



2004-05 - A PERSPECTIVE VIEW

I am happy to place the 65th Annual Report of the Coffee Board for the year 2004-05.

As is well known, Coffee, the second largest traded commodity in the world experienced the worst ever crisis in the history during the period between 2000 and 2004, as the grower prices remained un-remunerative, on account of supply- demand mismatch. The prolonged low price scenario resulted in abandonment of farms, widespread loss of jobs, reduced fiscal revenue, migration from countryside to cities, cutting of shade trees, increased indebtedness etc., in many coffee producing countries and the magnitude of the crisis has been disastrous for the socio economic fabric of the coffee growing regions in the producing origins.

On the Indian front too, the situation was no different and the Indian coffee growers apart from managing the price crisis, also had to face the wrath of adverse weather conditions which prevailed in the majority of coffee growing regions in the country in the last 2-3 years. The hostile weather conditions led to

the out break of pests and diseases, specially the White Stem Borer(WSB) resulting in the death of several thousand Arabica plants impacting the overall coffee production in the country negatively.

Thankfully, the coffee prices have recovered during 2004-05 to reasonably comfortable levels, though the growers are yet to overcome the impact of the prolonged crisis.

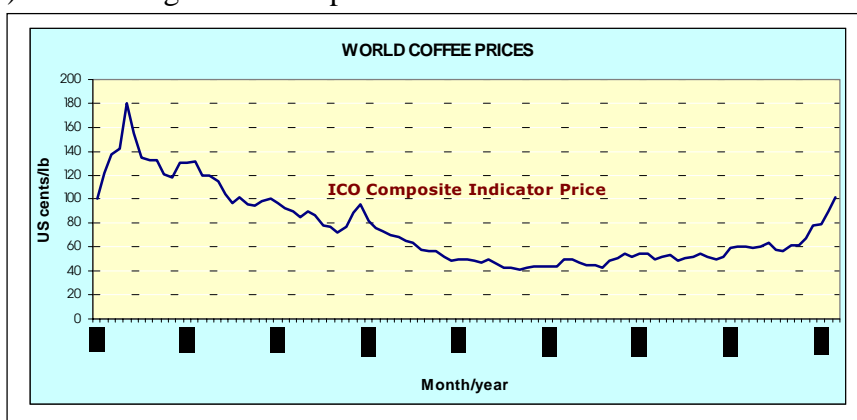
In spite of the serious set backs encountered, I am happy to note that, the Indian coffee grower community have shown great resilience and have managed to survive the crisis with adequate support from the Government of India and State Governments of the traditional coffee growing states. I am also proud to mention that, the Coffee Board played a vital role as a facilitator to bring together the various grower bodies, the banking sector, the Government and put in place various support measures for the sustenance of the coffee industry in the country.



International Market Outlook 2004-05:

The coffee prices showed an upward trend during the year 2004-05. The average of ICO composite indicator for the calendar year viz.2004 was 62.15 cents/lb compared to 51.91 cents/lb, during the previous calendar year viz.2003. In the financial year viz.2004-05 (April-March) the average ICO composite

indicator price was 69.72 cents/lb compared to 53.71 cents/lb in 2003-04. The New York Futures (Arabica) price had an average of 90.38 cents/lb in 2004-05 compared to 67.52 cents/lb during 2003-04. Like wise, the London futures (Robusta) had an average price of 34.09 cents/lb in 2004-05 compared to 33.49 cents/lb in 2003-04



In the domestic market, the ICTA average auction prices for Arabica (Plantation A) in 2004 was Rs. 72.16/kg compared to Rs.56.18/kg in 2003,an impressive increase of about 28%. Robusta(Cherry AB) prices also showed an increase in 2004 (Rs.34.94/kg) compared to 2003(Rs.33.58/kg)

The following tables, will enable for a comparative study of fall and rise of coffee prices in international and domestic markets during the past few years.

ICO composite indicator prices (Financial year averages) and averages of 2nd and 3rd position of New York and London Futures Markets

US Cents / lb

Financial year	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05
ICO Comp. Indicator	81.75	57.19	44.78	49.45	53.71	69.72
New York Futures (Arabica)	107.24	83.45	54.87	60.57	67.52	90.38
London Futures (Robusta)	57.64	35.18	21.66	30.07	33.49	34.09



**ICO composite indicator prices (calendar year averages) and averages of
2nd and 3rd position of New York and London Futures Markets**

US Cents / lb

Calendar Year	1999	2000	2001	2002	2003	2004	2005*
ICO Composite Indicator	85.72	64.25	45.60	47.74	51.91	62.15	90.06
New York Futures (Arabica)	106.48	94.58	58.86	57.02	65.00	79.85	117.80
London Futures (Robusta)	64.07	40.11	23.92	25.88	33.94	32.89	39.53

* Jan to March 2005

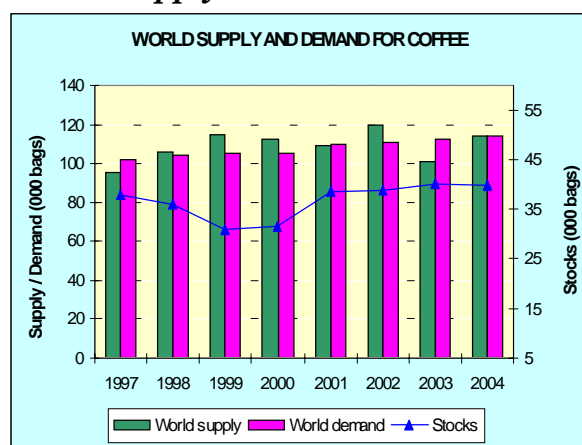
Auction Prices – Average prices secured in ICTA (Bangalore)

Rs./ Kg

Year	1999	2000	2001	2002	2003	2004	2005*
Plant. A	80.84	80.08	56.58	56.86	56.18	72.16	07.70
Rob.Chy.AB	60.10	39.92	29.36	28.80	33.58	34.94	45.00

*Jan to March 2005

Global Supply and Demand Balance:



The global production which was at a record level of 123.14 million bags in 2002 fell to 104.77 million bags in 2003 but recovered to 116.43 million bags in 2004, an increase of 11% over 2003. Global consumption went up from 113.08 million bags in 2003 to 115.00 million bags in 2004 showing an annual growth of about 2%.



Global Production/Consumption

(In Million bags)

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05 #
Production*	116.16	115.64	107.69	123.14	104.78	116.43
Consumption**	104.10	106.90	107.60	110.73	113.08	115.00
Exportable production	90.22	86.46	82.22	93.70	88.73	88.95

Source: ICO * Crop years ** Calendar year # Estimates

Volume and value of exports in calendar years

	1999	2000	2001	2002	2003	2004
Volume	85.42	89.00	90.35	88.45	85.86	90.70
Value	9.40	8.10	5.38	5.13	5.59	6.88

Source: ICO. Volume in Million Bags and Value in US \$ Billion.

India – Production and Exports:

Coffee production in 2004-05 was placed at 2,75,500 tonnes which was slightly more than the production in the previous year i.e 2003-04 (2,70,500 tonnes). In 2004-05, India exported 2,11,566 tonnes of coffee (including re-exports) with an earning of US\$ 268.23 million, which is around 2.4% higher than that of the previous year's earnings of around US \$ 262.03 million. In rupee terms, the realization in 2004-05 was around

Rs. 1,236.10 Crores which is around 7% higher than that of previous year which was at Rs. 1,158.45 crores .

The total export of 2,11,566 tonnes comprised 55,121 tonnes of Arabica (26%), 1,00,596 tonnes of Robusta (47%) and 55,849 tonnes of Instant coffee (27%) in Green Bean Equivalent. Italy (23%), Russian Federation (16%), Germany (8%), Spain (6%) shared 53% of India's total exports and the remaining 47% was shared by other 71 countries.

Export of specialty and Value added coffee (Qty in MT)

	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05**
Specialty coffee	4196.8	4096.5	4884.1	7289.4	8052.4	8967.0
Value added coffee*	33509.1	44129.3	43459.9	43418.8	44637.0	55941.0
Total	37705.9	48225.8	48344.0	50708.2	52689.4	64908.0

* Includes soluble/ roast + ground in green coffee equivalent

** Includes re-exports



International Coffee Organization:

The membership of International Coffee Organisation was 73 comprising 44 exporting and 29 importing countries. The USA which stayed away from the ICO decided to join the organization.

The re-entry of USA into ICO is also expected to alter the equation of the vote share because the USA being the largest coffee consuming country in the world will be entitled for larger share of votes. In such a scenario the USA may have a major say in the future ICO deliberations and decisions. The ICO also hopes that, more new members like China, Russia and Peru will join the organization in the future.

Issues confronting Indian Coffee Industry:

1. In spite of the Price recovery, the growers are yet to come out of the economic crisis faced by them in the last 4 – 5 years. The flare up of White Stem borer incidence in the majority of arabica coffee growing regions has led to the death of several thousands of yielding Arabica plants which had also impacted the productivity of Arabica plantations in the last 2 – 3 years and this impact will continue to be felt for next 4 years. The growers will also be compelled to take up the replanting to replace the WSB affected plants that would require considerable capital investments. Though, to motivate the growers the Board provided financial assistance for removal

and destruction of the WSB stages during the year, the level of WSB incidence continue to persist above pest level which is of serious concern.

2. The proposal of the Coffee Board to extend a comprehensive Relief Package to ease the debt burden of the coffee growers was sanctioned by the Government on 08.06.2005. The salient features of the proposed Relief Package are as under :
 - a. The total interest burden on SCTL during the 3 year moratorium period to be shared equally amongst the Banks, GOI and the grower loanees to the extent of 1/3rd each.
 - b. To request the Banks to reduce interest charged on SCTL from existing 11% to 9% or rate applicable to agricultural sector whichever is lower during the remaining repayment period of SCTL loans.
 - c. The Coffee Development Loans along with interest due from growers to the Coffee Board to be waived off.
 - d. To extend interest subsidy on working capital loans at the rate of 5% to small growers and 3% to large growers during the entire duration of X plan from out of Coffee Board Plan funds.

The special coffee package has provided considerable relief to the growers to recover from the economic difficulties to a large extent.



3. To survive and sustain in the prevailing price scenario, India need to position itself as producer of good quality coffees so as to fetch the desired premiums in the International markets. One of the limitations faced by the industry in this regard is the practice of growing mixed Arabica varieties. To improve the cup profile and quality attributes, there is an imperative need to grow homogeneous

varieties and the Board will focus its attention on this important aspect to provide the desired support to the industry in the days to come.

4. Further, we need to upgrade the technology in the value chain and promote domestic consumption, which only can provide stability to coffee industry in the long term.

November, 2005, Bangalore

G.V. KRISHNA RAU
Chairman, Coffee Board



CHAPTER – I

EXECUTIVE SUMMARY

Production :

- ❖ The production estimates for 2004-05 crop season was placed at 2,75,500 tonnes (4.6 Million bags) comprising 1,03,400 tonnes of Arabica and 1,72,100 tonnes of Robusta which represented a marginal increase of 5,000 tonnes from that of the previous year viz. 2003-04. Like in the previous year, there were constraints for sustenance of the production due to unfavourable weather conditions like untimely blossom and backing showers, prolonged drought period, increased incidence of White Stem Borer in Arabica plantations. Reduced inputs on account of financial constraints of the growers also contributed to stagnation of production.
- ❖ Karnataka being the largest coffee growing state in the country, topped in production with 1,98,600 tonnes (72%) followed by Kerala with 54,300 tonnes (19.7%) and Tamil Nadu with 18,300 tonnes (6.7%). The NTAs/NE Region made up the remaining 4,300 tonnes (1.6 %)

- ❖ The total area planted to coffee was around 3.55 lakh hectares, of which the total bearing area was around 3.28 lakh hectares
- ❖ The overall farm productivity during the year was 840 Kg/hectare which showed a slight improvement over the last year (825 Kg/ha).
- ❖ 1,75,475 of the holdings have less than 10 hectares each and account for 98% of the total holdings. Area wise, these small growers holdings are 2,40,662 hectares accounting for nearly 68% of the total area of 3,54,840 hectares. However, in terms of production, the small growers contributed to only around 60% of the total production. The production share of the country was around 4% of the World Production.

Exports:

- ❖ India's total exports including re-export during 2004-05 was 2,11,566 tonnes comprising 55,121 tonnes of Arabica, 1,00,596 tonnes of Robusta and 55,849 tonnes of instant coffee. Indian coffee was exported to 75 countries during the year.



- ❖ In value terms, the export earnings during 2004-05 was US \$ 268.23 million, which is around 2.4 % higher than that of the previous years earning of around US \$ 262.03 Million

Research:

- ❖ Twenty five accessions of arabica genotypes created by crossing various known sources of leaf rust resistance such as Sarchimor, HDT, S.4595 and S.881 with Cauvery/Catimor were established in the experimental plots at CCRI. Thirteen of these accessions recorded yield above 1000 Kg/hectares and several plants of these accessions were found to be free of rust.
- ❖ During the year, 3229 tissue culture plants of Cauvery, Sln.6, Sln.9, Bourbon and Coffea species and C x R were planted in different agro climatic conditions for evaluation.
- ❖ RAPD and ISSR markers specific to Coffea and Psilanthus were identified.
- ❖ The combined inoculation of Azospirillum+VAM+PSB increased the seedling vigour compared to uninoculated control at CCRI and CRSS Chettalli.
- ❖ Bio-composting results showed that faster reduction of C:N ratio in all the stages of composting was noticed in treatment receiving multimedia culture containing *Phanerocheate chryso sporium*, *Trichoderma viride*, *Pleurotus sajarcaju* and *Aspergillus awamori* followed by treatment receiving *Phanerocheate chryso sporium*.
- ❖ During the period, 9,942 soil samples have been analyzed for soil reaction, available P and K, organic carbon content and micronutrients for rendering lime and fertilizer recommendations to the growers. A total of 640 leaf samples and 716 agro-chemicals consisting of liming materials, fertilizers, organic manures and copper sulphate have been analyzed for the advisory purpose.
- ❖ The soil nutrient map for the Wayanad district of Kerala state was prepared and released during March 2005.
- ❖ In value terms, the export earnings during 2004-05 was US \$ 268.23 million, which is around 2.4% higher than that of the previous years earning of around US \$ 262.03 Million.
- ❖ The post blossom and pre-monsoon foliar application of 1.5% Gliricidia leaf extract and soil application of “SELEO” (a Biologically derived PGR) @ 400 grams per acre could increase the crop yield by 134 and 126 Kg/ha respectively over control.
- ❖ The ¹³C discrimination studies indicated better water use efficiency in Sln 3,9,1, 11, 7.3 and 4 (T) among the station-released selections.



- ❖ Among the rootstock vs. scion grafting combinations, the S.3311 x BR.12 (High WUE vs High Root types) and vice versa showed a significant improvement in total biomass, shoot to root ratio (SRR), root to shoot ratio (RSR) and cumulative water transpired (CWT) as rootstock and also as a scion graft combination.
 - ❖ Seven new parasitoids were collected from stem borer and four of them are found to be potential natural enemies. A few more parasitoids were collected and sent to CABI Bioscience for identification.
 - ❖ About 5,000 *Apenesia sp.* (parasitoid of white stem borer) were multiplied and 3,495 were supplied to growers from CCRI for release and on-farm multiplication. The parasitoid culture was provided to CRSS, Chettalli, RCRS, Thandigudi and Narasipatnam from CCRI for laboratory multiplication and field releases. At Chettalli 6,000 wasps were reared and 1,800 wasps were released.
 - ❖ In the biocontrol programme against berry borer, a total of 2,79,695 parasitoids were reared and 2,18,750 numbers were released in 165 estates.
 - ❖ A total of 2,850 Broca traps were supplied from RCRS, Chundale to growers in Wayanad. From CCRI, 2500 lures were supplied to growers in Chikmagalur and Hassan Districts. A new type of Broca trap has been developed.
 - ❖ Studies on bio-control of leaf rust using various microbial cultures were initiated
 - ❖ The study on quantification of effluent and pollution load indicated that the recycling of effluents could reduce water consumption and pollution load in effluent per tonne of coffee processed.
 - ❖ A total of 254 samples comprising of 23 trade samples, 28 farm survey samples and 203 experimental coffee samples were tested for Ochratoxin-A content.
- EXTENSION :**
- (a) Traditional areas:**
- ❖ Extension Officers of the Board visited 21,946 coffee farms during the year, conducted 4,842 field demonstrations on various coffee technologies, issued 2,154 advisory letters to the growers, held over 200 seminars/workshops to educate farmers on coffee cultivation aspects.
 - ❖ Established 45 Self Help Groups (SHGs) and 401 Mini Self Help Groups during the year for taking up production/quality enhancement activities through community approach.
 - ❖ The proposal of the Board to extend 5% and 3% interest subsidy on working capital loans for small and large growers respectively availed from financial institutions for the remaining period of X Plan has been incorporated as one of the components of the comprehensive coffee



package that has been submitted to the Government of India for approval.

- ❖ The Board implemented plan schemes viz. Support for Small Grower Sector wherein 25% subsidy for water augmentation, 20% subsidy for taking up quality up-gradation, re-plantation and pollution abatement was extended to small growers. During the year, an amount of Rs. 2.2 crores was disbursed to 1447 beneficiaries covering an area of 5355 hectares
- ❖ Through extension units of the Board, 3394 Kg. of seed coffee (comprising of 3315 Kg. of Arabica and 529 Kg of Robusta was distributed to growers for taking up infilling, new planting and replanting of coffee holdings.

(b) North East Region and Non-traditional areas:

(i) N.E Region:

- ❖ The Extension wing conducted 205 group gatherings, held over 500 method demonstrations on various coffee cultivation techniques and organized 6 'Farmers Participatory Method programs' during the year. A total quantity of 2169 Kg. of seed coffee comprising of 1807 Kg. of Arabica and 362 Kg. of Robusta was distributed to 509 growers and other agencies.
- ❖ Under the coffee development in North Eastern Region, subsidy was extended for

expansion and consolidation activities covering an area of over 1500 hectares benefitting 1610 growers.

- ❖ Under Market Support Scheme, 162 tonnes of coffee were procured and auctioned.

(ii) Non-traditional areas – Andhra Pradesh & Orissa :

- ❖ Over 5800 Kg. of seed coffee was distributed to the tribal growers and agencies of Andhra Pradesh and Orissa. Also 1.44 lakh coffee seedlings were raised through community and backyard nurseries with the financial assistance of Integrated Tribal Development Agency (ITDA) for which the technical assistance was provided by the Board.
- ❖ 1373 tribal workers and officials of State Govt/ITDA were imparted training on various coffee cultivation techniques.
- ❖ 28 Farmers Participatory Method workshops were organized in 10 coffee growing villages which benefited 292 tribal growers.
- ❖ Under the coffee development scheme in NTA, financial incentives were extended to 1497 growers involving an amount of Rs. 52 .7 lakhs.



PROMOTION:

- ❖ The Board participated in 10 overseas trade fairs to promote Indian coffee during the year in countries viz. USA, Italy, Australia, China, Russia, Singapore, Spain, Greece and Japan.
- ❖ The Board carried out communication initiatives in key markets to promote awareness about Indian coffee by engaging the services of a Direct Market Service firm.
- ❖ The Board participated in 11 internal exhibitions during the year in locations such as Coonoor, Kolkatta, Jaipur, New Delhi, Chandigarh, Quilon, Bangalore, Kalpetta and Siliguri.
- ❖ The Indian Coffee magazine of the Board was released in 4 languages viz. English, Kannada, Tamil & Malayalam during the year. In the English edition of the magazine, a Hindi language section was also incorporated.
- ❖ Coffee Year Book 2005 carrying valuable information on the Indian Coffee industry was brought out.
- ❖ 3 Indian Coffee Depots and 10 Indian Coffee Houses located in various places of the country supplied pure coffee powder and liquid coffees to the domestic consumers.
- ❖ Periodic meetings were held with exporters' to discuss the developments

concerning exports during the year. The best coffee exporters in the country were awarded.

MARKET INTELLIGENCE:

- ❖ Market Intelligence unit continued to provide daily market information on price, supply, demand and other fundamental and technical factors required for market analysis to the various segments of the industry and also to the Government.
- ❖ Carried out crop forecasting exercise for the year 2004-05 and brought out crop estimates from time to time.
- ❖ Coordinated the implementation of Price Stabilization Fund by the Government.
- ❖ Coordinated the study of Logistics and Cost Competitiveness of coffee exporting countries under MAI scheme of the Government of India.

QUALITY:

- ❖ A total of 1075 coffee samples received from various segments of the industry were evaluated for visual and cupping quality parameters and the Quality Evaluation Reports were sent along with advisory note.
- ❖ The third batch of Post Graduate Diploma in Coffee Quality Management comprising of seven students successfully completed the course in May 2004. The admission for the fourth batch of students was completed and a total of six students were selected for the course.



- ❖ A total of 159 personnel were trained on coffee roasting and brewing methods in the 12 Kaapi Sastra training programme organized in different cities of India.
- ❖ The third edition of “Flavour of India – The Find Cup Award Cupping Competition – 2004” was organized and the final was held in Trieste, Italy and the best coffees were adjudged by an International Jury.
- ❖ During the year, three quality laboratories were inspected and accredited for a period of three years.
- ❖ Brought out a booklet on “Guidelines for Washed Robusta”.
- ❖ A socio economic survey was conducted under FAO project viz. Enhancement of Coffee Quality through Prevention of Mould Formation to assess the socio economic impact by adopting recommended practices at estate level.
- ❖ A total of 54 coffee samples were analysed for caffeine and 100 samples were analysed for bean density and weight parameters comprising various grades of different coffee growing regions.
- ❖ A total of 54 moisture meters belonging to the Board as well as the industry were calibrated.

ADMINISTRATION:

- ❖ During the year, 3 Board meetings, 3 meetings each of Executive Committee, Marketing Committee, Quality Committee, 4 meetings each of Research

Committee and Audit committee, 2 meetings of Propaganda Committee and one meeting each of Development Committee and Regional Committee were held.

- ❖ As on 31.3.2005, the present staff strength of the Board was 1065 employees comprising 83 Group ‘A’ officers, 81 Group ‘B’ Officers, 577 Group ‘C’ officials and 324 Group ‘D’ officials.
- ❖ Towards labour welfare, a sum of Rs. 38,83,279/- was distributed to the children of the workers in coffee farms and curing establishments as educational stipends, meritorious awards and donations for purchase of furniture, books, laboratory equipments and minor construction etc for the schools situated in the coffee plantation areas.
- ❖ A sum of Rs. 29,73,355/- was granted to the employees towards House Building Advance during the year. The Board also granted Conveyance Purchase advance to the tune of Rs.4,06,250/- during the period.

ACCOUNTS & FINANCE:

- ❖ The Board had a Plan Fund allocation of Rs. 50 crores for 2004-05 comprising a Grant of Rs. 30.70 Crores and Subsidy of Rs. 19.30 Crores (including NER allocation). The Non-plan allocation of the Board was Rs. 13.00 Crores for the year. A sum of Rs.28.10 Crores was utilised under Plan grant and Rs. 8.91 Crores was utilised under subsidy during the year. In the Non-plan the entire allocation of Rs. 13 Crores was utilised.



CHAPTER – II

CONSTITUTION AND FUNCTIONS OF THE BOARD

Coffee Board is a statutory organisation under the control of Ministry of Commerce, Govt. of India, constituted through an Act of Parliament (1942).

The Board consists of a Chairman appointed by the Central Government and 32

Members representing the various interests as provided under Section 4(2) of the Coffee Act read with Rule 3 of the Coffee Rules, 1955. The distribution of Members of the Board among the several interests is as under:

1	Chairman: (Appointed by the Government but does not represent any particular interest)	1
2	Members of Parliament (Lok Sabha – 2; Rajya Sabha – 1)	3
3	Representatives of Governments of principal coffee growing States viz., Karnataka, Kerala, Tamilnadu and Andhra Pradesh (one each)	4
4	Representatives of Governments of coffee growing States other than principal coffee growing States	2
5	Representatives of large coffee growers	3
6	Representatives of small coffee growers	7
7	Representatives of coffee trade interests	3
8	Representatives of coffee curing establishments	2
9	Representatives of labour interests	4
10	Representatives of consumers interests	2
11	Representatives of instant coffee manufacturers	1
12	Representative of an eminent personality in the field of research/marketing/management/promotion of coffee	1
TOTAL:		33

The Board was last reconstituted on 23-04-2003 for a period of three years.



MEMBERS OF THE BOARD DURING THE YEAR 2004-05

Ms. Lakshmi Venkatachalam, IAS was the Chairman of the Board during the period from 01.04.2004 to 31.03.2005 & Ex-officio Chairman of the Committees.

I Members of Parliament (2) from Lok Sabha and 1 from (Rajya Sabha) appointed under Rule 3 (1) of the Coffee Rules 1955	
01 Shri D.V. Sadananda Gowda, Member of Lok Sabha.	02 Shri K.C. Palanisamy, Member of Lok Sabha
03. Mrs. Prema Cariappa, Member of Rajya Sabha	
II Representatives of Governments of principal coffee growing States appointed under Rule 3 (2) (a) of the Coffee Rules 1955	
04. Shri. N.C. Muniyappa, IAS (Up to 29.11.2004) Shri Shantanu Consul, IAS (from 30.11.2004)Principal Secretary, Agriculture & Horticulture Dept. Govt. of Karnataka	05 Shri C. Ramachandran, IAS Agricultural Production Commissioner, Department of Agriculture Govt. of Kerala
06. Dr.R.Kannan, IAS (upto 20.6.2004) Shri. P. Bhaskaradoss, IAS (from 21.06.2004) Agricultural Production Commissioner & Secretary, Agriculture Dept. Govt. of Tamilnadu	07 Dr. V.P. Jauhari, IAS (Upto 16.8.2004) Shri Bir Singh Parsheera, IAS (from 17.8.2004) Agricultural Production Commissioner and Principal Secretary, Agriculture & Co-operation Dept. Govt. of Andhra Pradesh
III Representatives of Large Coffee Growers appointed under Rule 3 (2) (b) of the Coffee Rules 1955	
08 Shri. K.R. Keshava, Mudigere Taluk, Chikmagalur District. Karnataka	09 Shri K.B. Chandru, Sakleshpur Taluk, Hassan District Karnataka
10 Shri S.K. Soundarapandian, Dindigul District, Tamil Nadu.	



IV Representatives of Small Coffee Growers appointed under Rule 3 (2) (b) of the Coffee Rules 1955			
11	Shri. K.V. Manjunath Kodagu District, Karnataka	12	Shri. B.D. Manjunath Kodagu District Karnataka
13	Shri H. P. Jagadeesha, Alur Taluk, Hassan District, Karnataka.	14	Shri A.S. Divakar Chikmagalur District, Karnataka
15	Shri P.C. Mohanan Master, Wayanad District, Kerala.	16	Shri Kurusa Bojjaiiah, Vishakhapatnam District Andhra Pradesh
17	Shri Annamalai R. Murugesan, Nilgiris District, Tamilnadu		
V. Representatives of Coffee Trade interests appointed under Rule 3 (2) (c) of the Coffee Rules 1955			
18.	Shri Mohamed Hamid Ashraff M.D., M/s. Tata Coffee Ltd., Bangalore	19	Shri Gautam Sircar, M/s. Hindustan Lever Ltd. Bangalore
20.	Shri D.K. Udayashankar, Mudigere, Chikmagalur District Karnataka		
VI. Representatives of Curing Establishments appointed under Rule 3 (2) (c) of the Coffee Rules 1955			
21.	Shri C.P. Jemcy Ponnappa, ITHC - Kushalnagar, Kodagu District, Karnataka	22	Shri Kumar J. Pandian M/s. Pandian Coffee Curing Works (P) Ltd., Theni Dist, Tamilnadu.
VII Representatives of Labour interests appointed under Rule 3 (2) (c) of the Coffee Rules 1955			
23.	Shri K. Gunasekaran, General Secretary – AITUC United Plantation Workers Union, Chikmagalur, Karnatata	24	Shri Umesh Chandra Mangalore, Karnataka
25.	Shri K.A. Asokan, Wayanad District, Kerala	26.	Shri V.K. Raju General Secretary, Nilgiris District Estate Workers Union, Coonoor, Nilgiris District, Tamilnadu



VIII Representatives of Coffee Growing States other than principal coffee growing States appointed under Rule 3 (2) (c) of the Coffee Rules 1955

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|----|---|----|--|
| 27 | Shri Kumar Arka Keshari Deo
Kalahandi District
Orissa State | 28 | Shri N. Balachandran, IAS
Secretary, Govt. of Mizoram
Dept. of Soil & Water Conservation,
Aizwal, Mizoram |
|----|---|----|--|

IX. Representatives of Consumers' interests appointed under Rule 3 (2) (c) of the Coffee Rules 1955

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|-----|---|----|---|
| 29. | Shri Ravi S. Deol
Managing Director,
M/s. Barista Coffee Co. Limited
New Delhi –110 016. | 30 | Ms. K.S.Sowmya (Soundarya)
Expired on 17.04.2004
(Since then vacant) |
|-----|---|----|---|

X. Representatives of Instant coffee manufacturers appointed under Rule 3 (2) (c) of the Coffee Rules 1955

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| 31 | Shri. Ranjit Raj,
Executive Vice President,
M/s. Nestle India Limited,
Gurgaon, Haryana |
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XI Eminent Personality - appointed under Rule 3 (2) (c) of the Coffee Rules 1955

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| 32 | Dr. Premnath Punja
Glenmore Estate, Madikeri
Kodagu District,
Karnataka |
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MISSION

To function as the leader in conducting Research and providing Extension support to improve production, productivity and quality in undertaking promotional efforts to boost exports and domestic consumption, gathering statistical and other relevant data concerning the industry and disseminating the information to various segments of the industry; to act as the recognized spokesperson on behalf of the

coffee industry to the Government, media, trade and general public; and to guide the overall growth and development of the coffee industry in the country.

Represent the Indian coffee industry in the International Coffee forums viz. International Coffee Organisation, International Coffee Science Organisations, Specialty Coffee Associations and work with them for the benefit of coffee industry.



OBJECTIVES

- Carryout focused research on coffee to develop suitable coffee varieties and package of practices to achieve improved production, productivity and quality.
- Undertake transfer of technology from lab to land through the extension net work spread all over the country.
- Implement development plan programs like replanting, new planting and quality up-gradation.
- Carryout export promotion activities like participation in overseas trade fairs, organising visit of roaster delegations to Indian coffee tracts and cupping sessions.
- Take up domestic promotion efforts involving the private sector to expand domestic consumption.
- Establish and develop database on all aspects of the industry.
- Dissemination of market information on a regular basis to various segments of the industry.
- To give policy formulation advice to Government and the Self regulated industry.
- Provide necessary support to the Planters in crisis and carryout necessary labour welfare measures.
- Conducting training programmes which aims to develop and provide qualified cup tasters to various segments of the Industry.
- Carrying out necessary steps for the improvement of coffee quality.

STATUTORY COMMITTEES

The Board functions through its six Statutory Committees (appointed for a term of one year each). The Committees and its functions as per the Act are :

Executive Committee

- Discharge any other functions of the Board in regard to matters not specifically assigned to the Propaganda, Marketing, Research or any other committees constituted by the Board.

Propaganda Committee

- Discharge all functions of the Board in regard to such measures as may be undertaken for promoting the sale and increasing the consumption in India and elsewhere of coffee produced in India.

Marketing Committee

- Discharge all the functions of the Board in regard to the coffee marketing scheme as set for in the Act and Rules.

Research Committee

- Discharge all functions of the Board in regard to the promotion of agricultural and technological research in the interest of the coffee industry in India.

Development Committee

- Discharge all functions of the Board in regard to measures that may be undertaken for the development of small holdings of coffee estates.

Quality Committee

- Discharge all the functions of the Board in regard to the improvement in the quality of the coffee produced in India.



NON-STATUTORY COMMITTEES

The Board also appoints non-statutory committees viz., Regional Committee and Audit Committee for the following purposes:-

Regional Committee

- To provide the following benefits to the children/dependents of labourers working in coffee estates and in coffee curing establishments
- Grant educational stipends for those who have taken up higher studies after SSLC i.e. Polytechnic/Vocational Training/ PUC/Degree courses
- Provide meritorious awards to those who have secured First Class in SSLC/ Equivalent Metric examinations.
- Grant financial aid to the female children who have been dropped out in 7th standard to continue their studies.

- Grant donations to the educational institutions in coffee growing regions for construction of class rooms, purchase of furniture, laboratory equipments, library books and sports items.

- The Regional Committee comprises of the Chairman of the Board as Ex-officio Chairman, grower members and labour members from traditional and non-traditional coffee growing areas.

Audit Committee

- To look into the matters relating to Annual Accounts and to study the status of audit objection on the accounts
- The Audit Committee of the Board comprises Chairman of the Board and three other members of the Board.

The Coffee Board convened the following Board and Statutory Committee meetings during the period from 01-04-2004 to 31-03-2005.

- | | |
|--|--|
| a) Board Meetings: <ol style="list-style-type: none">1. 173rd meeting on 28-05-20042. 174th meeting on 06-12-20043. 175th meeting on 30-03-2005 | 2. 136 th meeting on 28-08-2004 |
| (b) Executive Committee Meetings: <ol style="list-style-type: none">1. 161st meeting on 16-04-20042. 162nd meeting on 29-10-20043. 163rd meeting on 24-02-2005 | 3. 137 th meeting on 07-12-2004 |
| (c) Propaganda Committee Meetings: <ol style="list-style-type: none">1. 147th meeting on 15-07-20042. 148th meeting on 14-02-2005 | 4. 138 th meeting on 14-02-2005 |
| (d) Marketing Committee Meetings: <ol style="list-style-type: none">1. 293rd meeting on 28-05-20042. 294th meeting on 29-10-20043. 295th meeting on 30-03-2005 | (f) Development Committee Meetings: <ol style="list-style-type: none">1. 76th meeting on 20-08-2004 |
| (e) Research Committee Meetings <ol style="list-style-type: none">1. 135th meeting on 03-05-2004 | (g) Quality Committee Meetings: <ol style="list-style-type: none">1. 83rd meeting on 15-07-20042. 84th meeting on 06-12-20043. 85th meeting on 30-03-2005 |
| | (h) Regional Committee Meetings: <ol style="list-style-type: none">1. Meeting held on 15-02-2005 |
| | (i) Audit Committee Meetings: <ol style="list-style-type: none">1. Meeting held on 16-04-20042. Meeting held on 15-07-20043. Meeting held on 16-12-20044. Meeting held on 15-02-2005 |



CHAPTER – III

ADMINISTRATION & ESTABLISHMENT

The Coffee Board (known as the Indian Coffee Market Expansion Board, till 1948) is the lineal successor of the Indian Coffee Cess Committee, the First Statutory All India Organization of the Indian Coffee Industry, constituted by the Central Government, in response to the unanimous request of all the coffee interests for an organization and funds of their own for the improvement of the industry. The Coffee Board is a corporate body under the Coffee Act of 1942 (Act of 1942) having perpetual succession and a common seal, with powers to acquire and hold property, to contract and to sue and to be sued.

CHAIRMAN

Ms. Lakshmi Venkatachalam, IAS was the Chairman during the period from 01.04.2004 to 31.03.2005

HEADS OF DEPARTMENTS

The Heads of Departments mentioned hereunder continued to hold the posts shown against their names during the year under review.

1. Shri. Jayanarasimha Raj, I.F.S., Secretary (Assumed charge on 31.01.2005)
2. Smt. Shankari Murali, ICAS., Director of Finance (Also held the Addl. Charge of Secretary from 01.04.2004 to 30.01.2005)
3. Shri. A.Shahjahan, Director of Promotion
4. Dr. R. Naidu, Director of Research (Retired on 30.06.2004)
Dr. Jayarama, Director of Research (Assumed charge on 31.01.2005)

The responsibilities assigned to each department including its wings are:

1. SECRETARIAT DEPARTMENT:

The Secretariat Department deals with the entire staff related matters and office establishment matters. It also deals with convening of meetings of the Board and the statutory committees, administration of funds allocated under Labour Welfare Measures for the benefit of children of plantation labourers and allocation of funds for construction/maintenance of hospitals in plantation areas etc.



The following are the wings of the Secretariat Department

- (a) Administration wing (b) Official Language Wing (c) Legal Cell (d) Engineering Division (e) Vigilance Division

2. RESEARCH DEPARTMENT :

The Research Department undertakes research in plant breeding, cultural operations and rendering advisory services to the planting community. The personnel in the Research Department mainly comprise of scientific officers in the respective disciplines.

Analytical Lab and Quality Divisions are the other wings of Research Department

3. EXTENSION AND DEVELOPMENT DEPARTMENT:

The Extension Department anchored between the Research fraternity and the coffee growers focused on transfer of coffee technologies standardised by the research scientists to the growers for achieving improved levels of production / productivity and also to enhance quality of coffee in line with the objectives envisaged in the Plan for Coffee development. It also renders assistance to planters in the various facets of coffee cultivation.

4. PROMOTION DEPARTMENT:

The Promotion Department of the Coffee Board promotes the consumption of coffee in India and abroad through various measures.

The following are the wings of Promotion Department. (a) Market Promotion section (b) Indian Coffee Section

5. EXPORTS & MARKETING:

The Board performs the role of a facilitator to the coffee Industry in respect of export promotion.

The following are the wings of the Marketing Department. (a) Exports Section (b) General Section (c) Market Intelligence Unit

6. ACCOUNTS & FINANCE:

The Accounts Department is in charge of administration / allocation of funds of the Board:

The wings of Accounts and Finance Department are (a) Plan Fund Accounts (b) Non Plan Fund Accounts (c) Budget Section (d) Internal Audit Party (e). Development Accounts (f) Pension Section (g) Pool Fund Accounts.

Employee welfare measures:

(a) House Building Advance:

In accordance with Rule 31 (4A) of Coffee Rules 1955, the Board has granted House Building Advances to its employees to the tune of Rs. 29,73,355/- during the period under report.

(b) Conveyance Purchase Advance:

In accordance with Rule 31 (4B) of Coffee Rules 1955, the Board has granted Conveyance Purchase Advances to its employees to the tune of Rs.7,61,480/- during the period under report.



(c) Computer purchase Advance:

In accordance with Rule 31 (4B) of Coffee Rules 1955, the Board has granted personal computer advances to its employees to the tune of Rs.4,06,250/- during the period under report.

belonging to Group 'A', 'B', 'C' and 'D' cadres were on the roll as GSLI members.

Cadre wise details of members under the GSLI scheme along with the details of claims settled under the Scheme on account of retirements / resignations/ dismissals / Voluntary Retirements etc. are furnished hereunder.

(d) Group Savings Linked Insurance Scheme:

As many as 1033 employees of the Board

Sl.No.	Total Members		Claims during the period	
	Group	No. of employees	No. of claims	Amount settled (in Rs.)
1.	'A'	78	01	1,55,385/-
2.	'B'	114*	05	1,35,668/-
3.	'C'	524	03	14,821/-
4.	'D'	317	04	40,461/-
	TOTAL	1033	13	3,46,335/-

* includes 44 Group "B" (Non-Gazetted) officials

Total Staff Strength of Coffee Board as on 31.03.2005

The staff strength (group wise) of the Board along with details of Scheduled Caste / Scheduled Tribe and female staff and their Percentages to that of total staff strength are as follows.

Sl. No.	TOTAL		SC/ST				FEMALE	
	Group	No. of Employees	SC	ST	% to Total		No.	% to total
					SC	ST		
1.	'A'	83	10	2	12.04	2.40	8	9.63
2.	'B'	81	20	8	24.69	9.87	8	9.87
3.	'C'	577	100	34	17.33	5.89	97	16.81
4.	'D'	324	62	12	19.13	3.70	30	9.25
	TOTAL	1065	192	56	18.02	5.25	143	13.42



Details Regarding Recruitment of Physically Handicapped Persons :

No direct recruitments were made in the Ministerial cadre during the year 2004-2005 due to austerity measures. Hence, physically handicapped persons also could not be recruited during the year.

The details of physically handicapped officials working in the Board (cadre-wise) along with percentage to total are as under :

Sl.No.	Cadre	Total	Group	Physically Handicapped officials		Physically Handicapped Officials Category wise		
				No.	% to total	UR	SC	ST
1.	HEAD CLERK		'C'	3		3	-	-
2.	SENIOR CLERK		'C'	7		6	1	-
3.	JUNIOR CLERK		'C'	1		1	-	-
	Total for Gr. C	577		11	1.90			
4.	GROUP 'D'	324		2	0.61	2	-	-
	TOTAL			13		12	1	-

Labour Welfare Measures:

In order to implement the scheme of Labour Welfare Measures to the children of labourers employed in coffee plantations / estates and coffee curing establishments, the Coffee Board granted a sum of Rs.38,83,279/- for the year 2004-2005 towards educational stipends, Meritorious Awards/ Donations for purchase of furniture, books, laboratory equipments and minor constructions etc. for the schools situated in coffee plantation areas.

Amount disbursed towards Educational Stipends / Meritorious Awards, Financial Aids & Donations are as detailed below:

Sl.No.	Particulars	No.of beneficiaries	Amount (in Rs.)
1.	Educational Stipends	1098	13,17,600/-
2.	Meritorious Awards	760	11,40,000/-
3.	Financial Aid	01	1,000/-
4.	Donations	79	14,24,679/-
	TOTAL:	1938	38,83,279/-



OFFICIAL LANGUAGE WING

The Official Language Wing of the Board, with its existing staff continued to work as per the instructions issued by the Department of Official language, Ministry of Home Affairs. Different targets are prescribed for Region A, B & C in the Annual Programme issued by the Department of Official language. Since, Coffee Board is situated in Region C, the Official language Wing has made all efforts to achieve the targets fixed for Region C in the Annual Programme 2004- 05.

A part-time Centre of Hindi Teaching Scheme is functioning at Central Coffee Research Institute, Chikmagalur District where the classes are held for the officials and officers working in sub-offices of the Board situated at CCRI, Chikmagalur and surrounding places .

The Official Language Wing has made all correspondence with the Ministry and offices situated in Region 'A' and 'B' in prescribed bilingual form. Further, letters received in Hindi are replied to in Hindi. The daily report regarding the coffee prices are sent bilingually.

The incentive scheme was reintroduced to encourage officers/officials to do original work in Hindi and as per the scheme, persons who write 1000-5000 words in Hindi in their routine official correspondence, files etc., were granted Rs.100/- to Rs.500/- and stenos/typists who type 150 pages in Hindi were granted Rs.500/-.

The inter-organisational speech competition for the rolling shield, instituted by the Board in commemoration of the 50th year of Independence was organised on 11th August 2004 in which 32 persons from different organisations participated

In order to complete Hindi training by 2004 departmental arrangements were made in the Head Office, Bangalore to train all the remaining officers/officials who had not attended any Hindi training. 16 no. of officials underwent training under the present set up and possess working knowledge of Hindi.

Hindi Day was celebrated on 14th September 2004 and the previous fortnight as Hindi fortnight. Various competitions in Hindi were conducted and prizes were distributed to winners on Hindi Day.

Board actively participated in the Joint Hindi Day celebrations under the auspices of Town Official Language Implementation Committee.

Hindi books worth Rs.31,696 were purchased and kept in the Central Library for usage of Board's officers and officials. Software Prabodh, Praveen and Pragya Leela have been provided to facilitate the officers/officials to learn Hindi through computers.

The in house magazine viz., 'SURABHI' is being published regularly. Providing translation of one article for Board's monthly magazine Indian Coffee was continued.



Indian Coffee”, the quarterly coffee newsletter in Hindi is brought out regularly.

Official Language Implementation Committee meetings of the Board were held in every quarter and Hindi workshops were organised regularly.

VIGILANCE DIVISION

The Vigilance Division Discharges the following functions:-

1. Receiving complaints and taking action thereof
2. Verification of Character and antecedent of persons recruited to the Group A and B posts in the Board.
3. Processing application seeking permission for acquiring moveable/immoveable Property and scrutinizing the annual moveable/immoveable property returns pertaining to Group A & B Officers.
4. Preparation of Monthly/Quarterly returns to be sent to the Ministry and Central Vigilance Commission.

There were 8 vigilance cases at the beginning of 2004-05 and 2 new cases were received during the year. Out of total number of 10 cases, one case was settled during the period and the remaining 9 cases were pending for disposal by the end of the period.

The Vigilance Division has observed Vigilance Awareness week in all Offices of the Coffee Board, through out the country from 3rd November 2004 to 8th November 2004

LEGAL CELL (SECRETARIAT DEPARTMENT)

The Legal cell co-ordinates with the work connected with various court matters/litigations pending before Labour, Civil and High Courts of different states where Coffee Board as a Corporate Body is made party to the litigations. The following are the major categories of the cases filed against or by the Coffee Board.

The court matters / litigations viz. (1) 50 cases pertaining to Service Matters of employees / ex-employees of the Board (2) 11 cases pertaining to Marketing Department of the Board and (3) 49 cases pertaining to Purchase Tax were dealt by the cell during the period.

Legal Cell also attends to the works relating to amendment to Coffee Act/Rules, RTI Act and all service rules etc.,

ENGINEERING DIVISION

The Coffee Board owns Office buildings at Bangalore, Mysore, Chennai and also owns Residential flats at Bangalore, New Delhi, Hassan. Besides this, the Coffee Board is also having the Research Station and Residential quarters at Central Coffee Research Institute at Chikmagalur District; Coffee Research Sub Station at Chettalli (Near Madikeri) in Karnataka; Regional Coffee Research Station at Chundale in Kerala; Thandigudi in Tamil Nadu; R.V.Nagar in Andhra Pradesh; Diphu in Assam and Coffee Demonstration Farms



maintained by the Extension Department in the States of Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, Orissa and North Eastern Region of India viz., Assam, Arunachal Pradesh, Tripura, Mizoram and Nagaland.

The Engineering Division takes up the

works of Maintenance and also Construction of buildings and Infrastructure required and Liaisoning with the State / Central Public Works Department in respect of the works entrusted to the State / Central PWD under deposit works.

The details of the work carried out during the year 2004 – 2005 are as under:

Sl. No.	Particulars	Amount
1	Total expenditure incurred towards the capital and Outlay on Civil works / Electrical works, Deposit Contribution works taken up under Plan fund for the Financial year.	Rs.4,08,79,933.00
2.	Total expenditure incurred for the minor Civil /Electrical works under maintenance of buildings, payments of the Telephone bills, Water Supply and Sewerage bills, Electricity bills and Property tax paid to Bangalore Mahanagara Palike under Non Plan maintenance of buildings	Rs. 53,89,481.00
	TOTAL :	Rs. 4,62,69,414.00



CHAPTER - IV

COFFEE RESEARCH

Following the two consecutive years of low rainfall period of 2002 and 2003, the year 2004 recorded normal rainfall. The low price scenario coupled with severe drought during 2003-04 and high incidence of White stem borer resulted in low crop during 2004-05. The CCRI has advocated the measures for improving the crop production with effective eco-friendly measures to control the pest and disease incidences. The Institute encouraged the replanting and gap filling programmes by supplying large quantity of quality seeds and the plant materials suitable for the various agro-climatic conditions as a measure to improve the productivity of plantations on long term basis by replacing the old plant materials with improved location specific promising materials and also by filling the existing vacancies. For the first time, 20th International Conference on Coffee Science (ASIC (Association Scientifique Internationale du Café) 2004) was organized in India with the scientists' participation from 20 countries on various subjects such as Agronomy, Biotechnology, Pest and Diseases, Coffee Post-harvest Processing, Chemistry and Coffee & Human Health.

Plant improvement programme concentrated on breeding for durable resistance to leaf rust, evaluation of Villasarchi X Hde T hybrid (Sarchimor), Colombian Catimor crossed with Station bred selections, Sln.5B etc., revitalization of existing germplasm, characterization of coffee germplasm and maintenance of seed plots. The plant material S.4595 (Sln.11 X HdeT) continued to perform well for the consecutive six years. The Division of Tissue Culture and Biotechnology focused their studies on developing DNA application protocol for developing Markers in coffee; *Agrobacterium tumefaciens* mediated genetic transformation protocol; molecular biology of disease resistance; genetic diversity of white stem borer, multiplication of selected clones through somatic embryogenesis and field evaluation etc.

The Crop Management programmes comprising of Agronomy, Soil Science and Plant Physiology pursued their studies on Agro techniques, production of Organic coffee, rendering advisory services for integrated nutrient management, stress physiology,



production physiology, physiological efficiency and seed physiology.

The programme on Plant Protection comprising of Disease and Pest management attempted integrated management of coffee leaf rust inclusive of bio-control approaches and to develop better IPM (Integrated Pest Management) strategies both for white stem borer and coffee berry borer.

The Division of Post Harvest Technology conducted studies on post harvest practices, processing and evaluation of farm machinery, mycotoxin contamination in coffee and abatement of pollution arising out of wet processing of coffee.

The Training Center at CCRI organized the training programme for the second trimester of PG Diploma in coffee quality evaluation course, one day training programme on 'Apenesia' and Honeybee culture. The Farmers Participatory Research (FPR) programme was continued under the guidance of Prof. Jayaraj, Consultant during the year to achieve the goals envisaged. All the Regional Stations have concentrated in evolving the packages for the identified specific regional problems. During the year, two collaborative studies were initiated and implemented in the areas of pollution abatement and management of coffee white stem borer involving Agricultural Universities from Bangalore and Tamilnadu. Four scientists were awarded Ph.D. degree for their thesis on Coffee pertaining to nutrition, stress physiology and pests aspects.

It is hoped that the results obtained so far in the X Plan period would help in the development of sound package aimed at cost reduction and coffee quality improvement in coffee.

PLANT IMPROVEMENT

BOTANY:

- Twenty five accessions of arabica genotypes created by crossing various known sources of leaf rust resistance such as Sarchimor, HdeT, S.4595 and S. 881 with Cauvery/Catimor were established in the experimental plots at CCRI. Thirteen of these accessions recorded yield above 1000 kg/ha and several plants of these accessions are also free of rust. A few plants in each of these accessions are marked for clonal propagation and field evaluation.
- Revitalization of available germplasm commenced in the year 2003 and is continuing. In the current year 75 Ethiopian Arabicas, 70 Arabica world collections, 9 indigenous genotypes and 9 species and 5 genotypes of Robusta were planted in the compact gene bank block.
- Morphological data on the Ethiopian, Abyssinian Arabica genotypes and 12 Arabica selections have been completely assembled in the IPGRI format for the development of a catalogue of germplasm.
- **Seed plots of Sln.5B, Sln.6, Sln.9 and Sarchimor at CCRI, Cauvery and Sln.9 at CDF, Mudigere, Sln.5B, Sln.6 and**



S.795 at CRSS, Chettalli and Sln.10 at CDF, Chikmagalur were visited from time to time to take up seed plot purification steps such as identification and removal of off type plants and irrigation of seed plots.

- A total of about 2700 kg seed of various arabica selections and over 700 kg of robusta selections, including a few promising newer genotypes was distributed from the various Research Stations in the traditional areas and 3600 kg was distributed from those in NTAs. About 4000 clones of CxR were also distributed.

TISSUE CULTURE AND BIOTECHNOLOGY:

- Multiplication of selected coffee clones through somatic embryogenesis was continued. During the year, 3229 tissue culture plants of Cauvery, Sln.6, Sln.9, Bourbon and Coffea species and CxR were planted in the field in different agro climatic conditions for evaluation.
- Experiments to optimise DNA isolation indicated that two step methods yielded higher quantities of DNA per gram of tissue.
- RAPD and ISSR markers specific to Coffea and Psilanthus were identified.
- Experiments were initiated to isolate resistance gene analogues (RGAs) from coffee genotypes.
- Genetic diversity studies were initiated on the coffee white stem borer, *Xylotrechus quadripes* and the mould *Aspergillus ochraceus*.
- Agrobacterium mediated transformation experiments were conducted on coffee genotypes S.4634, Kents, Bourbon, Mundo Novo and Cauvery.

CROP MANAGEMENT

AGRONOMY:

- Under varietal cum spacing cum topping trial, yield of clean coffee was significantly higher in S-4634 with single tier (1957 kg cc/ha) and in general, S-4634 has performed better than Cauvery.
- Dimension of nursery poly bags have influence on vigour of coffee seedlings, as the seedling growth and vigour were better in bigger poly bags compared to normal poly bag.
- The combined inoculation of *Azospirillum*+ VAM+PSB increased the seedling vigour compared to uninoculated control at CCRI and CRSS,Chettalli.
- The yield (963.2 kg cc/ha) was high in micro-sprinkler irrigated block as against un-irrigated block (494.5 kg cc/ha) of robusta coffee.
- Bio-composting results showed that faster



reduction of C:N ratio in all the stages of composting was noticed in treatment receiving multimedia culture containing *Phanerocheate chrysosporium*, *Trichoderma viride* *Pleurotus sajarcaju* and *Aspergillus awamori* followed by treatment receiving *Phanerocheate chrysosporium*.

- Cow pea, horse gram, green gram, daincha and sun hemp were sown in all FPR estates and dry matter, weed suppression and nutrient contribution were worked out. Cow pea, horse gram performed better than rest of green manure crops.
- The survey on organic coffee cultivation among the coffee growing areas indicated the largest area is in Tamilnadu (908 hectares) followed by Kerala (904 hectares) and Karnataka (575 hectare), constituting 565 number of holdings in all regions.

CHEMISTRY:

- During the period, 9942 soil samples have been analyzed for soil reaction, available P and K, organic carbon content and micronutrients for rendering lime and fertilizer recommendations to the growers. A total of 640 leaf samples and 716 agro-chemicals consisting of liming materials, fertilizers, organic manures and copper sulphate have been analyzed for the advisory purpose.
- DRIS norms for Arabica coffee have been

developed and will be validated in standard fertilizer applied blocks.

- Based on the four years' results on both Arabica and Robusta coffee, it has been inferred that foliar application of Zintrac -700 at a concentration equivalent to 0.25% $ZnSO_4$ i.e., 162 ml per 200 ltrs. of spray solution along with Bordeaux Mixture or as an aqueous solution during the pre and post blossom period in addition to the soil application of the recommended dose of N, P and K will boost the yield as effectively as the traditionally applied Zinc sulphate (0.25%).
- It has been observed that the robusta coffee areas of Kalasa zone had low levels of available S, while all the Arabica estates had adequate S. Kodagu soils were found to have low levels of available S in more number of samples analyzed.
- The yield values indicate that application of potassium either as muriate of potash or sulphate of potash has numerically increased the yield over control, but has not resulted into statistically significant increase in yield. The cup tasting results indicated that the cup quality of the beans was better in sulphate of potash treated blocks in robusta. The experiment is being continued.
- Survey of coffee growing areas for the micro-nutrient availability was conducted in Hassan and Kodagu regions. The results



show that all the coffee soils of Hassan district are having adequate available copper, iron and manganese and zinc is deficient in a few areas like Belur, Magge and Yesalur. In Kodagu region Calcium and magnesium have been found to be below critical limits in a few samples collected from the 9 Liaison zones.

- The Soil nutrient map for the Wayanad district of Kerala state was prepared and released during March 2005.

PLANT PHYSIOLOGY:

- Replicated field trial conducted using CCC (Chloro Mequat Chloride) @ 20,40, 60ppm and 1% leaf extract of *Lantana camara* indicated improvement in fruit set and crop yield of robusta coffee by 20.19% (Mean of two locations CRSS, Chettalli and RCRS, Chundale) in the plants treated with leaf extract of *Lantana camara* as drought ameliorative sprays during 2nd fortnights of January and February.
- The post blossom and pre monsoon foliar application of 1.5% Gliricidia leaf extract and soil application of “SELEO” (a Biologically derived PGR) @ 400 grams per acre could increase the crop yield by 134 and 126 Kg. per Ha respectively over control.
- The nutrient status of ‘N’, ‘P’, ‘K’, ‘S’ ‘Mg’, ‘Zn’ and ‘Fe’ in leaves was found to limit the crop production in robusta coffee. The very low yielding estates have shown high nutrient imbalance index (NII).
- The ¹³C discrimination studies indicated better water use efficiency in Sln.3, 9, 1, 11, 7.3 and 4(T) among the station-released selections.
- Studies on root pattern indicated that the lateral root length and number of lateral roots were high in robusta than arabica cultivar. However, the tap root length and maximum length of the root system was high in arabica.
- Drought tolerant robusta collections were screened for their photosynthetic efficiency, transpiration loss, physiological water use efficiency, carboxylation efficiency indicated better performance by DR-15 at water stress conditions.
- Among the rootstock vs. scion grafting combinations, the S.3311 x BR.12 (High WUE vs High Root types) and vice versa showed a significant improvement on total biomass, shoot to root ratio (SRR), root to shoot ratio (RSR) and cumulative water transpired (CWT) as rootstock and also as a scion graft combination.
- The root-scion combinations of Tafariakela, Sln.6 and sln.10 are better compared to the rest of the combinations.
- Sln.9 (Lax) and Sln.6 (SWG) showed better performance under water stress.



- The first year crop yield indicated improvement in the plants given foliar application of Triamedifon (Bayleton) @ 160 gms per 200 liters of water and Plactrobutrazole (Cultar) @ 20ml per 200 liters of water by enhancing the percent cropping nodes and number of flower buds per node.
- Receipt of showers during early hours of blossom day affected the fruit set by 14 and 41%, when rainfall was 2 to 3mm and 9.4mm respectively.
- Every week of delay in receipt of blossom showers from 2nd week of February to 3rd Week of May was found to cause a reduction of 61.13 and 43.51 Kg. per Hectares per week respectively for Chickmagalur and Kodagu zones.
- The study on impact of rainfall pattern on crop production indicated high fruit weight and volume with reduction in floats and parchment jolloo in arabica and robusta coffee during 2004(normal monsoon) compared to 2003 season (drought). Similar studies on grade percentages indicated more 'A' grade beans during 2004 season compared to 2003 season.
- The leaf nutrient analysis indicated more iron and copper content in the leaves of defoliated blocks compared to normal blocks. The soil pH also found to be comparatively high in defoliated blocks.

However the defoliation of healthy leaves was not reported during the current season.

- Seed hardening by water soaking for 12 hours indicated maximum improvement in growth characteristics of the seedlings.

PLANT PROTECTION

ENTOMOLOGY/NEMATOLOGY:

- The behaviour of the white stem borer beetles was monitored at CCRI, Chettalli, Thandigudi and RV Nagar and there was no change in flight period in all the regions. Life table studies indicated that the natural enemies were more active in undisturbed ecosystems. The life table studies indicated that the major emergence of adults was during winter and minor during summer flight periods. The data collected indicated the possibility of beetles completing life cycles in two broods, one with a total period of about six months and the second with longer period of more than 10 months. Multiple regressions are being worked out to assess the impact of shade, rainfall, altitude etc., on the borer incidence.
- Seven new parasitoids were collected from stem borer and four of them are found to be potential natural enemies. A few more parasitoids were collected and sent to CABI Bioscience for identification. Two nematodes – a steinernematid and a heterorhabditis were also collected. No



infectivity of borer stages inside stem was observed when *Beauveria bassiana* pure conidia were jammed in drilled holes.

- About 5,000 *Apenesia* sp. (parasitoid of white stem borer) were multiplied and 3495 were supplied to different growers from CCRI for release and on-farm multiplication. The parasitoid culture was provided to CRSS, Chettalli, RCRS, Thandigudi and Narasipatnam from CCRI for laboratory multiplication and field releases. At Chettalli 6,000 wasps were reared and 1,800 released. To encourage on farm rearing, a kit containing necessary items to rear *Apenesia* sp. was provided to about 150 growers.
- Field Trials (stem implantation) with systemic insecticide, Monocrotophos and Confidor did not give positive results.
- **During the summer flight period 432 traps were installed four locations in Chikmagalur and 72 beetles were trapped. In 93 traps baited with live male and female beetles 213 beetles were trapped. During winter period 425 traps were installed at CCRI farm. The percentages of beetles in the traps worked out to 15 to 45% of the estimated beetles population.**
- **In Chettalli, 555 traps were setup during both flight periods and the catch was 1050 beetles. At Karekoppa estate in Coorg, the trap catch when compared with estimated beetles population indicated a catch of around 63%. From Thandigudi 585 traps were installed in Pulneys and Yercaud and 297 beetles were trapped.**
- The Socio-economic study with reference to stem borer management was completed in Karnataka and Tamil Nadu and data analysis in progress. .
- In the biocontrol programme against berry borer, mass multiplication of berry borer and the parasitoid *Cephalonomia stephanoderis* was continued at RCRS, Chundale, CRSS Chettalli and RCRS, Thandigudi. Total of 2,79,695 parasitoids were reared and 2,18,750 numbers were released in 165 estates. Evaluations of establishment studies are being continued. Multiplication of *Phymastichus coffea* was continued. A total of 800 wasps emerged from semisynthetic diet. There was a drastic decline in the production.
- A total of 2,850 Broca traps were supplied from RCRS, Chundale to growers in Wayanad. From CCRI 2,500 lures were supplied to growers from Chikmagalur and Hassan Districts. A new type of Broca trap has been developed and arrangements for supply to the growers at subsidized rate were made.
- An entomopathogenic nematode, *Steinernema* sp. has been isolated from the field collected stem borer larvae were



maintained in lab using agar medium. Preliminary studies were initiated on its infectivity on stem borer.

PLANT PATHOLOGY:

- Eleven leaf rust races were maintained under glass house condition for screening trials. A total of 201 plants belonging to 36 groups of rust differentials were maintained and grafting of suckers from indicator plants in the field was done. Further, 216 suckers from indicator plants were grafted on root stocks for multiplication.
- Natural infection of leaf rust was noticed on the grafted indicator plants such as KP 532, 87/1, HW, 17/12, H.150/8, H.153/2, H.468/23, H 583/5 and H 134/4. Rust races, I, XII, XXIII, XXV, V2, 5, 8 and V2, 5, 6, 7, 9 were isolated from different coffee selections.
- Studies on biocontrol of leaf rust using microbial cultures like *Pseudomonas fluorescens*, *Bacillus megaterium*, *B. subtilis* and *Verticillium haemuleae* were initiated.

POST HARVEST TECHNOLOGY:

- A vertical pulper and washer procured from M/s. Pinhalense Company Brazil and an old Disc pulper supplied by M/s Adams and Sons Company Madikeri were evaluated and the overall performance of Pinhalense pulper found to be not

satisfactory. The old three disc pulper could pulp 415 kg arabica and 290 kg robusta fruits/disc/hour.

- Lime treatment helped in handling of pulped beans while drying compared to control where the coffee mass was more sticky and formed clumps. The results on cup quality showed that the cup quality was enhanced up to a dose of 0.5% w/w in agriculture lime treated samples while it was up to a dose of 0.2 % w/w in case of spray lime treated samples. The higher dose did not improve quality but contributed towards deterioration of quality.
- Studies on comparison of drying surfaces to prevent mould formation indicated that there is no much variation in drying days between surfaces, blocks and treatments. Cement, tarpaulin and agro net surfaces took almost equal number of days for reaching desired moisture and soil took an extra of 2-3 days for the same.
- Experiments on Parabolic drying indicated that yeast population was found to be higher on cow dung surface (20%) compared to cement/parabolic surfaces respectively for cherry and parchment. Ochre group of Aspergilli was not recorded on any drying surface except cherry dried on parabolic dryer (2%). Fusarium incidence was high on parabolic compared to other surfaces in both cherry and parchment.



- Experiments on soaking of fruits were undertaken in both arabica (three runs) and robusta (two runs) fruits to understand the bacteriology and mycology during soaking of fruits under water. Higher yeast count and lower Niger incidence was recorded on soaked coffee compared to un-soaked fruits. Ochre incidence was only recorded on floats to a level of 2-5.5%.
- The study on quantification of effluent and pollution load indicated that the recycling of effluent could reduce water consumption and pollution load in effluent per tonne of coffee processed. It will help in reducing the space and cost required for establishing an ETP at an estate.
- The study on performance of ETP by modification at anaerobic stage i.e. providing immobilized bed of organic waste in the form of dry weeds obtained from the estate along with cow dung instead of only 4.0 % cow dung slurry (10 % of volume of anaerobic tank) enhanced efficiency of ETP. The overall efficiency was ranging from 38 – 78 % in terms of COD load.
- The study on performance of Bioreactor indicated that the COD of effluent at inlet varied from 6700 – 11560 mg /L while at the outlet it ranged between 790 – 3670 mg /L. The inlet effluent pH ranged between 5.8 – 6.2 and that of outlet ranged between 6.2 – 6.6. The data on reduction of pollution load indicated a maximum reduction of 88.9% and a minimum of 68%, which works out to an average of around 81.0%.
- The laboratory experiments on neutralization of effluent confirmed that the treatment involving Ag. Lime in combination with spray lime was better compared to spray lime alone. However, further studies are needed to confirm and arrive at correct lime dose combination. The results on COD recorded a reduction by 16- 29 % over initial load.
- The studies on tertiary treatment of effluent using two aquatic plants at laboratory level gave encouraging results. The data on pollution load in terms of COD revealed that the reduction in pollution load ranged from 82- 87 % compared to initial load. Both the aquatic plants helped in reducing the pollution load to a more acceptable level. The experiments need to be carried out at pilot scale to generate data and standardize the method.

Global Project on Enhancement of Coffee Quality through Prevention of Mould Formation

1. A Socio-Economic Survey was conducted under FAO Project “Enhancement of Coffee Quality through Prevention of Mould Formation” to assess the socio economic impact of adopting the



recommended practices at estate level which are identified as the most critical ones for prevention of mould formation. Under this survey, a total of 140 estates (36 estates in Chikmagalur, 14 estates in Hassan, 41 estates in Coorg, 19 estates in Waynad and 30 estates in Tamilnadu) were visited for taking up the study and also for creating awareness programme on prevention of mould formation in coffee.

2. Inter laboratory Proficiency test on Ochratoxin-A (OT-A) analysis: Analytical laboratory, Coffee Board participated in the 'Pre- proficiency and 1st round Proficiency test conducted under under FAO Project "Enhancement of Coffee Quality through Prevention of Mould Formation". Under this programme a total of eight green coffee samples received from the Laboratory for Quality Control and Food Safety, (LACQSA/LAV-MG), Brazil were analysed for OT-A level and the report on the same was submitted to LACQSA/LAV-MG, Brazil.
3. Analysis of samples for Ochratoxin A contamination: A total of 254 samples comprising of 23 trade samples, 28 farm survey samples and 203 experimental coffee samples were tested for OT-A content.
4. Studies on Quality parameters of coffee as influenced by Chicory: A total of 64 samples were analysed for moisture and water soluble matter, 37 samples for caffeine, 30 samples each for Total ash and acid insoluble ash.
5. Studies on quality mapping of coffee varieties across different coffee growing regions: A total of 54 coffee samples were analysed for caffeine and 100 samples were analysed each for bean density and 100 bean weight parameters.
6. Analysis of Coffee Samples for Pesticide Residue Contamination: A total of 100 coffee samples comprising of 50 samples each of Arabica and Robusta, were tested for nine different agrochemicals viz, Lindane, Endosulfan, Chlorpyrifos, Dichlorovos, Hexaconazole, Triademifon, Propiconazole, Glyphosate and Paraquat-Di-Chloride residues contamination. Majority of the samples tested were found to meet various International standards viz., Codex, EU, Japan and US-EPA for the above 9 agrochemical residues.
7. Analysis of coffee samples for BIS/PFA parameters under industry/ research support: During the year 21 coffee and coffee chicory samples and 3 pure chicory samples received from the industry were analysed for various PFA parameters and reports despatched. 16 research coffee samples including 10 monsooned coffee samples were analysed for moisture and caffeine and reports were despatched.



8. Studies on estimation of Ketose content in Chicory and coffee samples: The procedure for estimation of ketoses for calculating the Chicory content is under study and five chicory samples were analysed repeatedly for ketoses to test the repeatability and reproducibility of the procedure and to standardise the same.
9. Calibration of moisture meters: A total of 54 moisture meters, 14 belonging to extension and research departments of Coffee Board and 40 belonging to the industry have been calibrated.

Publications:

- Fifty-five numbers of technical papers pertaining to research were published in popular and scientific journals.

QUALITY EVALUATION:

- A total of 1075 coffee samples from growers, curers, traders and exporters besides Research Stations of the Board were evaluated for visual and cupping quality parameters and the Quality Evaluation Reports along with advisory have been sent.
- The third batch of Post Graduate Diploma in Coffee Quality Management comprising of seven students was successfully completed by May 2004. Fourth batch admission were completed

and a total of six students were selected for the course.

- During the year, a total of 159 personnel were trained on coffee roasting and brewing methods in the 12 Kappi Shastra training programme organised in different cities of India.
- Third edition of “Flavour of India” – The Fine Cup Award – Cupping competition 2004 was organised. The Final Cupping Round by an International Jury comprising of representatives from various Coffee Growing Countries was organised in Trieste.
- During the year three Quality Laboratories were inspected and as per new guidelines Accreditations are issued for a period of three years.
- The Quality Evaluation Centres conducted cup tasting of coffees of different estates and gave feed back reports for the quality of coffee for identification of special quality coffees.
- Cup tasting sessions were arranged for visiting coffee buyers from Europe, America and Japan for quality assessment of special/specialty coffees grown in different regions.
- Published a booklet on “Guidelines for Washed Robusta”.



CHAPTER – V

EXTENSION AND DEVELOPMENT

A. TRADITIONAL AREAS (Karnataka, Kerala, Tamilnadu)

Area Coverage:

The extension service in the traditional coffee growing tracts of Karnataka, Kerala and Tamilnadu covered around 3.24 lakh hectares of coffee estates cultivated by over 1.48 lakh growers. The small coffee sector accounted more than 98% and contributed around 60% of the total coffee production of the country.

Distribution of Coffee Area:

The planted area and bearing area under coffee in traditional States/Districts is indicated as under. (In Hectares)

Sl. No.	State	Planted Area			Bearing Area		
		Arabica	Robusta	Total	Arabica	Robusta	Total
1	KARNATAKA	109424	95058	204482	104109	92665	196774
2	KERALA	4095	80549	84644	3842	79743	83585
3	TAMIL NADU	25108	5556	30664	24038	5553	29591
	GRAND TOTAL	138627	181163	319790	131989	177961	309950

Production of coffee for 2004-05

The production of coffee for 2004-05 crop season, states/districts wise are furnished hereunder. (Qty In M.T)

Sl. No.	State	Arabica	Robusta	Total
1.	KARNATAKA	82900	115700	198600
2.	KERALA	1325	52975	54300
3.	TAMILNADU	14975	3325	18300
4.	OTHERS	4200	100	4300
	GRAND TOTAL (India)*	103400	172100	275500

* Final Estimates



Monitoring of Extension Services:

The Joint Director of Extension at Hassan monitored and guided the extension activities of the three Dy. Directors of Extension, seven Senior Liaison Officers and seventeen Junior Liaison Officers in Karnataka.

The Joint Director of Extension at Kalpetta monitored and guided the extension activities of two Dy. Directors of Extension and eight Senior Liaison Officers and eleven Junior Liaison Officers in Kerala and Tamilnadu States.

The Secretary, Coffee Board at Head Office was in overall supervision for implementation of Extension Plan Programmes and Extension services in Traditional Areas.

Integrated Management of Coffee Berry Borer

Integrated management of coffee berry borer concept was encouraged through the Farmers Participatory Methods approach. Along with the transfer of technology, provided material assistance like picking mats, broca traps and lures. In general, the incidence of coffee berry borer remained low throughout the year excepting during the harvest season.

The Extension activities for control of coffee berry borer were mainly focused on conducting of awareness campaigns for encouraging plant protection, nutrition management and production of quality coffee, conducting village level meetings, organizing

and conducting the meeting of Farmers groups under Farmers Participatory Method Programme. Advisory was rendered wherever it was necessary.

Action Plan for Control of White Stem Borer

A pilot project called “WSB Eco-friendly Catch & Kill programme” was implemented from May to August 2004 to trace out and remove affected plants and to recover pest stages from affected plant to bring down the pest infestation to below pest level. The scheme was extended to all growers irrespective of size of holdings owned by them and financial incentive was offered at the rate of Rs.5/-, Rs.3/- and Rs.2/- per adult, pupae and grub respectively. Under the pilot project, a total area of 15,399 hectares was covered and Rs.2.26 crores was provided as an incentive. A total of 88,26,855 grubs, 17,01,235 pupae and 8,46,695 adults were destroyed.

MONTHLY MONITORING AND REVIEW OF EXTENSION SERVICES:

The extension services were carried out keeping in view the physical targets fixed on individual extension activities as required for the functioning of extension officers located at various zones in the coffee growing tracts of Karnataka, Kerala and Tamilnadu. The activities were monitored at different supervisory levels. The details of annual targets and achievement thereof are presented hereunder;



Abstract of Extension Services carried out in traditional areas are as under:

Sl.No.	Extension Activity	Total	
		Targets	Achievements
1	Estate Visits	17185	21946
2	Field Demonstration	3890	4842
3	Issue of Advisory Letters	1745	2154
4	Self Help Groups	46	45
5	Mini Self Help Groups (Old & New)	404	401
6	FPM Workshops	182	168
7	Man Power Development at TEC	39	31
8	Study Tour	30	28
9	Seminars	15	8
10	Mass Contact Programme	3	2
11	Media Campaign		
	a) Television/Radio Talk	22	8
	b) Literature Distribution	90	4755
12	IPM data collection	6230	4554

TECHNOLOGY EVALUATION CENTRE

The technology evaluation centres continued as centers for assessing performance of various coffee plant materials, the assessment of region / location specific package of practices apart from encouraging coffee growers on intensive cultivation practices through demonstration of various technologies suitable for enhancing productivity and quality even under the low price scenario.

SUPPLY OF SEED COFFEE

High yielding and disease resistant plant materials were selected for preparation of seed coffee from Board's Research and Demonstration Farms. A total quantity of 3844.5 kgs of seed coffee was procured and distributed comprising 3315 kgs of Arabica selections and 529.5 kgs of seed material of Robusta selections to growers

The seed coffee distribution details for the season 2004-05 (in Traditional Areas) are presented below. The seed coffee demand during 2004-05 was high compared to 2003-04 season



Sl. No.	State	Seed Coffee Distributed (In Kg)		
		Arabica	Robusta	Total
1	Karnataka	2480	450.5	2930.50
2	Kerala	20	26	46
3	Tamilnadu	815	53	868
	GRAND TOTAL	3315	529.5	3844.50

FARMERS PARTICIPATORY METHOD PROGRAMME

Farmers Participatory Method Programmes were conducted with an objective of increasing the effectiveness in transfer of technology to the small coffee growers. The FPM programmes were held on Bi-monthly basis to address the season specific issues related to coffee production by facilitating a forum for interaction between growers-extensionists and the scientists. An active involvement of concerned group members of the FPM was ensured by the extension workers during the meetings.

Bi-monthly workshops with the extensionists and scientists at regional research stations were held to provide the feed back generated by the extensionists in FPM meetings for further fine tuning of coffee technologies by the scientists.

The FPM meetings greatly benefited in identifying localized/specific problems as recognized by the growers and also brought out to the scene, the indigenous or modified

coffee technologies for improving overall production improvement of quality coffee.

A total No. of 86 FPM groups were formed and 161 workshops were conducted during 2004-05. As a part of FPM programme, study tours were organised for FPM groups to acquire first hand experience on various aspects of coffee technologies being adopted in different coffee tracts of South India.

MASS CONTACT PROGRAMME

Mass contact programmes in different tracts/states were conducted by the Extension Department to provide necessary advise to improve production/productivity, pests and diseases control and improvement of quality of coffee. The Extension and Research officers after visiting coffee holdings in the targeted villages advised growers suitably during the mass contact programme. The soil/leaf samples collected during the campaign were analyzed and the growers were given advise on manuring/liming etc.

HUMAN RESOURCE DEVELOPMENT

The following training programmes were



conducted during the period 01.04.2004 to 31.03.2005

- ❖ Induction training to 10 newly recruited JLOs, RAs & AEIs.
- ❖ One day training programme on the Biocontrol of White Stem Borer using the parasitoid *Apenesia* sp. was conducted for officers of Board in Karnataka / Tamilnadu Regions.
- ❖ A study tour to the officers from Andhra Pradesh Forest Development Corporation, Vishakapatnam to acquaint themselves to on-farm processing of coffee.
- ❖ Training programme on 'Honeybee Culture' for small growers.
- ❖ A workshop on 'National Social Security Number' – EPF under Labour Welfare Measures. Representatives from Private Estates, Company Estates, Labour representatives and officers from EPF Regional Office, Chikmagalur attended.
- ❖ 36 coffee growers and 8 Extension Officers participated in a one week training programme on Financial Management for coffee estates jointly organized by Board and IIPM.
- ❖ 14 Growers/Supervisory staff/farm labourers attended one day training on coffee cultivation aspects.
- ❖ 263 growers trained on package of practices, preparation of quality coffee,

organic farming, diversification, preparation of parchment coffee and quality maintenance.

- ❖ 60 growers trained on nursery aspects
- ❖ 32 growers trained on management of White Stem Borer including biological control of pest.
- ❖ 266 women plantation workers trained in nursery raising, maintenance, compost preparation, vermin culture, cookery, mushroom culture, apiary, poultry, piggery, fisheries etc; in collaboration with KVK.
- ❖ 175 students from Gandhigram Rural Institute and 12 B.Sc. (Horticulture) students attended training programme on various aspects of coffee cultivation.

ESTABLISHMENT OF SELF HELP GROUPS

42 Self Help Groups were formed during the year 2004-05 from among the small coffee growers for capacity building and to encourage the integration of farming activities. The Board has extended financial assistance totaling to Rs.77.15 lakhs towards one time grant to these SHG's.

INTEREST SUBSIDY SCHEME

A proposal to extend Interest subsidy at the rate of 5% and 3% on working capital loans availed from financial institutions during the year 2004-05 by small and large growers as



part of the comprehensive coffee package was submitted by the Board to the Government of India, which is under consideration.

SUPPORT TO SMALL GROWER SECTOR SCHEME

The Board under X five-year plan provided

support to the small coffee grower sector for replantation, water augmentation and preparation of quality coffee at farm level and to adopt pollution abatement measures by extending financial support in the form of subsidy. The details of subsidy disbursed during the year 2004-05 are furnished below.

Sl. No.	Scheme	No. of Units/ Beneficiaries	Area Benefited (In Hectares)	Amount Involved (In Rs.lakhs)
I.	Replantation	290	493	33.08
II.	Water Augmentation	711	2675	119.54
III.	Quality Upgradation	445	2180	66.64
IV.	Pollution Abatement	1	7	0.27
	TOTAL :	1447	5355	219.53

FORMATION OF MINI SHGs FOR PRODUCTION & SUPPLY OF COFFEE PLANTING MATERIAL

Mini Self-help Groups were formed from among the small coffee growers to raise adequate number of Arabica planting material, with an objective of encouraging capacity building and integration of farming activity through group approach. Private nurseries were also encouraged along with Mini SHGs to generate required seedlings of Arabica cultivars in addition to plant material generated by the Board at its Research & Extension farms. The extension personnel identified the small growers/ groups/location and arranged

for the infrastructure facilities and monitored supply of inputs and rendered advise for successful raising of seedlings and extended the financial assistance to these nurseries through the operation of the plan scheme on supply of plant material.

INFRASTRUCTURE DEVELOPMENT

During 2004-05 a sum of Rs. 408.79 lakhs has been incurred towards infrastructure development viz. construction of check dam, effluent treatment plant, bore well, open well, pump house, drying yard, fertilizer godown, retaining walls, WBM roads, Office buildings, staff/labour quarters etc., in Technology



Evaluation Centres and Research Farms of the Board. Construction of Coffee complex at Chikmagalur was also completed during this period.

HIGHLIGHTS OF EXTENSION SERVICES FOR 2004-05

The effective transfer of technology was focused on 1,47,575 number of coffee holdings, covering an area of 3,23,797 hectares through extension service.

Regular visits to estates, Group gatherings and Seminars apart from providing printed literature on several aspects of coffee cultivation were focused in extension services.

Crop forecasting, monitoring of crop development and surveillance on occurrence of pest and diseases and implementation of plan schemes on ISS/ SSGS/ CBB/ WSB/ SHG were carried out.

The production of coffee for 2004-05 was placed at 2,75,500 M.T. comprising of 1,03,400 M.T. of Arabica and 1,72,100 M.T. of Robusta.

The Integrated Management of Coffee Berry Borer Project was implemented under ICO – CFC project through FPM and IPM strategies.

Ten Technology Evaluation Centers served as nucleus for dissemination of coffee technology and evaluating performance of various coffee plant materials and developing Region/ location specific package of practices.

Man Power Development scheme was also implemented at TECs and imparted training to 323 persons from plantation sector.

Extension activities were focused on creating pest awareness, conducting village level meetings, Mass Contact Camps, Awareness campaigns, Radio and Print Media apart from regular Estate Visits for advisory. Distribution of Picking Mats and Endosulfan for encouraging growers to adopt Berry Borer management aspects was given thrust.

The Extension Officers organized seminars, village meetings, participated in review meetings, REAC meetings, RAC meetings, symposiums, planters' meetings, training programmes, workshops, refresher course programmes, FPM programmes etc., during the year.

A total Number of 165 Integrated Pest Management Demonstration Plots for management of White Stem Borer spread over in Karnataka, Kerala and Tamilnadu were maintained for educating the coffee growers on timely pest management aspects.

3845 kgs of seed coffee of high yielding and disease resistant plant materials were supplied to coffee growers from Board's Research and Demonstration Farms.

Mass Contact Programmes conducted at 4 different locations in coffee growing tracts during the financial year 2004-05.

Extension and Research personnel were provided with training and re-orientation courses at the Board's Research Stations and at national level management institutes.



The extension officers gave radio talks on coffee cultivation aspects for broadcasting by All India Radio.

A pilot project called “WSB Eco-friendly Catch & Kill programme” was implemented to trace out and remove the different stages of pest. Under the pilot project a total area of 15,399 hectares was covered and Rs.2.26 crores were provided as an incentive. A total

of 88,26,855 grubs, 17,01,235 Pupae and 8,46,695 Adults were destroyed.

Rs.223.14 lakhs were disbursed to the small growers covering an area of 4995 hectares under SSGS scheme for replantation, water augmentation and preparation of quality coffee at farm level and to adopt pollution abatement measures by extending financial support in the form of subsidy.

B. NON TRADITIONAL AREAS (Andhra Pradesh and Orissa) N.E. REGIONA

a. North Eastern Region

Area under Coffee :

The distribution of Area under Coffee in different states of North Eastern Region is furnished below :

Sl. No.	State	Area under Coffee (Hectares)	Effective bearing area (Hectares)
1	Assam	2237	791
2	Meghalaya	2206	1864
3	Nagaland	4542	2765
4	Mizoram	3328	463
5	Manipur	1192	20
6	Tripura	1025	130
7	Arunachal Pradesh	1148	141
	TOTAL :	15678	6174

Crop Estimates:

The coffee production in the entire Region continued to be low on account of various factors including poor maintenance and low plant population. Considering the overall situation and the effective bearing area, the total estimated crop for 2004-05 season was 248 metric Tonnes, comprising of 158 Metric Tonnes of Arabica and 90 Metric Tonnes of

Robusta. The crop forecast for 2005-06 season has been placed at 260 Metric Tonnes which includes 166 Metric Tonnes of Arabica and 94 Metric Tonnes of Robusta.

Major Extension Activities carried out during the year:

- A total quantity of 2169.60 Kg of seed coffee comprising of 1807.60 Kgs of Cauvery variety (Arabica) and 362.00 Kgs



-
- of C x R variety (Robusta) was distributed to 509 coffee growers and other Agencies.
- b) Total number of 205 Group Gatherings were conducted wherein planting and after care, pests and diseases management and other practices involved in the improvement of the production and quality of coffee were discussed by the Board's Extension Officers.
- c) A total of 509 Method Demonstrations were conducted on Nursery practices, Shade, Bush and Pest and Disease Management practices.
- d) Advisory letters listing out the various cultural operations to be carried out were issued to 261 SAP holdings.
- e) 6 Farmers Participatory Method Programmes were conducted at Goalpara, Bijni, Haflong, Nagaland and Mizoram.
- f) A 3 day "Kaapi Shastra" Training Programme was conducted at Aizawl from 30th Nov to 2nd Dec '04 for the benefit of Local Entrepreneurs, Officials of the State Government and Coffee Board Officers.
- g) Farm Training was imparted to 2 batch of coffee growers, one batch from Tripura State and one batch from Haflong, NC Hills, Assam by taking them on Study Tour to CDF, Bualpui, Mizoram.
- h) The Coffee Board, NER participated in the 2nd North East Trade Expo 2005 held at Pragati Maidan, New Delhi from 7th to 14th March 2005 wherein the Board had set up a Pavilion showcasing the coffee development activities of the NER. The Coffee Board pavilion was accorded a Special Commendation for display of Most Commercially Promising Product Range.



**Physical and Financial Achievements under On-going Scheme
“Coffee Development in the North Eastern Region” for 2004-05 :**

State	Programme	Area benefitted (in Hectares)	Subsidy Disbursement (Rs. in lakhs)	No. of Beneficiaries
Assam	Expansion	132.55	10.69	149
	Consolidation	70.00	5.10	44
	TOTAL	202.55	15.79	193
Arunachal Pradesh	Expansion	98.00	5.88	56
	Consolidation	10.00	0.60	2
	TOTAL	108.00	6.48	58
Meghalaya	Expansion	66.00	5.33	127
	Consolidation	35.00	2.40	7
	TOTAL	101.00	7.73	134
Nagaland	Expansion	571.75	42.49	463
	Consolidation	201.50	12.23	114
	TOTAL	773.25	54.72	577
Mizoram	Expansion	268.20	20.91	429
	Consolidation	0.00	0.00	0.00
	TOTAL	268.20	20.91	429
Tripura	Expansion	112.45	8.41	215
	Consolidation	3.00	0.27	4
	TOTAL	115.45	8.68	219
TOTAL FOR NE REGION	Expansion	1248.95	93.71	1439
	Consolidation	319.50	20.60	171
	TOTAL	1568.45	114.31	1610



Market Support Scheme :

Under the scheme, financial incentives were extended to procure, process and market the coffee belonging to tribal coffee growers.

The physical and financial achievements for 2004-05 are furnished below:

Type of coffee pooled	Quantity pooled (In Kg)	Subsidy expenditure
Arabica	56,032.30	Rs. 4.87 lakhs
Robusta	1,06,269.50	
Total	1,62,301.80	

Technology Evaluation Centres (TECs) :

5 Technology Evaluation Centres are functioning in NE Region and the 2 TECs viz., TEC, Bualpui (Mizoram) and TEC, Deomali (Arunachal Pradesh) continued to serve as Demonstration cum Training Centres apart from production centres of the seed coffee required for the Region.

Baby Pulpers have been installed for the benefit of tribal growers under SHGs at different locations of the Region and a total quantity of 6.257 metric tonnes of parchment coffee has been prepared during 2004-05.

b. NON TRADITIONAL AREAS (ANDHRA PRADESH AND ORISSA) :

Present Status of Coffee in NTA :

Quality Up-gradation through SHGs :

As part of quality up-gradation, 10 Nos. of

The details of area under coffee and number of growers in Andhra Pradesh and Orissa are as follows:

Sl.No.	State	No. of Growers			Area under Coffee (Hectares)		
		Small	Large	Total	Bearing Area	Non-bearing	Total Planted Area
1	Andhra Pradesh	39,515	06	39,521	16,164	10,233	26,397
2	Orissa	717	16	733	1,048	1,217	2,265
	TOTAL	40232	22	40254	17,212	11,450	28,662



B. Crop Estimates :

The final crop estimates of NTA for 2004-05 season has been placed at 4144 Metric Tonnes comprising of 3930.50 MTs from Andhra Pradesh and 213.50 MTs from Orissa.

Major Extension Activities in Non-Traditional Areas:

- a) A total quantity of 5866.50 Kgs. of seed coffee of different Arabica varieties was distributed to the Tribal growers and Agencies of Andhra Pradesh and Orissa.
- b) Coffee seedlings to the tune of 144 lakhs were raised through community and backyard nurseries with the financial assistance of Integrated Tribal Development Agency (ITDA), Paderu and the technical assistance for raising and after care of nurseries was provided by Coffee Board.
- c) A total of around 15.01 lakh of pepper cuttings were raised and distributed to tribal growers at free of cost by the Integrated Tribal Development Agency (ITDA), Paderu to encourage diversification in coffee and to improve the returns per unit area. The Coffee Board provided necessary technical guidance for this activity.
- d) A total of 1373 tribal growers and the officials of the State Government / ITDA were imparted Training on Management of Coffee Nursery and On-farm practices at CDF, Minimulur and RCRS, R.V. Nagar.
- e) Training on management of coffee plantations was also imparted to 100 Resource Personnel identified by ITDA.
- f) Number of quality awareness campaigns were conducted to educate the Tribal Growers about construction of backyard cement drying yards and preparation of quality coffee.
- g) A total of 28 Farmers Participatory Method (FPM) workshops were organized in 10 coffee growing villages and 292 tribal growers were benefited.
- h) A total of 52 growers of Andhra Pradesh visited traditional coffee growing areas on study tour.
- i) The Tribal growers were educated about soil sampling and many samples were collected, analysed and suitable recommendations were given to the concerned growers.
- j) An NGO "NANDI Foundation" has come forward to adopt 892.75 acres covering 992 beneficiaries spread over in 73 villages of Araku Valley for promotion of organic coffee farming.
- k) A total of 36 hulling units installed in Andhra Pradesh and Orissa.



- l) A total of 1810 growers enrolled in the “Price Stabilization Fund Scheme” during the year 2004-05.
- m) A sum of Rs.5.81 lakh has been granted as educational stipends and meritorious awards to the children of labourers working in NTA under labour welfare measures, which benefited 380 students
- n) 14 No of coffee samples were received for ‘Flavour of India – cupping Competition 2005’ of which 2 samples were selected for final round of competition.

Technology Evaluation Centres (TECs) :

Technology Evaluation Centres (TECs) at Minimuluru (Andhra Pradesh) and Koraput (Orissa) continued to serve as Demonstration cum Training Centres apart from production centres of the seed coffee required for the Region.

Mini Curing Works :

During 2005 a grader was provided to the Mini Coffee Curing Works at Chintapalli, Andhra Pradesh (established during December 2003)

Physical and Financial Achievement for 2004-05 under the Scheme “Coffee Development in Non-Traditional Area”

The “Special Area Programme for Non-Traditional Area” Scheme implemented during IX plan is being continued during X plan also as an on-going scheme. The physical and financial achievement for the year 2004-05 are furnished below:

Sl.No	Scheme Details	No. of Growers benefited	Extent (Ha)	Subsidy Disbursed
1	Coffee Expansion in Orissa	558	460.04	20.70 lakhs
2	Coffee Consolidation in Andhra Pradesh	1138	632.16	31.60 lakhs
3	Quality Upgradation a) Pulpers (Units) b) Hullers (units)	01	—	0.37 lakhs-



CHAPTER – VI

EXTERNAL & INTERNAL PROMOTION

(A) EXTERNAL PROMOTION :

The following activities are carried out by the Board for external promotion.

- ❖ Participation in select International Trade Fairs in key / potential overseas markets directly and through India Trade Promotion Organisation (ITPO).
- ❖ Releasing advertisement in popular overseas coffee trade journals.
- ❖ Organising buyer seller meets in important markets involving Indian Exporters and overseas buyers.
- ❖ Holding cupping sessions of Indian Coffees in potential markets to highlight the quality aspects of Indian Coffee.
- ❖ Communication initiatives in important markets to improve the image of Indian Coffee.
- ❖ Organising visit of buyers / roasters delegations to Indian Coffee tracts and arranging interactive meetings with the Indian Coffee stake holders.

- ❖ Creation of publicity materials and other communication elements such as films, CDs etc.

Overseas Exhibitions:

The Board participated in the following overseas exhibitions/buyer seller meets during the period under review with the active participation of the Indian Coffee Exporters.

- ❖ 16th Annual SCAA Conference & Exhibition, Atlanta, Georgia-23-26 April, 2004
- ❖ World Barista Championship 2004, Trieste, Italy-18-20 June, 2004
- ❖ Fine Food, Australia- 06-09 Septmeber, 2004
- ❖ Food & Hotel China 2004,Shangai-14-17 September, 2004
- ❖ World Food Fair, Moscow, Russia-21-24 September, 2004
- ❖ Tea & Coffee World Cup Asia 2004, Singapore-10-12 October,2004
- ❖ Hostelco Food Trade Show, Barcelona, Spain-23-27 October, 2004



- ❖ Trieste Espresso Expo 2004, Trieste, Italy- 05-07 November, 2004
- ❖ 4th SCAE World Specialty Coffee Conference & Exhibition, Athens, Greece-04-07 March, 2005.
- ❖ Foodex 2005, Tokyo, Japan -08-11 March, 2005

B. INTERNAL PROMOTION :

The Board carried out the following measures to increase the consumption of pure coffee by popularising the correct techniques of roasting, grinding and brewing of coffee so as to enable consumers to enjoy the stimulating drinks.

Internal Exhibitions;

The Board participated in the following internal exhibitions during the year:-

- ❖ Agri Intex –2004, Coimbatore-20-25 August, 2004.
- ❖ 111th UPASI Conference & Industrial Exhibition, Coonor- 6-7 September, 2004.
- ❖ Food Tech India 2004, Kolkata-01-04 October, 2004
- ❖ 3rd Annual Coffee Tea India 2004, Jaipur- 29-31 October, 2004
- ❖ India International Trade Fair, New Delhi- 14-27 November, 2004
- ❖ Food Expo 2004, Chandigarh-03-06 December, 2004
- ❖ Co-Operative Movement Centenary Celebrations- All India Exhibition, Quilon- 14 December, 2004-09 January, 2005.
- ❖ Republic Day Horticultural Show, Lal bagh, Bangalore-20-26 January, 2005
- ❖ Flower Show 2005, Kalpetta-22-31 January, 2005.
- ❖ Siliguri Trade Fair 2005, Siliguri, West Bengal-25-28 February, 2005.
- ❖ Aahaar 2005, New Delhi-04-08 March, 2005.

India Coffee Houses / Depots

Ten India Coffee Houses spread all over the country in places viz. Parliament House, North Block, South Block, Udyog Bhavan (all in New Delhi), Kolkata, Tirumala, IISc, Bangalore and Coffee Board, HO at Bangalore, Guruvayoor, Chennai and three ICDs viz., New Delhi, Mumbai and Bangalore are supplying pure coffee powder, liquid coffee and other refreshments.

Coffee Year Book:

A Coffee Year Book 2005 carrying valuable information on the Coffee Board and Indian Coffee Industry was brought out and circulated.

Indian Coffee Magazine:

Indian Coffee, the monthly magazine of the Board was released in four languages (English, Kannada, Tamil and Malayalam) during the year. In the English edition of the magazine, a Hindi language section is also incorporated.



CHAPTER – VII

EXPORTS AND MARKET INTELLIGENCE

The coffee plays an important role in foreign trade of India, and earns a considerable foreign exchange. India's share in the world's coffee exports is around 4.38%.

Prior to the liberalization, Coffee Board was responsible for Marketing of Indian Coffee in India and abroad. During that period, all the coffee produced in India was pooled to the Board for marketing the same through the Export and Domestic auctions conducted periodically.

With the advent of Liberalization in Coffee Industry during 1996/97, a new era opened in the Marketing sector. The Board had paved the way for the Free Sale from the controlled system by departing from its coffee pooling system. The role of Coffee Board has been redefined as a facilitator for export of coffee by effective implementation of various export promotion measures to maintain and improve its market share in the International market. The Board continues to be the authority for registration of exporters of coffee and issues Export Permits and Certificates of Origin against the applications received from its member exporters for export of coffee.

India continues to be the member of International Coffee Organization, London and endorsed the Quality Improvement Programme of ICO aimed at exporting coffee as per the Quality Standards prescribed by the ICO. Coffee Board is monitoring the export of coffee and issue permit to the exporters to export only quality coffee to the countries abroad, as per the ICB/ICO standards

The following activities are being carried out by the exports section to regulate/facilitate coffee exports

Exporter Registration & Renewal:

During the period under report, 26 new exporting firms have registered for exporting coffee and registration of 67 firms have been cancelled. The total number of Registered Coffee Exporters as on 31st March 2005 is 435.

Permits :

Permits were issued under Section 20 of the Coffee Act for all the exports of coffee and Certificate of Origin issued as per provisions of the International Coffee Agreement.



Filing Export Permit Application through Website:

In order to speed up issuing of Export Permits, the facility for filing Export Permit Application through website <http://www.kar.nic.in/exportcoffee> was continued. As many as 31 exporters have availed the above facility and 4126 permits were issued to these exporters out of total 6434 permits issued during the year.

Interaction with Exporters:

Periodic meetings were held with exporters to discuss important developments concerning exports. During the period under review, four meetings were held on 15.4.2004, 01.07.2004, 07.10.2004 & 10.02.2005. The subjects discussed during the above meetings were:

- i) Review on export performance for 2003-04 & fixation of export target for 2004-05.
- ii) Implementation of quality improvement programme of ICO.
- iii) Review of export performance for 2004-05 as against export target fixed.
- iv) Overall review of export performance for 2004-05.

Reports & Returns:

The Export Section is generating several types of reports and returns periodically to send it to the Ministry, ICO and disseminates such data which are relevant to the exporting

communities to help in their coffee exporting activities. Some of the reports and returns that are being sent are given below:

- i) Daily report on export performance on day to day basis for Board's Website, Notice Board, Board's Officers and other business communities.
- ii) Weekly returns to the Ministry on export performance during the week
- iii) Monthly Returns to Ministry on destination –wise export performance
- iv) Monthly reports to International Coffee Organization (ICO) giving volume & value by destinations & on preliminary exports
- v) Providing statistical data contained in ICO Certificates of origin issued to cover all coffee exported from India to ICO on monthly basis.

Apart from the above reports, the reports pertaining to Exporter wise, Country wise, Type & Grade wise etc., are being generated.

Exportable Grades of Coffee:

According to the Coffee Quality Improvement programme of International Coffee Organization (ICO) vide its Resolution 407, the Board has identified the exportable and non-exportable grades of coffee.

Subsequently the ICO by its Resolution No. 420 effected comprehensive amendments to Resolution 407 identified 'target standard' for exportable coffee as opposed to mandatory



standards prescribed earlier and also requested the exporting members to label the coffee exported as “S”, “X”, “XD” and “XDM” in

Box 17 of the ICO certificate of origin based on the parameters prescribed in the Resolution No.420.

EXPORTABLE TYPE AND GRADES OF COFFEE:

	Type	Premium Grades	Commercial Grades	Speiality Coffee
I	GREEN COFFEE			
A	Arabica Parchment (Plantation)	PB Bold AA	PB, A,B,C,*1 Bulk	Mysore Nuggets EB
B	(Washed Arabica) Arabica Cherry (Unwashed Arabica)	PB Bold, AA, A	PB, AB, C*2 Bulk *3	Monsooned Malabar AA, Monsooned Basanally, Monsooned Arabica Triage*4
C	Robusta Parchment (Washed Robusta)	PB Bold, A	PB, AB, C	Bulk Robusta Kaapi Royale
D	Robusta Cherry (Unwashed Robusta)	PB Bold, AA, A	PB, AB, C Bulk, Clean Bulk	Monsooned Robusta AA Monsooned Robusta Triage*4
II	INSTANT COFFEE			
III	ROASTED			
IV	COFFEE SEEDS ROASTED & GROUND COFFEE			

* 1 Exception is available for Plantation – C as indicated in the description equivalent given in the footnote of the ICO Resolution 407/420.

*2 Arabica Cherry “C” should be free from Blacks, Browns and Bits.

*3 Arabica Cherry Bulk should contain less than 10% Blacks, Browns and Bits.

*4 Monsooned Arabica Triage and Monsooned Robusta Triage should be free from Blacks, Browns and Bits.



Export Awards:

According to the decision of the 139th meeting of the Propoganda Committee, the following Export Awards have been instituted annually to the registered coffee exporters basing on their quantitative performance.

- A. Category:** 1. Green Coffee
2. Specialty Coffee and
3. Instant Coffee.

- B. Category:** Best exporter to
1. USA
2. Middle East

3. European Union
4. Russia & CIS and Far east.

Export of Coffee:

A total quantity of 2,11,566 tonnes (including 16,452 tonnes of re-export) with a foreign exchange earning equivalent to Rs 1,108.74 Crores was exported to 75 countries during 2004-05.

The grade wise details of quantity exported, foreign exchange earned, Indian rupee equivalent and unit value are furnished below.

Sl. No	Grade Name	Quantity in Tonnes	Indian Rs.(Lakhs)	US \$ (Lakhs)	Unit Value	
					Rs./ Tonne	US\$/Tonne
1	PLANT-A	21,488.5	17,907.50	401.94	83,335.27	1,870.49
2	PLANT-PB	1,559.4	1,161.09	24.45	74,457.48	1,567.91
3	PLANT-B	8,344.0	6,170.19	138.60	73,947.63	1,661.07
4	PLANT-C	5,081.6	3,168.81	68.64	62,358.51	1,350.76
5	ELANT-BUL	662.1	519.68	11.70	78,489.65	1,767.10
6	MYS NUGGETS-EB	817.1	733.07	16.34	9,716.07	1,999.76
7	PLANT-AA	3,030.8	2,527.60	56.90	83,397.12	1,877.39
8	PLANT-PB-BOLD	173.2	162.42	3.68	93,775.98	2,124.71
9	AR CHY-AB	5,551.0	3,508.09	78.55	63,197.44	1,415.06
10	AR CHY-PB	103.0	55.38	1.22	53,766.99	1,184.47
11	AR CHY-C	381.8	173.89	3.86	45,544.79	1,011.00
12	AR CHY-BULK	5,065.5	3,024.00	68.27	59,697.96	1,347.74
13	MONMAL-AA	2,636.5	2,108.52	47.13	79,974.21	1,787.60



Sl. No	Grade Name	Quantity In Tonnes	Indian Rs.(Lakhs)	US \$ (Lakhs)	Unit Value	
					Rs./ Tonne	US\$/Tonne
14	MON BASANALLY	100.0	64.93	1.47	64,930.00	1,470.00
15	AR CHY-AA	107.3	73.52	1.64	68,518.17	1,528.42
16	AR CHY-A	19.2	11.02	0.24	57,395.83	1,250.00
17	ROB PMT-AB	10,234.1	5,750.92	126.66	56,193.71	1,237.63
18	ROB PMT-PB	2,861.2	1,357.15	28.50	47,432.90	996.09
19	ROB PMT-C	1,993.2	753.73	17.33	37,815.07	869.46
20	ROB PMT-BULK	59.3	46.01	0.95	77,588.53	1,602.02
21	ROB PMT KAPPIROYAL	4,266.4	2,445.53	54.86	57,320.69	1,285.86
22	ROB PMT-AA	305.7	189.42	4.22	61,962.71	1,380.44
23	ROB PMT-PB BOLD	57.6	29.76	0.56	51,666.67	972.22
24	ROB CHY-AB	37,458.5	14,553.12	329.07	38,851.32	878.49
25	ROB CHY-PB	866.1	363.71	8.15	41,994.00	941.00
26	ROB CHY-C	35.0	13.95	0.32	39,857.14	914.29
27	ROB CHY-BULK	11,880.9	4,184.38	94.41	35,219.39	794.64
28	ROB CHY-BULKI	1,766.2	600.52	13.29	34,000.68	752.46
29	MON ROB-AA	1,147.4	548.73	13.75	47,823.78	1,198.36
30	LIBERIA-BULK	350.6	157.87	3.48	45,028.52	992.58
31	ROB CHY-AA	13,377.5	5,574.36	120.85	41,669.67	903.38
32	ROB CHY-A	13,844.5	5,629.27	120.81	40,660.70	872.62
33	INSTANT	55,849.2	38,721.84	1,080.59	69,332.85	1,934.84
34	ROASTED & GROUND	75.1	59.21	1.33	78,841.54	1,770.97
35	ROASTED SEEDS	16.9	11.86	0.26	70,177.51	1,538.46
	TOTAL:	2,11,566.4	1,22,361.05	2,944.02	57,835.77	1,391.53



**Export of Coffee During 01-04-2004 to 31-03-2005
(including Re-export) - Country Wise Details**

Sl.No.	Name of the Country	Quantity (in MT)	Value Rs. Lakhs
1	ITALY	49,232.2	25,481.3
2	RUSSIAN FEDERATION	34,458.8	23,573.8
3	GERMANY	16,487.8	10,595.5
4	SPAIN	11,349.1	4,740.8
5	BELGIUM,	9,204.1	4,734.0
6	SLOVENIA	8,440.8	3,054.3
7	UKRAINE	6,131.1	4,960.9
8	JAPAN	5,918.4	4,049.4
9	U.S.A.	5,645.5	2,779.8
10	GREECE	5,622.6	2,233.6
11	FRANCE	4,283.0	2,240.8
12	MALAYSIA	3,680.3	1,853.6
13	FINLAND	3,677.3	2,675.6
14	NETHERLANDS	3,603.8	2609.7
15	PORTUGAL	3,252.9	1,350.1
16	SWITZERLAND	3,244.0	2,279.1
17	JORDAN	2,727.4	1,585.4
18	KUWAIT	2,657.1	2,171.4
19	HUNGARY	2,607.0	1,222.0
20	LATVIA	2,504.0	2,414.3
21	AUSTRALIA	2,393.1	1,352.2
22	UNITED ARAB EMIRATES	1,780.6	1,525.3
23	SINGAPORE	1,766.5	970.7
24	TAIWAN	1,754.6	917.8
25	ISRAEL	1,528.8	832.6
26	LIBYA	1,481.4	776.3
27	CROATIA	1,459.2	544.9
28	POLAND	1,302.2	882.9
29	CANADA	1,262.7	565.6
30	UNITED KINGDOM	1,222.1	836.3
31	SAUDI ARABIA	1,180.5	832.8
32	EGYPT	966.0	421.1
33	NORWAY	933.9	519.4
34	SULTANATE OF OMAN	691.1	361.9
35	ALGERIA	614.4	221.5
36	BULGARIA	576.0	257.1
37	REPUBLIC OF KOREA	541.4	515.2



Sl.No.	Name of the Country	Quantity (in MT)	Value Rs. Lakhs
38	ROMANIA	450.2	239.4
39	TUNISIA	439.8	160.6
40	DUBAI	317.7	240.9
41	TURKEY	316.0	155.3
42	NEW ZEALAND	310.4	166.7
43	LITHUANIA	302.6	238.5
44	YUGOSLAVIA	268.8	89.8
45	MOROCCO	249.6	80.6
46	AUSTRIA	230.4	177.8
47	ESTONIA	220.5	158.8
48	SEZ-COCHIN	217.8	86.0
49	SYRIA	212.4	107.6
50	TURKMENISTAN	203.5	161.6
51	ABU DHABI	184.0	147.6
52	VIETNAM	182.4	127.6
53	SWEDEN	169.8	116.2
54	KAZAKHSTAN	159.3	125.2
55	GEORGIA	157.1	98.7
56	NEPAL	154.5	321.2
57	DENMARK	79.9	87.0
58	LEBANON	77.1	29.2
59	KENYA	69.7	18.8
60	IRAN	68.7	49.4
61	BAHRAIN	57.9	48.8
62	WEST INDIES	53.0	23.8
63	HONG KONG	48.4	21.2
64	ALBANIA	38.4	17.4
65	NEW CALEDONIA	38.4	22.7
66	BANGLADESH	22.2	33.1
67	QATAR	18.1	15.0
68	CHINA	18.0	16.3
69	BELARUS	16.0	8.5
70	MOLDOVA	12.1	11.0
71	PERU	6.0	4.3
72	SOUTH AFRICA	5.8	5.7
73	SHARJAH	5.5	5.6
74	SRI LANKA	2.5	4.0
75	FIJI	0.0	0.0
	GRAND TOTAL :	2,11,566.2	1,22,360.9

Zero Stands for less than a Tonne \ Rs Lakhs



Export of Speciality Coffee & Value Added Coffee during 2004-05

	Quantity (in tonnes)	Value (in Rs. Crores)
Speciality Coffee	8,967	59.01
Value Added Coffee	55,941	387.93
TOTAL :	64,908	446.94

Major Exporters and their performance during 2004-05

The details of coffee exported (including re-export) by major exporters and others during 2004-05 along with their share to the total exports are detailed below :

Sl. No.	Name of the Exporter	Quantity exported (including re-export (in Tonnes)	Percentage share to total
1	Nestle India Ltd.,	25,294	11.96
2	Allana Sons Ltd.,	20,930	9.89
3	Tata Coffee Ltd.,	15,929	7.53
4	Hindustan Lever Ltd.,	15,774	7.46
5	Amalgamated Bean Coffee Trading Ltd.,	13,315	6.29
6	General Commodities Ltd.,	13,135	6.21
7	CCL Products (India) Ltd.,	13,021	6.51
8	Cholas Spices Private Ltd.,	11,949	5.65
9	Olam Exports (India) Ltd.,	11,023	5.21
10	Ramesh Exports Private Ltd.,	9,271	4.38
11	Others	61,925	29.27
	TOTAL:	2,11,566	100



Market Intelligence Unit

The Economic and Market Intelligence Unit of the Board continued the following activities:

- ◆ Market research / Commodity analysis (Global and India)
- ◆ Supply estimation (crop forecast and estimation)
- ◆ Commodity risk management – price risk and production, weather risk management
- ◆ Support to open market development .
- ◆ Market intelligence and information dissemination (Daily market report, database on coffee)
- ◆ Economic analysis (Cost of production, Competitiveness, Farm financial management etc)
- ◆ Operation of Price Stabilization Fund (PSF) Scheme of GoI
- ◆ Advisory on WTO issues on coffee
- ◆ Trade policy (bilateral and multilateral) issues on coffee
- ◆ Website management.
- ◆ Computer networking at the Head Office.

The major activities undertaken by the Unit is briefly outlined hereunder

1. *Price Stabilization Fund Scheme*

Government of India has set up a Price Stabilization Fund for the benefit of

growers of Tea, Coffee, Natural Rubber and Tobacco with effect from April 2003. The objective of the Price Stabilization Fund Scheme is to provide financial relief to the growers when the prices of these commodities fall below a specified level. Contribution to the Member-Grower's Savings Bank A/c, by the Government and / or the Member-Grower, in a given year would be on the basis of categorization of the year as boom/normal/distress period. Such categorization would be done on the basis of a Price Spectrum Band, which would be fixed and announced every year. A uniform band of 40% for all the four commodities would be adopted with the Price Spectrum Band of $\pm 20\%$ from the seven years' moving average of international prices of the commodities. The scheme is based on the principle of contribution from the growers and from the Government depending upon boom/normal/distress periods, with a provision for withdrawal by the growers during the distress period. The contribution of the participant growers as well as of the Government would be made to the savings bank account of the participating growers opened for the purpose with any nationalized bank. The contribution of the participant grower/Government in the growers' account and withdrawal there from would be with reference to the price band so specified.



When the average domestic price of a commodity falls below the lower band, the year for the concerned commodity would be categorized as “Distress year”, where upon the Government will contribute Rs.1000/- to the grower’s savings bank account. When the average domestic price of a commodity is above the upper band, the year for the concerned commodity would be categorized as “Boom year”, where upon the grower will contribute Rs.1000/- to his savings bank account. When the average domestic price of a commodity remains within the lower band and the upper band, the year concerned commodity would be categorized as “Normal year”, where upon both the Government and the grower will contribute Rs.500/- each to the grower’s savings bank account.

Coffee Board is the implementing agency of the Scheme for coffee growers and Economic and Market Intelligence Unit is coordinating all the activities of the scheme.

As on March 31st, 2005 a total of 11,512 growers were registered under the Scheme by paying registration fee of Rs.500/- each. Among the coffee growing states, Andhra Pradesh had maximum number of 5,452 (47.37%) registered growers followed by Kerala and Karnataka with 2,867 (24.90%) and 2,224 (19.31%) growers respectively while Tamil Nadu had 890 (7.73%)

growers and Orissa 79 (0.68%) growers under the scheme.

Consequent to declaration of the year 2003 as “Distress Year” for coffee by the PSF trust, a total of 8,226 coffee growers who are registered during year 2003-04 received payment of Rs.1000/- each totaling Rs.82.26 lakhs from the PST trust. Owing to improvement in the coffee prices the year 2004 was declared as a “Normal Year” for coffee and all 11,512 growers were required to deposit Rs.500/- each to their respective PSF bank account and PSF trust will make a matching contribution of Rs.500/-. Currently the scheme also provides free accident insurance cover to the eligible member growers.

2. Logistics and cost competitiveness of coffee exporting countries

Logistics costs are a determinant of farm gate prices. Efficient management of these cost elements will eventually translate into better farm gate prices. Overall supply chain costs could constitute over 10% of the realized price. Therefore competitiveness in logistics cost could play an important role in the competitiveness of an origin. Hence clear understanding and benchmarking of these cost elements assumes greater importance. The main objectives of the study were to assess market characteristics, cost efficiencies in logistics, supply chain management, organization and



administration functions of exporters in three competing countries namely India, Brazil and Vietnam.

This study entitled “**Logistics and cost competitiveness of coffee exporting countries**” was undertaken by the Board under the MAI scheme of GOI.

The methodology adopted for this study was with extensive desk research as well as field visits and discussions with all supply chain constituents of Indian coffee (Farm gate to FOB). Along with the supply chain costs and service level determinants, the underlying factors like hard infrastructure, taxation system, and the structural parameters, were also studied. A similar exercise was carried out in other leading coffee exporting countries. i.e. Brazil and Vietnam. Finally the logistic cost and service levels were benchmarked for all the three countries.

The study has clearly shown that Vietnam is the most competitive origin as far as supply chain costs are concerned. The total logistic cost (including processing) for Vietnamese Robusta amounts to Rs.2600 per ton of Green Bean Equivalent (GBE). The corresponding cost for India is Rs.5500. Bulk of this differential is on account of inbound logistics cost, processing cost and outbound logistics cost.

In terms of structural parameters, Indian coffee faces the disadvantages associated

with the scale of operation. The large Indian exporters are comparable only to 30th place in Brazil. The length of the supply chain (number of intermediaries) in India is longer owing to smaller plantation holdings and also the lack of availability of organized finance at farm gate level. The absence of aggregating mechanisms like cooperatives in Brazil or collectors in Vietnam further escalates the supply chain costs for Indian origin.

Major recommendations made based on the study are:

1. Separate warehousing and processing activity
2. Abolition of purchase tax
3. Removal of export cess
4. Subsidizing phyto-sanitary certification charges
5. Extension of time limits to Coffee Board permit for exports
6. Improvement in customs clearance procedure
7. Use of higher tonnage vehicles for coffee transport



CHAPTER – VIII

ACCOUNTS AND FINANCE

<p>Functions:</p> <p>The Finance department of the Coffee Board has the following functions:</p> <ul style="list-style-type: none"> ❖ Compilation and maintenance of accounts of the various departments of the Board. ❖ Drawing up Budget Estimates and allocation of budget to various departments of the Board. ❖ Conducting Internal Audit of the offices of the Board. ❖ Exercising effective control over cash and other financial transactions of the Board, so as to ensure economic and cost efficient development of resources. ❖ Rendering advice on all matters having financial implications. ❖ Liaison with the Finance Division of the Ministry of Commerce for release of funds etc. ❖ Dealing with pending issues of pool marketing like sales tax, payments etc. <p>Grants received from Government of India in 2004-2005</p> <p>Plan Funds</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: right;">(Rs. in crores)</th> </tr> </thead> <tbody> <tr> <td>Plan Schemes</td> <td style="text-align: right;">28.20</td> </tr> <tr> <td>NER Grants</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>Subsidy</td> <td style="text-align: right;">17.80</td> </tr> </tbody> </table>	(Rs. in crores)		Plan Schemes	28.20	NER Grants	4.00	Subsidy	17.80	<p>Utilisation of Plan grants 2004-2005 :</p> <p>The plan grants and subsidy were utilised over 6 Schemes covering 16 components as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Sl. No.</th> <th style="text-align: center;">Name of the Scheme</th> <th style="text-align: center;">Expenditure Rs.in Lakhs</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I.</td> <td>Step up Production, Productivity & Quality :</td> <td></td> </tr> <tr> <td style="text-align: center;">1.</td> <td>Plant Improvement & Bio - Technology</td> <td style="text-align: right;">80.47</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Crop Management</td> <td style="text-align: right;">113.02</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Plant Protection</td> <td style="text-align: right;">80.39</td> </tr> <tr> <td style="text-align: center;">4.</td> <td>Standardisation of Post Harvest Technology, Mycotoxin & Pesticide residue in Coffee</td> <td style="text-align: right;">31.72</td> </tr> <tr> <td style="text-align: center;">5</td> <td>Setting up of Quality Evaluation Testing Centres, Training, Certification Systems and on/off Farm Quality Upgradation</td> <td style="text-align: right;">52.85</td> </tr> <tr> <td style="text-align: center;">6</td> <td>Coffee Development in N.E.R</td> <td style="text-align: right;">269.22</td> </tr> <tr> <td style="text-align: center;">6a.</td> <td>Coffee Development in N.T.A</td> <td style="text-align: right;">136.94</td> </tr> <tr> <td style="text-align: center;">7.</td> <td>Promotion of Organic Coffee</td> <td style="text-align: right;">28.44</td> </tr> <tr> <td colspan="2" style="text-align: right;">TOTAL of Scheme I</td> <td style="text-align: right;">793.05</td> </tr> </tbody> </table>	Sl. No.	Name of the Scheme	Expenditure Rs.in Lakhs	I.	Step up Production, Productivity & Quality :		1.	Plant Improvement & Bio - Technology	80.47	2.	Crop Management	113.02	3.	Plant Protection	80.39	4.	Standardisation of Post Harvest Technology, Mycotoxin & Pesticide residue in Coffee	31.72	5	Setting up of Quality Evaluation Testing Centres, Training, Certification Systems and on/off Farm Quality Upgradation	52.85	6	Coffee Development in N.E.R	269.22	6a.	Coffee Development in N.T.A	136.94	7.	Promotion of Organic Coffee	28.44	TOTAL of Scheme I		793.05
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II	Infrastructure Devt., Capacity Building & Transfer of Technology		1.	Special Package to NE Region	118.84
1.	Transfer of Technology through Extension Centres	269.24	2.	Special Package to AP & Orissa	52.66
2.	Maintenance of Research/Extn. Farms	510.26	3.	Plan Protection	259.79
2a.	Infrastructure Development	422.04	4.	Development & Implementation & Pollution abatement and incentive for replanting and water augmentation	231.53
3.	Promotion of Self Help Groups.	334.10	V	Interest Subsidy to Small Growers	51.50
4.	Capacity Building among various segments of the Industry including Board's Personnel.	117.71	VI	Transport Subsidy	177.19
5.	Labour Welfare Measures	38.81		Total Subsidies	891.51
	TOTAL of Scheme II	1692.16		Others	
III	Market Development		1.	Market Access Initiative	47.83
1.	Export Promotion of Indian Coffee	161.50	2.	Market Development Assistance	12.35
2.	Promotion of Domestic Coffee Consumption	97.00		TOTAL:	60.18
3.	Strengthening of Economic & Market Intelligence Unit	52.94		GRAND TOTAL	3762.31
	TOTAL of Scheme III	311.44	Non-Plan		
IV	Support to Small Grower Sector		Non-Plan Funds		
1.	Development & Implementation & Pollution abatement and incentive for replanting and water augmentation	13.97	Rs. 13.00 crores		
	TOTAL Scheme IV	13.97	These Non-Plan funds are utilised to meet the expenses on salary and pension.		
	Total Plan Expenditure	2810.62			



The Following funds were also received from the Ministry of Commerce towards the schemes operated by the Ministry through Coffee Board :

	(Rs. in crores)
Market Access Initiative Scheme	0.15
Market Development Assistance	0.13

The Following balances are also available

Pension	
	(Rs. in crores)
Pension Corpus	19.57

The Pension Corpus of Rs. 19.57 crores invested in Nationalized Banks and earning prevailing rates of interest. Total interest in the year is Rs.1.09 Crores, which partially funded pension liability of Rs.11 crores.

The Price Stabilisation Fund Trust is functioning under the Ministry of Commerce & Industry as a trust with the objective of

safeguarding the interest of growers by providing financial relief through Coffee Board to them when the prices of coffee fall below a specified level. The funds collected and expenditure incurred by the Board are as per the norms of Price Stabilisation Fund Trust. The number of beneficiaries/growers under this scheme is about 11512.

A Sum of Rs.231.53 lakhs was spent under Support to Small Grower Sector Scheme under Subsidy Account during 2004-05 as against the actuals of Rs.54.19 lakhs in the year of 2003-04.

The Board's accounts have been prepared in 3 sets viz., Receipts & payments, Income & Expenditure and Balance Sheet for the year 2004-05. These accounts are subject to audit by the Comptroller and Accountant General of India. A copy of the Certified Annual Accounts of Coffee Board General Fund, Pension Fund, Provident Fund for the year 2004-05 and Pool Fund for the calendar year 2004 along with the Audit Report is annexed herewith.