



स्पाइसेस बोर्ड
भारत

स्पाइसेस बोर्ड

वार्षिक रिपोर्ट 2008-09

SPICES BOARD

Annual Report 2008-09

स्पाइसेस बोर्ड

(वाणिज्य एवं उद्योग मंत्रालय - भारत सरकार)

सुगंध भवन

पी.बी. नं. 2277

कोचिन - 682 025

SPICES BOARD

Ministry of Commerce & Industry

Government of India

Sugandha Bhavan

P.B. No. 2277

Palarivattom P.O.

Cochin - 682 025

टेलिफोन / Tel : 0484-2333610-616, 2347965

फैक्स / Fax : 0484-2331429-2334429

ई-मेल / E-mail : spicesboard@vsnl.com

वेबसाइट / Website : www.indianspices.com

संपादकीय समिति

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विषय सूची

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EXECUTIVE SUMMARY

The Spices Board was constituted in 1987 under the Spices Board Act 1986 by merging the erstwhile Cardamom Board and Spices Export Promotion Council with the responsibility of production development of cardamom and export promotion of 52 spices as shown in the schedule of the Act. Spices Board completed 22 years serving the industry by promoting export of spices and spice products, production development of cardamom (small & large) and quality improvement of spices through post harvest improvement programmes. During 2008-09, three meetings of the Board were convened on 29.05.2008, 31.10.2008 and 27.03.2009.

Spices exports from India continued its upward trend despite the global economic recession and crossed the Rs.5000 crore mark for the first time during the year 2008-09. During the financial year 2008-09, a total of 4,70,520 tonnes of spices and spice products valued Rs.5,300.25 crores (US\$ 1,168.40 million) were exported from the country as against 4,44,250 tonnes valued Rs.4,435.50 crores (US\$ 1,101.80 million) in the previous year, registering an increase of six per cent in volume, 19 per cent in rupee value and six per cent in dollar terms of value.

During 2008-09, the average domestic prices of ginger, turmeric, coriander, clove, nutmeg, mace and saffron had increased considerably. Prices for cardamom (small), chilli, cumin, celery, fenugreek, dill seed, tamarind and mustard seed had shown marginal increase compared to last year. The price of large cardamom remained static and prices of pepper, garlic, and fennel had decreased.

During the year, production of cardamom (small) increased to 11,000 tonnes from 9,450 tonnes in 2007-08, while cardamom (large) production decreased to 4,300 tonnes from 4,920 tonnes.

The implementation of XI Plan schemes viz., Replantation and rejuvenation of cardamom plantations, Export oriented production and post harvest improvement of spices, Export development and promotion, Export oriented research, Quality improvement and Human resources development and works were continued during the year. The total financial outlay for the above schemes during the year was Rs.58.00 crores and financial achievement was Rs.57.97 crores.

During 2008-09, an area of 2,288 hectares were brought under replantation of cardamom (small) with an expenditure of Rs.6.375 crores and 2,949 hectares under rejuvenation programme with an expenditure of Rs.3.932 crores. In the case of cardamom (large), 850 hectares were brought under replanting and 488.6 hectares under rejuvenation with an expenditure of Rs.1.048 crores and Rs.0.284 crores respectively.

Under the scheme for Export oriented production and post harvest improvement of spices, various programmes such as providing assistance for irrigation & land development, providing rain water harvesting devices, improved curing devices etc., for small & large cardamom, spices cultivation in NE region, post harvest improvement, organic farming of spices etc., were implemented during 2008-09 with an expenditure of Rs.17.405 crores

Under the scheme for Export development and promotion of spices, programmes for adoption of hi-tech in spice processing, setting up/upgradation of in house quality control lab, quality certification,

sending business samples abroad, printing promotional brochure, setting up common infrastructure facilities for grading, processing, packing, warehousing etc., participation in international fairs/exhibitions etc., were implemented with an expenditure of Rs. 11.840 crores during 2008-09.

During 2008-09, the Board participated in 18 international fairs/exhibitions and 19 domestic fairs.

Multi media campaign launched last year in Andhra Pradesh to create awareness in the chilli growing belts on the gravity of the issue relating to aflatoxin in chilli continued during 2008-09 also and extended the cleanliness awareness programme for seed spices in Gujarat and Rajasthan.

The Indian Cardamom Research Institute of the Board has continued the activities on crop improvement, crop management, crop protection, biotechnology, post harvest technology and transfer of technology.

The Quality Evaluation Laboratory of the Board analyzed 43,165 samples during the year for various parameters including Pesticide residues, Aflatoxin, Illegal dyes, such as Sudan dye I-IV, Rhodamine, Para Red etc, in chilli & chilli products and turmeric. The Laboratory conducted six training programmes for the technical personnel of the spice industry on analysis of spices and spice products and participated in the check sample/validation programmes of ASTA, IPC and CSL, the U.K.

The first ever Spices Park set up by the Board was inaugurated during February 2009 at Chhindwara in Madhya Pradesh. The Spices Park was set up under the ASIDE scheme. The Board is also implementing the following schemes under ASIDE.

- Setting up QC lab at Mumbai
- Setting up QC lab and training centre in Guntur
- Setting up QC lab and training centre in New Delhi

The QC lab at Mumbai started functioning from June 2008. Setting up of lab at Guntur and New Delhi are in progress.

The Board has also got the following schemes approved by the Government under ASIDE and they are under various stages of implementation.

1. Setting up QC lab cum training centre in Chennai with an outlay of Rs.6.00 crores.
2. Setting up QC lab cum training centre in Kolkatta with an outlay of Rs.5.00 crores.

Under the National Horticulture Mission, the Ministry of Agriculture has approved the project proposal submitted by the Board for pepper replantation and rejuvenation in Idukki district of Kerala for implementation. The total project cost is Rs.230.58 crores and the financial assistance from NHM to the farmers under the programme is Rs. 120.00 crores for five years.

The Board implemented the Official Language Policy of the Government of India successfully. The Board has been awarded with the Rajbhasha rolling trophy for the better implementation of official language policy and Trophy and Certificate of merit for the Hindi house magazine instituted by the Kochi Town Official Language Implementation Committee for the year 2008.

I. CONSTITUTION AND FUNCTIONS

Constitution of Spices Board

The Spices Board Act, 1986, (No.10 of 1986) enacted by the Parliament provide for the constitution of a Board for the development of export of spices and for the control of cardamom industry including control of cultivation of cardamom and matters connected therewith. The Central Government by notification in the official gazette constituted, for the purpose of this Act, Spices Board, which came into being on 26.2.1987.

The Spices Board consists of:

- (a) Chairman;
- (b) Three members of Parliament of whom two shall be from among elected by the House of the People and one from among those elected by the Council of States;
- (c) Three members to represent the Ministries of the Central Government dealing with:
 - (i) Commerce;
 - (ii) Agriculture; and
 - (iii) Finance;
- (d) Seven members to represent the growers of spices;
- (e) Ten members to represent the exporters of spices;
- (f) Three members to represent major spice producing States;
- (g) Four members one each to represent:
 - (i) The Planning Commission;
 - (ii) The Indian Institute of Packaging, Mumbai;
 - (iii) The Central Food Technological Research Institute, Mysore;
 - (iv) Indian Institute of Spices Research, Calicut;
- (h) One member to represent spices labour interests.

(The list of members of Spices Board during the year is at Annex-I)

Functions of the Board

The Spices Board Act, 1986, has assigned the following functions to the Spices Board.

The Board may -

- (i) Develop, promote and regulate export of spices;
- (ii) Grant certificate for export of spices;
- (iii) Undertake programmes and projects for promotion of export of spices;
- (iv) Assist and encourage studies and research, for improvement of processing, quality techniques of grading and packaging of spices;
- (v) Strive towards stabilization of prices of spices for export;
- (vi) Evolve suitable quality standards and introduce certification of quality through “Quality Marking” of spices for export;
- (vii) Control quality of spices for export;
- (viii) Give licenses, subject to such terms and conditions as may be prescribed, to the manufacturers of spices for export;
- (ix) Market any spice, if it considers necessary in the interest of promotion of export;
- (x) Provide warehousing facilities abroad for spices;
- (xi) Collect statistics with regard to spices for compilation and publication;
- (xii) Import with prior approval of the Central Government any spice for sale; and
- (xiii) Advise the Central Government on matters relating to import and export of spices.

The Board may also –

- (i) Promote co-operative effort among growers of cardamom;
- (ii) Ensure remunerative returns to growers of cardamom;
- (iii) Provide financial or other assistance for improved methods of cultivation and processing of cardamom, for replanting cardamom and for extension of cardamom growing areas;
- (iv) Regulate the sale of cardamom and stabilization of the prices of cardamom;
- (v) Provide training in cardamom testing and fixing grade standards of cardamom;
- (vi) Increase the consumption of cardamom and carry on propaganda for that purpose;
- (vii) Register and license brokers (including auctioneers) of cardamom and persons engaged in the business of cardamom;
- (viii) Improve the marketing of cardamom;

- (ix) Collect statistics from growers, dealers and such other persons as may be prescribed on any matter relating to the cardamom industry, publish statistics so collected or portions thereof, extracts there from;
- (x) Secure better working conditions and the provision and improvement of amenities and incentives for workers; and
- (xi) Undertake, assist or encourage scientific, technological and economic research.

Spices under the purview of the Board

The following 52 spices* are listed in the Schedule of Spices Board Act:

1	Cardamom (Small & Large)	19	Kokkam	37	Juniper berry
2	Pepper	20	Mint	38	Bayleaf
3	Chilli	21	Mustard	39	Lovage
4	Ginger	22	Parsley	40	Marjoram
5	Turmeric	23	Pomegranate seed	41	Nutmeg
6	Coriander	24	Saffron	42	Mace
7	Cumin	25	Vanilla	43	Basil
8	Fennel	26	Tejpat	44	Poppy seed
9	Fenugreek	27	Pepper long	45	All-Spice
10	Celery	28	Star anise	46	Rosemary
11	Aniseed	29	Sweet flag	47	Sage
12	Bishops weed	30	Greater galanga	48	Savory
13	Caraway	31	Horse-radish	49	Thyme
14	Dill	32	Caper	50	Oregano
15	Cinnamon	33	Clove	51	Tarragon
16	Cassia	34	Asafoetida	52	Tamarind
17	Garlic	35	Cambodge		
18	Curry leaf	36	Hyssop		

* [In any form including curry powders, spice oils, oleoresins and other mixtures where spice content is predominant]

The Board has three statutory committees as under:

- (i) Executive Committee
- (ii) Research & Development Committee for Cardamom
- (iii) Market Development Committee for Spices

2. ADMINISTRATION

Personnel of the Board

Shri V.J.Kurian, IAS continued as Chairman of the Board during the period under report. Smt.K.Lekshmikutty, Dy.Director (Vig) held additional charge of Secretary w.e.f. 01.01.2009. Shri S.Kannan, Director (Mktg), Dr.J.Thomas, Director (Res), Shri R.Chandrasekhar, Director (Dev) and Dr.Charles J Kithu, Director (Fin) continued in their respective posts during the year.

As on 31st March 2009, the staff strength of Spices Board was 495 consisting of 84 Group A, 89 Group B, 279 Group C and 43 Group D employees.

Reservation for SC/ST/OBC in appointments and promotions

The Board is properly implementing the post-based reservation roster for SC/ST/OBC. The instructions issued by the Government from time to time in this regard are also strictly adhered to. As on 31st March, 2009 there were 244 employees belong to SC, ST and OBC categories.

The Board is also maintaining reservation roster for persons with disabilities and necessary action has been initiated to fill up the vacancy of Caner with a candidate who is visually handicapped, as per rules.

Welfare of women

During the period under report, the total strength of women employees in the Board in Group A, B, C and D categories was 110. The grievances of women employees are timely and properly attended to. A women officer of the Board has been appointed as "Women Welfare Officer" to sort out the difficulties/problems, if any, or to bring them to the notice of the higher authorities along with suggestions for possible solutions.

Meetings of the Board

During the period under report, three meetings of the Board were convened on 29.05.2008, 31.10.2008 and 27.03.2009.

Offices of the Board

The Head Office of the Board is located in Cochin, Kerala. The following offices of the Board functioned during the year.

Marketing

Spices Board is having its Marketing offices at Bodinayakanur, Chennai, Tuticorin, Bangalore, Mumbai, Ahmedabad, New Delhi, Kolkatta, Gangtok, Guwahati, Chhindwara and Guntur.

Development

- (1) Regional offices at Saklespur, Gangtok, Guwahati, Ahmedabad, Nedumkandam, Guntur, Warrangal and Dharwad.
- (2) Zonal offices at Rajakumari, Vandanmettu, Nedumkandam, Markapur, Chickmagalore, Madikeri, Shimoga, Mangan, Jorethang, Kalimpong, Aizawl, Itanagar, Agarthala, Tadong and Lucknow.
- (3) 32 Field offices located in the states of Kerala, Karnataka, Tamil Nadu and North Eastern Region.

The Board is also maintaining five departmental nurseries in Karnataka.

Research

The Main Research Station viz. Indian Cardamom Research Institute (ICRI) at Myladumpara (Kerala) and the Regional Research Stations at Tadong (Sikkim), Saklespur (Karnataka) and Thadiyankudisai (Tami Nadu) continued its functioning.

Plantation labour welfare

The Board continued the following schemes under the Plantation Labour Welfare during the year for the benefit of the labourers engaged in cardamom plantations.

(i) Award of Educational stipend to the children of cardamom estate workers

The scheme is applicable to students pursuing post S.S.L.C. education. Under the scheme, Spices Board provides financial assistance to eligible children of the cardamom plantation workers, subject to the fulfillment of the terms and conditions fixed by the Board.

During 2008-09, an amount of Rs.4,68,650/- was distributed to the children of cardamom estate workers under educational stipend scheme in Kerala, Karnataka and Tamil Nadu regions. The details are given below:

Sl. No.	State	No. of students	Amount spent in Rupees
1	Kerala	30	17,250
2	Karnataka	297	1,31,200
3	Tamil Nadu	606	3,20,200
	Total	933	4,68,650

(ii) Grant-in-aid to hospitals/educational institutions

The grants are given for improvement of essential facilities in the hospitals, schools and colleges located in the cardamom growing areas by way of providing drinking water facilities, toilets, procurement of furniture, laboratory equipments, clinical equipments, library books etc. The grant-in-aid could also be considered for conducting medical camp as a welfare measure for the cardamom plantation labourers.

During the year under report, Rs.4.93 lakhs was disbursed to nine institutions. The details are as follows:

Sl. No.	State	No. of institutions	Amount spent in Rupees
1	Kerala	2	70,000
2	Karnataka	2	75,000
3	Tamil Nadu	5	3,48,000
	Total	9	4,93,000

Implementation of Official Language policy

During 2008-09, the following programmes/activities were undertaken for the effective implementation of the Official Language policy of the Government of India in the Board.

- (1) Quarterly meetings of the Official Language Implementation Committee (OLIC) were convened on 25.06.2008 (for April-June), 25.09.2008 (for July-September), 29.12.2008 (for October-December) and 20.03.2009 (for January-March).
- (2) Hindi workshops were arranged in Head Office, Kochi during 25-26 June 2008, 26 Sept 2008 and 16-17 March 2009 for which 25 Section Officers/Junior Section Officers, 28 Group 'A' officers and 17 Junior clerks were nominated.
- (3) Two regional Hindi workshops were arranged, the first one in Regional Research Station, Sikkim during 13-15 May 2008 and the second one on 16th and 18th December 2008 in Regional Research Station, Saklespur. A total of 121 officials from these two regions were imparted Hindi training through these workshops.
- (4) As 14th September 2008 was a holiday, Hindi Day 2008 was observed on 15th September 2008 and Hindi Fortnight 2008 was celebrated during 15-28 September 2008. Various competitions in Hindi were conducted for the staff and their children in this connection.
- (5) A special programme connected with the Hindi Fortnight Celebrations 2008 was organised. The Board conducted a conversation competition in Hindi 'VARTHALAP' on 20.11.2008 for the staff members of the member organizations of Kochi Town Official Language Implementation Committee. The winners were given cash prizes - First prize Rs.3,000/-, Second Prize Rs.2,000/- and Third Prize Rs.1,000/- at the valedictory function of Hindi Fortnight Celebrations 2008 held on 30.12.2008 in Board's Head Office.
- (6) Two staff members from Head Office were nominated for Hindi (Prabodh) in-service training under the Hindi Teaching Scheme.
- (7) Hindi website (New version) and its home page were launched on 29.04.2008.
- (8) Arranged purchase and supply of the English-Hindi dictionary for the staff members of the outstation offices of the Board.

- (9) The officials from Hindi section in Head Office conducted Official Language inspection of the regional/zonal/field offices located in Sikkim and Karnataka.
- (10) The Draft & Evidence Sub Committee and the Third Sub Committee of the Committee of Parliament on Official Language inspected Board's Regional Research Station, Tadong on 03.06.2008 and Head Office, Kochi on 01.12.2008 and reviewed the activities related with the implementation of Official Language policy.
- (11) Publishing of a Hindi house magazine 'SANDESH' has been started during the year and released on 30.12.2008.
- (12) Publication of 'SPICE INDIA' in Hindi and 'SPICES MARKET' in bilingual form were continued. These materials are included in Hindi website also.
- (13) A display board to display major news in Hindi has been installed in the reception bay of Head Office.

The Board was awarded the Rajbhasha Rolling Trophy for remarkable achievements made in the direction of the implementation of Official Language policy and the Trophy and Certificate of Merit for the best Hindi house magazine instituted by the Kochi Town Official Language Implementation Committee for the member organizations for the year 2008.

3. FINANCE AND ACCOUNTS

The schemes, projects and programmes of the Board under Plan are financed through grants and subsidies from the Government of India. Non-plan expenditure on Administration is met mainly through Internal and Extra Budgetary Resources (IEBR) generated from various activities of the Board.

The approved budget for the Board during 2008-09 was Rs.58.00 crores under Plan and Rs.7.25 crores under Non-plan. An amount of Rs.25.00 crores against grants, Rs.23.00 crores against subsidies, Rs.5.00 crores towards provision for North Eastern Region and Rs.5.00 crores for setting up of a Plantation Research Unit at Centre for Development Studies (CDS), Trivandrum under Plan budget and Rs.2.00 crores under Non-plan have been received by the Board from the Government during 2008-09. The Board generated IEBR of Rs.5.85 crores from analytical charges for quality testing services rendered by the quality evaluation laboratory, sale of seedlings from nurseries, farm products of Research farms, subscription and advertisement charges, exporters' registration fee etc., under Plan schemes and Rs.1.85 crores from internal revenue from advances to employees etc., under Non-plan in 2008-09. The total expenditure of the Board under Plan and Non-plan during the year 2008-09 was Rs.66.65 crores, the breakup of which is given below:

Head of Account	Budget Grants (Rs.Lakhs)	Actual Expenditure (Rs.Lakhs)
Non-plan (including IEBR)	725.00	868.25
Plan		
Export Oriented Production	1,750.00	1,740.53
Export Development & Promotion	1,200.00	1,183.98
Export Oriented Research	700.00	709.04
Quality Improvement	400.00	400.02
HRD & Works	100.00	99.72
Special purpose fund for Replanting/ Rejuvenation of cardamom plantations	1,150.00	1,163.43
Plantation research unit in CDS	500.00	500.00
Total (Plan)	5,800.00	5,797.22
Total (Non-Plan & Plan)	6,525.00	6,665.47

The Board has also been implementing certain projects and programmes with grants received from other Government Departments and National agencies such as, NAIP, ICAR, DBT, ASIDE (State Cell) etc. The details of such projects, grants received and expenditure incurred during 2008-09 are given below:

Programmes	Grants (Rs.Lakhs)	Expenditure (Rs.Lakhs)
Western Ghat Development Programme (WGDP)	17.77	12.25
ASIDE (State cell)	1,328.60	1,178.19
Eco friendly Neem project	18.03	31.63
ICAR-NAIP scheme	20.99	11.97
Other collaborative projects	87.56	43.19
Total	1,472.95	1,277.23

4. EXPORT ORIENTED PRODUCTION AND POST HARVEST IMPROVEMENT

Spices Board is responsible for the overall development of cardamom (small & large) especially in improving production and productivity. Post Harvest Improvement of spices is also vested with Spices Board. For achieving these objectives, Board is implementing a number of developmental programmes under two schemes viz. “Special Purpose Fund for Replantation and Rejuvenation of Cardamom (Small and Large) Plantations” and “Export Oriented Production and Post Harvest Improvement of Spices”.

The activities proposed under the schemes are implemented through eight regional offices, 15 zonal offices and 32 field units functioning under the Development department of Spices Board. The Board maintains five departmental nurseries and farms in the major cardamom growing areas of Karnataka to cater the planting material requirement of cardamom growers.

Special Purpose Fund for replantation and rejuvenation of cardamom (small & large) plantations

The objective of the scheme is to address the issue of replanting/rejuvenation of the old and uneconomic plantations of cardamom (small and large) in the States of Kerala, Karnataka, Tamil Nadu, Sikkim and Darjeeling district of West Bengal. Production and distribution of disease free, healthy and quality planting materials were also taken up by certified nurseries opened in growers field with the technical supervision of the officers of the Board. Beneficiaries covered under the scheme were given financial assistance as cash subsidy on completion of the programmes.

The programmes implemented under the scheme during 2008-09 are as follows:

Cardamom (small)

Small cardamom is grown mainly in the Western Ghats of Kerala, Karnataka and Tamil Nadu. The total area under cardamom during 2008-09 was 71,170 hectares with an estimated production of 11,000 tonnes. Cardamom requires humid and moderately cool climate, filtered light obtained from tree canopy, humus rich soil, well distributed rainfall and protection from heavy wind. Majority of the cardamom holdings belong to the small and marginal category. Programmes implemented towards improving production and productivity of cardamom small are given below:

(i) Production and supply of quality planting materials

(a) Department nursery

The seedlings produced in the five departmental nurseries are supplied to growers on a no loss no profit basis. During 2008-09, the nurseries produced 5.00 lakhs cardamom seedlings/suckers for distribution to cardamom growers.

(b) Certified nursery

In order to produce disease free, healthy and quality planting materials, certified nurseries were opened in growers field under the technical supervision/guidance of the Board. In Karnataka, the planting

materials were produced through bed nurseries and poly bag nurseries whereas in Kerala it was produced through sucker multiplication nurseries. During 2008-09 the subsidy offered was Rs.1.25 per planting material in Karnataka and Rs.1.75 per planting material in Kerala and Tamil Nadu regions. During the season, a total number of 26 lakhs planting materials were produced.

(ii) Replanting

This programme is intended to encourage small and marginal growers to take up replantation of old, senile and uneconomic plantations. Subsidy of Rs.39,171/- and Rs.29,675/- per hectare was offered to small and marginal growers respectively having cardamom area up to four hectares and above four and up to eight hectares, being 33 per cent and 25 per cent of the cost of replanting and maintenance during gestation period respectively in the States of Kerala and Tamil Nadu. In Karnataka, the per hectare. subsidy offered was Rs.29,919/- for holdings up to four hectares and Rs.22,666/- for holdings above four and up to eight hectares, being 33 per cent and 25 per cent of the cost of replanting and maintenance during gestation period respectively (subsidy provided for planting material production will be deducted from subsidy for replantation). During 2008-09, an area of 2,288 hectares was brought under replanting involving an expenditure of Rs.6.375 crores.

(iii) Rejuvenation

Under rejuvenation programme, poor yielding plants in the existing plantations were identified and removed and the gaps thus formed were filled with quality planting material. In addition to this gap filling, scientific plant protection operations, fertilizer application, inter-culture operations, irrigation and other good agricultural practices as per the recommended package of practices were adopted. This programme was implemented in the States of Kerala and Tamil Nadu for registered small and marginal growers of cardamom having holdings up to four hectares. The subsidy provided for rejuvenation is Rs.14,025/- per hectare (subsidy for planting material is deducted). During 2008-09, 2949 hectares were covered under rejuvenation with an outlay of Rs.3.932 crores.

Cardamom (large)

Large cardamom is mainly grown in the sub Himalayan tracts of Sikkim and Darjeeling district of West Bengal. The total area under Large cardamom during 2008-09 was 27,034 hectares with an estimated production of 4,300 tonnes. Lack of technical know-how, non availability of quality planting materials, presence of senile, old and uneconomic plants were the major factors affecting the production of large cardamom.

In order to improve production and productivity of cardamom large, the following programmes were implemented during 2008-09.

(i) Production of planting materials through certified nurseries

For making available quality planting materials to the growers, Board Supported raising of sucker nurseries in farmers' field by offering a subsidy of Rs.1.15 per sucker. During the season 19.98 lakhs cardamom suckers were produced from the certified nurseries opened during the previous season in growers fields.

(ii) Replanting

The programme was intended to encourage the growers to take up replantation of old, senile and uneconomic gardens. Subsidy of Rs.16,500/- and Rs.12,500/- per hectare was offered to small and marginal growers having cardamom area up to four hectares and above four to eight hectares respectively, being 33 per cent and 25 per cent of the cost of replanting and maintenance during gestation period (subsidy offered for planting material production is deducted from the subsidy for replantation). During 2008-09, an area of 850 hectares was brought under replanting at a total expenditure of Rs.1.048 crores.

(iii) Rejuvenation

The programme was same as that for cardamom small and the subsidy offered was Rs.6,600/- per hectare for holding size up to four hectares (subsidy for planting material is deducted). During 2008-09, 488.6 hectares were covered with a financial outlay of Rs.0.284 crores.

Export oriented production and post harvest improvement of spices

The activity components under the scheme are intended for improving quality of spices at farm level, encouraging organic production of spices, creation of replicable models based on integrated pest management, development of spices with export potential in North Eastern region, extension service to spice growers etc.

Cardamom (small)**(i) Irrigation and land development**

The programme aimed at providing water resources in cardamom plantations by constructing water storage devices like farm ponds and wells. Installation of irrigation equipments, soil and water conservation works were also supported.

The Board implemented the programme in the States of Kerala, Tamil Nadu and Karnataka. In Karnataka the programme was implemented jointly by Spices Board and State Government of Karnataka under their Western Ghat Development Programme sharing the cost on a 60:40 basis by the State and the Spices Board. In Kerala and Tamil Nadu, full amount of subsidy was paid by the Board due to non availability of funds from the respective State Governments. The programme provided financial support to farmers by way of subsidy ranging from 25 to 50 per cent of the unit cost approved by NABARD.

During 2008-09, in Kerala, a total number of 625 water storage devices were constructed, 148 irrigation equipments installed and 12.18 hectares were covered under soil conservation. In Tamil Nadu, seven water harvesting devices were constructed and four irrigation equipments were installed under the programme. In Karnataka, 78 devices were constructed and 60 irrigation equipments were installed during the season. The total expenditure towards payment of subsidy under the programme was Rs.1.127 crores, covering an area of 1,000 hectares.

(ii) Rain water harvesting devices

Irrigation during summer months is very much essential in Cardamom plantations for getting a higher yield. A cheap method of harvesting rain water for irrigation purpose in the cardamom plantations is by using excavated storage tanks lined with UV resistant polythene tarpaulin, also called Silpauline. This method of harvesting rain water for irrigation purpose is adopted by cardamom growers because of its low cost and convenience. Spices Board is popularizing this method for irrigating cardamom plantations in the states of Kerala, Karnataka and Tamilnadu.

It is estimated that a storage tank of 200 cu. meter capacity (eg. 16m x 5 m x 2.5m lined with Silpauline) can store about two lakh liters of rain water, which is sufficient to provide 10 – 12 rounds of irrigation in a cardamom plantation of 0.8 hectare. The cost of such a device is estimated to be around Rs.24,000/- (Rs. 16,000/- for excavation work and Rs. 8,000/- for silpauline sheets). Subsidy @ 33.33 per cent of the actual cost, limited to Rs.8,000/- is allowed for the construction of one 200 cu. meter capacity tank to registered small and marginal growers of cardamom. During 2008-09, a total of sixty five devices were constructed at total subsidy of Rs.0.026 crores.

(iii) Improved cardamom curing devices

Cardamom is dried in traditional curing houses using firewood as fuel. Sun drying is not popular due to the loss of green colour during the process.

As the productivity / production is registering an upward trend year after year, the firewood requirement is also increasing. As the wind fallen trees are not enough to meet the growing demand of firewood, the growers are forced to meet their requirement of firewood, either from the market or from resorting to cutting trees leading to degradation of forest cover. Moreover, wood is required for the construction of new curing houses especially for racks to spread cardamom and to provide false ceiling in the curing houses to preserve the heat.

Few innovative growers have started installing cardamom curing systems using alternate fuels, viz. Diesel, LP Gas which gives their produce better colour and cost effective drying. These driers are eco-friendly, labour saving and easy to operate. The harvested green cardamom can be put in to the drying chamber of these new curing systems after washing, instead of spreading it on the trays as is practiced in the conventional drying. The drying time is reduced from 28 – 36 hours to about 20 hours in these driers.

The objective of the programme is to popularise the cardamom drying systems using LPG/ Diesel/ Biomass and firewood as alternate fuel among the small growers of Kerala, Karnataka and Tamil Nadu by providing 33.3 per cent of the actual cost of drier as subsidy subject to a maximum of Rs. 60,000/- per device. The non-subsidy portion is met by the growers from their own funds or through institutional finance.

Spices Board has prepared a list of approved suppliers and upper ceiling cost for driers of various capacities. The driers are to be purchased from approved suppliers. During 2008-09, Board had assisted for installation of 83 numbers of improved cardamom curing devices at a financial outlay of Rs.0.375 crores.

Cardamom (large) - Sikkim region

(i) Setting up of curing houses – Modified bhatti

The large cardamom growers traditionally cure their cardamom in the locally fabricated bhatties. This does not ensure proper drying and ideal colour to the cured cardamom. Board had introduced and evaluated a number of curing methods using different fuels and has selected a system which gives best quality. In order to popularize this method, Board is providing subsidy @ Rs.5,000/- for 200 kg capacity and Rs.9,000/- for 400 kg capacity drier respectively. During 2008-09, 130 modified bhatties were set up at a total subsidy of Rs.0.071 crores.

(ii) Rainwater Harvesting

The programme for rainwater harvesting using devices made of earth excavated pits lined with UV stabilized silpauline sheets which are implemented in the states of Kerala, Karnataka and Tamil Nadu for cardamom small is replicated in North Eastern states also for large cardamom. The terms and conditions and subsidy provided are same as that for cardamom (small). During 2008-09, ten rainwater harvesting devices were constructed providing a subsidy of Rs.0.007 crores.

Development of spices in other North Eastern states

Chilli, ginger and turmeric are extensively cultivated in the North Eastern states. Some of the indigenous varieties viz., 'China', 'Nadia', and 'Thingpur' in Ginger, 'Lakadong' in Turmeric and 'birds eye' in chilli are considered rich in oil, curcumin content and capsaicin content respectively. The agro – climatic condition prevailing in NE states are suitable for the cultivation of pepper and large cardamom and these crops can be profitably grown in these regions to create exportable surplus. There is great scope in promoting production of organic spices in these states by popularizing organic farming practices among the growers so that sufficient quantity of organic spices can be made available for exports.

The major constraints noticed in the development of spices in NE region are lack of an organised marketing system and lack of knowhow on cultivation and post harvest practices. Spices Board therefore, implements an integrated scheme for the development of export oriented spices in N.E States with the following components:

(i) Large cardamom – New planting

Large Cardamom cultivation is presently concentrated in Sikkim and North West Bengal. The agro-climatic conditions prevailing in other NE States are suitable for cultivation of large cardamom.

The scheme envisages to extent large cardamom cultivation in these areas by providing Rs.17,500/- per hectare as subsidy towards cost of planting material and maintenance during gestation period. During 2008-09, 461.25 hectares has been planted with large cardamom seedlings raised in the certified nurseries opened during the previous season at a total subsidy of Rs.0.880 crores.

(ii) Rainwater harvesting

The programme for rainwater harvesting using devices made of earth excavated pits lined with UV stabilized silpauline sheets which is implemented in the States of Kerala, Karnataka and Tamil Nadu for cardamom small and for large cardamom in Sikkim is replicated in North Eastern States also for various spices. The terms and conditions and subsidy provided are same as that for cardamom (small). During 2008-09, eight rainwater harvesting devices were constructed providing a subsidy of Rs.0.003 crores.

(iii) Production of organic pepper

The scheme is implemented in the states of Assam, Arunachal Pradesh, Manipur and Meghalaya by providing 33 per cent subsidy subject to a maximum of Rs.15,000/- per hectare in two instalments of Rs.13,000/- and Rs.2,000/-. The required planting materials are produced through rapid multiplication units with the help of Governmental/ Non-Governmental agencies with full technical guidance from Spices Board. During 2008-09, 121.95 hectares has been brought under cultivation paying an amount of Rs.0.174 crores towards subsidy.

(iv) Organic cultivation of Lakadong turmeric

Lakadong turmeric is having high curcumin content (5.5 per cent) and hence suitable for extraction of colour. This variety is highly location specific and is very much preferred by the exporters for extraction of the colour. Hence organic production of Lakadong turmeric in Meghalaya and other North Eastern states is supported during the XI Plan period. Availability of quality planting materials is a major limiting factor in its production. So, Rs.12,500/- per hectare was provided as subsidy towards 50 per cent of the cost of planting material. This programme was implemented with the assistance of Government/ Non-Governmental agencies. During 2008-09, an area of 930 hectares has been covered involving a subsidy element of Rs.1.090 crores.

(v) Organic cultivation of ginger

Ginger varieties like Nadia and China are having higher oil content and hence suitable for exports. During the XI Plan period, to promote production of these varieties organically in NE states, Rs.12,500/- per hectare was provided as subsidy towards 50 per cent cost of the planting materials. The programme is implemented with the assistance of Governmental/ Non – Governmental agencies. During 2008-09, 815 hectares were brought under cultivation providing Rs.0.977 crores as subsidy.

In addition to ginger and Lakadong turmeric, organic cultivation of Naga chilli was taken up in an area of eight hectares with a subsidy of Rs.0.01 crores.

(vi) Training of officers and farmers of NE states

Board arranges training programmes for the officers of the state Agri/ Horti. Departments and growers of North Eastern States on the recent advances in the areas of cultivation, harvest and post harvest techniques of spices. The training is arranged in alternate years for officers and every year for farmers.

During 2008-09, 88 farmers of the NE states were trained at the Indian Institute of Spices Research, Calicut; Kerala Agricultural University, Thrissur; Indian Cardamom Research Institute, Myladumpara and Quality Evaluation Laboratory of Spices Board and spice processing units. An amount of Rs.0.061 crores was incurred under the programme.

Other Programmes for spices

(i) Seed spice threshers (Power operated and manually operated)

The harvesting and post harvest practices followed by some farmers of seed spices are unhygienic which results in contamination of the products with foreign matters like stalks, dirt, sand, stem bits etc. The seeds are separated by beating the harvested and dried plants with bamboo sticks or rubbing the plants manually by hand. In order to educate the farmers and to avoid contamination in the final product, the Board introduced use of threshers which are operated manually as well as with power, for separating the seeds from the dried plants.

The cost of such power and manual threshers is estimated as Rs.1.00 lakh and Rs.30,000/- respectively. It is proposed to provide 50 per cent of the cost subject to a maximum of Rs.50,000/- for a power thresher and Rs.15,000/- for a manually operated thresher as subsidy. During 2008-09, 17 power operated and three manually operated threshers were supplied involving a payment of subsidy of Rs.0.134 crores.

(ii) Supply of pepper threshers

The objective of the programme is to assist the pepper growers to acquire threshers to separate pepper berries from spikes under hygienic condition. Pepper growers having a minimum of 500 vines are eligible to avail the scheme benefits. The subsidy offered was Rs.7,000/- per thresher irrespective of the capacity of the equipment. During 2008-09, a total of 252 pepper threshers were distributed at an expenditure of Rs.0.143 crores.

(iii) Distribution of bamboo mats for pepper

The programme is intended to encourage the small and marginal pepper growers to dry pepper on hygienic bamboo mats coated with paper-fenugreek paste. During 2008-09, the Board had supplied 4,950 bamboo mats of size 12' x 6' at 90 per cent subsidy to tribal growers and 50 per cent subsidy to other category of growers at a total expenditure of Rs.0.050 crores.

(iv) Promotion of Integrated pest management in chilli (IPM)

Consignments of Indian chilli were detained in the recent past due to reported presence of pesticides. The presence of pesticides has caused serious trade disruptions. Therefore, it is necessary to popularize integrated pest management in chilli.

During the IX Plan period, the Board under an UNDP Project, implemented a pilot project to promote IPM in chilli through farmers field school, demonstration plots and supply of IPM kits to the growers of chilli in two villages in Andhra Pradesh with the help of NGOs. The project is successful in demonstrating benefits of IPM to the growers.

During the X Plan period, Board had replicated the same in other villages in Guntur, Warrangal, Karim Nagar, Prakasam and Kurnool districts of Andhra Pradesh by supplying IPM kits containing pheromone traps, bio agents like Trichoderma, Trichogramma, neem pesticides and seed worms of vermi compost units at an estimated cost of Rs.1,500/- per hectare. This comprises 50 per cent of the cost of the IPM package. The scheme is implemented with the assistance of Non Governmental Organizations. Support was given to the NGOs in maintaining extension staff to run the farmers field school and field visits to provide technical guidance.

During the XI Plan, Board is continuing implementation of the programme using outsourced Technical Assistants under the supervision of Board's Officers. In 2008-09, the programme was implemented in Warangal, Guntur, Prakasham, Karim Nagar and Kurnool districts of Andhra Pradesh covering an area of 3,356 hectares spending an amount of Rs.0.584 crores.

Post harvest improvement of spices

(i) Construction of drying yards for drying spices

This programme aims at construction of concrete/cement drying yards in the farmers' field for drying spices under hygienic condition. The estimated cost of construction is Rs.600/- per square meter. A subsidy of Rs.150/- per square meter is provided towards 25 per cent of the cost of construction for general category of growers. Scheduled caste and tribes are offered higher subsidy of Rs.300/- and Rs.540/- per square meter towards 50 per cent and 90 per cent of the cost of construction respectively.

In addition, construction of community drying yards by NGOs, farmers groups (SHG) and association of farmers and Agriculture Market Committees are supported by providing subsidy @ 50 per cent of cost of construction. Individual growers are provided subsidy for constructing up to 150 square meters of drying yard and NGOs, Farmers Associations, Agricultural Market Communities are eligible for assistance proportionate to the members thereof. During 2008-09, drying yards admeasuring 23,254 square meters were constructed for pepper, ginger, turmeric, chilli and seed spices at a total expenditure of Rs.0.249 crores.

(ii) Supply of polythene sheets for drying spices

In order to dry spices viz. pepper, chilli, seed spices and turmeric under hygienic conditions, the Board subsidises the supply of HDPE polythene sheets/silpauline sheets to the small and marginal growers. During 2008-09, 4640 silpauline (size: 12 x 9 meters – 120 GSM) sheets were distributed to small and marginal growers of pepper, chilli, ginger and turmeric at a total expenditure of Rs.0.555 crores.

(iii) Training programme for quality improvement of spices

The Board is regularly conducting quality improvement training programmes to farmers, officials of state Agri./Horti. Department, traders, members of NGOs for educating them on scientific methods of pre/post harvest and storage operations and updated quality requirements for major spices.

During 2008-09, training programmes were conducted benefiting 24,852 spices growers in 588 centres and 552 officials of State Agriculture/Horticulture Departments in 12 centres, 124 traders in four centres and 480 representatives of NGOs in 12 centres. Twenty one Regional seminars benefiting 1,352 participants were also conducted.

The total number of personnel trained under the above programme was 27,360 in 637 centers. The budget is met under HRD.

Promotion of organic farming

Internationally, the niche market for organically produced spices is growing at a fast rate. Early entry into this segment will improve the exportability and demand for Indian spices. In addition, availability of organically grown spices will help the country to withstand competition from low cost countries in south East Asia. The major bottlenecks in promoting organic farming are non-availability of organic farm inputs and high cost of organic certification of farms and processing units.

In order to promote farmers for organic production of spices, programmes like organic farm certification assistance, support for setting up vermi-compost units, promoting organic cultivation of spices are implemented during the XI Plan.

(i) Organic farm certification

The programme aims to help growers/ processors of spices in acquiring organic certification which is a pre-requisite for marketing organic spices.

During XI Plan, Board is assisting group of farmers, NGOs and Farmers Co-operative Societies/ Associations in acquiring certification for their farms/ processing units by meeting 50 per cent cost of the certification, subject to a maximum of Rs. 75,000/-. Individual farmers and processors are eligible for 50 per cent of the cost of certification subject to a maximum of Rs. 25,000/- per certification. During 2008-09, assistance to the tune of Rs.0.129 crores were provided to 22 NGOs / groups and 17 individual farmers covering an area of 3,456 hectares benefiting 4,556 farmers. Five processing units were also supported under this programme.

(ii) Support for vermi-compost units

There is need to produce organic inputs in the farm itself to maintain soil fertility and to support organic production. In order to enable the growers to produce organic farm inputs, particularly vermi-compost, Rs.2,000/- is offered as grant-in-aid to growers to set up a unit with one tonne output of vermi-compost. During 2008-09, a total of 2,817 vermi-compost units were set up incurring an amount of Rs.0.527 crores.

(iii) Organic cultivation of spices

Since the market for organic products is gradually registering an upward trend, there is large scope for promoting organic cultivation of spices in suitable locations. During the XI Plan, the Board is assisting growers for taking up organic cultivation of spices by giving a subsidy of 12.5 per cent cost of

production subject to a maximum of Rs.5,000/- per hectare. The programme will be implemented with the participation of selected NGOs by paying them retention fee @ Rs.500/- per hectare. An amount of Rs.250/- per hectare is proposed to be given for meeting cost of organic certification. These expenses will be deducted from the total amount of subsidy and balance only will be paid to the beneficiaries. During 2008-09, a total of 840 hectares were brought under organic cultivation of spices like chilli, paprika like chilli, turmeric and cumin releasing subsidy to the tune of Rs.0.428 crores.

Extension advisory service

Transfer of technical know-how to growers on production of spices is an important factor in increasing productivity. This programme envisages technical/extension support to growers on the scientific aspects of cultivation through personal contact, field visits, group meetings and through distribution of literature in vernacular languages for increasing productivity and improving quality of cardamom in the states of Kerala, Karnataka and Tamil Nadu, development of large cardamom in the states of Sikkim and West Bengal and selected spices in the North East and small pockets across the country.

Besides extension advisory service, the production and post harvest related schemes of the Board viz. Special Purpose Fund for Replantation and Rejuvenation of Cardamom Plantations and scheme for Export Oriented Production and Post Harvest Improvement of Spices are implemented through the extension net work.

The pay and allowances of the staff in the Development Department, their TA/DA, expenditure on vehicle, office establishment and other contingencies are met under this programme.

During 2008-09, a total of 26,162 visits were conducted and 1,953 meetings were organized for cardamom small in the States of Kerala, Tamil Nadu & Karnataka, 8,079 visits and 312 meetings were conducted for large cardamom in Sikkim & Darjeeling district of West Bengal and 2,691 visits and 280 meetings were conducted in North Eastern states. The expenditure made under the programme during 2008-09 was Rs.9.805 crores.

5. EXPORT DEVELOPMENT AND PROMOTION

The prime objective of the Board is to promote export of spices and spice products from India. The export development & promotion programmes are formulated and implemented by the Marketing department of the Board. The programmes are aimed at equipping the exporters to have necessary competitive edge in sustaining and increasing exports of Indian spices. The market development activities of the Board have their focus on quality, value addition and technology transfer/upgradation. The quality upgradation programmes have helped spices exporters to acquire capabilities so as to conform to the international quality standards.

Licensing and Registration forms a part of the regulatory functions of the Board. The export of spices from India is regulated through the Spices Board (Registration of Exporters) Regulations 1989 while the domestic marketing of cardamom is regulated through Cardamom (Licensing & Marketing) Rules 1987. As per these rules, any person desirous of doing business in cardamom as auctioneer or dealer has to obtain a license. The exporters of spices have to obtain certificate of registration from the Board. These certificate/licenses are issued for a block period of three years commencing from September onwards.

The quality specifications stipulated by the buying countries are disseminated to the exporters on a continuous basis. Exporters are also given updated information on the opportunities emerging in different markets, new uses & applications in food and non-food sectors by conducting market studies.

Export development and promotion programmes

Adoption of hi-tech & technology up-gradation

In order to encourage higher-end value addition in spices processing, through advanced technology, for better value realization and ensuring food safety and up-gradation of quality standards of the product to match international quality requirements, the programme offers grant-in-aid to the exporters for adopting hi-tech in spices processing and upgrading their existing technologies/facilities. The level of assistance is 33 per cent of the value of machinery/equipments for processing and packing, electrical installations and consultancy charges with a maximum of Rs.1.00 crore per beneficiary for general areas and 50 per cent of the cost or Rs.2.00 crores, whichever is less for special areas including North Eastern region. The scheme for Technology up-gradation also offers same level of financial assistance to support exporters to upgrade their existing processing/packing facilities to manufacture products of high-end value addition and quality standards to match the requirements of foreign buyers.

During 2008-09, total financial assistance of Rs.338.00 lakhs was provided to 17 exporters for adoption of hi-tech in spice processing and upgradation of processing units.

Setting up/upgradation of Quality Control Laboratory

The programme envisages, assistance to exporters who propose to set up/upgrade in-house quality control laboratories to establish facilities to undertake analysis of various parameters on quality of the

products including detection of pesticide residues, aflatoxin, physical, chemical and microbial contaminants. Assistance is limited to 33 per cent of the cost of laboratory equipments/instruments, glassware, laboratory furniture and other accessories including electrical installations and consultancy charges for setting up/up-gradation of quality control laboratories. During 2008-09, 10 exporters had availed this facility, the total grant-in-aid being Rs.36.24 lakhs.

Quality certification, validations of check samples and training of laboratory personnel

Spices Board assists spices exporters in acquiring quality systems like ISO, HACCP and such quality certifications in their units. Board will also give assistance towards the cost of analytical charges for validation/ standardization in laboratories abroad and charges/expenses for upgrading technical knowledge of laboratory personnel of the exporters in reputed international laboratories preferably approved by USFDA, EU, etc. Assistance is limited to 33 per cent of the cost. A total assistance of Rs.7.08 lakhs was extended to four exporters under quality certification during 2008-09.

The ceiling of Rs.1.00 crore for general areas and Rs.2.00 crores for difficult areas and North Eastern region will be applicable for all the four components mentioned above.

Sending business samples abroad

For finalizing the transactions on the basis of samples and to have more clarity in dealings and also to eliminate the possibility for trade disputes on quality aspects, dispatch of samples play an important role, and the Board is providing assistance for sending business samples of spices and spice products abroad. Under the programme, the Board will reimburse to a maximum of Rs.50,000/- per year to registered manufacturer exporters of spices having Spice House Certificate/Spices Board Logo or Certified grower exporters of organic spices and registered brand exporters. During 2008-09, the Board extended financial assistance totaling of Rs.7.48 lakhs to 17 exporters of spices.

Printing promotional literatures/brochures

Printing promotional literatures/brochures, video films/CDs other electronic modes to project competencies and capabilities of exporters and the range of products and services offered to the prospective buyers abroad is supported by the Board. Qualified exporters of spices/spice products who have SHC/ Logo/Brand registered with the Board/Organic certification are eligible to avail the assistance. Financial assistance is provided @ 50 per cent of the cost subject to a maximum of Rs.2.00 lakhs per brochure. Details of the schemes have been provided to the exporters to enable them to avail this assistance for export promotion.

Packaging Development

The Board provides financial assistance for improving the existing packaging and to develop modern packaging for increased shelf life, reduce storage space, establishing traceability and better presentation of Indian spices in markets abroad. During 2008-09, the Board extended Rs. 1.00 lakh as financial assistance under the scheme.

Product development & research

Product Development & Research in spices is supported by the Board by extending financial assistance to the tune of Rs. 100 lakhs to exporters of spices/research institutions. During 2008-09, an amount of Rs. 3.00 lakhs has been released to the National Institute of Interdisciplinary Science and Technology (NIST) towards the final payment on the approved research on 'Medicinal & Health Aspects of Cardamom'.

Market Development Assistance (MDA)

Exporting companies with an f.o.b. value of exports effected upto Rs. 15.00 crores in the preceding year, are eligible for assistance under the MDA guidelines of the Ministry of Commerce & Industry for participation in trade delegations/BSMs/fairs/exhibitions abroad to explore new markets for export of their specific products and commodities from India in the initial phase. The assistance is for airfare in economy/excursion class and or charges of the built up finished stall subject to an upper ceiling per tour to eligible spices exporters. The Board extended financial assistance of Rs. 12.87 lakhs to 19 exporters under the scheme during 2008-09.

Grant in aid for participation of exporters in international trade fairs/exhibitions

The programme envisages financial assistance to individual exporters who have obtained Indian Spice Logo/Spice House Certificate/Certified grower and exporter of organic spices and those exporters whose Brand names have been registered with the Board.

The assistance is in the form of reimbursement of airfare (economy/excursion class) for visits to trade fairs subject to a maximum of Rs. 60,000/- for Logo/SHC holders and Rs. 40,000/- for holders of registered brand and organic certificate, per exporter per year. In case of hiring independent stall, the extent of assistance will be 50 per cent of the cost per exporter subject to a ceiling of Rs. 1.00 lakh. During the year under report, an amount of Rs. 2.72 lakhs has been disbursed to six exporters under the scheme.

Participation of exporters in International meetings/seminars and delegations

Qualified representatives from exporter's associations/forums are assisted to participate in the international meetings/seminars/delegations by extending financial assistance up to 50 per cent of their airfare (economy/excursion class) subject to ceiling of Rs. 1.50 lakhs per exporter per year. However, associations have not availed this assistance during 2008-09.

Market development programmes in the NE Region

The Board proposes to initiate development programmes in selected states in the North East region in association with the concerned State Governments and M/s. ITC Ltd., Guntur. Accordingly, a tripartite agreement has been signed with the State Government of Nagaland, ITC Ltd., and the Board on 20.10.2007 for development of Naga Chilli and other spices grown in the state. The MOU agreement in respect of Meghalaya and Sikkim is under consideration.

Indian Spice Logo

Indian spice logo is awarded to manufacturer exporters of spices in consumer and institutional packs up to 25 kilo gram conforming to the stipulated high standards in processing, packaging, warehousing and quality assurance. The logo holder can affix this symbol of quality on their consumer packs as a mark of 'Indianness and Quality'. The advantage of 'Indian Spice Logo' has been publicized by the Board for the benefit of manufacturer exporters of spices in consumer packs.

Spice House Certificate

The Spice House Certificate is awarded to those exporters of spices who have installed required facilities for cleaning, processing, grading, packaging and warehousing and quality assurance. Only those exporters who have acquired ISO & HACCP/GMP certificate are eligible for Spice House certificate. Board continued to renew the Spice House Certificate and issue of new certificate to the eligible exporters. At present 25 units have Spice House Certificates.

Registration of brand name

The objective of the programme viz., registration of brand name is to support export of spices/spice products in consumer packs under Indian brand names and gain market share in the fast growing market of branded consumer packs. The Board has specified packing standards for different spices for different unit weights in consultation with Indian Institute of Packaging. At present 38 exporters have registered their Brands with the Board.

Electronic auction system in cardamom

The Board has introduced electronic auction (E-auction) system replacing the manual system for cardamom (small) in Kerala and Tamil Nadu, which produces 80 per cent of cardamom (small) in the country. E-auction is intended to provide increased transparency in transactions and ensure competitive price to the growers. The Board has installed the systems at a cost of about Rs.1.00 crore and has streamlined the procedure for auctions. Common E-auction center at Bodinayakanur in Tamil Nadu and Vandanmettu in Kerala were established where licensed auctioneers conduct auction on the days allotted to them.

Spices Parks in major spice growing/marketing centres

In order to empower the growers of spices ensuring better price realization, Board has taken a major initiative to establish Spices Parks at seven locations to provide scientific processing and infrastructure facilities. The projects in the Spices Parks are primarily intended to benefit the growing community through quality improvement, grading, packing, warehousing, etc., for value addition which would lead to better price realization of their produce. The centres where Spices Parks are proposed and their respective status are as under:

(i) Chhindwara, Madhya Pradesh: The Board has purchased 9.34 acres of land at Chhindwara for the establishment of plant for dehydration of garlic and extraction of chilli. The Garlic Dehydration unit was inaugurated in the month of February 2009.

(ii) Idukki District, Kerala: Memorandum of Understanding between the Board and KINFRA representing Government of Kerala was executed on 13-2-2007 for establishment of Spices Park. Since the Govt. of Kerala is delaying the land allotment for setting up the Spices Park, Spices Board took over an area of 12.00 acres on lease at Puttady, Vandanmettu for 30 years from the CDF Trust to set up a Cardamom Complex (Spices Park) providing necessary common infrastructure. Tendering works of construction of buildings/godowns and processing plant in Cardamom Complex at Puttady has been initiated through KITCO Ltd.

(iii) Guntur, Andhra Pradesh: The Government of Andhra Pradesh has allotted 124.78 acres of land in Guntur district to the Board for setting up the Spices Park. Action is initiated by the Board to finalize the consultant for initiating plan and estimates for civil construction and other preliminary requirements to set up the Spices Park.

(iv) Sivagangai, Tamil Nadu: The Board has acquired an area of 72.70 acres of land for setting up Spices Park at Sivagangai from the Govt. of Tamil Nadu at a cost of Rs.48,85,440/-. A project study has been entrusted with IIM, Bangalore. Action is being initiated to finalize, the consultant for the setting up of the Spices Park.

(v) Other Centres: Mehsana district in Gujarat and Jhalawar district in Rajasthan are the other centres where Spices Parks are proposed for which the Board has requested the concerned State Governments for alienation of land at nominal value. Preliminary action for establishment of Spices Parks in the above centers shall be initiated on allotment of lands.

Regional Quality Evaluation Laboratories

The Board has proposed to set up Regional Quality Evaluation Laboratories at various centers to facilitate the exporting community to analyse export products and conform to the prescribed quality Standards to their overseas buyers which would increase consumer confidence in the buying countries on quality aspects. The laboratory at Mumbai has commenced functioning on 25th June 2008. The other centers where the Quality Evaluation Laboratories proposed are Guntur, Chennai, Delhi, Kolkata, Tuticorin, and Kandla. The civil work for laboratory at Guntur in one acre of land provided by the APMC, Guntur in the Market yard on long lease for a nominal rent will be completed and will become operational during 2009-10. The Board has acquired 2.00 acres of land at Gummidipoondi from SIPCOT, Chennai and 936 square meters of land at Narela from Delhi Development Authority, Delhi at a cost of Rs.40.00 lakhs and Rs.70.73 lakhs, respectively, for the Board's laboratories. Preliminary action to take up civil works for the lab building has been initiated. The process to acquire lands for laboratories at Tuticorin and Kandla has been initiated.

Licensing and registration

Licensing and registration are part of the regulatory functions of the Board. The export of spices is regulated through the Spices Board (Regulation of Exporters) Regulation 1989 and the domestic marketing of cardamom is regulated through Cardamom (Licensing & Marketing) Rules 1987. The registration certificates as per the above regulations are issued for a block period of three years. The new block period 2008-2011 commenced from 1-9-2008. As on 31-3-2009, the Board has issued following numbers of certificates/licences.

1	Certificate of registration as exporter of spices	1,838
2	Dealer Licence - Cardamom (small & large)	435
3	Auctioneer licence	11

Sampling and testing of ‘Sudan dye’ & aflatoxin

The mandatory sampling and testing of export consignments of chilli/chilli products/food products containing chilli for detection of Sudan dye (I-IV) and Aflatoxin continued during the year under report. The compulsory testing of turmeric powder for Sudan dye (I-IV) for selected destinations was also continued. The analysis of samples is completed within 24 hours on receipt of the samples in the Quality Evaluation Laboratory of the Board in Cochin and Mumbai, and the results are faxed forthwith. Stuffing supervision of the cleared lots is also carried out as per the shipment schedule of the exporters. During 2008-09, a total of 27,998 samples were analysed.

International Meetings and Seminars

IPC Meetings

The 36th Session and other meetings of International Pepper Community were held at Ho Chi Minh City, Vietnam during 25-27 November 2008. The Chairman, Director (Mktg), Senior Scientist of the Board and Under Secretary, Ministry of Commerce, New Delhi participated in the meeting.

ASTA 2008 Annual meeting

ASTA 2008 annual meetings were held at Florida, USA during 6-9 April 2008. Director (Marketing) attended the meeting.

Other Export Promotion Activities

- During 2008-09, a total of 236 Foreign Trade enquiries and 379 Domestic Trade enquires for spices and spice products received were passed on to the registered exporters for negotiations and business offers.
- The important notifications on spices have also been compiled and disseminated to the trade through the publication “Spices Market”.
- Country specific export analysis of spices have also been prepared for Mexico, Canada, Kazakhstan and Argentina for joint working group meetings/ delegations, etc.
- Suggestions from spice trade on Pre-budget proposals for the year 2009-10 and for Annual Policy Statement of RBI and Future Trading in spices have also been compiled and provided to Ministry and other Govt. institutions.
- Prepared the summary of CBI market survey on Spices & Herbs 2008 and disseminated through Board’s publication.

- Spices Board in association with CBI, Netherlands has organized two training programmes on 'Market Access Requirements for Natural Ingredients' in Cochin & Mumbai. Around 70 exporters attended this training programme.
- The machinery manufacturer's profiles were compiled and updated the information in Board's website.
- Circulars/documents received from the Ministry/RBI/EXIM Bank/ Embassies were made available to the Spice Trade.
- Industrial licenses were recommended to two manufacturer exporters of spices.

Collection and compilation of data on growers and traders of GI spice products like Malabar pepper, Alleppy Green Cardamom and Coorg Green Cardamom for the post implementation of the inspection mechanism are in progress.

6. QUALITY IMPROVEMENT

The Quality Evaluation Laboratory of the Board was established in 1989. It is certified under ISO 9001:2000 quality management system in 1997 and ISO 14001:2004 environmental management system in 1999 by the British Standards Institution, the U.K. and accredited under ISO/IEC:17025 in September 2004 by the National Accreditation Board for Testing & Calibration Laboratories (NABL), Department of Science & Technology, Government of India.

The Laboratory provides analytical services to the Indian Spice Industry and monitors the quality of Spices produced and processed in the country. It also undertakes analysis of consignment samples under the mandatory inspection of Spices Board. It has facilities to analyze various physical, chemical and microbial parameters including pesticide residues, aflatoxin, heavy metals and contaminants/adulterant artificial dyes in spices and spice products. The Laboratory follows internationally accepted test methods for various analysis. The laboratory is equipped with the latest sophisticated instruments to undertake the analysis as per the requirements of importing countries. All the activities under the ISO 9001:2000 systems established in the laboratory are fully computerized.

To validate the analytical methods adopted, the laboratory regularly participates in check samples/validation programmes organized by National/International agencies like Food Analysis Proficiency Assessment Scheme (FAPAS) and Food Examination Proficiency Assessment Scheme (FEPAS) by Central Science Laboratory (CSL), U.K, American Spice Trade Association (ASTA), USA, International Pepper Community (IPC), Jakarta and proficiency testing programme conducted by the NABL accredited Laboratories in India, etc. The Laboratory also conducts inter laboratory check sample programmes for the major parameters (like Aflatoxin, Sudan dye I-IV and pesticide residues) with the laboratories in major importing countries. It also conducts inter laboratory check sample programme in all the Spices Board accredited laboratories for various parameters. All the technical staffs in the laboratory are periodically trained in reputed international laboratories like Central Science laboratory, the UK, Japan Food Research Laboratory, Japan, Certified Analytical laboratories Inc; USA etc.

Analytical services

The laboratory continued the analysis of chilli and chilli products for the presence of Sudan dye-I-IV and Aflatoxin under the mandatory sampling of consignments of chilli, chilli products, turmeric powder and other food products containing chilli. The laboratory is also providing analytical services for the analysis of other illegal dyes like Para Red, Rhodamine B and Butter Yellow, Sudan Red 7B, Sudan Orange G etc.

During the period, the laboratory analysed 43,165 samples for various parameters including Pesticide Residues, Aflatoxin, Illegal Dyes, (such as Sudan dye-I-IV, Rhodamine, Para Red etc) in chilli and chilli products and an amount of Rs. 4,79,92,942/- was generated as analytical revenue.

Human resources development programme

As part of improving the technical capabilities of the laboratory personnel, the following training programmes/workshops were attended by the laboratory staff during the period.

- (1) Two technical staff attended the training on chemical analysis held at Certified Laboratories Inc; USA during 2-6 June, 2008.
- (2) One technical staff attended the training on uncertainty measurements in chemical analysis held at Pune from 31-07-2008 to 01-08-2008.
- (3) Two technical staff attended the training on Pesticide Residues and other parameter analysis held at Japan Food Research laboratory, Tama Centre, Japan during 1-5 September 2008.
- (4) One technical staff attended the training on Food Colors: Natural and Synthetic Dyes held at CFTRI, Mysore during 13-17 October 2008.
- (5) One technical staff attended the workshop on advance LCMS/MS application in food analysis conducted by M/s. Lab India Life Science Appliance Laboratory at Gurgaon, New Delhi during 3-4 February 2009.
- (6) Two technical staff attended the training on measurement of uncertainty held at Bangalore during 18-20 February 2009.
- (7) One technical staff attended the training on ISO 9001:2008 upgradation held at Kerala state Productivity Council at Cochin on 03-03-09
- (8) One technical staff attended the National workshop on Quality Issues on Seed Spices held at National Research Centre for Seed Spices, Ajmer during 21-22 March 2009.

Training programme on analysis of spices and spice products

Under “Earn while you learn” programme, 46 students were selected from various colleges in Cochin through campus interviews and trained them on the analysis of spices and spice products for various parameters to function as contract analysts in the laboratories at Kochi and Mumbai for a period of one year. The trained and experienced candidates after their service in the laboratory for a period of one year are made available to the Spice Industry to work as technical staff in the laboratory attached to spice industry.

Training programme for the technical personnel from spice industry

During the year, the laboratory conducted six training programmes on the analysis of “Spices and Spice products” for physical, chemical, residual and microbiological parameters. Forty eight technical personnel from various Spice Industries/other Institutions had attended the programme and collected a revenue of Rs. 2,40,000/- as training fee.

Spices Board scheme for laboratory accreditation

The Laboratory implements a scheme for Laboratory Accreditation, to recognize the laboratories in private sector that can render quality analytical service to exporters of Spices/Spice products. Under the scheme, M/s. Shiva Analytical (India) Pvt. Ltd., Bangalore and M/s. Intertek Testing Services India Pvt. Ltd., Mumbai are accredited during the year. The surveillance audit on other laboratories viz:

M/s. Geo-Chem Laboratories Pvt. Ltd., Mumbai, M/s. Interfield Laboratories Pvt. Ltd., Kochi, M/s. Arbro Pharmaceuticals, Delhi & M/s. National Collateral Management Services Ltd., Hyderabad, M/s. SGS India Private Ltd., Chennai, was also carried out during the year. A revenue of Rs. 75,000/- was collected towards the accreditation/annual management fee.

Participation in national/international events

The laboratory actively participates in National/International meetings related to the Quality issues, formulation of specification for spices/spices products etc. During the current year, the Officers from the laboratory attended the following events:

- (1) The 8th meeting of Spices & Condiments Sectional Committee, FAD 9 conducted by Bureau of Indian Standards (BIS) at Spices Board Office, Cochin on 17-04-2008.
- (2) The expert meeting on IPC Committee on Quality held at Kuching, Malaysia during 17-18 June 2008.
- (3) The ISO meeting ISO/TC34/SC/7 held at Madrid, Spain during 8-10 October 2008.
- (4) The 36th Session and other meetings of IPC held at Ho Chi Minh City, Vietnam during 24-27 November 2008.

ISO 9001 to ISO 14001 related activities

Annual surveillance audit on ISO 9001:2004 was conducted by the BSI auditors during 28-29 January 2009 and recommended for the continuation of the certificate with zero non-conformances.

Interested parties' meeting under ISO 14001 system was conducted on 24-04-2008 to improve the system implemented in the laboratories.

NABL accreditation related activities (ISO/IEC: 17025)

Desktop audit was conducted on 14-08-2008 by NABL for the Evaluation of the performance of implementation of the NABL system in the laboratory. The audit was completed without any non conformance.

ASTA check sample programme

The laboratory is participating regularly in the check sample programme conducted by the American Spice Trade Association (ASTA). During the year, the laboratory participated in four sets of check sample programme for the parameters, colour value, capsaicin and water activity in ground capsaicin and piperine, moisture, volatile oil and water activity in ground black pepper. All the four sets of samples received for the analysis and all the results generated by the laboratory were found well within the limit of acceptable levels.

IPC check sample programme

The laboratory has also participated in IPC inter laboratory proficiency testing programme on physical, chemical and microbiological parameters during the year. Under the programme, the 11th round

samples were prepared by Malaysia and sent to all the participating laboratories in the member countries including India. The samples sent by Malaysia were also distributed to all the Indian participant laboratories. The result generated by the laboratory was found to be well within the acceptable limits.

Spices Board check samples/proficiency testing programme

Under the proficiency testing programme, samples were prepared by the Laboratory and sent to all the Board's accredited laboratories for parameters of total ash, acid insoluble ash and curcumin. The result generated by the participant laboratories were compiled, Z- score prepared and distributed the same to all the participants in the programme.

Harmonization of Indian standards with ISO standards

Participated in the Harmonization of Indian standards with ISO standards and PFA which is being carried out in collaboration with the Bureau of Indian Standards (BIS), PFA and ISO Secretariat. Comments/suggestions were provided to BIS, PFA, ISO, IPC and CODEX on various documents related to the specifications/quality issues as and when called for by the National /International organizations/agencies.

Other activities

- The Quality Data Management Administration System (QUADMAS) established and utilized by the Laboratory has been revised to incorporate the various additional requirements of the Laboratory.
- The Laboratory provided assistance and guidance to six M.Sc students from different Universities to carry out their dissertation work in various quality aspects of spices/spice products analysis.
- Arrangements were done for the working of Regional Quality Control Laboratory at Mumbai & Guntur. The Laboratory at Mumbai is in full stream. Equipments, chemicals & glasswares and infrastructure required for the establishment of the Laboratory at Guntur are in progress. Contract analysts required for the Laboratory are also recruited and trained.
- Prepared detailed plan, infrastructure and other requirements for establishing a new building for the Quality Evaluation Laboratory at Cochin. Works are in progress.
- Prepared a detailed plan and lay out for establishing Regional laboratories at Delhi & Chennai.

7. EXPORT ORIENTED RESEARCH

The research on cardamom (small and large) at Indian Cardamom Research Institute (ICRI) is mainly directed towards improving production and productivity of the commodity and to make it competitive in the export market. The research focus for the year 2008-09 had been to evolve cost effective management practices for reducing the cost of production; producing quality cardamom free of toxic contaminants; assessing the impact of changing weather on cardamom production and its ecology and providing services at farm gate level through mobile agri-clinic.

Conservation and protection of Indian cardamom

Substantial progress has been made in replanting and rejuvenating the largest germplasm pool of cardamom in the world which is maintained at ICRI. Over 300 accessions have been systematically rejuvenated and properly documented. Collaborating with Department of Biotechnology and Indian Institute of Spices Research (ICAR), molecular characterization of the precious genetic diversity has been initiated. For protecting the breeders' and farmers' varieties, under the PPV & FR Act, DUS testing guidelines have been formulated with considerable inputs from the institution and ICRI has been recognized as one of the DUS testing centers for cardamom.

Technology for sustainable production

Having evolved the first cardamom hybrid for increasing productivity, thrust was given for developing location specific hybrids for different agro-ecological zones of the cardamom tract. Inducing green colour and boldness in cardamom capsules, pest and disease resistance as well as drought tolerance were targeted through various breeding methods. ICRI was co-opted into the network of All India Coordinated Research Project on Spices (AICRPS) with research funding from ICAR, considering the outstanding research contributions of the Institute.

After aflatoxin and contaminants like sudan dye, pesticide residue has become the hottest issue in spices trade. In order to address this problem, ICRI in collaboration with Ministry of Agriculture (Govt. of India) has initiated a programme on monitoring of pesticide residue at the production site. Farmers are advised on the integrated pest and disease management techniques evolved at the Institute with greater emphasis on non chemical measures. Integrated nutrient management using bio-fertilizers is being evaluated utilizing native beneficial organisms from the cardamom forest ecosystem. Neem Kernel Aqueous Extract (NKAE) was found to be efficient in managing the pests of cardamom, pepper, chilli and other spices in the network programme sponsored by the Ministry of Petroleum and Chemicals, Govt. of India. The use of microorganisms such as *Pseudomonas* and *Trichoderma* for the management of diseases and *Verticillium*, *Beauveria* and Entomopathogenic nematodes (EPN) for the management of pests was widely demonstrated in farmers' fields.

Studies on the impact of changing climate on cardamom production as well as on the forest ecosystem were initiated during the period in collaboration with Indian Space Research Organization (ISRO). An automatic weather station (AWS) was installed in the meteorological observatory and advance weather forecasting would be made available to various Field Offices of the Spices Board in the near future.

A cardamom field under GLOBAL GAP certification has been established in the experimental farm attached to ICRI at Myladumpara for evaluation and demonstrating the Good Agricultural Practices (GAP) recommended for cardamom and for initiating niche market linkages.

Organic cardamom production

Among spices, cardamom and chilli are considered to be the difficult crops to be cultivated under organic cultivation system mainly due to the persistent incidence of pests and diseases. ICRI has successfully demonstrated an organic production system for cardamom under certification from INDOCERT and it is under economic evaluation. The organic cultivation in cardamom was made possible mainly because of the farmer's variety identified by Shri. Raju Joseph of Vandanmedu. The studies on long term fertilizer trial also indicated the beneficial effect of organic inputs on cardamom production and soil productivity.

Post harvest technology

Cardamom drying is a slow process requiring tremendous skill, time and energy. Various technologies have been evaluated by the Institute for adopting cardamom curing. A collaborative programme with SAMEER (Ministry of Communications, Govt. of India) has been initiated to evaluate RF (Radio Frequency) drier for cardamom curing. Based on the initial success obtained in curing cardamom, a prototype is being installed at ICRI, Myladumpara for standardizing the drying techniques for cardamom and other spices.

Out reach programmes and services

Bridging the gap between the laboratory and the farm is a major thrust given by ICRI. Various programmes designed for farmers are getting well accepted among the community.

(a) Mobile agri-clinic

A team of scientists visit a predefined cluster of farms, assess the field and crop situations and undertake informal interaction with farmers to understand their problems and suggest solutions then and there itself. Twenty four such agri-clinics were conducted during the period. The necessary infrastructure was provided by the National Horticulture Mission.

(b) Bio-agent production

The Institute has popularized the use of bio-agents for management of pest and diseases in the cardamom ecosystem. Availability of quality bio-agents has always been an issue for the farmers. ICRI ensures the supply of quality bio-agents to the needy farmers at very reasonable price. A bio-agent production unit alongwith laboratory is sanctioned to be constructed at a financial outlay of Rs. 1.90 crores with partial support from National Horticulture Mission. The quantity of bio-agents produced and distributed to farmers are as follows:

<i>Trichoderma</i> (solid)	: 1,145 kilo grams
<i>Trichoderma</i> (liquid)	: 1,040 litres

Pseudomonas : 5,600 litres
VAM : 66 kilo grams

(c) Training on GAP on spice production

A three months' residential programme is conducted by ICRI to train unemployed youths from farming families to adopt good agricultural practices for quality spice production. Two batches, one targeted for southern States and the other for North Eastern Region were undertaken during the year under report.

(d) Short term training programmes

Two to five days training programmes on various aspects of spices production namely nursery production, organic input production, bio-agent production, post harvest technology etc. were organized.

(e) Establishment of Farmers' cell

To provide better services to cardamom farmers, a Farmers' cell was established at the institute to act as a nodal point. Prompt services and follow up actions were undertaken from the cell.

(f) Soil testing and fertilizer advisory services

Over 2000 numbers of soil samples received from farmers' field were analyzed and recommendation provided on manuring.

Publications

A total of 26 research papers and 17 popular scientific articles were published in national and international journals.

Human Resources Development

- Scientist (Biotechnology) underwent training on 'Molecular methodology for assessing and applying genetic diversity' at ICRISAT, Hyderabad.
- Jr. Scientist (Biotechnology) attended the training programme on 'ELISA technique' at S.V. University, Tirupathi.
- Scientific Assistant (Botany) underwent a three weeks' training on 'Trait based genetic enhancement in crop plants' at TNAU, Coimbatore.
- JTAs attended a course on 'Biodynamic agriculture' at Kodaikanal, Tamil Nadu.

Research / Farm infrastructure

- Construction of bio-agent production & laboratory unit was started.
- Electrification and rewiring of laboratories and office building was undertaken alongwith the installation of a 200 KVA generator.

Inter-institutional collaboration

Collaborative research programmes with DBT, ICAR, Ministry of Petroleum & Chemicals, Ministry of Agriculture, ISRO and Coir Board were undertaken during the period.

Research monitoring and evaluation

The Annual Research Council, which is the external technical auditing of the research department, was conducted during 19-20, August 2008. The committee chaired by Dr. K.V.A. Bavappa, Former Director, CPCRI (ICAR), with Dr. M.N. Venugopal, Principal Scientist & Head, IISR-CRC (ICAR), Dr. E.M. Muralidharan, Head, Department of Biotechnology, KFRI, Dr. C.T. Abraham, Professor & Head, Agronomy, KAU and Dr. Maicykutty, Professor of Entomology, KAU critically reviewed the research programmes and laid down the physical targets for the current year.

Library facilities

The ICRI library has been strengthened and upgraded to class IV as per the scientific library classification. Research clippings and other information services including broad band internet facility are made available at the library.

8. PUBLICITY AND PUBLIC RELATIONS

Combination of multifarious publicity and promotional strategies created opportunities and avenues for reaching the schemes, programmes and activities of the Board to both the internal and external public during the period under review. Well structured and planned participation in international and national exhibitions, multimedia campaigns in spice farming areas to empower farmers, scheduled release of journals and publications, production of audio visual tools, extension, liaison and media relations featured the publicity and promotional activities of the Board.

Participation in international fairs

During 2008-09, the Board had organized participation in 18 International food exhibitions in different countries. Selection of the fair for participation was done in consultation with the trade considering its importance from view of exports and promotion of spices. Thrust was given on personalized participation of exporters in these fairs with opportunities and back up support for showcasing capacities and capabilities. The Board's stands thematically featured and highlighted the overall strength and authenticity of Indian spices. The exporting companies who had been represented in the various fairs were able to secure business contacts and business opportunities. The trade enquiries that were recorded in the fairs were passed on to the trade through the Website and trade bulletins of the Board. The Board made its presence in the following fairs:-

- (1) SIAL, China 2008 during 14-16 May 2008.
- (2) Iran Agro Food, Tehran, Iran during 25-28 May 2008.
- (3) Fispal Food Service show in Sao Paulo, Brazil during 23-26 June 2008.
- (4) IFT Annual meeting & Food Expo, USA during 29 June to 1 July, 2008.
- (5) Africa Big Seven, South Africa in Gallagher Estate, Midland, South Africa, during 20-22 July 2008.
- (6) 55th Damascus International Fair, Syria during 15-22 August 2008.
- (7) Polagra Food Poznan 2008, Poland during 15-18 September 2008.
- (8) SIAL Mercosur, Buenos Aires, Argentina during 16-18 September 2008.
- (9) IFE Americas, Miami, Florida, USA, during 24-26 September 2008.
- (10) Fine Food, Melbourne, Australia during 24-27 September 2008.
- (11) IFEAT Conference at Montreal, Canada during 28 September to 2 October 2008.
- (12) SIAL Food Fair, Paris, France during 19-23 October 2008.
- (13) Ingredients Russia in Moscow, Russia during 25-28 November 2008.
- (14) BioFach 2009, Nurenberg, Germany during 19-22 February 2009.

- (15) Gulfood, Dubai during 22-26 February 2009.
- (16) Foodex 2009, Tokyo, Japan during 3-6 March 2009.
- (17) IFE 2009 in London during 15-18 March 2009.
- (18) Cairo International Food Fair Cairo, Egypt during 18-27 March 2009.

Product displays abroad

Spices and Spice Products were organized and forwarded for fairs at Botswana and Slovenia at the request of the Indian Embassies in Botswana and Slovenia for trade display.

Participation in domestic fairs

Equal importance has been given for participation in fairs and exhibitions in various parts of the country. Exporters and farmer groups were encouraged to participate to exhibit their products and to gain exposure for their capacities and capabilities. Participation had yielded opportunities for tapping both domestic and international enquiries from various destinations including overseas. The Board showcased in the following Indian Exhibitions:-

- (1) Aahar, Chennai, Tamil Nadu during 4-8 September 2008.
- (2) 12th National Expo, Calcutta, West Bengal during 5-10 September 2008.
- (3) UPASI, Coonoor, Tamil Nadu during 8-10 September 2008.
- (4) Food Ingredients India, Mumbai during 3-4 October 2008.
- (5) Krishi Mela, Dharwad, Karnataka during 4-7 October 2008.
- (6) The India International Agri Expo (TIE – Kerala) at Town Hall, Kochi from 31 October to 2 November 2008.
- (7) KPA Annual Conference, Bangalore during 4-5 November 2008.
- (8) Anapoorna World of Food India Exhibition, Bombay during 13-15 November 2008.
- (9) India International Trade Fair, New Delhi during 14-27 November 2008.
- (10) Krishi Mela, Mudigere, Karnataka, during 26-27 November 2008.
- (11) India Organic Exhibition, New Delhi during 27-30 November 2008.
- (12) Food Expo 2008, Chandigarh, during 28 November to 1 December 2008.
- (13) Volvo Ocean Race, Willingdon Island, Kochi during 2-13 December 2008.
- (14) WINTS, Marine Drive, Ernakulam during 24-31 December 2008.
- (15) Annam, National Food & Agro Bio-Diversity Festival, Trivandrum, during 27-31 December 2008.

- (16) Spice Festival, Kumily during 20 December 2008 to 5 January 2009.
- (17) Asom International Trade Fair, at Guwahati during 4-16 February 2009.
- (18) Aahara International Fair, New Delhi during 7-10 March 2009.

Multimedia campaign on chilli aflatoxin

A multi media campaign to educate the farmers on the serious implications of aflatoxin in the export of chillies was conducted in seven villages of Thullur, Nekkallu, 75 Tyallur, Peda Kurupadu, Batlur, Lagadapadu and Rajupalem in Guntur District of Andhra Pradesh during 18-24 February 2009. The campaign created an impact on farmers and generated tremendous response. Farmers in large numbers attended the campaign meetings. The campaign was featured in detail in the popular Telugu Television channels.

Campaign on quality of seed spices

A Campaign on quality of seed spices was conducted in Gujarat covering four Taluks of Patan District of Gujarat viz. Lalpur in Sami Taluk, Adiya in Harij Taluk, Chendlaj in Sidhpur Taluk and Agimana in Patan Taluk during March 2009.

The campaign was extended in Rajasthan and covered the villages of Bara Kurdh, Bara Khala, Nevra and Pandithji Ki Tani in the Hosian subdivision in Jodhpur District during March 2009. Seed Spices farmers attended the campaign meetings in large numbers and showed enthusiasm in gaining information on quality initiatives.

International media relations

Australian Television team: An Australian television team was guided on a tour of the country to shoot spices growing areas and interview farmers and exporters for their project to produce a film on spices.

Korean Television team: The South Korean national TV – MBC – which visited Cochin to do a programme titled “Lure of Pepper/ Red Chillies” was guided to plantations and Spice farmers in Kumily in Idukki district and to meet traders/exporters in Cochin and New Delhi for their production.

Foreign tourists interested in spices and spice products from Australia, Korea and the US were given the opportunity to visit the Board and presentations were made.

Interaction with farmers/students from Agricultural Universities: Forums for interactions on spices industry were organized for the benefit of students. Teams of students from Tamil Nadu Agricultural University and Annamalai University visited the Board. Teams of farmers from various locations in Tamil Nadu also visited the Board.

Media relations

Talks and discussions were organized on various topics relating to marketing and cultivation of spices through the networks of All India Radio and Doordarshan in different parts of the country.

The Board sponsored programmes on spice crops broadcast through AIR Karnataka, Andhra Pradesh etc covering major spices, harvesting etc.

Press relations

Press Releases on major activities and programmes were released from time to time. Major releases included annual performance in spices exports, Spice Parks, quality initiatives.

Periodicals

The Board released various publications including periodicals on schedule.

- Publication of the monthly journal Spice India was undertaken in five different languages of English, Hindi, Malayalam, Kannada and Tamil. This journal as a quarterly in Telugu and Nepali languages was also released on schedule. The issues dealt with themes of relevance to the industry and farmers like focus on production of spices, quality initiatives, spice parks, exports, schemes and programmes of the Board etc.
- The fortnightly publication Foreign Trade Enquiry Bulletin disseminated trade enquires received directly by the Board, from diplomatic channels, Website of the Board. Trade enquiries received at the various international fairs were also published on time.
- The bilingual weekly publication of the Board - Spices Market – was released on time during the entire year.

Books/booklets & posters

New Books of following titles were released:-

- XI Plan Export development & promotion programmes (bilingual).
- Annual Report for 2007-08.
- Development & promotion of neem products.
- Hindi House Magazine – “Sandesh”.
- Cardamom package of practices.
- Package of practices on ginger and turmeric.
- Literature on post-harvest practices in seed spices for use in publicity campaigns in Hindi and Gujarati languages.
- Literature in Telugu language to cater the requirements of the chilli farmers in Andhra Pradesh on control of aflatoxin in chilli. Posters were designed and printed for use during the campaign.

Brochures/promotional materials

The following brochures were released:

- Promotional brochures in international languages of Russian, Arabic, Japanese and German were produced for use in various international fairs.
- Brochure on organic spices was designed and produced in English and German language.
- Recipe book in Russian and English was brought out for use at the Spice Food Festival in Moscow, Russia.

Production of video films/CDs

An instructional Video film was produced in Gujarati and Hindi for screening during the campaign on quality on seed spices. Campaign CDs in Gujarati, Hindi and Telugu languages were produced on the Dos and Don'ts in post harvest practices in seed spices and chilli for use during the quality campaigns in Gujarat, Rajasthan and Andhra Pradesh.

Exports & productivity awards

Work of designing and production of certificates for exporters and farmers for Productivity Awards and Excellence in exports, production of profile catalogues, brochures and leaflets etc were undertaken during the period.

Advertisement release

The Board released advertisements of promotional character, on schemes and programmes of the Board, on tenders, appointments, sourcing of materials etc in various publications in different regions of the country.

9. TRADE INFORMATION SERVICE

Trade Information Service Division is responsible for the collection, compilation, analysis and dissemination of statistics relating to Exports, Imports, Area, Production and Domestic and International prices of spices. The month wise export estimates have been prepared from the Daily List of Exports (DLE) released by the major Customs offices of Cochin, Mumbai, Chennai, Tuticorin as well as from the information received from the Regional Offices of the Board. The monthly import of spices into India has been estimated using the Daily List of Imports (DLI) collected from the major customs like Cochin, Mumbai and Chennai and other land ports. Domestic and international prices received from various agencies like India Pepper and Spice Trade Association, Agriculture Produce Marketing Committees, Merchants Associations, International Trade Centre, Geneva, etc have been compiled and disseminated through the Spices Market bulletin as well as through the Board's website.

Electronic Auction (E-auction) for cardamom (small) has been conducted in Bodinayakanur and Vandanmedu which has ensured transparency and better price realization for the cardamom growers.

Since the Board is responsible for the production development of cardamom (small) and cardamom (large); area, production and productivity of these spices are estimated based on the field sample study conducted through the field set up. Area and production of other spices are collected from the State Economics and Statistics/Agriculture/Horticulture Departments and compiled. Information on area, production, prices and export has been furnished to various users in the industry on request.

The division is responsible for constitution of the Task Forces for various spices, organize meeting of the task forces and its follow up action. During the year task forces for pepper, chilli, ginger & turmeric and seed spices were constituted and meetings were held. Based on the recommendations of the pepper task force meeting, a proposal for pepper replantation and rejuvenation has been prepared and submitted to the National Horticulture Mission. The National Horticulture Mission has approved the proposal for replantation and rejuvenation of pepper in Idukki district, which is being implemented by the Development department of the Board.

The chilli task force meeting recommended constituting an expert committee, to suggest an Integrated Crop Management (ICM) Programme. The expert committee has been constituted incorporating experts from various fields.

Based on the recommendation of the task force on seed spices, a market study has been conducted in Syria.

Area and production of spices

The area, production and productivity of cardamom (small & large) for 2008-09 compared to 2007-08 are given in table I & II respectively.

Table-I
State-wise area and production of cardamom (small)
(Area in Hect., Production in M.T., Productivity in Kg/ha)

State	2007-08				2008-09			
	Total Area	Yielding Area	Production	Productivity	Total Area	Yielding Area	Production	Productivity
Kerala	39,763	28,305	7,030	248	41,588	29,100	8,560	294
Karnataka	24,976	17,845	1,585	89	25,021	18,132	1,690	93
Tamil Nadu	4,561	3,301	835	253	4,561	3,223	750	233
Total	69,300	49,451	9,450	191	71,170	50,455	11,000	218

Source: Estimate by Spices Board

Table-II
State-wise area and production of cardamom (large)
(Area in Hect., Production in M.T., Productivity in Kg/ha)

State	2007-08				2008-09			
	Total Area	Yielding Area	Production	Productivity	Total Area	Yielding Area	Production	Productivity
Sikkim	26,734	19,548	4,305	220	23,729	17,371	3,675	212
West Bengal	3,305	2,715	615	227	3,305	2,715	625	230
Total	30,039	22,263	4,920	221	27,034	20,086	4,300	214

Source: Estimate by Spices Board

The area and production of other major spices are given in Table III

Table-III
Area and production of Major Spices (Area in Hect., Production in M.T.)

Spice	2006-07		2007-08	
	Area	Production	Area	Production
Pepper	2,36,177	50,000	1,96,297	50,000
Chilli	8,09,437	13,25,273	8,36,684	13,71,250
Ginger	1,29,014	7,21,539	1,20,056	7,10,476
Turmeric	1,83,917	8,56,464	1,75,947	8,26,030
Garlic	1,69,612	8,33,157	2,19,814	10,88,800
Coriander	3,61,767	2,87,647	4,58,473	2,86,377
Cumin	4,09,033	1,76,511	4,77,936	2,64,860
Fennel	61,128	92,260	84,479	1,31,652
Fenugreek	44,984	55,780	54,965	67,645

Source: State Directorate of Economics & statistics/Agri./Horti Departments

Auction sales and prices of cardamom (small)

The state-wise auction sales and weighted average price of cardamom (small) for 2008-09 and 2007-08 are given in table-IV.

Table-IV
Table-IV - Auction sales & prices of cardamom (small) in India
(Qty.in M.T., Price in Rs./kg.)

State	2008-09 (August-July)		2007-08 (August-July)	
	Quantity auctioned	Weighted average auction price	Quantity auctioned	Weighted price average auction
Kerala & Tamil Nadu	9,771	539.59	5,546	508.67
Karnataka	130	414.62	169	311.85
Bombay	56	574.94	59	564.50
Total	9,957	538.16	5,774	503.48

Prices of cardamom (large)

The average wholesale prices of cardamom (large) at Gangtok and Siliguri market for 2008-09 and 2007-08 are given in table-V.

Table-V
Average wholesale prices of cardamom (large)
(Price in Rs./kg.)

Market centre	Grade	2008-09 (April-March)	2007-08 (April-March)
Gangtok	Badadana	127.76	125.43
Siliguri	Badadana	147.35	146.59

Prices of other spices

The average prices of major spices are given below. These prices have been collected from secondary sources like Chamber of Commerce, Indian Pepper and Spice Trade Association, Market reviews prepared by the Merchants Associations, etc. Prices of major spices in important market centers are given in table-VI.

Table-VI

Prices of major spices in important market centers

(Price in Rs./Kg.)

Spice	Market	Grade	2007-08	2008-09
Pepper	Cochin	MG -I	140.16	129.30
Chilli	Guntur		40.60	48.11
Ginger	Cochin	Ungarbled	60.31	92.12
Turmeric	Cochin	AFT	26.76	43.39
Garlic	Mumbai		39.82	12.96
Coriander	Mumbai	Indori Asta	40.77	66.98
Cumin	Mumbai		98.57	101.05
Celery	Mumbai		49.33	54.88
Fennel	Mumbai		78.68	59.18
Fenugreek	Mumbai		29.47	32.28
Ajowan seed	Mumbai		68.90	65.00
Dill seed	Mumbai		45.84	50.50
Mustard seed	Delhi		27.69	33.89
Tamarind	Mumbai		22.83	26.81
Clove	Cochin		255.53	279.85
Nutmeg	Cochin	Without shell	210.55	241.15
Mace	Cochin		398.86	424.63
Saffron	Delhi		1,12,315	1,92,945
Vanilla	f.o.b export price	Cured beans	793.27	787.80

Export performance of spices from India

Export of spices from India during 2008-09 compared to 2007-08 and the achievement over target are given in table-VII & VIII

Table - VII
Export of spices from India during 2008-09 compared with 2007-08

(Qty. in M.T., Value in Rs.Lakhs)

Item	2008-09		2007-08		% Change in	
	Qty	Value	Qty	Value	Qty	Value
Pepper	25,250	41,373.50	35,000	51,950.00	-28%	-20%
Cardamom (small)	750	4,726.50	500	2,475.00	50%	91%
Cardamom (large)	1,875	2,280.75	1,325	1,500.00	42%	52%
Chilli	1,88,000	1,08,095.00	2,09,000	1,09,750.00	-10%	-2%
Ginger	5,000	3,482.50	6,700	2,800.00	-25%	24%
Turmeric	52,500	24,857.75	49,250	15,700.00	7%	58%
Coriander	30,200	20,378.75	26,000	11,025.00	16%	85%
Cumin	52,550	54,400.00	28,000	29,150.00	88%	87%
Celery	3,650	2,333.00	2,900	1,325.00	26%	76%
Fennel	8,675	4,315.00	5,250	2,850.00	65%	51%
Fenugreek	20,750	7,175.25	11,100	3,300.00	87%	117%
Other seeds (1)	17,500	6,498.50	8,840	3,075.00	98%	111%
Garlic	760	350.25	675	400.00	13%	-12%
Nutmeg & mace	2,155	6,074.75	1,300	2,875.00	66%	111%
Vanilla	305	2,670.00	210	1,825.00	45%	46%
Other spices (2)	20,000	10,564.00	19,000	8,100.00	5%	30%
Curry powders/paste	13,250	16,375.00	11,500	11,100.00	15%	48%
Mint products (3)	20,500	1,42,025.00	21,100	1,28,050.00	-3%	11%
Spice oils & oleoresins	6,850	72,050.00	6,600	56,300.00	4%	28%
Total	4,70,520	5,30,025.50	4,44,250	4,43,550.00	6%	19%
Value in million US\$	1,168.40		1,101.80		6%	

(1) include mustard, aniseed, ajowan seed, dill seed, poppy seed etc.

(2) include tamarind, asafoetida, cassia, saffron etc.

(3) include mint oils, menthol & menthol crystal.

Source: Estimate based on DLE from Customs, DGCI & S, Kolkata, exporters returns, report form RO's and last year's export trend etc.

Table – VIII
Export of spices from India during 2008-09 compared with target
 (Qty. in M.T., Value in Rs.Lakhs)

Item	Target for 2008-09		Export during 2008-09		% Achievement of target	
	Qty	Value	Qty	Value	Qty	Value
Pepper	35,000	52,000	25,250	41,373.50	72%	80%
Cardamom (small)	550	2,500	750	4,726.50	136%	189%
Cardamom (large)	1,300	1,500	1,875	2,280.75	144%	152%
Chilli	1,90,000	1,00,000	1,88,000	1,08,095.00	99%	108%
Ginger	7,000	3,000	5,000	3,482.50	71%	116%
Turmeric	50,000	16,000	52,500	24,857.75	105%	155%
Coriander	25,000	10,000	30,200	20,378.75	121%	204%
Cumin	28,000	27,500	52,550	54,400.00	188%	198%
Celery	3,000	1,300	3,650	2,333.00	122%	179%
Fennel	5,000	2,700	8,675	4,315.00	174%	160%
Fenugreek	10,000	3,000	20,750	7,175.25	208%	239%
Other seeds (1)	7,500	2,500	17,500	6,498.50	233%	260%
Garlic	1,000	500	760	350.25	76%	70%
Nutmeg & mace	1,300	3,000	2,155	6,074.75	166%	202%
Vanilla	150	1,500	305	2,670.00	203%	178%
Other spices (2)	20,000	8,000	20,000	10,564.00	100%	132%
Curry powders/paste	12,000	12,000	13,250	16,375.00	110%	136%
Mint products (3)	21,500	1,30,000	20,500	1,42,025.00	95%	109%
Spice oils & oleoresins	6,700	58,000	6,850	72,050.00	102%	124%
Total	4,25,000	4,35,000	4,70,520	5,30,025.50	111%	122%
Value in million US\$	1,025		1,168.40		114%	

(1) include mustard, aniseed, ajowan seed, dill seed, poppy seed etc.

(2) include tamarind, asafoetida, cassia, saffron etc.

(3) include mint oils, menthol & menthol crystal.

Source: Estimate based on DLE from Customs, DGCI & S, Kolkata, exporters returns, report form RO's and last year's export trend etc.

A brief review on the export performance of major spices in 2008-09 in comparison with 2007-08 is given below.

Despite the global economic recession, spices export from India has continued its upward trend and crossed Rs.5000 crores mark for the first time during the year 2008-09. The export during 2008-09 has been 470,520 tonnes valued Rs.5300.25 crores (US\$ 1168.40 million) against 444,250 tonnes valued Rs.4435.50 crores (US\$ 1101.80 million) in the last financial year. The spices export during 2008-09 is an all time high both in terms of volume and value. Compared to last year, the export has shown an increase of 19 per cent in rupee value and six per cent in quantity. In dollar terms, the increase is six per cent.

The spices export during 2008-09 has also exceeded the target in terms of volume, rupee value and dollar terms of value. Against the export target of 425,000 tonnes valued Rs.4350.00 crores (US\$ 1025.00 million) for the year 2008-09, the achievement of 4,70,520 tonnes valued Rs.5300.25 crores (US\$ 1168.40 million) is 111 per cent in quantity, 122 per cent in rupee value and 114 per cent in dollar terms of value.

In the export basket of spices and spice products, spice oils and oleoresins including mint products like mint oils, menthol crystals, and menthol powder contributed 40 per cent of the total export earnings. Chilli contributed 20 per cent followed by cumin 10 per cent, pepper eight per cent and turmeric five per cent. During the year 2008-09, Indian spices and spice products reached more than 135 countries in the world. The leading among them are USA (21 per cent), Malaysia (seven per cent), UAE (six per cent), China (six per cent) and UK (five per cent).

Pepper

USA is the largest buyer of pepper in the world market. Fluctuations in the import of pepper by USA have a direct impact on the world pepper trade. During 2008, USA has imported a total quantity of 55,000 tons of pepper (black & white) as against their average import of about 60,000 tonnes per annum. It is reported that, due to economic slowdown, the major US companies are keeping low inventories resulting in low import volume during 2008.

In recent years, Indian production is stagnant around 50,000 tonnes due to low productivity of aged and disease affected pepper plantations. Our competitors like Vietnam with an annual production of almost double that of India has now become one of the major suppliers of pepper in the international markets. However, Indian pepper fetches a premium price in major markets because of its preference and intrinsic qualities. During the year 2008-09, India has exported a total quantity of 25,250 tonnes of pepper valued Rs.413.74 crores as against 35,000 tonnes valued Rs.519.50 crores last year, registering a decline of 28 per cent in volume and 20 per cent in value. Our exports to all major destinations like USA, EU etc. has declined during the year. In 2008-09, USA continued as our major market for pepper and has imported 10,050 tonnes, accounting for 40 per cent of our total export of pepper. The other major buyers are the UK (1,475 tonnes), Italy, (1,290 tonnes), Canada (1,265 tonnes) and Germany (1,200 tonnes). The average f.o.b export price of Pepper has gone up from Rs.148.43 per kg in 2007-08 to Rs.163.86 per kg in 2008-09.

Cardamom (Small)

During 2008-09, India exported 750 tonnes of cardamom (small) valued Rs.47.27 crores as against 500 tonnes valued Rs.24.75 crores in 2007-08, registering an increase of 50 per cent in volume and 91 per cent in value. Saudi Arabia accounts for 520 tonnes (69 per cent) of our exports followed by Malaysia (30 tonnes), Japan (25 tonnes) and UAE (20 tonnes). Our exports mainly consist of high quality grades like AGEB and AGB to Middle East markets especially to Saudi Arabia.

The production of cardamom (small) during 2008-09 was 11,000 tonnes; higher than last year's production of 9450 tonnes. Better production of cardamom in India and low availability from Guatemala, the major competitor of cardamom (small), has resulted in the increase of our exports during 2008-09.

Cardamom (Large)

During the year, India has exported 1,875 tonnes valued Rs.22.81 crores as against 1,325 tonnes valued Rs.15.00 crores in 2007-08. Pakistan is the major buyer of Indian large cardamom accounting for 1,485 tonnes (79 per cent) in 2008-09 followed by UAE (160 tonnes) and the UK (90 tonnes). India and Nepal are the major producers of cardamom (large). On an average we import about 5000 tonnes of cardamom (large) from Nepal to meet the strong domestic demand. During 2008-09, Indian production was 4,300 tonnes; little less than last year's production of 4,920 tonnes.

Chilli

Chilli is the largest spice item exported from India in terms of volume and it also occupies second position in terms of value. During 2008-09, chilli accounts for 40 per cent in volume and 20 per cent in value terms of total export of spices from India. The mandatory quality testing of chilli and chilli products by the Board has made the Indian chilli more acceptable in the international markets and helped to achieve this higher level of export in chilli. During the year, India has exported 1,88,000 tonnes of chilli and chilli products valued Rs.1,080.95 crores as against 2,09,000 tonnes valued Rs.1097.50 crores of last year. The traditional buyers of Indian chilli viz. Malaysia, Indonesia and Sri Lanka were active in the market. However, export to Bangladesh has reduced considerably during the year as compared to last year, which resulted in the overall decline in export of chilli. During the year, our export to Malaysia was 40,615 tonnes followed by Sri Lanka (37,790 tonnes), Pakistan (22,375 tonnes), UAE (18,815 tonnes) and USA (15680 tonnes).

Ginger

The export of Ginger from India during 2008-09 has been 5,000 tonnes valued Rs.34.83 crores as against 6,700 tonnes valued Rs.28.00 crores in 2007-08. Ginger is mainly exported in Fresh, Dry and Powder forms. Fresh ginger export, which accounts for more than 50 per cent in volume, is from the North Eastern states and the major destination is Bangladesh. The short supply of dry ginger in the domestic market has pushed up the prices to more than Rs.100 per kg in 2008-09 as against Rs.50 per kg in 2007-08. During 2008-09, the major buyers of Indian dry ginger are the UK (480 tonnes), Saudi Arabia (415 tonnes), Spain (305 tonnes) and Morocco (240 tonnes).

Turmeric

Export of turmeric from India during 2008-09 is an all time high both in volume and value. The export has been 52,500 tonnes valued Rs. 248.58 crores as against 49,250 tonnes valued Rs.157.00 crores. The major buyers are UAE (5,910 tonnes), Iran (5,335 tonnes), Bangladesh (4,595 tonnes), Malaysia (4,825 tonnes) and Japan (3,090 tonnes). India is the largest supplier of turmeric in the world market. The other major suppliers are Vietnam, Indonesia and Myanmar. It is reported that the medicinal and cosmetic use of turmeric is increasing significantly over the years.

Seed spices

The export of seed spices has shown substantial increase both in quantity and value terms during 2008-09 as compared to last year. Export of major seed spices like Cumin, Coriander, Fennel and Fenugreek has recorded all time high both in volume and value during 2008-09. The export of seed spices together accounts for 28 per cent in volume and 18 per cent in value of the total export of spices from India.

During 2008-09, we have exported 52,550 tonnes of cumin seed valued Rs.544.00 crores against 28,000 tonnes valued Rs.291.50 crores in 2007-08. The export has increased by 88 per cent in volume and 87 per cent in value as compared to last year. The major buyers are UAE (12,810 tonnes), USA (4,760 tonnes), Egypt (4,635 tonnes) and Bangladesh (3,260 tonnes). It was reported that the production of cumin in Syria and Turkey was less than normal in 2008. This has resulted in a shortage in the supply in the international market. India with a better production took advantage of the situation.

The export of coriander seed during 2008-09 has been 30,200 tonnes valued Rs.203.79 crores as against 26,000 tonnes valued Rs.110.25 crores of last year registering an increase of 16 per cent in volume and 85 per cent in value. The unit value of export has gone up from Rs.42.40/kg. in 2007-08 to Rs.67.48/kg. in 2008-09. The major markets during 2008-09 are Malaysia (7,050 tonnes), UAE (5,450 tonnes), Pakistan (3,215 tonnes) and Saudi Arabia (2,475 tonnes).

Processed spices

The export of processed spices like curry powder and spice oils & oleoresins, mint products and spice powders account for 58 per cent of the total exports. Major items viz. spices oils and oleoresins and curry powder and blends have shown substantial increase both in terms of quantity and value as compared to last year. During the year 2008-09, a total quantity of 13,250 tonnes of curry powder and blends valued Rs.163.75 crores has been exported as against 11,500 tonnes valued Rs.111.00 crores of last years, registering an increase of 15 per cent in volume and 48 per cent in value. The export of Curry powder during 2008-09 is an all time high both in terms of quantity and value. The UK is the largest buyer of Indian curry and spice blends accounting for 2,685 tonnes (20 per cent), followed by Saudi Arabia (1,430 tonnes), UAE (1,205 tonnes) and USA (1,070 tonnes).

During 2008-09, the export of Spice oils and oleoresins has also recorded an all time high both in volume and value terms and the export has been 6,850 tons valued Rs.720.50 crores as against 6,600 tonnes valued Rs.563.00 crores of last year registering an increase of 28 per cent in value and four per

cent in volume. The major spice oils exported from India are pepper oil (75 tonnes), nutmeg oil (45 tonnes), mustard seed oil (40 tonnes), clove oil (22 tonnes), celery seed oil (17 tonnes) and ginger oil (15 tonnes). In the case of oleoresins, paprika oleoresin is the largest item (2400 tonnes) exported from India followed by capsicum oleoresin (1350 tonnes), pepper oleoresin (1100 tonnes), garcinia extract (575 tonnes) and turmeric oleoresin (325 tonnes). USA is the largest importer of spice extracts accounting for more than 30 per cent (2,100 tonnes) of our exports. Other major markets are Germany (785 tonnes), the UK (375 tonnes), South Korea (370 tonnes) and China (285 tonnes).

Mint products viz. mint oils, menthol crystal and menthol powder is the single largest product group in the export basket accounting for 27 per cent of our spices export. The export of mint products during 2008-09 has been 20,500 tonnes valued Rs.1420.25 crores against 21,100 tonnes valued Rs.1280.50 crores in 2007-08. Export to USA (5,675 tonnes) and China (5,200 tonnes) accounts for more than 53 per cent of our exports. The other major markets are Singapore (2,700 tonnes), Germany (1,100 tonnes), Netherlands (800 tonnes) and Japan (575 tonnes).

Library and Documentation

The Board's Library has a good collection of books and periodicals with computerised bibliographic data base. The process of strengthening the library and documentation unit was continued by new additions of books and periodicals. During the year, 214 new books were added and continued the subscription to periodicals. Library continued the regular services like issue and return of books and periodicals, supply of information services, current article services, daily information services etc and commenced the 'spice news service'. Reference facilities including guidelines were provided to students and researchers from various institutions. Copies of important information and articles were supplied to exporters on request. Important pieces of information were compiled on organic farming, pepper, cardamom, ginger, turmeric, chilli, vanilla, seed spices, and tree spices. Besides medicinal uses of pepper, ginger, turmeric, vanilla, saffron, garlic and fenugreek were compiled.

10. INFORMATION TECHNOLOGY AND ELECTRONIC DATA PROCESSING

The Board has a full-fledged EDP division to carry-out the following activities:-

- (1) Administration of organization wide IT resources namely hardware, software, databases, networking, peripheral equipment and team of IT personnel.
- (2) Perform design, development, documentation, testing, implementation and maintenance of Information Systems and application software.
- (3) Formulate strategies for technology acquisition, integration, and implementation.
- (4) Advise, guide and assist various departments and offices of the Board for the effective use of Information Technology.
- (5) Help desk management for existing applications, messaging solutions, Internet and Web site maintenance.
- (6) Identify the need for new systems (or modifications to existing systems) or respond to requests from users.
- (7) Upgradation of IT infrastructure.
- (8) Defining and implementing systems and procedures for the smooth functioning of computerized systems.
- (9) Data Processing.
- (10) Development, maintenance and updation of Board's web site and web enabled applications.
- (11) Providing Internet and E-mail service to user departments.
- (12) Formulate and conduct Computer training programmes.

Software packages have been developed and implemented in the following areas:-

- Trade Information Service
 - India's spices exports
 - World Import
 - Prices in domestic and international markets
 - Area and production
 - Trade Directories: Exporters, Dealers, Auctioneers, Importers, Suppliers, Planters etc.
- Registration and licensing
- Electronic Auction of small cardamom.
- Pre-shipment sampling
- Monitoring receipt, analysis and delivery of Spice samples received for quality evaluation.
- Analysis of analytical data of the Quality Evaluation Lab to assess the incidence of physical, chemical and microbial contaminants.

- Financial Accounting and Pay roll.
- Interest bearing loans like GPF, HBA etc.
- Personnel Information, leave accounting and income tax assessment.
- Library Cataloguing, circulation and control of external documents.
- Market Survey Analysis.
- Area and Production Surveys.
- Maintenance of subscriber addresses, monitoring of subscription expiry and mailing of periodical publications.
- Receipt and issue of consumables and maintenance of assets.
- Maintenance and accounting of provident fund and pension scheme for casual labourers.

Major activities in the field of information technology during 2008-09 are:

- (1) IT infrastructure in E-Auction center, Bodinayakanur was enhanced in terms of Server, number of terminals, network speed and buyer terminals.
- (2) Developed and implemented an Intranet namely 'spiceweb' at www.spicesboard.in for the use of Board's offices and employees. Circulars issued by various departments, monthly reports, frequently used application forms etc., are provided in this site for downloading. Statements of salary earnings and deductions, income tax, leave and GPF are available to the Employees through this site. Intranet also provides exporters directory, exports/imports, reports from Indian Embassies, Board's Office addresses and contact details, staff deployment, library catalogues and latest clippings of spice related news.
- (3) Board's website namely www.indianspices.com was revamped. Website updations were carried out on a regular basis.

Implemented facility for direct uploading of price, export, tenders, hot news, vacancies, training, export etc. Large number of trade enquiries was received through the site for sourcing spices and spice products. Database of overseas trade enquiries has been maintained. Marketing, Publicity and TIS departments utilized this database for releasing foreign trade bulletin and Importers directory.

- (4) Had coordination and collaboration with Quality lab, Marketing and TIS departments and external service provider to develop a web based solution for pre-shipment sampling and testing, online submission of exporter returns and dissemination of prices. A website was developed and tested for this purpose.
- (5) Standardized the application software implemented in Quality Labs located in Kochi and Mumbai.
- (6) Procured and installed computer systems, peripherals and UPS Systems in Board's H.O, Regional/ Zonal/Field Offices and Research Stations.
- (7) Imparted Computer training to candidates selected for training in Good Agricultural Practices to enable them as farm resource persons.

ANNEX - I

LIST OF BOARD MEMBERS AS ON 31.3.2009

Shri V.J. Kurian,

Chairman
Spices Board
Palarivattom P.O.,
Kochi -682 025
Tel: 0484-2333304
Fax: 0484-2349135
Mob: (0) 9847065507

Shri DM Kathir Anand

Vice Chairman
No.24, Gandhi Mandapam Road
Kotturpuram,
Chennai-600 085
Tel: 044-24470886/42087748 (Res),
044-32910576 (Off)
Mob: (0) 9443329999
Fax: 044-24474399
Mail:manager@rajamaexport.com

Shri Tiruchi Siva,

Hon'ble Member of Parliament (RS),
33, SBO Colony, Lawsons Road,
Cantonment, Tiruchirappalli,
Tamil Nadu - 620 001
Mob : (0) 9868181955,
(0) 9443160180
Fax: 0431-2412977
Mail: tiruchi.siva@sansad.nic.in

Shri Mangat Ram Sharma,

Director (Plantations),
Ministry of Commerce & Industry,
Department of Commerce,
Plantation Division,
NEW DELHI - 110 011
Tel: 011-23062109

Dr. M.L. Choudhury

Commissioner (Horti.)
Ministry of Agri. & Co-operation
Department of Agriculture
Krishi Bhavan
New Delhi-110 001

Shri V.D. Alam

Director (Finance)
Ministry of Commerce & Industry
Udyog Bhavan
New Delhi-110 011

Shri Sajan Kurian Kalarickal,

Manganam
Kottayam-686 018.
Tel: 0481-2562809, 2570258
Mob: (0) 9447082333

Shri T. Asokkumar

President, Kerala Cardamom Growers Union
"K.P.Kamaraj Bhavanam"
2AB 2/31, Thekkady Road
Cumbum-625 516, Theni Dist.
Tel: 04554-271359
Mob: (0) 9443104995
Fax: 04554-272999
Mail: kegu@rediffmail.com

Shri N. Jehangir

NeST Corporate Office
Plot 2, CSEZ
Kakkanad-682 037
Kerala
Tel: 0484-2413224/2413133
Fax: 0484-2413053
Mail: nj@nestcorp.net

Shri Vishvanath Okte

Okte Bhawan
Main Road
Gurraia, Chhindwara
Dist:Chhindwara (M.P.)
Pin-480 001
Tel: 07162-256551, 52, 53
Mob: (0) 9425146655
Fax: 07152-242608
Mail: oktedairy-gurraia@yahoo.com

Shri K.C. Chowde Gowda,

No.21, 6th Floor,
Sumangall Sevashram Road,
Hebbel,
Bangalore - 560 024.
Karnataka
Mob: (0) 9900225805

Dr. K.V. Peter,

Director, World Noni Research Foundation
No.12, Srinivasa Nagar,
2nd Street, World Wellness
Open- University Building,
Rajiv Gandhi Road,
Old Mahabalipuram Road, Perungudi,
Chennai - 600 096
Mob: (0) 9446513017/ 09381748878
Mail: kvptr@yahoo.com

Shri Balkaran Patel,

Barari Pura,
Chhindwara, Madhya Pradesh

Shri H. Vishwanath,

Dattatreya Rice Mill,
Rangenahalli, Tarikere Taluk,
Chickamagalur District,
Karnataka State - 577 144
Mob: (0) 9740550222
Tel:08261-255126;255050

Shri J.V. Narayanaswamy,

No.10, Anjaneya Extension Chintamani,
Kolar District - 563 125,
Karnataka
Mob: (0) 9448353709
Tel: 08154-252191

Shri Prakash Uttamchand Wadhwani

S/o Shri Uttamchand Wadhwani
96, Farmland, Ramdaspath
Nagpur
Maharashtra

Shri K.S.R.J. Rajkumar

S/o Shri K.S.R. Jayakumar
K.S.R. Illam, Panchayat Street
Cumbum, Pudupatty - 626 556
Tel: 04554 - 271282
Mob: 9965790317

Shri Mahendra Parmar

23, Rajarathinam Road
Kilpauk, Chennai - 600 010

Shri Ravibabu Seelam

D.No.8-21-19/1, 3rd Lane
Sitaramanagar
Guntur - 522 001,
Andhra Pradesh
Tel. Off: 0863 2238 388
Mob: (0) 9989719999
Fax: 0863 2238388
Email: rbseelam@gmail.com
Res. Tel: 0863 2237995

Shri K. Zia-Ud-Din Ahamed

26, Kulakkaran Street
Cumbum - 625 516
Theni District, Tamil Nadu
Tel. Off: 04869 - 222065
Mobile: (0) 9443458846
Fax : 04869 - 222865 / 222097
Email: info@kcpmc.com
Res. Tel: 04554 - 271 636

Shri K. Jayakumar, IAS,
Agricultural Production Commissioner
Government of Kerala
Secretariat
Thiruvananthapuram-695 003
Tel:0471-2333028/2518485

Shri P.N. Roychowdhury,
Principal Secretary,
Agriculture & Co-Operation Deptt.,
Block No:5/1, Sachivalaya,
Gandhinagar - 382 010, Gujarat
Tel: 079-23250311/23250315

Dr. G.S.G. Ayyangar,
Commissioner & Secretary,
Government of Tripura
Agarthala, Tripura

Director (Agriculture)
Planning Commission
Yojana Bhavan, New Delhi

Shri Rajiv Dhar
Director.
Indian Institute of Packaging
Chakala, E-2 MIDC Area
P.B.No.9432, Andheri (East)
Mumbai-400 093.
Tel: 022-28219803

Dr. V. Prakash
Director
Central Food Technological Research Institute
Mysore-570 020.
Tel: 0821-2517760
Fax: 0821-2516308
Mail: director@cftri.com

Dr. V.A. Parthasarathy
Director
Indian Institute of Spices Research
P.B.No.1701, Marikkunnu P.O.
Calicut-673 012.
Tel: 0495-2731346, 2730294
Fax: 0495-2730294
Mail: parthasarathy@iisr.org
mail@iisr.org

Shri K.N. Hazarika,
The Chairman and Managing Director,
North Eastern Development Finance Corprn.
Ltd.,
Basundhara Enclave
B.K. Kakati Road, Ulubari
GUWAHATI - 781 007, ASSAM
Tel: 0361-2529137