets
3. 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
4. Registration of producers, exporters, traders of Darjeeling tea under Darjeeling CTM Process for use of Darjeeling word and logo on retail packs in domestic markets as well as overseas markets
5. Issuance of Certificate of Origin (COO) for all exports of Darjeeling tea based on invoice-wise tracking of garden tea production

6. 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

Protection of Intellectual Property Rights for Indian Tea - Achievements

Tea Board continued its endeavor to protect and preserve its various tea 'word marks' and 'logos'

On November 9, 2011, DARJEELING tea became the first non Chinese tea to be protected as a Protected Geographical Indication (PGI) in the EU. This is a welcome and important recognition for uniqueness and special qualities of Darjeeling tea, confirming its place among with the world's most well-known teas.

With the PGI registration, "Darjeeling" is protected in all EU Member Countries against:

- (a) any direct or indirect commercial use of the name Darjeeling in respect of tea or products comparable to tea or in so far as it exploits the reputation of the name - Darjeeling;



(b) any misuse, imitation or evocation even if the true origin of the product is indicated or accompanied by an expression such as 'style', 'type', 'method', 'as produced in', 'imitation';

(c) any other false or misleading indication;

(d) any other practice liable to mislead the consumer as to the true origin of the product.

Domestic promotion in India,

Tea Board participated in the following events during the year under review:

1. Agro-Tech India O Gramin Shilpa Mela – 2011 Sonarpur, 2 -9 June 2011
2. 15th All India National Expo-2011 Belghoria 7-9 September 2011
3. 3rd Agrotech by ICC Kolkata 3-5 Nov 2011
4. 16th Sundarban Kristi Mela Canning 20-29 Dec 2011
5. BIOFACH India, Bangalore 10 – 12 November, 2011
6. Barak Valley Intl Exhibition Silchar 29 Dec 2011 to 12 Jan 2012
7. Asom International Trade Fair Guwahati 6-18 Dec 2011

International events participated during the year under report:

- 1) World Tea Expo, Las Vegas , USA 24-26th June, 2011.
- 2) Intl. Tea Fair and Buyer-Seller-Meet, Hong Kong 11th - 13th August, 2011.
- 3) 'World Food Moscow' exhibition in 2011 13th – 16th September 2011.
- 4) Tea-Coffee, Canada exhibition in Vancouver 2nd -3rd October, 2011.
- 5) Winter Fancy Food Show, San Francisco, USA 15-17th January, 2012.
- 6) FAO IGG Meet on tea and Colombo Tea Convention. January 2012
- 7) Gulf Food Fair Dubai 19-22nd February, 2012.
- 8) India Show Lahore, Pakistan 11th – 13th February 2012.
- 9) Prodexpo, Moscow 13-17th February, 2012.
- 10) Bio-Fach, Nuremburg, Germany 15-18th February, 2012.

11) India Show Jakarta, Indonesia 6th – 8th March 2012

12) Tea Coffee World Cup Exhibition in Vienna 25-27th March, 2012.

13) Multi-product business delegation to Iran 10th to 14th March

Promotional activities in countries other than those covered by the Overseas Offices :

The Board's Head Office with active co-operation from the respective Indian Missions abroad carried out promotional activities in the following countries

USA

USA has an estimated market size of around 127.5 million kg (black tea-> 85% and Green tea-> 15%) valued at USD 428.352 million during 2011. The primary driving force propelling tea sales is nutritional and health benefit of tea consumption, where Organic, Green & Speciality teas evoke keen interest. Globally it ranks 7th in tea consumption. The tea consumption pattern in the USA is mostly in the form of iced tea. However, in the recent years there has been some changes towards the consumption of hot tea also.

Out of the above volume, black tea import constitutes 108 million kg, (85%). U.S.A. holds out a very high promise for the export of Indian tea.

India, being a founding member of US Tea Council, took part in all the deliberations on different occasions.

Canada

Canada is a hot tea market having import volume of 19.17 million kg (9% being re-exported) and per capita consumption of 0.48 kg. About 60% of the population in Canada consumes hot tea unlike USA. The volume of Indian tea export to Canada is around 3 million kg (15% of total import). 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.

Australia

With around 11 million kg imported and less than 1% share in world imports, Australia presents a small market with a scope for lot of value-added teas, especially branded



black teas and RTD teas. A small quantity of around 1.670 million kg is produced in the country. The country re-exports approximately 0.2 million kg of tea.

This market is now being viewed more positively as the new destination that has great potential for penetration and expansion. Tea Board's promotional efforts over the last several years are now showing good results. Exports to Australia from India have registered an increase from 1.41 million kg in 2002-03 to 3.32 million kg in 2011-12. The growth has been in volume and value realization. Indian tea export has been in the form of Instant Tea, Tea Bags & Packet teas.

Japan

Japan produces 78 million kg of green tea per annum which is mostly consumed within the country (97%) and the rest (3%) are exported.

Japan imports around 42 million kg of tea, of which black tea and Green tea account for 46% and 14% respectively. Japan is a market for quality Darjeeling teas. Apart from the high quality leaf grades, 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 item for 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 (JTA).

Promotion work carried out by foreign offices

Board's overseas Offices are located in London, Moscow and Dubai. They have a strategic role to play in facilitating penetration of markets and in promoting Indian tea in the important countries under their respective jurisdiction.

LONDON OFFICE

Countries under the Jurisdiction of London Office

UK, Ireland, Norway, Sweden, Denmark & Finland. Since the closure of Hamburg Office in 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

Tea Market size in the countries under jurisdiction of London office.

Sr. no.	Country	Market size (m. kg)	PCC (kg p.a.)	Growth rate(%)
1	U.K.	152	2.07	1.34
2	Germany	52	0.28	2.20
3	Poland	30	0.78	2.01
4	Netherlands	22	0.49	-6.10
5	France	20	0.23	4.34
6	Ireland	11	2.31	4.43
7	Italy	8	0.11	5.07
8	Switzerland	4	0.22	3.64
9	Austria	4	0.28	11.08
10	Czech Republic	3	0.28	2.31
11	Denmark	2	0.24	3.57
12	Finland	1.5	0.23	3.18
13	Norway	1	0.22	1.79
	Total	305	-	3.35



Major Activities & Initiatives

I. Participation in Fairs & Exhibitions:

1. Bio-Fach Nuremberg 15th to 18th February 2012
India was declared as the 'Partner Country' by dint of it being noted as the country of better choice for organic products. A number of dignitaries which included German Ministers, EU Trade Commissioners, Parliamentarians and Deputy US Trade Representative visited the Tea Board stand and tasted the exquisite varieties of origin teas from India.
2. India-UK Food & Drink Conference and BSM 19th March 2012
The conference was inaugurated by the Indian High Commissioner to U.K..It gave an opportunity to the Indian delegation to learn about food safety standards in the eleven countries of EU. The presentation by the Chairman, ITA focused on the initiatives taken by the Indian Tea Industry to conform to norms regarding food safety standards in EU countries keeping in view the interests of the consumers at large.
3. Tea & Coffee World Cup, Vienna, Austria 25th to 27th March 2012
TBOI pavilion presented a grand look with four exporters exhibiting their product ranges. Darjeeling Tea Association (DTA) organised a tea sampling session and a special auction during the event. 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.
4. Annual Producer-Consumer meet organized by the International Tea Committee as well as its AGM during May 4-5, 2011

2. CONSUMER AWARENESS & INDIA TEA PROMOTION

Apart from participation in Fairs & Exhibition, London office also organised and participated in the following 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

i 'Magic of the Leaves' with tea expert Ms Jane Pettigrew on June 7, 2011 with a special focus on health and spiritual benefits of drinking of tea.

ii "A cloud in your cup" held at Nehru Centre during June 7-10, 2011 to showcase the paintings by Madam Alka Kapur, a noted Indian artist. The USP of her paintings was that they were made out of used and un-used tea leaves & tea bags.

iii. Liquid tea was sampled at "Regional Hindi Conference" at Birmingham during June 24-26, 2011. The event was organized by HCI London and CGI Birmingham.

iv. In order to capitalize on the London Olympics in July-August, 2012, several preparatory meetings were organised with Indian High Commissioner and other agencies with a view to launch a major brand promotion/consumer awareness exercises during that time.

v. A gala event organized by the Indian Journalists' Association and actively supported by Indian High Commission. In the presence of stalwarts of Indian and British media, India Tea received a good visibility and wide recognition through distribution of enriched publicity material and liquid sampling.

vi. Logo promotion was carried out at all the consumer sampling events held in UK and outside of UK. Special gift boxes for Darjeeling, Assam & Nilgiri teas were designed and distributed amongst various Missions for gifting by Head of Missions to distinguished visitors to the Missions..

Market Conditions & Export Performance

United Kingdom

UK imported around 155 m. kg tea in 2011 valued at USD 461 million. With 9.5% share in world imports during 2011, UK is the second largest tea market in the world after Russia, India exported around 19 m. kg of tea to UK during 2011.



Kenya alone accounts for 53% of imports into U.K, while India, Indonesia, China, Malawi and Tanzania together account for another 32%. In value terms, these 6 countries account for 84% of imports. Indian teas fetched the highest unit price per kg vis-à-vis Africa and Indonesia. 69% of the population over age 10 drinks tea daily. Per capita consumption at 3 cups per head is the highest in UK compared to other beverages.

Germany

With a total import of 54 m. kg during 2011, Germany is the second largest tea market in the EU region. It is a quality-conscious premium market. Darjeeling tea enjoys high brand equity as well as high price realisation.

Import share wise China (22%), Sri Lanka (12%), India (11.5%), Indonesia (11.4%), Argentina (3.41%) and Vietnam (3.07%) account for around 63% collectively amongst the producer countries; whereas Netherlands (8%) and U.K. (7%) together account for 15% for the re-exporting countries.

Germany consumes about 49% of imports and re-exports the remaining 51% after value addition to countries like USA, France, Poland, U.K. etc.

Black tea accounts for 76% of Germany's imports. Most of the tea is orthodox / leaf variety.

Unlike the rest of Germany, tea continues to be the National drink in East Friesland (located in North Germany) for over 300 years. Per capita consumption of tea in East Friesland is about 3 kg. This is substantially higher than the German average of 0.28 kg. This region has the highest per capita consumption of Assam Tea.

Poland

With a market size of around 34 m. kg and per capita consumption of 0.78 kg, Poland is the third important market in Euro Zone. Imports are mainly from Kenya (15.7%), India (12.9%), Indonesia (10.7%), Vietnam (10.5%), China (10.1%), Sri Lanka (8.3%) and Argentina (5.5%) amongst the producing countries, whereas Netherlands and Germany contribute 9.3% and 7.0% respectively.

The tea market is undergoing rapid changes with clear

preference for CTC variety and as the purchasing power rises following the collapse of Communism, value-added segment is growing fast with a distinct shift for tea bags.

France

France imported around 18 m. kg of tea (black tea – 49% and Green tea – 51%) and re-exported 17% of that in 2011. The main supplier countries are China (38%), Sri Lanka (6%), Germany (13%) and Benelux countries (7%). There is scope to develop direct exports especially in the value added format. Even though export from India was less than 1 m. kg (2% of total import volume), Indian tea enjoys high unit price realization.

The French are inclined towards consumption of healthy food and drinks. Tea bags and convenience products are the most favoured forms amongst the consumers.

MOSCOW OFFICE

Jurisdiction : CIS countries - Russia, Kazakhstan, Ukraine, Uzbekistan, Azerbaijan, Turkmenistan, Belarus, Kyrgyzstan, Tajikistan, Georgia, Armenia, Moldova and the Baltic states of Latvia, Estonia & Lithuania

THE TEA MARKET SIZE IN THE MAJOR COUNTRIES OF CIS REGION

Country	Market size Million kg	PCC Kg/pa	Remarks
Russia	183	1.27	Market is growing @2% CAGR
Kazakhstan	29	1.50	Market is growing @1.5% CAGR
Ukraine	22	0.60	
Uzbekistan	19	0.80	

The total market size in the CIS region is estimated to be 263 million kg and the above countries collectively account for 96% of the import market for tea in that region.



Fairs & Exhibitions

1. World Food Moscow, September 13-16, 2011
2. Prodexpo, Moscow, February 13-17, 2012
3. Summer Bazar organized by Indian Womens' Association, at the premises of Embassy of India, Moscow on 29-th May 2011

Market Conditions & Export Performance

Russia

Russia's market size is estimated to be 182 million kg with a per capita consumption of 1.27 kg p.a. The country is traditionally and pre-dominantly an orthodox market with tea being consumed in packets (90%) and in orthodox blends (around ¼-th is orthodox and the rest is granulated CTC).

Indian tea export to Russia was 41.76 million kg valued at Rs.546.68 crores during 2011-2012 as compared to 42.55 million kg valued at Rs.508.94 crores during 2010-2011.

Kazakhstan

Next to Russia, Kazakhstan is an important market, with a strong tradition of tea consumption and high per capita consumption (around 1.5 kg p.a.). While black tea accounts for about 94%, there is increasing interest in green tea and specialty teas.

Kazakhstan is the only CTC market in the CIS Region with an annual import of 29 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, competitive price and good quality

Export of Indian tea to Kazakhstan was 12 million kg valued at Rs. 199.67 crores during 2011-2012.

Ukraine

Ukraine has traditional penchant for black tea drinking on

every occasion. There is a distinct preference for the CTC type. Its effective market demand is estimated to be 22 million kg per annum,. India accounted for around 10%, whereas Sri Lanka had a share of 42%. China, Vietnam, Indonesia and Kenya accounted for 12%, 8%, 6% and 6% respectively.

Export of Indian tea to Ukraine stood at 1.8 million kg valued at Rs. 21.26 crores during 2011-2012.

DUBAI OFFICE

Jurisdiction
West Asia and North Africa comprising Kuwait, Iran, Iraq, Bahrain, UAE, Saudi Arabia, Oman, Qatar, Yemen, Jordan, Syria, ARE (Egypt), Libya, Sudan, Tunisia, Algeria, Morocco, Turkey, South Africa, Afghanistan and Pakistan

Fairs & Exhibitions:

1. Days of Indian Culture, Iran 10th to 17th May, 2011
2. Africa Big Seven Exhibition, Johannesburg, 25th to 27th July 2011
3. Gulf Food Dubai, 19th to 22nd February 2012

Delegations

A multi-product business delegation visited Iran during March 10-14, 2012,. Federation of Indian Exporters' Organisation (FIEO) along with the Indian Mission in Tehran organized the business conferences and Buyer-Seller-Meets in the three cities of Tehran, Tabriz and Esfahan. The problems of banking transactions featured prominently in all the deliberations. Representatives of RBI and UCO Bank had extensive discussions with their counterparts in Iran to resolve the bottleneck in payment.

Market overview

Indian teas accounted for 28% of total exports to West Asia and North Africa (WANA) countries. These countries especially UAE, Iran, Tunisia, Iraq, Egypt and Saudi Arabia have high per capita consumption and continue to import tea as a commodity in bulk form and exhibit good potential for future growth.



UAE (Dubai), Iran, Tunisia, Iraq, Egypt and Saudi Arabia are the prominent markets in the WANA Region (with a combined import market of 287 m. kg. or 73% of total market size in the region). Out of these countries, Iraq and Egypt have the highest per capita consumption of around 1.2 kg per annum, whereas Iran and Tunisia have a high PCC of 0.9 kg/annum.

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. African teas are finding their way into the market due to their price competitiveness and quality. It has however, been noticed that in some countries like Iran, Syria, Saudi Arabia, which have a preference for orthodox teas, of late there is a growing demand for CTC teas.

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: Orthodox and Green Tea
- (d) Tunisia: Orthodox & Green Tea
- (e) Morocco: Green Tea

United Arab Emirates (UAE)

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. Tea traders consider Dubai as the gateway to WANA market. Its market size is around 80 m. kg, out of which around 28% are re-exported.

The UAE provides added value to the industry through several centres, the most important of which is the DTTC. DTTC imports tea from 35 Asian and African countries and stores 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 account for approximately 72% of the global tea re-exports. Around 91 percent of the geographic distribution of UAE re-exports was directed at three countries: Iraq (48%), Iran (21 %) and Russia (18%). 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.

Arab Republic of Egypt

The Arab Republic of Egypt with a population of 78 million has a market size of 84 m. kg and per capita consumption of around 1 kg p.a. The Government imports 20-25 m. kg for public distribution and the private players import the balance quantity. 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 2 m. kg each month.

The market demand is primarily for CTC Dust and Fannings. Tea is the most preferred beverage with 95% being consumed as CTC. Generally teas are imported in bulk form and then blended & packed for domestic consumption. Small proportion of packet teas is also imported. "Tea Bags" is a small and slowly growing segment. At present due to high prices in Kenya, imports from other low cost origins like South India, Vietnam and China are increasing.

Iran

Iran is a tea producing country with annual tea production of about 16 million kgs Annual tea consumption is nearly 82 million kgs (primarily Orthodox tea) with a per capita consumption of 1.35 kg p.a. approximately. Iran re-exports around 4% its production to CIS countries, UAE, Afghanistan



etc. As Iranian tea is of poor quality, it is blended with imported tea to make it fit for consumption in the domestic market.

Consumption wise, the mix is 90% Orthodox and 10% CTC. Tea bag market is also growing with absorption of high-quality CTC tea.

Already Kenyan tea packets are becoming visible in the market. In recent years South Indian Orthodox teas have also started being exported to Iran.

Saudi Arabia

The tea culture remains very strong in Saudi Arabia, which

is an integral part of its family and social occasions. Although coffee shows faster volume growth, tea remains the preferred one in the hot beverage section. The import of black tea (estimated size of 16 million kg with a moderate per capita consumption of 0.54 kg) remains robust with four countries collectively accounting for 63% share viz. India (16%), Sri Lanka (28%), Vietnam (12%) and China (7%). The producing countries from Africa account for 15% share, whereas some West Asian countries account for 8% share.

The consumers mainly prefer orthodox tea, although there is a steady market for CTC dust.



Annexure – I

MAJOR COUNTRY-WISE EXPORTS

Name of the Countries	2011-12 (Provisional)					2010-11				
	Qty (M.Kgs.)	Value (Rs. Crs.)	Value (M US \$.)	UP (Rs/Kg.)	UP (\$/Kg.)	Qty (M.Kgs.)	Value (Rs. Crs.)	Value (M US \$.)	UP (Rs/Kg.)	UP (\$/Kg.)
Russian Federation	41.76	546.68	114.16	130.91	2.73	42.55	508.94	111.75	119.61	2.63
Kazakhstan	12.00	199.67	41.70	166.39	3.47	10.49	163.24	35.84	155.68	3.42
Ukraine	1.80	21.26	4.44	118.01	2.46	1.82	21.95	4.82	120.47	2.65
Other CIS	2.06	39.87	8.33	193.56	4.04	0.57	9.81	2.16	170.30	3.74
Total CIS	57.62	807.48	168.63	140.13	2.93	55.43	703.94	154.57	126.99	2.79
United Kingdom	20.92	328.01	68.50	156.81	3.27	16.85	247.19	54.28	146.71	3.22
Netherlands	5.13	83.36	17.41	162.61	3.40	3.25	68.05	14.94	209.58	4.60
Germany	6.87	166.60	34.79	242.61	5.07	5.98	129.28	28.39	216.16	4.75
Ireland	1.75	54.04	11.29	309.22	6.46	1.84	63.17	13.87	342.55	7.52
Poland	3.73	49.23	10.28	132.15	2.76	4.40	53.66	11.78	121.84	2.68
U.S.A.	12.28	317.23	66.25	258.38	5.40	11.63	221.47	48.63	190.48	4.18
Canada	1.49	31.68	6.62	212.21	4.43	2.37	44.60	9.79	188.25	4.13
U.A.E.	17.93	323.76	67.61	180.57	3.77	19.76	314.31	69.01	159.04	3.49
Iran	10.92	214.79	44.85	196.72	4.11	15.89	284.98	62.58	179.35	3.94
Iraq	0.00	0.00	0.00	0.00	0.00	3.86	39.62	8.70	102.72	2.26
Saudi Arabia	3.39	49.78	10.40	146.82	3.07	2.88	41.17	9.04	143.08	3.14
A.R.E.	6.57	59.40	12.40	90.48	1.89	5.23	42.12	9.25	80.55	1.77
Turkey	0.10	1.30	0.27	133.98	2.80	0.14	2.46	0.54	174.33	3.83
Afghanistan	0.69	7.14	1.49	103.44	2.16	5.19	36.1	7.93	69.53	1.53
Singapore	0.40	6.62	1.38	165.54	3.46	0.35	6.38	1.40	181.9	3.99
Sri Lanka	3.43	50.12	10.47	146.00	3.05	4.74	70.67	15.52	149.06	3.27
Kenya	3.19	23.94	5.00	75.11	1.57	4.07	24.8	5.45	60.87	1.34
Japan	2.77	97.06	20.27	350.91	7.33	3.58	97.78	21.47	273.51	6.01
Pakistan	26.08	176.81	36.92	67.80	1.42	22.08	132.63	29.12	60.08	1.32
Australia	3.32	99.79	20.84	300.98	6.29	4.81	131.45	28.86	273.4	6.00
Other Countries	20.46	264.75	55.28	129.40	2.70	19.46	239.96	52.69	123.91	2.71
Total	209.04	3212.89	670.95	153.70	3.21	213.79	2995.79	657.81	140.13	3.08



LICENSING

7.1 Introduction

Tea Board of India was established in 1954 under section 4 of the Tea Act, 1953 as a statutory body under the Ministry of Commerce and Industry (MOC&I). One of the primary functions of the Tea Board is to regulate the activities of the various stakeholders in the cultivation of tea and its business in accordance with the provisions of the Tea Act and orders issued there under- Tea (Marketing) Control Order, Tea (Distribution and Export) Control Order, Tea Ware-House License Order and Tea Waste Control Order. The effectiveness of Regulatory functions also aid in the effective discharge of other functions like Developmental Activities, Marketing & Promotional Activities and Research Activities. All the stakeholders registered under various control orders have to submit returns mandatory to Tea Board which after compilation helps in preparing the statistics of tea and making policy decisions including formulation of 5 year plan.

The Licensing Branch is a vital wing of the Board responsible 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 2011-2012

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 1379 as on 31.3.2012 as against 1278 as on 31.03.2011. The total amount collected during the year 2011-2012 was ₹ 1,01,000/- against issue of 101 fresh/temporary exporter's licence compared to issue of 103 fresh/temporary exporter's licence during the year 2010-11 amounting to ₹ 1,03,000/-.

During the year 2011-12, amount collected against renewal of 60 temporary exporter's licence was ₹ 60,000/- compared to renewal of 38 temporary exporter's licence during the year 2010-11 amounting to ₹ 38,000/-.

During the period of from 01.04.2011 to 31.3.2012, no exporters licence was converted to Permanent licence. The



total number of Permanent Exporter's licence granted by the Tea Board till 31.3.2012 is 453 [17 (seventeen) Permanent exporters license were cancelled] against 470 till 31.03.2011. The amount collected during the year 2011-12 was nil for issuance of Permanent license compared to 0 (Nil) Permanent license issued during 2010-11.

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 2011-2012 is 8 and the fees collected against the licenses amounts to Rs 20,000/-. During 2010-11 Distributor's license issued stood at 7 (seven) and the fees collected against the licenses amounts to ₹ 17,500/-. Total number of distributors license till date stood at 65.

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 is 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 2011-12 total amount of Rs 9300 was collected against issuance of 93 fresh Tea Waste License and 742 licenses renewed for which amount collected was ₹ 37,100 as against 46 fresh Tea Waste License (amount collected ₹ 4600/-) and 1044 renewed (amount collected Rs 52200) during the year 2010-11.

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 Food Safety and Standards Authority of India 2011-12 (earlier 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.

Position of issuance /renewal of Tea Waste License during the year 2011-12 is indicated below:

Region	Fresh License Issued @ ₹ 1,00/-		Licence renewed @ ₹ 50 /-		Total Amount (₹)
	Number ()	Amount (₹)	Number ()	Amount (₹)	
North India	93	9300	737	36850	46150
South India	Nil	Nil	5	250	250
All India	93	9300	742	37100	46400



7.5 Registration – Cum- Membership Certificate (RCMC)

Every registered exporter of bulk tea, packet tea, tea bags and instant tea 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 01.04.2011 to 31.03.2012 was 24 out of the total number of around 1150.

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/FSSA 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 number 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 IMCO towards fixation of price sharing formula and its compliance.

7.7 Registration of Tea Manufacturers Unit :

While under the provision of IMCO 1984 there was no registration fee to be paid by the intending applicant, IMCO 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 26 such registration in favour of tea manufacturing units. The total amount collected during the period i.e. 2011-12 from registration of tea manufacturing unit is ₹ 65,000/-. 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 09 Auction Organizers. The total amount collected during the period under review was ₹ 4,500/- for renewal (@ ₹ 500/-) of nine 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 2011-12, Tea Board renewed licence in favour of 21 brokers and no fresh licence was issued. Total amount collected during the period was ₹ 10,500/-

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, 2011 to 31st March, 2012 are 30 in number. The total number of functionalities released since 6th November 2008 and till 31st March 2011 are 314 in number.

Current E-Auction Activities in relation to bidding:

- E-Auction Catalogue is available to the auction buyers after Catalogue closing date and before Auction sale date.
- On auction sale date, there is a 'Minimum Bidding Time' at the beginning of e-auction session allowing buyers to bid on all Lots available for bidding. This time is configurable by the Auction Organiser.
- Subsequently there is a 'Active Lot Time' which is also configurable by the Auction Organiser along with the number of Lots during any Active Lot Period

allowing buyers to bid parallelly on such active lots.

- At the end of each active lot period, the lot will be Knock down if it meets or higher than the Reserve Price This active lot period will continue till all the lots appeared in the e-catalogue become Outlots or Knock down.
- 'Knocking down' of lots through a system of automatic selection of 'Active Lots' from the e-auction catalogue.
- Facility for 'Automatic extension of Knocking down period' by 5 seconds twice for any lot if any bid is registered within 5 seconds of the end of 'initial knocking down period' for the said lot.

Current Status

The current status of e-Auction Centre is given below:

Status of e-Auction Centres	
Auction Centres	Present Status
Kolkata Tea Auction Centre	Fully Functional for CTC leaf, Orthodox leaf and All Dust tea category
Guwahati Tea Auction Centre	Fully Functional for all types of tea & all category of tea
Siliguri Tea Auction Centre	Fully Functional for all types of tea & all category of tea
Coimbatore Tea Auction Centre	Fully Functional for all types of tea & all category of tea
Cochin Tea Auction Centre	Fully Functional for all types of tea & all category of tea
Coonoor Tea Auction Centre	Fully Functional for all types of tea & all category of tea
Jalpaiguri Tea Auction Centre	Fully Functional for all types of tea & all category of tea under 'Instant Auction System'



- The sales of tea through E-Auction during the financial year 2010-11 vis-à-vis 11-12 is as under:

Auction Centre	April 2011 to March 2012		April 2010 to March 2011	
	Qty (Kg)	Price (₹ /Kg)	Qty (Kg)	Price (₹ /Kg)
Kolkata Leaf	10,52,05,496.03	126.47	8,21,60,585.89	122.93
Kolkata Dust	4,07,97,010.21	119.27	3,61,27,589.76	121.89
Total Kolkata	14,60,02,506.24	124.46	11,82,88,175.65	122.61
Guwahati Leaf	8,45,91,850.30	109.29	8,14,84,638.30	111.73
Guwahati Dust	3,91,26,462.36	107.13	3,61,85,077.65	114.44
Total Guwahati	12,37,18,312.66	108.61	11,76,69,715.95	112.56
Siliguri Leaf	8,02,76,686.31	105.43	5,63,43,903.68	102.99
Siliguri Dust	1,28,66,468.48	95.12	95,97,748.13	98.70
Total Siliguri	9,31,43,154.79	104.01	6,59,41,651.81	102.37
Cochin Leaf	88,19,125.30	78.20	1,08,30,307.30	78.12
Cochin Dust	4,36,39,366.20	81.19	4,54,92,206.80	81.53
Total Cochin	5,24,58,491.50	80.69	5,63,22,514.10	80.88
Coonoor Leaf	35788950.10	61.95	3,29,47,296.18	60.60
Coonoor Dust	1,51,46,845.04	64.75	1,54,52,651.26	63.87
Total Coonoor	5,09,35,795.14	62.78	4,83,99,947.44	61.64
Coimbatore Leaf	58,20,725.80	61.03	82,06,545.02	59.73
Coimbatore Dust	1,03,32,626.70	66.51	1,18,80,028.12	67.19
Total Coimbatore	1,61,53,352.50	64.53	2,00,86,573.14	64.14
Grand Total	48,24,11,612.83	103.17	42,67,08,578.09	101.54

7.10 Registration of Buyers :

Clause 4 (1) of IMCO 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 2011-12 under review, 174 buyers obtained registration from the Tea Board. The total amount collected was ₹ 4,35,000/-. The total number of buyers registered with Tea Board under IMCO 2003 as on 31.3.2012 comes to 6,268.



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 2643 during 2011-12 as against 1891 issued in the same period of 2010-11.

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 Niligiris 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.

The Position of Permits issued during 2011-12

Region	Extension permit		Replacement permit	
	Number	Area in Hect.	Number	Area in Hect.
North India SG	1	7.60	26	171.62
North India BG	1	12.89	87	1660.38
South India SG	3	1.7	Nil	Nil
South India BG	Nil	Nil	5	56.42
Total All India	5	22.19	118	1888.42

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 2011-12 (till 31.3.12) is as follows:

	North India		South India		Total	
1. Change of ownership	35		NIL		35	
	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)	Nil	Nil	Nil	Nil	Nil	Nil
c) In other than non traditional tea growing areas (upto 10.12 ha)	41	55.674	188	116.0135	229	171.69
d) In other than non traditional tea growing areas (above 10.12 ha)	6	315.47	3	47.00	15	362.47



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 2011-12 is indicated below:

Region	Fresh License Issued @ ₹ 1,000/-		Licence renewed @ ₹ 2,000/-		Total
	Number	Amount (₹)	Number	Amount (₹)	Amount (₹)
North India	20	20,000	110	22,000	42,000
South India	10	10,000	47	9,400	19,400
All India	30	30,000	157	31,400	61,400

Tea (Marketing) Control Order, 2003

Registration of Tea Manufacturers Unit during 2011-12 - 26 (25 in 2010-11)

Registration of Auction Organiser during 2011-12 - NIL (NIL in 2010-11)

Renewal of Auction Organiser during 2011-12 - 09 (10 in 2010-11)

Registration of Auction Brokers during 2011-12 - NIL (NIL in 2010-11)

Renewal of Auction Brokers during 2011-12 - 21 (22 in 2010-11)

Registration of Buyers during 2011 -12 - 174 (182 in 2010-11)

Tea (Distribution & Export) Control Order -

Fresh/temporary exporter's licence issued in 2011-12 - 101 (103 in 2010-11).

Renewal of temporary exporter's licence issued in 2011-12 - 60 (38 in 2010-11).

Permanent Exporters licence (converted from tempo-

rary) in 2011-12 - Nil (NIL in 2010--11).

Distributors' Licence issued in 2011-12 - 8 (7 in 2010-11).
(It is issued to all the tea exporters who hold valid exporter's licence for importing tea for re-export or internal sale)

Tea Waste (Control) Order, 1959

Tea Waste Licence issued during 2011-12 - 93 (46 in 2010-11).

Tea Waste Licence renewed during 2011-12 - 742 (1044 in 2010-11).

Tea Warehouses (Licensing) Order, 1989

Fresh Tea Warehouse License issued during 2010-11 - 30 (25 in 2010-11).

Warehouse License renewed during 2011-12 - 157 (121 in 2010-11).

Till 31st March 2011, the Licensing Branch granted registration in favour of 115 Manufacturers of tea with added flavour. During 2011-12, 27 manufacturers of tea with added flavour registered with Tea Board totaling to 142 at the end of 2011-12.



STATISTICS

Introduction :

Primary functions of Statistics Branch of Tea Board is to collect, collate and dissemination of statistical information relating to all aspects of tea industry and trade covering area under cultivation, production, productivity, types of tea produced in the country, primary market prices, export and destination of exports, taxes and levies on tea, workers employed in tea plantations etc. Such information forms a crucial input for the policy matters of the Board, the Government and the Industry.

The matters relating to Central Excise, State Sales Tax, Central Sales Tax, Export Incentives, Advance License under Export-Import Policy, Foreign Direct Investment, etc; are also being dealt with by the Statistics Branch.

Publication :

The important publication of the Statistics Branch is the, "Tea Statistics" which provides a wide array of data base on the entire gamut of tea industry, trade and International tea situation.

Information on weekly auction prices, monthly production and export data are uploaded in the website of the Board - www.teaboard.gov.in.

Monitoring of Tea Prices :

The statistics Branch has been monitoring and providing required information on auction prices to Ministry of

Commerce and Ministry of Consumer Affairs, Food & Public Distribution in connection with the construction of Wholesale Price Indices (WPI) of Plantation Crops and Index of Industrial Production (IIP) respectively. The retail price of tea at different cities/towns is also being monitored by the Statistics Branch.

Taxes & Duties:

Excise duty : 10% ad-valorem on Instant Tea falling under heading 2101.20

Export Duty: Nil

Import Duty: Nil on teas imported by Export Oriented Units (EOU) and Special Economic Zone (SEZ) units for the purpose of re-export. However, teas imported for domestic markets would attract basic import duty of 100% plus 10% surcharge plus special additional 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.

Tea Cess,: Cess is levied on all teas produced in India under Section 25(1) of the Tea Act, 1953. For the period upto 31.05.2011, the Cess was levied @ 30 paise per kg. except Darjeeling teas for which only 12 paise per kg was levied. The rate of Cess was enhanced with effect from 1st June, 2011 to 50 paise and 20 paise respectively per kg for all teas produced in India other than Darjeeling and in Darjeeling.



STATUS OF TEA INDUSTRY AND TRADE DURING THE YEAR 2011-12

AREA as on 31-12-2011 & PRODUCTION IN 2011-12

State / Districts	Area under tea (in Th. Hectares)	Production (Million Kgs)
Assam Valley	285.83	453.12
Cachar	36.38	48.30
Total Assam	322.21	501.42
Darjeeling	17.82	9.62
Dooars	72.92	142.92
Terai	24.36	73.15
Total West Bengal	115.10	225.69
Other North Indian States (Includes Tripura, Uttarakhand, Bihar, Manipur, Sikkim, Arunachal Pradesh, Himachal Pradesh, Nagaland, Meghalaya, Mizoram and Orissa)	22.30	12.30
TOTAL NORTH INDIA	459.61	739.41
Tamil Nadu	80.46	164.63
Kerala	37.14	66.91
Karnataka	2.14	5.28
TOTAL SOUTH INDIA	119.74	236.82
ALL TOTAL	579.35	976.23

PRODUCTION OF TEA IN INDIA DURING LAST THREE FINANCIAL YEARS

(in M.Kgs)

Year	North India	South India	All India
2009-10	734.38	256.80	991.18
2010-11	728.52	238.21	966.73
2011-12	739.42	236.81	976.23



CATEGORY WISE PRODUCTION OF TEA IN INDIA DURING 2011

(In M Kgs)

Category	North India	South India	All India
CTC	652.42	202.61	855.03
Orthodox (Darjeeling + Green)	95.02	95.26	133.30
TOTAL	747.44	240.89	988.33

EXPORTS OF TEA FROM INDIA

Qty in M.Kgs., Value in Rs. Crs. U.Price in Rs./Kg

YEAR	NORTH INDIA			SOUTH INDIA			ALL INDIA		
	QTY	VALUE	U. R	QTY	VALUE	U. R	QTY	VALUE	U. R
2009-10	122.89	2001.36	163.26	90.84	1087.33	114.19	213.43	3038.69	142.37
2010-11	116.02	2045.21	177.81	98.77	960.58	96.24	213.79	2998.79	140.13
2011-12	118.08	2295.11	194.46	91.01	917.78	100.84	209.04	3212.89	153.70

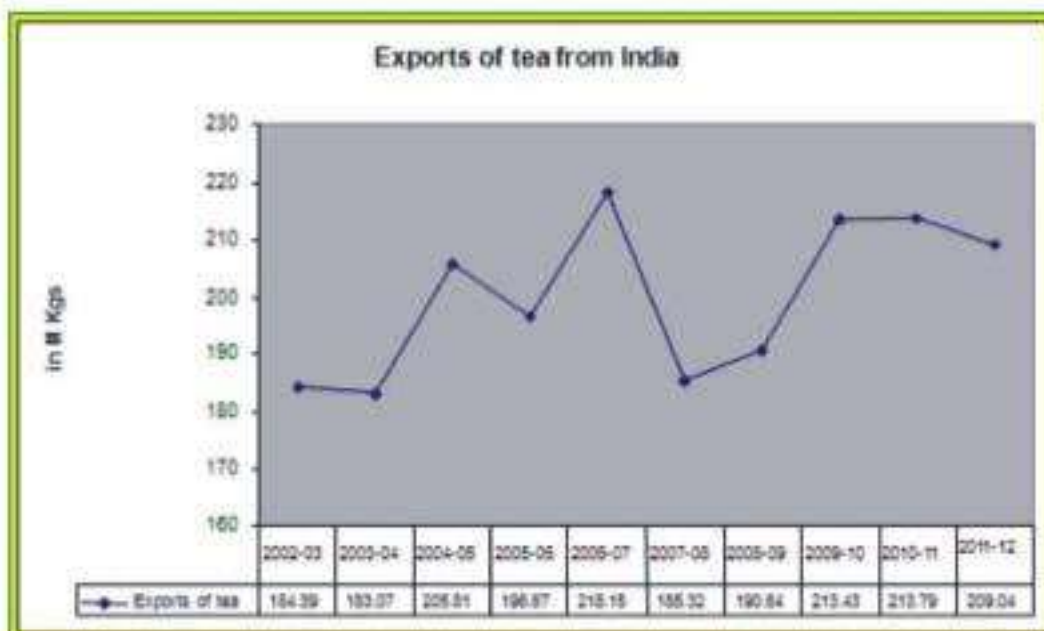
DIRECTION OF INDIAN TEA EXPORT IN 2011

noteworthy development is the exports to Pakistan- gone up from less than 3 m.kg in 2001 to 25 m.kg in 2011





EXPORT OF TEA OVER LAST 10 YEARS



EXPORT OF TEA SINCE 1950

Volume of exports hovered around 200 million kgs over last six decades





IMPORT OF TEA INTO INDIA :

Year	Quantity (M.Kgs.)	CIF Value (Rs Crores)	Unit Price (Rs /Kg)	CIF Value (Mill US\$)	Unit Price (US\$/Kg)
2009 - 2010	25.84	214.44	82.97	45.01	1.74
2010 - 2011	19.26	186.82	97.02	41.02	2.13
2011 - 2012	19.21	186.04	96.85	38.85	2.02

TEA PRICE AT AUCTION:

Year	North India		South India		All India	
	Qty. (M.Kgs)	Avg. Price (Rs /Kg)	Qty. (M.Kgs)	Avg. Price (Rs /Kg)	Qty. (M.Kgs)	Avg. Price (Rs /Kg)
2009-10	378.29	116.46	146.44	80.26	524.73	106.36
2010-11	330.47	120.18	150.11	68.37	526.58	105.40
2011-12	390.34	117.01	151.49	70.26	541.83	103.94

WORKERS ON THE ROLLS OF THE TEA ESTATES

State	Permanent workers			Temporary workers			Total (Permanent + Temporary)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
North India	307111	328019	635130	155057	224263	379320	462168	552282	1014450
South India	30788	44730	75518	7410	12958	20368	38198	57688	95886
All India	337899	372749	710648	162467	237221	399688	500366	609970	1110336



PRODUCTION SHARE OF MAJOR PRODUCING COUNTRIES IN 2011

Country	2011	Share in total production(%)	Decadal growth (2011 over 2001)
China	1623.21	38	8.75
India	988.33	23	1.47
Kenya	377.91	9	2.52
Sri Lanka	328.63	8	1.04
Vietnam	178	4	8.77
Indonesia	119.65	3	-0.03
Bangladesh	59.32	1	0.43
Malawi	47.06	1	2.50
Uganda	54.18	1	5.00
Tanzania	32.78	1	2.85
Others	490.15	11	
Total	4299.22	100	

Source : ITC Annual Bulletin, 2012

EXPORTS SHARE OF MAJOR PRODUCING COUNTRIES IN 2011

Country	2011	Share in total production(%)	Decadal growth (2011 over 2001)
Kenya	421.27	24	4.54
China	322.58	18	2.59
Sri Lanka	301.27	17	0.47
India	211.91	12	1.50
Vietnam	143	8	7.68
Indonesia	75.45	4	-2.75
Malawi	44.89	3	1.61
Uganda	46.15	3	4.25
Tanzania	27.11	2	2.08
Bangladesh	1.45	0	-19.63
Others	154.44	9	
Total	1749.52	100	

Source : ITC Annual Bulletin, 2012



World Auction Price of Tea sold:

Year	International price (US\$/Kg)					
	India	Bangladesh	Sri Lanka	Indonesia	Kenya	Limbe
2010	2.29	2.61	3.28	1.82	2.54	1.58
2011	2.23	2.14	3.25	1.97	2.72	1.61

PRICE OF TEA IN INDIA VS WORLD AUCTIONS

Avg prices in US\$/Kg

Auction Centers	2011	Decadal Growth in average price in 2011 over 2001
North India	2.51	5.42
South India	1.50	4.35
All India	2.23	5.46
Bangladesh	2.14	7.29
Sri Lanka	3.25	7.28
Indonesia	1.97	7.34
Kenya	2.72	5.92
Malawi	1.61	6.35

World Demand and Supply of Tea

(Figures in M.Kgs)

Year	World Supply	World Demand	(+) or (-)
2010	4170	3975	195
2011	4299	4106	193

Source : ITC Annual Bulletin, 2012



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 aims 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 Rs. 2,76,90,351/- was disbursed for Labour Welfare measures during the year 2011-12 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 the 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 Rs. 12,91,571/- 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 wooden crutch, 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 Rs.2500/- per person.

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 TB. 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 dependants suffering from TB against a capital grant of Rs. 92,124/-. Since then 15 free beds were reserved by the Board at this Sanatorium, but significantly it has become inadequate to cope with this insufficient numbers of beds. 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 Rs. 30/- by the Board at its meeting held at Bangalore on 24-5-88 and subsequently to Rs. 50/- at its meeting held at Kolkata on 29-9-1993. Thereafter, the Board at its meeting held at Bangalore on 29-12-1999 enhanced the rate of hospital stoppages to Rs. 75/- per patient per day against actual occupation of bed w.e.f. 01-01-2000. The hospital stoppages has again been revised by the Board at its meeting held in Kolkata on 21st Sept'2011 to Rs. 92/- from Rs. 75/- per patient per bed plus Rs. 25/- as one time Admission Fee at the time of admission of patient w.e.f. 01-4-2011. No payment was made during the year under review.

(iii) Kalimpong Sub-divisional Hospital:

The Board has been continuing its reservation of 03 beds in the leprosy wing of Kalimpong Sub-Divisional Hospital, Kalimpong for treatment of leprosy patients of tea garden workers and their dependants in the adjoining tea estates on payment of Rs.12,000/- per bed per annum. No payment was made during the year under review.

iv) Mangorange Hospital, Mangorange, Tamil Nadu :

The Board at its meeting held at Coonoor on 30th December, 2009 sanctioned capital grant Rs. 4,43,346/- for purchase of medical equipments for treatment facilities to the patients tea plantation workers and their dependants of the tea estate including patients from nearby tea estate. A sum of Rs. 4,43,346/- was paid in full to the above institution during the year under review.

v) Apeejay Tea Ltd., Tinsukia, Assam :

The Board at its meeting held in Kolkata on 28th December'10 had sanctioned capital grant for a sum of

Rs. 5,91,500/- towards purchase of medical equipments. A sum of Rs. 5,39,000/- being the full amount at one time was released during the year under review.

vi) Jorhat Lions Eye Hospital, Jorhat :

The Board at its meeting held in Kolkata on 28th December'2010 sanctioned capital grant for a sum of Rs. 6,18,450/- towards construction of hospital building. A sum of Rs. 3,09,225/- being the first installment of grant was released during the year under review.

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 Rs.20,000/- per annum and 2/3rd of hostel charges restricted upto Rs.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 Rs.10,000/- per month. This benefit is restricted to only 2(two) children per worker. The Board also provide lump-sum grant in the name of "Nehru Award" @ Rs.2,000/- and Rs.2,500/- as prize money to the 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 the wards of tea plantation workers whose annual income does not exceed Rs.1,20,000/-. A sum of Rs. 1,84,98,507/- was disbursed in respect of educational stipend and "Nehru Award" during the year 2011-12.

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

Area	Male	Female	Total
North East	29	19	48
North India	218	138	356
South India	309	442	751
Total	556	599	1,155



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. A total sum of Rs. 73,04,017/- was disbursed towards capital grant for construction/extension of school/college buildings during the year under review.

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

i) Chamraj Higher Secondary School, Nilgris, Tamil Nadu :

The Board at its meeting held in Kolkata on 08-11-08 sanctioned capital grant of Rs. 12.00 lakhs for construction of classrooms of the said school building. Due to paucity of fund a part payment of Rs. 2.00 lakhs was paid during the year 2011-12. A sum of Rs. 10.00 lakhs being the 2nd/final installment of grant was released during the year under review.

ii) Melamora High School, Golaghat, Assam:

The Board at its meeting held in Kolkata on 11-9-2009 sanctioned capital grant of Rs. 8.00 lakhs for construction of the said school building. A sum of Rs. 4.00 lakhs being the 2nd & 3rd installment of grant was released during the year under review.

iii) LTK College, North Lakhimpur, Assam :

The Board at its meeting held in Kolkata on 11th Sept'2009 has sanctioned capital grant of Rs. 8.00 lakhs towards construction of hostel building of the said institution. A sum of Rs. 4.00 lakhs being the 1st installment of grant was released during the year under review.

iv) Sree Bangur High School, Dibrugarh, Assam:

The Board at its meeting held at Coonoor on 30th December, 2009 sanctioned capital grant of Rs. 7,20,300/- towards construction of the said school building. A sum of Rs. 3,60,150/- being the 1st installment of grant was released during the year under review.

v) Gingia Mahabir High School, Sonitpur, Assam :

The Board at its meeting held in Kolkata on 17th March, 2007 sanctioned capital grant of Rs. 5,60,000/- for construction of classrooms building of the said institution.

A sum of Rs. 2,80,000/- being the 1st installment of grant was released during the year for the said purpose.

vi) Moran Mahila Mahavidyalaya, Sivasagar, Assam:

The Board at its meeting held at Darjeeling, W.B. on 17th December, 2007 sanctioned capital grant of Rs. 11,90,000/- towards construction of classrooms of the said institution. A sum of Rs. 2,97,500/- being the 2nd installment of capital grant was released during the year under review.

vii) Phillobari High School, Tinsukia, Assam :

The Board at its meeting held at Palampur (HP) on 26th March, 2010 has sanctioned capital grant of Rs. 8,88,230/- towards construction of science laboratory of the said institution. A sum of Rs. 4,44,115/- being the 1st installment of grant was released during the year under review.

viii) Coombergam High School, Cachar, Assam :

The Board at its meeting held in Kolkata on 28th December'2010 sanctioned capital grant of Rs. 8,40,000/- for construction of the said school building. A sum of Rs. 4,20,000/- being the 1st installment of grant was released during the year under review.

ix) Chatia College, Sonitpur, Assam :

The Board at its meeting held at Jorhat on 23-6-2007 sanctioned capital grant of Rs. 11,43,520/- for construction of the said college building. A sum of Rs. 2,85,880/- being the 2nd installment of capital grant was released during the year under review.

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

The Board at its meeting held at Coonoor on 30-12-2009 sanctioned capital grant of Rs. 12,00,000/- for construction of the said school building. A sum of Rs. 3.00 lakhs being the 2nd installment of grant was released during the year under review.

xi) Judhabir Hr. Secondary School, Darjeeling:

The Board at its meeting held at Coonoor on 29th December'2011 has sanctioned capital grant for a sum of Rs. 11,97,000/- towards construction of the school building. A sum of Rs. 5,98,500/- being the 1st installment of the grant was released during the year under review.



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

The Board at its meeting held in Kolkata on 30-6-2010 sanctioned capital grant of Rs. 12,00,000/- for construction of the said school building. A sum of Rs. 3,00,000/- being the 2nd installment of grant was released during the year under review.

xiii) Risheehat High School, Darjeeling, W.B.:

The Board at its meeting held at Agartala (Tripura) on 30th June'09 sanctioned capital grant for a sum of Rs. 7,92,318/-. A sum of Rs. 7,92,318/- being the full amount at one time was released during the year under review.

xiv) Bihupuria College, Lakhimpur, Assam :

The Board at its meeting held at Agartala (Tripura) on 30th June'2009 sanctioned capital grant for a sum of Rs. 12.00 lakhs towards construction of the said college building. A sum of Rs. 6.00 lakhs being the 1st installment (50%) of the capital grant was released during the year under review.

xv) St. Joseph's High School, Idduki, Kerala :

The Board at its meeting held in Kolkata on 11th September'2009 had sanctioned capital grant for a sum of Rs. 10,07,400/- towards construction of the said school building. A sum of Rs. 2,51,850/- being the 2nd installment of capital grant was released during the year under review.

xvi) Rabindranath H.S. School Darjeeling W.B. :

The Board at its meeting held in Kolkata on 28th December'2010 has sanctioned capital grant for a sum of Rs. 11,47,409/- towards construction of the said school building. A sum of Rs. 5,73,704/- being the 1st installment of the grant was released during the year.

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, W.B. for the wards of tea garden employees for admission during each academic year in diploma courses. During the period under review, three 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 matching grant for the tea garden scouts/guides/cubs and bulbul 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 Rs. 4,68,906/- for scouting and guiding activities. 3373 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 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 Rs. 1.50 lakhs per course totaling upto Rs. 4.50 lakhs covering 300 beneficiaries altogether through Jan Shikshan Sansthan, Jalpaiguri. The Board has agreed to sanction a total grant of Rs. 4,24,500/- for 283 candidates for conducting the above programme. A sum of Rs. 1,27,350/- (30%) being the 1st installment of the grant was released as an initial payment for starting the training programme.

The details of expenses incurred on schemes & training of tea garden workers/staff/managers are provided in Annex-V.



9.5 Summary of Performance During XI PLAN PERIOD :

A/c 2011-12 being the terminal year of the plan period the performance with reference to the whole plan period is furnished below :

The approved outlay for the HRD scheme for the whole plan period was Rs. 50 Cr. as shown in Table 1(a). The labour welfare activities were looked by the Welfare branch while the training part was covered by the Development Directorate. The aggregate funds released through annual plans was Rs. 20,30 Cr. as shown in Table-1(b) against which the total disbursement made was Rs. 20.15 Cr. as shown in Table -1(c).

Table 1 (a)

Approved Outlay (Rs./ crores)	
Training Programmes	12.50
Labour Welfare (Health & Education)	37.50
Total	50.00

Table 1 (b)

Amount actually received (Rs. / Crores)	
Training Programmes	20.30
Labour Welfare (Health & Education)	
Total	20.30

Table 1 (c)

Sl. No.	Activity Supported	Expenditure Incurred Rs. / Cr.
1	Training Programmes	5.69
2	Labour Welfare (Health & Education)	13.27
3.	Others	1.19
	Total	20.15

9.6 BREAK UP OF TARGET AND ACHIEVEMENT OF WELFARE ACTIVITIES

Table 2 (a) Physical target (no.) under welfare activities during XI Plan (2007-12).

Components	Activities	2007-08	2008-09	2009-10	2010-11	2011-12	Total
	Strengthening of Hospitals in Tea Areas	5	10	10	10	10	45
	Medical Assistance, Reservation of Bed	80	80	80	80	80	400
	Family Welfare Programme	2	2	2	2	2	10
	Drinking Water	0	1000	1200	1400	1400	5000



Components	Activities	2007-08	2008-09	2009-10	2010-11	2011-12	Total
	Sanitation	0	2000	2,500	2,500	3000	10,000
Education	Stipend/ Nehru Award	600	600	600	600	600	3000
	Books & School Uniform Grants	5000	5000	5000	5000	5000	25000
	Bharat Scouts & Guides	1100	1100	1100	1100	1100	5500
	Schools / Colleges	5	10	10	10	10	45

Table 2 (b) Physical achievement (in no.) of Welfare Activities during XI Plan (2007-12)

Components	Activities	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Health	Strengthening of Hospitals in Tea Areas	5	2	3	6	1	17
	Medical Assistance, Reservation of beds	3	5	81	1	5	95
	Family Welfare Programme	1	1	2	1	0	5
	Drinking Water	0	0	0	0	0	0
	Sanitation	0	0	1000	0	0	1000
Education	Stipend/ Nehru Award	665	579	212	1052	1392	3900
	Books & School Uniform Grants	20630	10404	0	0	0	31034
	Bharat Scouts & Guides	995	879	88	3374	3773	9109
	Schools / Colleges	12	6	12	6	17	53

Table 2 (c) : Financial target of Welfare Activities during XI Plan (2007-12) :

Rs/cr.

Activity	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Welfare	3.75	7.50	8.25	9.00	9.00	37.50
Total	3.75	7.50	8.25	9.00	9.00	37.50

Table 2 (d) : Financial achievement of Welfare Activities during XIth Plan Period :

Rs/cr.

Activity	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Welfare	3.48	2.79	2.16	2.05	2.79	13.27
Total	3.48	2.79	2.16	2.05	2.79	13.27



HINDI CELL

10.1 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.

10.2 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.

10.3 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. During the year 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.

10.4 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.

10.5 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 & Industry New Delhi.

10.6 Organising Hindi Workshop

During each quarter of 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.

10.7 Hindi Training :

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

10.8 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 February, 2012. 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.

10.9 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.

10.10 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 2011-12 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.

10.11 Meeting of OLIC of the Board :

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

10.12. Provision for Bilingual Computer :

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

10.13 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. 18 employees participated and few employees were awarded with cash prize.

10.14 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.

10.15 Inspection of Regional Offices :

During the year 2011-12 some of the departments of Tea Board's Head Office and its Regional office, Delhi were inspected.

10.16 Inspection of Parliamentary Committee on O.L.

Action has been taken to comply with the assurances given to the Parliamentary Committee on O.L.

10.17 Special Achievements :

Hindi version of Board's website has been prepared during the year.



SUPPLY

The main functions 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 is 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 fertilizers was supplied to Tea Gardens of Assam and other States (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) and (2) Nagarjuna Fertilizers and Chemicals Limited (NFCL) and the quantity of Urea supplied by each of them to Tea Gardens of Assam, Tripura and West Bengal during the period from April, 2011 to March, 2012 is given hereunder in a tabular form:-

(Figures in M.T.)

Name of the Manufacturer/ supplier	QUANTITY OF UREA SUPPLIED DURING THE YEAR 2011-12							
	Assam		West Bengal		Tripura		TOTAL	
	Fertilizer	Nutrient	Fertilizer	Nutrient	Fertilizer	Nutrient	Fertilizer	Nutrient
BVFCL	28,268	13,002			384	177	28,652	13,179
NFCL	—	—	6,830	3,142	—	—	6,830	3,142
<i>Total</i>	28,268	13,002	6,830	3,142	384	177	35,482	16,321



Another important 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 Assam (under North Eastern Zone) and tea garden in North Bengal (under East Zone) is given below :

(Figures in M. T)

Assam		West Bengal		Total	
Fertilizer	Nutrient	Fertilizer	Nutrient	Fertilizer	Nutrient
—	—	695	142	695	142

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 Assam and other States (under North Eastern Zone) and West Bengal (under East Zone) .

2. OTHERS.

Supply Branch is also looking after and short-out the matters relating to Coal, Food Grain, LPG Cylinder / Natural Gas, HSD Oil etc., required by the tea estates in case of any problems faced by the Tea Industry due to disruption of supply of the same to Tea Garden.



HUMAN RESOURCE DEVELOPMENT

Human Resource Development Cell of Tea Board Head Office in 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 2011-12 the under-noted activities were undertaken by Tea Board relating to HRD:

1. Nine officials from various departments of Tea Board attended in Training Programme on TDS, computer application including MS Office, Govt. Rules pertaining to administrative and financial matters etc. in the month of February, 2012. An in house training on TDS was conducted by SHri T.K. Dey, Sr. Accounts Officer, Smt. N. Dutta, Deputy Director, Tea Promotion and Shri G. Sharma, Deputy Director of Tea Development.
2. For the benefit of Board's officers and employees, a Free Health Check up Camp for Cardiac & Diabetic disease organized in Board's auditorium on 20.01.2012. The Health check up was conducted by Desun Hospital & Heart Institute, Kolkata.



VIGILANCE CELL

The Deputy Chairman of Tea Board acts as the Chief Vigilance Officer of the Board who is supported by the Central Vigilance Commission. The overall activities of the Vigilance Cell are being done under the supervision of Chief Vigilance Officer. The total strength of vigilance Cell is four apart from Deputy Chairman. The main function of the vigilance Cell is to implement the directives of the Government/Central Vigilance Commission, all of which is done on a regular basis. The Vigilance Cell also attends to various queries and submits monthly and quarterly report to the Government. As per the advice of Chief Vigilance Officer the directives of CVC in respect of tender and preventive vigilance are being followed in the Board in every respect. The Law Officer is also working as Vigilance Officer who is responsible for maintaining liaison work. This Cell is also functioning on overall Vigilance Surveillance activities of the Board. Another important activity of vigilance cell is the observance; of Vigilance Awareness Week every year as per directive of the Central Vigilance Commission during which all the employees of Tea Board are administered oath in the form of message of efficiency and transparency in the activities of Tea Board for highlighting the basic mission of the awareness. During the year the Vigilance Cell received two anonymous Complaints on which no action was taken due to anonymity of the complainants. There is no such Vigilance case pending with this cell as on date.



REPORT ON LEGAL CELL / RTI ACT, 2005

Tea Board's Legal Cell is working under the Law Officer. He is being assisted by other staff members. The Legal Cell of Tea Board is attending to all legal matters of the Board as and when referred to by the officers of Tea Board in Head office/Regional Office. The Cell is also maintaining liaison with the Board's Solicitors/Law Firms viz. M/S Fox & Mandal, Rajesh Khaitan & Co., K&S Partners and other legal consultants on behalf of the Board. The Cell is looking after all matters relating to Intellectual Property Rights including administration of various logo marks/word marks registered by the Board under different statutes in India and abroad. This cell is also responsible for performing the job relating to the disposal of applications and appeal made under the Right to Information Act, 2005 and sending monthly as well as yearly return to the Ministry. The number of cases pending as on 01.04.2011 was 42. During the year under review, five new cases arose and three cases were disposed of and as on 31.03.2012 the total number of pending cases was 44.



List of the Members for the Period from 01.04.2011 to 31.03.2012

1. Shri Dinesh Sharma, IAS, Chairman, Tea Board upto 30-06-2011
Shri Siddharth, IAS Chairman, Tea Board from 01-07-2011 to 17-11-2011
Shri MGVK Bhanu, IAS Chairman, Tea Board from 17-11-2011
2. The Principal Secretary,
Commerce & Industries Department,
Govt. of Assam,
Dispur, Guwahati - 6
3. The Secretary(Investment Promotion),
Industries Department, Govt. of Kerala,
Secretariat, Thiruvananthapuram,
Kerala-695001
4. The Commissioner and Secretary,
Department of Industries & Commerce,
Govt. of Tripura,
Agartala-799001
5. The Principal Secretary,
Micro, Medium & Small Industries Department,
Govt. of Tamil Nadu,
Chennai-600009
6. The Principal Secretary,
Commerce & Industries Department,
Govt. of West Bengal, 4, Camac Street,
Kolkata-700017.
7. The Principal Secretary,
Department of Agriculture,
Govt. of Himachal Pradesh,
Simla-171002, Himachal Pradesh.
8. Shri P. Viswanathan,
Hon'ble Member of Parliament, (Lok Sabha.)
F-9, Varshal Block, Vasundhara, Residential Enclave,
Andalpuram, Madurai-625 003,
Tamil Nadu.
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 President,
[Shri C.N. Nataraj, Vice Chairman, Tea Board]
United Planters' Association of South India,
"Glenview", Coonoor – 643 101,
Nilgiris, Tamil Nadu.
12. The Chairman,
Indian Tea Association,
"Royal Exchange", 6, N.S. Road,
Kolkata – 700 001
13. Shri J. L. Butail,
Kangra Valley Small Tea Planters' Association,
Kangra Valley Tea Estate, Gopalpur,
Dist: Kangra, PIN – 176 059,
Himachal Pradesh.
14. Shri Akshay Kumar Rajkhowa,
4A, Aditi Apartment, Maniknagar,
By-Lane 2(Right), Guwahati – 781 005,
Assam.
15. Shri P.V. Balachandran,
President: Dist. Congress Committee,
P.O. Nanikundu, Ambalavayal-673 593,
Wynaad, Kerala.
16. Shri Rajinder Singh Thakur,
P.O. Khalet, Teh.: Palampur,
Distt- Kangra, PIN – 176 061,
Himachal Pradesh.
17. Shri Shankar Malakar,
President, Darjeeling District Congress Committee,
Babupara, Siliguri,
Dist – Darjeeling, PIN- 734 001,
West Bengal.
18. Shri Koshy Baby,
Gudalur Bazaar, Nilgiris
PIN – 643 212, Tamil Nadu.



19. Shri A.K. Mony,
Ex-MLA, Top Station Road,
Munnar, P.O. Idukki,
PIN – 685 612, Kerala.
20. Shri Alope Chakraborty,
Secretary, INTUC, West Bengal Branch,
"Putul Ghar" Durgapuri, Siliguri, P.O. Pradhan
Nagar, PIN – 734 001, West Bengal.
21. Shri D. P. Roy,
Member, West Bengal Legislative Assembly,
Jalpaiguri – 785 101,
West Bengal.
22. Shri Dinesh Kr. Sharma, Vice President,
All Assam Small Tea Growers Association,
Tinsukia, Assam.
23. Shri Samir Roy,
Station Road, Jalpaiguri-735101,
West Bengal.
24. Dr. S. Ramu, Ph.D.,
Doddacombu Tea Factory Pvt. Ltd,
Snowdon Tea Factory, No.9, Springfield,
Coonoor-643 101,
Nilgiris, Tamil Nadu.
25. Dr. Ajit Kumar Agarwala,
Agarwala House, 2nd Milestone,
Sevok Road, Siliguri
26. Shri M. Chandrakant, MD,
Golcha Tea Plantation Pvt. Ltd., S.No.169,
The Island, Flat-E/216, Opp: Wakad Petrol Pump,
Wakad, PUNE-411057
27. Shri Hiranya Bora,
House No.36, Tarun Nagar, Bye-Lane-4,
Guwahati, Assam-781 005
28. Shri Anshuman Kanoria,
10, Princep Street,
Kolkata-700 022.
29. Smt. Barnali Dey Mohinta,
C/o.Smt.Gita Dey, Dey Lodge, Nazrul Sarani,
Ashrampara, Siliguri, PIN-734 401.

30. Ms. Chitra Ramesh,
801, A Block, RNS Shanti Nivas Apartment,
Tumkur Road, Yeswantpur,
Bengaluru-560 022.
31. Shri Sanjiv Sarin,
Regional President-South Asia,
Tata Global Beverages Ltd. 62, III Cross,
II Phase, Industrial Suburb,
Yeswantpur, Bengaluru

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. Shri Bijoy Gopal Chakraborty, President,
Confederation of Indian Small Tea Growers'
Association [CISTA],
20, College Para, P.O. & Dist.Jalpaiguri,
PIN-735101, W.B.
5. The Chairman,
United Planters' Association of Southern India
(UPASI – Tea Committee),
"Glenview", Coonoor – 643 101, Nilgiris,
Tamil Nadu.
6. The Chairman,
Darjeeling Tea Associations (DTA),
6, N. S. Road, Kolkata.
7. Shri D.P. Maheswari, Chairman,
Tea Research Association (TRA),
113, Park Street, 9th Floor,
Kolkata – 700 016.



8. Shri Bidyananda Barkakoty,
Joint Forum of ATPA, NETA & BCP,
A.T.Road, Tarajan, Jorhat
PIN-785 001, Assam.

**Three Meetings were held during 2011-12 i.e. on
22.09.2011, 29.12.2011 and 02.03.2012**



Composition of the Standing Committees for the year 2011-2012 (upto 31st March, 2012)

I. Executive Committee

1. Chairman, Tea Board
(Ex-Officio Chairman of the Committee).
2. Shri J.L. Butail,
Chairman, Kangra Tea Planters Association,
Kangra Valley Tea Estate, Gopalpur, Dist- Kangra,
Pin – 176 059, H. P.
3. Shri C. Nataraj, Vice Chairman of Tea Board
& Ex-President, United Planters' Association of
Southern India, [UPASI - Coonoor],
Bengaluru, Karnataka.
4. Shri Rajen Gohain,
Member of Parliament, Lok Sabha,
185, South Avenue,
New Delhi - 110 001.
5. Shri D. P. Roy,
Member, West Bengal Legislative Assembly,
Jalpaiguri – 785 101,
West Bengal.
6. The Chairman,
Indian Tea Association,
"Royal Exchange", 6, N.S. Road,
Kolkata – 700 001.
7. Shri Shankar Malakar,
President, Darjeeling District Congress Committee,
Member AICC, Babupara, Siliguri, PIN- 734 001,
West Bengal.
8. Shri Koshy Baby,
11/157 Puthumana, Calicut Road

Gudalur Bazar P.O. 643 212
Nilgiri District, Tamil Nadu

9. Shri Anshuman Kanoria,
10, Princep Street,
Kolkata – 700 072.

**Three Meetings were held during 2011-12
i.e. on 22.09.2011, 29.12.2011 and 02.03.2012)**

II. Labour Welfare Committee

1. Chairman, Tea Board
(Ex-Officio Chairman of the Committee).
2. Shri C. Nataraj, Vice Chairman of Tea Board
& Ex-President, United Planters' Association of
Southern India [UPASI - Coonoor],
Bengaluru, Karnataka.
3. Shri Saman Pathak
Member of Parliament (Rajya Sabha),
Purbanchal, P.O.Pradhannagar,PIN-734 003,
Dist Darjeeling, West Bengal.
4. Shri Rajinder Singh Thakur,
Khalet Tea Estate, P.O.Khalet,
Teh.:Palampur, Dist. Kangra,
PIN-176 061, Himachal Pradesh .
5. Shri A.K. Mony,
Ex-MLA, Top Station Road,
Munnar, P.O. Idukki,
Pin – 685 612, Kerala.
6. Shri Alope Chakraborty,
Secretary, INTUC, West Bengal Branch,
"Putul Ghar", Durgapuri, Siliguri,
P.O. Pradhan Nagar,
Pin – 734 001, West Bengal.



7. Shri Dinesh Kumar Sharma,
Vice President, All Assam Small Tea Growers Association,
Tinsukia, Assam

8. Smt. Barnali Dey Mohinta,
C/o. Smt. Gita Dey, Dey's Lodge,
Nazrul Sarani, Ashrampara, Siliguri,
Dist - Darjeeling, West Bengal-734401

9. Shri Akshay Kumar Rajkhowa,
4-F, Aditi Apartment, Manik Nagar,
By-Lane 2 right, Guwahati – 781 005,
Assam.

**Three Meetings were held during 2011-12
i.e. on 22.09.2011, 29.12.2011 and 02.03.2012)**

III. Development Committee

1. Chairman, Tea Board
(Ex-Officio Chairman of the Committee).
2. Chairman,
Indian Tea Association,
"Royal Exchange", 6, N.S. Road
Kolkata – 700 001.
3. Shri C. Nataraj, Vice Chairman of Tea Board
& Ex-President, United Planters' Association of
Southern India [UPASI - Coonoor],
Bengaluru, Karnataka.
4. Dr. Ajit Kumar Agarwala,
Agarwala House, IInd Milestone,
Sevoke Road, Siliguri,
West Bengal.
5. Shri Samir Roy,
Station Road, Jalpaiguri – 735 101,
West Bengal.
6. Dr. S. Ramu, Ph.D,
Doddacombu Tea Factory Pvt.Ltd.,
Snowdon Tea Factory,
Coonoor, Nilgiris, Tamil Nadu.

7. Shri Hiranya Bora,
House No.36 Tarun Nagar,
Bye-Lane 4, Guwahati,
Assam-781 005

**Three Meetings were held during 2011-12
i.e. on 22.09.2011, 29.12.2011 and 02.03.2012)**

IV. Tea Promotion Committee

1. Chairman, Tea Board
(Ex-Officio Chairman of the Committee).
2. Shri PVishwanathan
Member of Parliament (Lok Sabha),
F-9, Varsha Block, Vasundhara Residential Enclave,
Andalpuram,
Madurai-625 003, Tamil Nadu.
3. Shri Sanjiv Sarin
Regional President-South Asia,
Tata Global Beverages Ltd.,
62, III Cross, II Phase, Industrial Suburb,
Yeswantpur, Bengaluru
4. Shri P.V. Balachandran
President, District Congress Committee
Kalpatta North P.O., PIN-673 122
Wyanad, Kerala.
5. Shri Shri M. Chandrakant
Managing Director, Golcha Tea Plantation Pvt.Ltd.,
S.No.169, The Island, Flat-E/216, Opp: Wakad
Petrol Pump,
Wakad, PUNE-411057
6. Ms. Chitra Ramesh
801, 'A' Block, RNS Shanthi Nivas Apartment,
Tumkur Road Yeswantpur
Bengaluru-560 022
7. Shri Anshuman Kanoria
10, Princep Street,
Kolkata – 700 072

**Three Meetings were held during 2011-12
i.e. on 22.09.2011, 29.12.2011 and 02.03.2012)**



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 : secytboard@gmail.com
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 Coonor Club Road,
Post Box No. 6,
Coonor - 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,
Beltola-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
I.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, Chowmuhani
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 of Tea Development,
Tea Board, Ruby Cottage
Shibajee Road, Hakimpara
Jalpaiguri
Te: 03561 225146
E-mail: teaboardjal@gmail.com

PALAMPUR

Assistant Direct of Tea Development,
Tea Board, Mission Road,
Palampur - 176 061
Kangra,
Himachal Pradesh.
Tel : 01894-230524
Fax : 01894-231748
E-mail : csmteaboard@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

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

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 Scheme during 2011-12

AMOUNT (in ₹ Lakhs)

ITEM	2011-2012
Grant-in-aid to TRA	283.22
Grant-in-aid to UPASI-TRF	88.85
Research grant to TRA	41.68
Research grant to UPASI-TRF	80.14
Research grant to HPKV V	6.52
Research grant to AAU	3.00
Research grant to CDAC	0.48
Research grant to IIT-Kharagpur	41.96
Research grant to B.C.Guha Centre	10.91
Research grant to DTR & DC	-
DTR & DC (Regular)	195.12
Seminar/Workshop	38.10
Development grant to ISRO	143.73
Development Assistance	948.45
Demo Pruning (Coonoor A/c.)	-
Admn. Expenses/Operating cost	-
Bank charges	0.07
Total	1,882.23
Add: Balance Grant-in-Aid to UPASI-TRF	15.01
	1,897.24



Annexure - V

**DISBURSEMENT UNDER THE BOARD'S
LABOUR WELFARE ACTIVITIES DURING THE YEAR 2011-2012.**

Sl. No.	Description	North India (Amount ₹)	South India (Amount ₹)	All India (Amount ₹)
1.	Educational Stipend & Nehru Award	30,42,294/-	1,54,56,213/-	1,84,98,507/-
2.	Bharat Scouts & Guides	4,68,906/-	-	4,68,906/-
3.	Mangorange Hospital, Mangorange, Tamil Nadu	-	4,43,346/-	4,43,346/-
4.	Apeejay Tea Ltd., Tinsukia, Assam	5,39,000/-	-	5,39,000/-
5.	Jorhat Lions Eye Hospital, Jorhat	3,09,225/-	-	3,09,225/-
6.	Chamraj H.S. School, Nilgiris, Tamil Nadu	-	10,00,000/-	10,00,000/-
7.	Melamora High School, Golaghat, Assam	4,00,000/-	-	4,00,000/-
8.	LTK College, North Lakhimpur, Assam	4,00,000/-	-	4,00,000/-
9.	Sree Bangur High School, Dibrugarh, Assam	3,60,150/-	-	3,60,150/-
10.	Gingia Mahabir High School, Sonitpur, Assam	2,80,000/-	-	2,80,000/-
11.	Moran Mahila Mahavidyalaya, Sivasagar Assam	2,97,500/-	-	2,97,500/-
12.	Phillobari High School, Tinsukia, Assam	4,44,115/-	-	4,44,115/-
13.	Coombergram High School, Cachar, Assam	4,20,000/-	-	4,20,000/-
14.	Chatia College, Sonitpur, Assam	2,85,880/-	-	2,85,880/-
15.	Ghoom Boys' H.S. School, Darjeeling, W.B.	3,00,000/-	-	3,00,000/-
16.	Judhabir H.S. School, Darjeeling	5,98,500/-	-	5,98,500/-
17.	Rangachakua H.S. School, Sonitpur, Assam	3,00,000/-	-	3,00,000/-
18.	Risheehat High School, Darjeeling, W.B.	7,92,318/-	-	7,92,318/-
19.	Bihupuria College, Lakhimpur, Assam	6,00,000/-	-	6,00,000/-
20.	St Joseph's High School, Idukki, Kerala	-	2,51,850/-	2,51,850/-
21.	Rabindranath H.S. School, Darjeeling, W.B.	5,73,704/-	-	5,73,704/-
22.	Vocational Training Course, Jalpaigui, W.B.	1,27,350/-	-	1,27,350/-
	Total	1,05,38,942/-	1,71,51,409/-	2,76,90,351/-