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THE MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY (MPEDA)

- Established by an Act of Parliament in 1972 (No.13 of 1972), i.e. The Marine Products Export Development Authority Act 1972
- A Statutory body constituted under the MoCI to promote production and export of Marine Products.
- Over 1000 Seafood exporters are registered with the Authority.



MPEDA - BROAD OBJECTIVES

- Development, Conservation & Management of Off-shore / Deep-sea Fishing.
- Registration of Seafood Exporters and Seafood Processing Establishments, Fishing Vessels etc.
- Laying down Standards and Specifications for different entities.



MPEDA - BROAD OBJECTIVES

- Rendering technical assistances, financial support (wherever necessary) for export promotion / development of marine products.
- Providing market intelligence to seafood exporters.
- Imparting training on various aspects Viz. Processing / Quality Control, Aquaculture, Trade Promotion, Extension Activities etc.



VARIOUS DIVISIONS CO-ORDINATING ACTIVITIES OF MPEDA

APPRAISAL & INVESTMENT

To augment production through capture fisheries.

AQUACULTURE

To augment production through culture fisheries.

REGISTRATION

To maintain an updated statistics relating to registration of various entities.



VARIOUS DIVISIONS CO-ORDINATING ACTIVITIES OF MPEDA (CONTD...)

QUALITY CONTROL

- Evolving standards for various entities in line with the stringent quality control norms stipulated by International Agencies like the US - FDA, Japanese Health Authorities, European Commission, Codex etc.
- Organizing training programs/work shops/seminars etc. on various quality related issues.
- Extending financial/technical assistance for setting up captive / independent PPC, Mini - Lab etc.



VARIOUS DIVISIONS CO-ORDINATING ACTIVITIES OF MPEDA (CONTD...)

DEVELOPMENT

Provides technical /financial assistance (wherever necessary) to seafood processors towards up-gradation/modernization of the Indian Seafood Industry.

EXTENSION

Organize training programs for fishermen, pre-processing/processing workers on maintenance of sanitation and hygiene in seafood handling.



SOCIETIES UNDER MPEDA-NETFISH

1. Network for Fish Quality Management and Sustainable Fishing (NETFISH)

- Established for capacity building, ensuring higher standards of hygiene, upgrading technology and quality management of both fishing and fish processing sectors at the grass root level in order to improve the quality of fishery products.
- Works in close coordination with international, national / state / district institutions of excellence in the field of extension, training, research and marketing.



SOCIETIES UNDER MPEDA-NaCSA

2. National Center for Sustainable Aquaculture (NaCSA)

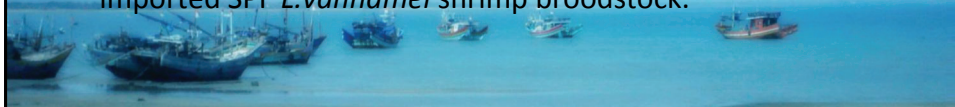
- An outreach organization of MPEDA which organizes small farmers to form primary aquaculture societies, provides technical support to build their capacity to produce quality shrimps in a sustainable manner.
- NaCSA facilitates linkages between aquaculture stake holders and facilitates formulation of Best Management Practices (BMPs), strategies and voluntary guidelines which benefit the entire shrimp farming community as a whole.



SOCIETIES UNDER MPEDA-RGCA

3. Rajiv Gandhi Centre for Aquaculture (RGCA)

- The Research & Development arm of MPEDA. It has evolved as a Centre of Excellence in Aquaculture.
- RGCA is actively involved in the development of various sustainable aquaculture technologies for various aquatic species having export potential.
- RGCA also has a state-of-the-art technology transfer and training centre for disseminating the technologies developed by it.
- RGCA has set up a central quarantine facility to check the imported SPF *L.vannamei* shrimp broodstock.



VARIOUS DIVISIONS CO-ORDINATING ACTIVITIES OF MPEDA (CONTD...)

MARKETING SERVICES

- Disseminates information on trade requirements to seafood exporters.
- Assists to resolve trade disputes/complaints.
- Provides inputs in formulating seafood export policies.



VARIOUS DIVISIONS CO-ORDINATING ACTIVITIES OF MPEDA (CONTD...)

STATISTICS

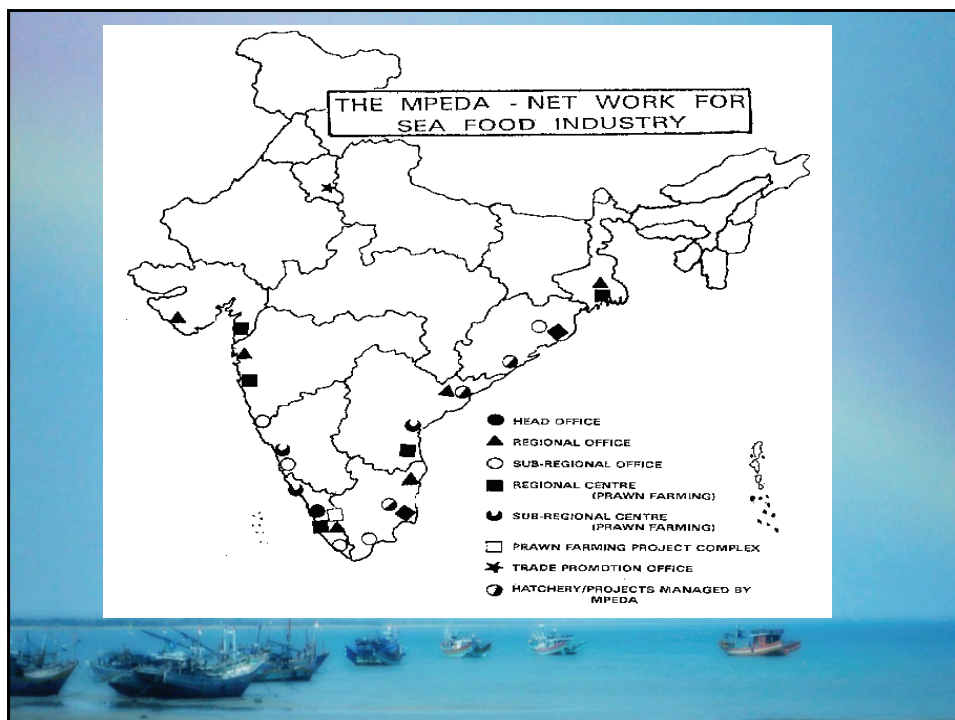
- Provides statistical information on export of marine products and furnish to the trade indicative price prevailing in major international markets(PRIME).
- Brings out Export Review & Handbook on Export Statistics.



VARIOUS DIVISIONS CO-ORDINATING ACTIVITIES OF MPEDA (CONTD...)

PUBLICITY AND MARKET PROMOTION

- Participate in major international seafood fairs worldwide along with seafood trade representatives.
- Organize biennial India International Seafood Show as also Buyer-Seller Meets.
- Brings out various publications relevant to seafood industry.



INDIAN SEAFOOD SCENARIO

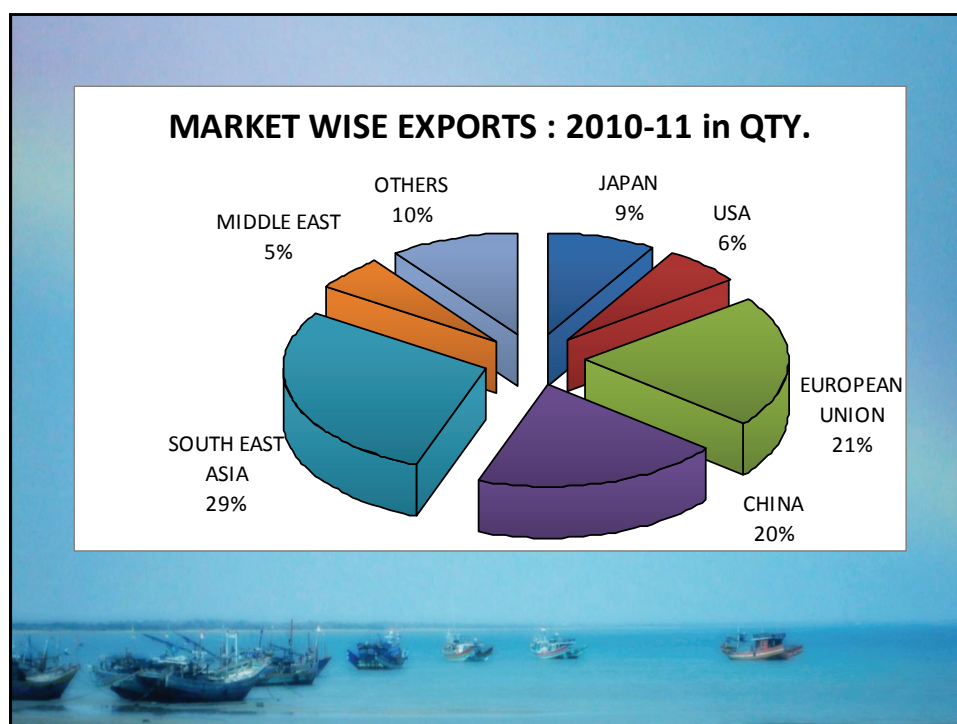
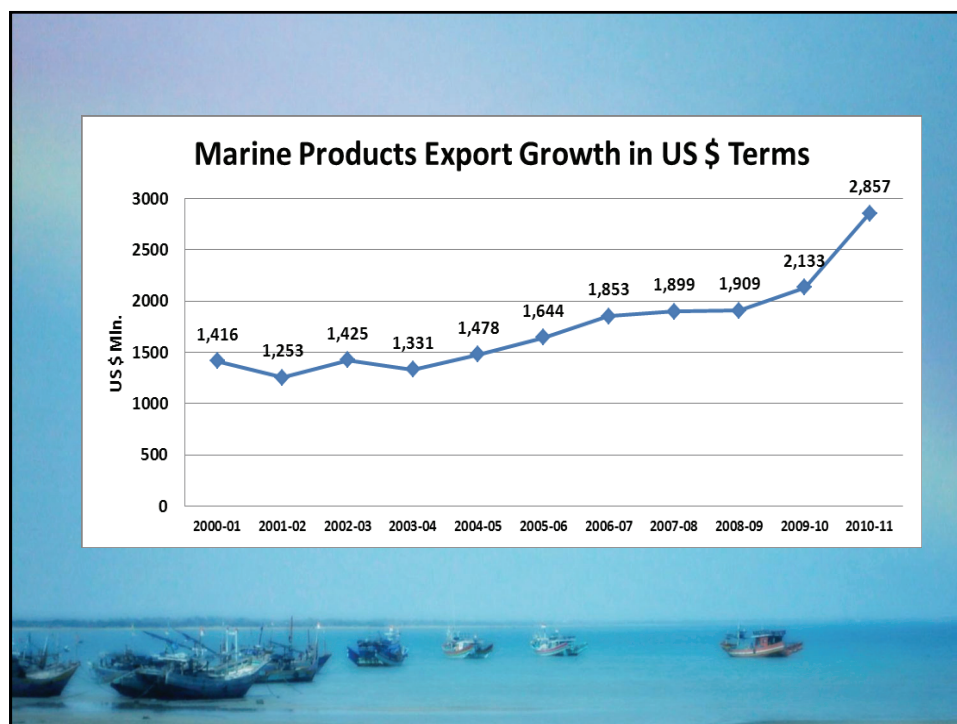
- Length of Coastline : 8129 Kms
- Exclusive Economic Zone : 2.02 Mill.Sq.km.
- Marine Resource Potential : 3.90 Mill.M.T
- Present Level of Exploitation : 3.45 Mill M T
- Inland Resource Potential : 4.50 Mill M.T
- Present Level of Exploitation : 2.30 Mill M T

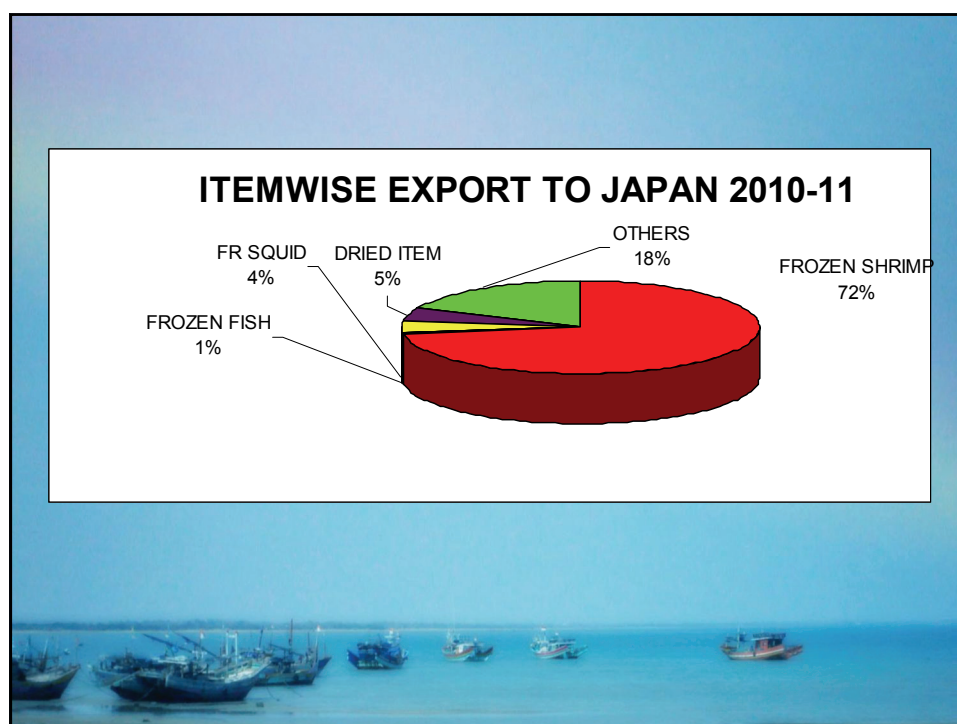
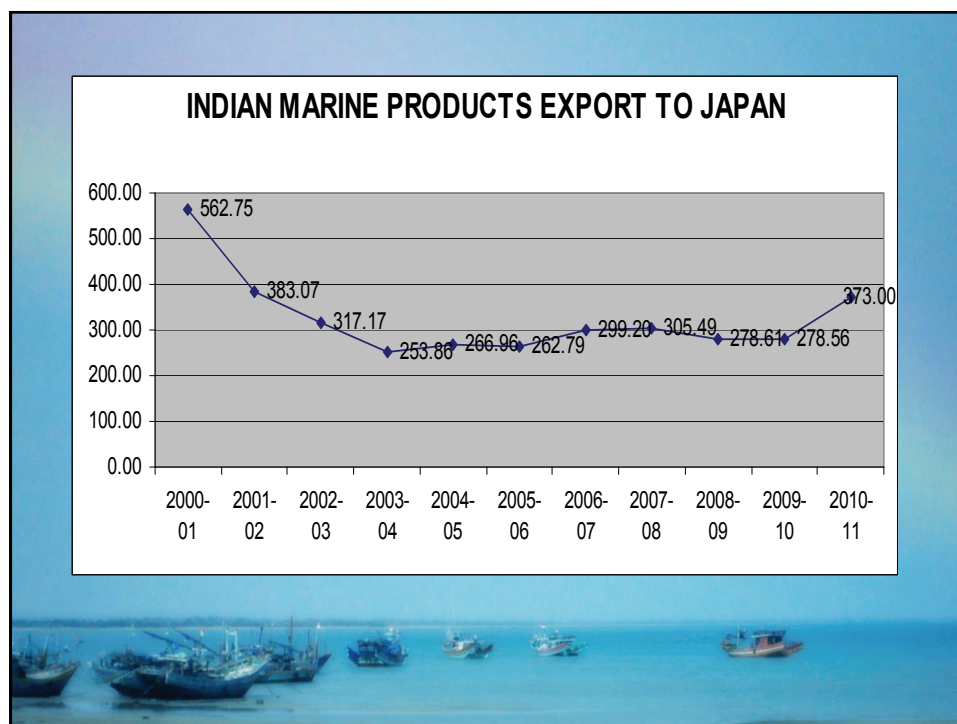


INDIAN SEAFOOD SCENARIO

- Over 423 seafood Processing Establishments engaged in processing seafood for export.
- 237 establishments approved for exports to EU countries .
- Installed Capacity :Over 11500 MT / Day.
- Major Markets: EU,USA, JAPAN, CHINA, South East Asian Countries.
- Major Items Exported: Fr.Shrimp, Fr.Fish, Fr.Cephalopods, Dried/ Chilled / Live & Other Items.







ROLE OF EXPORT INSPECTION COUNCIL OF INDIA

- Set up by GoI under the Export (QC&I) Act, 1963 to ensure development of export trade through Quality Control & Inspection (QC&I) and matters connected thereof.
- An advisory body to the Central Govt. empowered to:
 - Notify commodities subjected to QC&I prior to export.
 - Establish standards for quality.
 - Specify type of QC&I to be applied.

ROLE OF EXPORT INSPECTION COUNCIL OF INDIA (Contd...)

- EIC exercises technical and administrative control over the five Export Inspection Agencies (Cochin, Chennai, Kolkata, Delhi and Mumbai) for implementing measures and policies formulated by EIC, including certification of export commodities from the country.

REGISTRATION & APPROVAL OF ESTABLISHMENTS

- MPEDA is the registering authority of all seafood processing establishment exporting F&FP from the country.
- EIAs (under EIC) are the agencies approving the establishments to carry out export of F&FP.



REGISTRATION & APPROVAL OF ESTABLISHMENTS

- The registration/approval is based on permission from civic authorities concerned and the Pollution Control Board (PCB).
- Approval is granted based on the recommendation of an IDP comprising of members from MPEDA, EIA and CIFT.



EXPORTS FROM INDIA TO EU

- The establishments have to comply with relevant EU norms and is based on recommendation of the IDP.
- Concurrence of the European Commission is required for the approvals granted by the Competent Authority (EIC).
- Consignment-wise health certificate is issued by the competent authority based on their monitoring and guarantees given to the Commission.

EIC NOTIFICATIONS – F&FP

Order 729 dated 21st August 1995

S.O. 729(E). :- Whereas for the development of the export trade of India, certain proposals for subjecting Fresh, Frozen and Processed Fish & Fishery Products to quality control inspection prior to export, were published as required by sub-rule (2) of rule II of the Export (Quality Control and Inspection) Rules, 1964 in the Gazette of India, Part II, Section 3, Sub-section (ii) dated 1st November, 1994 under the Order of the Government of India in the Ministry of Commerce No S.O. 785 (E) dated the 1-11-1994;

2. And, whereas, the objections and suggestions were invited from all persons likely to be affected thereby within a period of forty five days of the date of publication of the said order in the official gazette;

3. And, whereas, the copies of the said Gazette were made available to the public on 1-11-1994;

4. And, whereas, the objections and suggestions received from the public on the said draft have been considered by the Central Government;

5. And, whereas, it is necessary to maintain the highest quality standards as per the health requirements of the importing countries that would encompass the standards like unified directive on 91/493/EEC dated the 22 July, 1991 of the European Community, the proposed HACCP of United States of America, Quality Assurance Standards of Japan... (Contd...)

EIC Notifications – F&FP

Notification No.730 dated 21st Aug 1995

S.O. 730(E)-In exercise of the powers conferred by **Section 17 of the Export (Quality Control and Inspection Act, 1963 (22 of 1963))** and in super session of Notification No. S.O. 1153 (a), dated 9-4-1988 relating to Frozen Fish and Fishery Products (Quality Control and Inspection) Rules, 1987 and Notification No. S.O. 863, dated 12-2-1983 relating to canned Fish & Fishery Products (Quality Control and Inspection) Rules, 1983, and Notification No. S.O. 953, dated 30-3-1987 relating to Frozen claim Meat (Quality Control and Inspection) Rules 1987, except in respect of things done or omitted to be done before such super session the Central Government hereby makes the following rules, namely :-

1. Short title and commencement :-

(1) These rules may be called **Export of Fresh, Frozen and Processed Fish and Fishery Products (Quality Control and Inspection and Monitoring Rules, 1995.**

(2) They shall come into force on the date of their publication in the official Gazette.

2. For the purpose of those rules unless the context otherwise requires, the following definitions shall be applicable :

2.1 'Act' means the Export (Quality Control and Inspection) Act, 1963 (22 of 1963).

2.2 'Agency' means any one of the Export Inspection Agencies.....(Contd...)

COMPENDIUM OF NOTIFICATIONS

Notification on Fresh, Frozen and Processed Fish & Fishery Products

- S.O. 730 (E) dated 21st August 1995
Subsequently amended vide No. Notifications
- S.O. 415 (E) dated 11th April 2002,
- S.O. 1029 (E) dated 24th September 2002,
- S.O. 1034 (E) dated 9th September 2003,
- S.O. 717 dated 25th February 2005,
- S.O. 612 dated 15th February 2007, EIC-Notification¥SO 612 Implementation.pdf,
- S.O. 1519 dated 16th June 2008,
- S.O. 2714 (E) dated 28th October 2009,
- S.O. 143 (E) dated 21.1.2011 &
- S.O. 497(E) dated 10.3.2011

Exports from India to EU

- The processors apply for registration/approval of their facilities, and upon compliance with the norms and based on physical verification, registration/approval is granted to the entity.
- Checklist of the procedures are available on the website.
- India follows EU regulations relevant to the export of F&FP and Executive Instructions are being issued by the Competent Authority from time to time (may almost be equivalent to [Japanese guidelines for Handling Seafood Export to EU](#))



FEW RELEVANT EC REGULATIONS

- | | |
|--|---------------------------------|
| •178/2002/EC (Basic Food Law) | •854/2004/EC (Annex-III) |
| •(Ch-1 Art.1~3,18,19,20,Ch-III, Ch-IV-Art 50) | •882/EC/2004 (Food Control) |
| •852/2004/EC | •1881/2006/EC (MRL of Cont.) |
| •(Ch-I Art.1&2,Ch-II Art.5,Annex-II Ch-I & Ch-VII) | •2073/2005/EC (Micro.. Crit...) |
| •853/2004/EC (Sec-I Annex-II, Sec-VIII - Ch-I~VIII), | •96/23/EC (Residue Control) |



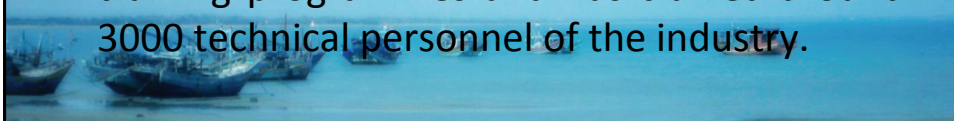
EXPORTS FROM INDIA TO EU (CONTD...)

- It is mandatory for all seafood processing establishments to comply with HACCP system.
- HACCP compliance audit is carried out prior to the approval to ensure food safety.



HACCP Training

- MPEDA organizes HACCP training programmes (basic & audit) to the seafood processing technologists towards capacity building.
- The training is based on standardized curriculum of the US FDA.
- Since 1996, MPEDA has organized around 90 training programmes and has trained around 3000 technical personnel of the industry.



State-wise summary of the list of approved units to EU

Maritime states	PP	PPa	CS	Total
Gujarat	14	19	1	33+1
Maharashtra	5	25	1	30+1
Goa	1	2		3
Karnataka	7	1		8
Kerala	58	17	26	75+26
Tamilnadh	6	22	2	28+2
Andhrapradesh	1	40	1	41+1
Orissa	1	7		8
West Bengal	1	10	1	11+1
Total	94	143	32	237+32=269

PP : Processing Plant; PPa : Processing plant engaged in fully or partially farm raised material; CS : Exclusive Cold storage facility for F & FP

Inspection of FVO Mission of the EC

- The Food & Veterinary Office of the European Commission inspects different entities once in two years.
- The Mission carries out inspection of residue control in the primary production areas and maintenance of hygiene in the establishments and allied facilities every alternate year.
- MPEDA serves as a regulatory agency for residue control and submits NRCP to the Commission every year.

Inspection of FVO Mission of the EC

- The suggestions/recommendations of the Mission were mainly on effective control of residues in aquaculture products and on improving the infrastructure facilities for hygienic handling of F&FP in fishing vessels and landing centers.
- MPEDA, being the development authority, assists the state governments to provide adequate facility at landing sites for preservation of the catch.





USAGE OF CHEMICALS IN SEAFOOD PROCESSING

- Unapproved chemicals are not being used for processing and export of F&FP to any of the countries including USA.
- Besides, stringent residue control measures are being adopted and pre-harvest testing is made mandatory for procurement of aquaculture raw material for export processing.



TRADE RELATIONS WITH JAPAN

- India would like to continue very cordial trade relationship with Japan.
- GoI has established a Trade Promotion Office in Tokyo, Japan to liaise with the authorities concerned and trade for a smooth export trade with India.
- GoI also envisages mutual support and technical assistance to boost trade relationship between both countries.



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EXPORT INSPECTION AGENCY – KOCHI

(Ministry of Commerce & Industry, Govt. of India)
27/1767 A, Shipyard Quarters Road, Panampilly Nagar (South),
Kochi- 682 036, Tel; 0484 -2316945-47, Fax; 0484- 2316948



**Government of India
MINISTRY OF COMMERCE
THE EXPORT (QUALITY CONTROL AND INSPECTION) ACT,
1963**

**(No. 22 of 1963)
As Amended up to Export (Quality Control and Inspection)
Amendment Act, 1984
(No. 40 of 1984)**

**AND
THE EXPORT (QUALITY CONTROL AND INSPECTION) RULES,
1964
(Corrected up to 30th September 1986)**

**An Act to provide for the sound development of the export
trade of India through quality control and inspection and for
matters connected therewith.**

Contents of the **EXPORT (QUALITY CONTROL AND INSPECTION) ACT, 1963**

- 1 [Short title, extent and commencement](#)
- 2 [Definitions](#)
- 3 [Establishment of Export Inspection Council](#)
- 4 [Director of Inspection and Quality Control](#)
- 5 [Functions of the Council](#)
- 6 [Powers of the Central Government in regard to quality control and inspection](#)
- 7 [Machinery for quality control and inspection](#)
- 8 [Powers to recognize or establish marks to denote conformity with standard specifications](#)
- 9 [Power to obtain information from exporters etc.](#)

3

Contents of the **EXPORT (QUALITY CONTROL AND INSPECTION) ACT, 1963** contd---

- 10 [Finance, Accounts and audit](#)
- [Power to enter and inspect](#)
 - [Power to search](#)
 - [Power to seize commodities etc.](#)
 - [Power to stop and seize conveyances](#)
 - [Search and seizure to be made in accordance with the code of Criminal Procedure 1973](#)
 - [Confiscation](#)
 - [Confiscation of conveyance](#)
 - [Option to pay fine in lieu of confiscation](#)
 - [Liability to penalty.](#)
 - [Confiscation or penalty not to interfere with other punishments](#)
 - [Adjudication](#)
 - [Giving of opportunity to the owner of goods etc.](#)
 - [Appeal](#)
 - [Powers of revision](#)
 - [Powers of adjudicating and other authorities](#)
 - [Continuance of proceedings in the event of death or insolvency.](#)

4

Contents of the **EXPORT (QUALITY CONTROL AND INSPECTION) ACT, 1963** contd---

11 Penalty

A. Penalty for contravention of order made by adjudicating authority or appellate authority.

B. Offences by officers and employees of agency etc.

C. Correction of clerical or arithmetical mistakes

12 Offences by companies

13 Delegation of powers

14 Procedure for prosecution

15 Officers and employees of agency to be public servants

16 Protection of action taken in good faith

A. Suspension etc. of operation of the provisions of the Act

17 Powers to make rules

18 Act to over-ride other enactments

5

EIC Network across India



EIC Network across India

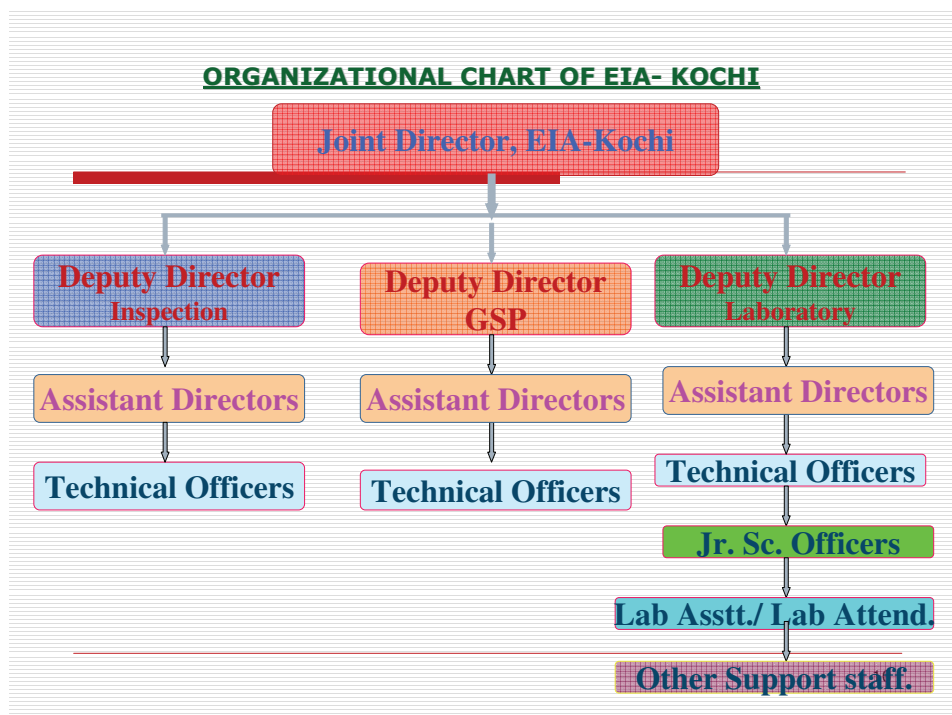
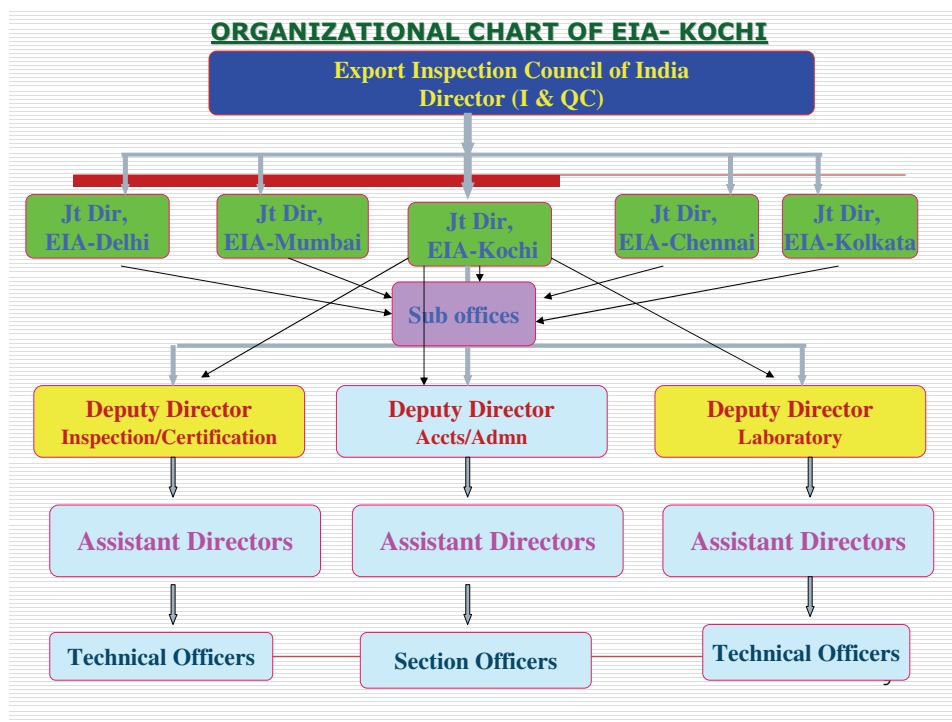
S.NO.	EXPORT INSPECTION AGENCY	REGION- STATE / UNION TERRITORIES
1.	KOLKATA	Assam, Arunachal Pradesh, Andaman & Nicobar Islands, Bihar, Jharkhand, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Sikkim, Tripura and West Bengal.
2.	KOCHI	Karnataka, Kerala and Lakshadweep.
3.	DELHI	Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, Uttar Pradesh, Madhya Pradesh, Uttaranchal, Chhattisgarh.
4.	CHENNAI	Andhra Pradesh, Pondicherry and Tamil Nadu.
5.	MUMBAI	Gujarat, Maharashtra, Dadra & Nagar Haveli, Goa, Daman & Diu.

7

Export Inspection Agencies & their sub offices

- | | |
|---|---|
| <ul style="list-style-type: none"> □ Export Inspection Agency-Kochi <ul style="list-style-type: none"> ■ EIA-Kochi, SO: Bangalore, Mangalore, Quilon □ Export Inspection Agency-Mumbai <ul style="list-style-type: none"> ■ EIA-Mumbai, SO: Ahmadabad, Baroda, Gandhidham, Goa, Porbander, Pune, Rajkot, Ratnagiri, Thane Veraval, Pilot Test House □ Export Inspection Agency-Kolkata <ul style="list-style-type: none"> ■ EIA-Kolkata, SO: Bhubaneswar & Dumdum | <ul style="list-style-type: none"> □ Export Inspection Agency-Chennai <ul style="list-style-type: none"> ■ EIA-Chennai, SO: Bhimavaram, Coimbatore, Hyderabad, Nagercoil, Tuticorin & Visakapattanam □ Export Inspection Agency-Delhi <ul style="list-style-type: none"> ■ EIA-Delhi, SO: Agra, Indore, Jaipur, Jalandhar, Kanpur, Ludhiana & Moradabad |
|---|---|

8



MAJOR ACTIVITIES & OFFICIAL CONTROL SYSTEM OF EIA-KOCHI

- 🔗 Official control of establishments approved under Fish & Fishery Products, Milk products, Egg products, Poultry meat, Black pepper, Toilet soap, Chemicals, Engineering Schemes, etc
- 🔗 Consignment wise inspection of Black pepper, honey, dried fish, Toilet Soap etc
- 🔗 Certification of units under voluntary scheme
- 🔗 MMPO inspections
- 🔗 Certification under Turkey Scheme
- 🔗 Different schemes under CoO
- 🔗 Post verification, lab approval, approval of PIAs
- 🔗 Testing of different commodities in our lab
- 🔗 Imparting training to Technologists of Food Industries

11

PRODUCTS COVERED UNDER EXPORT CERTIFICATION

- ☐ Fish & Fishery Products
- ☐ Milk Products
- ☐ Egg Products
- ☐ Poultry Meat & Poultry Meat Products
- ☐ Black Pepper
- ☐ All products covered under Voluntary Certification System (FSMSC)
- ☐ Ayurvedic toilet soaps
- ☐ Chemical and Engineering items
- ☐ Gelatin

12

SYSTEMS OF INSPECTION & CERTIFICATION

CONSIGNMENT-WISE INSPECTION

SYSTEMS APPROACH

- ☐ In-process Quality Control (IPQC)– **for Notified commodities**
- ☐ Self-Certification
- ☐ Food Safety Management System Certification (FSMSC)
Approval and monitoring of processing and manufacturing units based on food safety management systems such as GMP/GHP/HACCP– **for commodities not notified**
- **3rd PARTY INSPECTION & TESTING**
 - ☐ Milk & Milk products (MMPO 1992)
 - ☐ Certification of Tea (Tea Act 2005)
 - ☐ Import Testing for Food Safety & Standards Authority of India (FSSAI)

13

UNITS APPROVED UNDER EIA-KOCHI

	EU	108
Fishery products (145)	Non EU	37
	Total	145
Black Pepper (20)	IPQC	07
	CWI	13
Milk Products (2)	Non EU	02
Egg Products (1)	EU	01
Poultry Meat Products (1)	Non EU	01
Establishments approved under FSMSC/VCS (10)		10
Ayurvedic toilet soap	IPQC & CWI	03

14

PROCEDURE FOR APPROVAL

- Submission of Application by the Exporter/ Processor
- Scrutiny of application, documents and adequacy audit of HACCP manual
- Assessment visits (Inter Deptl. Panel)-EIA, MPEDA/ SPICES BOARD & CIFT
- Approval by CA (Validity 2 years), approval number given & certificate of Approval issued

15

3-TIER SURVEILLANCE SYSTEM

Once the Approval is granted to the unit/ establishment;

- ☐ **Regular interval Monitoring by EIA Officials**
 - Initially once a month for a yr
 - Once in two months from 2nd yr if no complaints
 - Once in three months thereon if no complaints
 - Incase of complaints the frequency of inspection & testing plan is increased until there is no non-compliance is observed.
- ☐ **Supervisory Visits** (at six monthly interval by an officer at the level of Deputy Director to ensure compliance check of inspection / monitoring by inspection officers)
- ☐ **Corporate Audits** (Interval is once a yr by a team of relevant field Officers of other EIAs deputed by EIC, to check compliance to guidelines laid for inspection / monitoring, certification, supervisory visits and Lab activities)

16

COMPLAINT HANDLING PROCEDURE

On receipt of a complaint;

- ☞ EIA places the unit under '**ON ALERT**'.
- ☞ Frequency of monitoring visit is increased.
- ☞ Next 10 consecutive consignments/ 3 consecutive production codes are tested for the parameter concerned.
- ☞ Assessment of processing establishment is carried out to determine the cause of contamination in the product by Inter Department Panel (IDP).
- ☞ In case of Unsatisfactory assessment report/test results show cause notice will be issued to the unit/ establishment.
- ☞ Stop production till the causes of contamination are properly identified and corrective action taken to prevent recurrence
- ☞ After resumption of production, continuous surveillance for 10 days extendable up to 30 days is carried out.
- ☞ Next 10 consecutive consignments or 3 day production codes are tested for the parameter concerned.
- ~~☞ If reports of continuous surveillance and test reports of consignments are satisfactory, 'On Alert' is lifted.~~

17



EXPORT INSPECTION AGENCY - KOCHI

TESTING ACTIVITIES

OF

EXPORT INSPECTION AGENCY - KOCHI [LABORATORY]

NABL ACCREDITATION AS PER ISO 17025:2005

Export Inspection Agency-Kochi, Laboratory is accredited in both Biological and Chemical fields as per ISO 17025-2005 by National Accreditation Board for Testing and Calibration Laboratories (NABL) under Department of Science and Technology, Govt. of India, who is the competent authority of Accreditation in India.

NABL Accreditation Certificate #
T-1216 (Chemical) & T-1217 (Biological)
Validity from 06.07.2011 till 05.07.2013

EIC Approval under EIC Lab Approval Scheme 2010
Certificate of Approval for both Chemical & Biological Testing Valid
from 19.05.2011 till 19.05.2013

Empanelled by FSSAI for Import Testing

19



20

ORGANIZATIONAL CHART OF EIA- KOCHI LABORATORY



21

CHEMICAL SECTION

LIST OF MAJOR TEST EQUIPMENTS (CHEMICAL)

1. HPLC MS-MS [Agilent Technologies]
2. High Performance Liquid Chromatograph (HPLC) – 2 nos [Agilent technologies & Waters].
3. GC MSD [Agilent Technologies]
4. Gas Chromatograph (GC) – 3 nos [Agilent Technologies, Chemito & Nucon]
5. Atomic Absorption Spectrophotometer (AAS) [Varian]
6. Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) [PerkinElmer]
7. Real Time PCR (Applied Biosystems)
8. Other Instruments
 - Ultra Centrifuge
 - Nitrogen based sample concentrator
 - Microwave sample digester
 - Rotary evaporator
 - Solvent extractor etc.

22

CHEMICAL SECTION

Scope

I. Food and agriculture product

1. Fish & Fishery products
2. Black pepper
3. Dried whole ginger
4. Tea
5. Egg products
6. Honey
7. Milk products
8. Common salt
9. Cattle feed

II. Soap and detergents

- Toilet soap

III. Water

IV Gelatin (Lab has the expertise & testing facilities)

23



EXPORT INSPECTION AGENCY - KOCHI

MICROBIOLOGICAL SECTION

LIST OF MAJOR TEST EQUIPMENTS (MICROBIOLOGICAL)

1. VIDAS (BIOMERIEUX)
2. TEMPO (BIOMERIEUX)
3. Real Time PCR (ABI)
4. Petrifilm Reader (3M)
5. ELISA Reader
6. Bio-safety Cabinet & Laminar Air Flow Systems
7. BOD Incubators
8. Hot Air Oven
9. Autoclaves
10. Incubators
11. Dilumate
12. Bag mixture (stomacher)

24

MICROBIOLOGICAL SECTION:

SCOPE

I. Food and agriculture product

- 1. Fish & Fishery products**
- 2. Black pepper**
- 3. Dried whole ginger**
- 4. Tea**
- 5. Egg products**
- 6. Milk and milk products**
- 7. Common salt**
- 8. GMO test in Soya products**

II. Water [IS:4251 & EC: 98/83 -Table A (1) of Annexure II]

III. Gelatin (Lab has the expertise & testing facilities)

25

BIOLOGICAL TESTING

Specific Test	Products, Materials or Items (Matrices)
Total Plate Count	Fish & Fishery Products, Whole & Ground Spices & Condiments, Tea, Egg Products, Milk & Milk Products, Nuts & Nuts Products & Water (Potable)
Escherichia coli	Fish & Fishery Products, Whole & Ground Spices & Condiments, Nuts & Nuts Products
Staphylococcus aureus (Coagulase +ve)	Fish & Fishery Products, Whole & Ground Spices & Condiments, Egg Products, Common salt, Nuts & Nuts Products
Total Coliforms	Fish & Fishery Products, Whole & Ground Spices & Condiments, Egg Products, Milk & Milk Products, Nuts & Nuts Products, Water (Potable)
Faecal Coliforms	Fish & Fishery Products, Water (Potable)
Faecal Streptococci	Fish & Fishery Products, Water (Potable)
Salmonella	Fish & Fishery Products, Whole & Ground Spices & Condiments, Tea, Egg Products, Nuts & Nuts Products, Water (Potable)
Vibrio cholerae	Fish & Fishery Products, Water (Potable)
Vibrio parahaemolyticus	Fish & Fishery Products

26

BIOLOGICAL TESTING

Specific Test	Products, Materials or Items (Matrices)
Listeria monocytogens	Fish & Fishery Products
Shigella	Fish & Fishery Products
Sulphite Reducing Clostridium	Fish & Fishery Products, Common salt, Water (Potable)
Bacterial Inhibitors / Antimicrobial substances by Four Plate Method	Fish & Fishery Products
Clostridium perfringens	Whole & Ground Spices & Condiments
Bacillus cereus	Whole & Ground Spices & Condiments, Egg Products
Yeast & Mould count	Whole & Ground Spices & Condiments, Tea, Egg Products, Nuts & Nuts Products
Enterobacteriaceae	Egg Products
Proteolytic organisms	Water (Potable)
Lipolytic organisms	Water (Potable)
Pseudomonas aeruginosa	Water (Potable)

27

CHEMICAL TESTING

Specific Test or Parameter	(Matrices)
Cadmium, Lead, Mercury, Arsenic	Fish & Fishery Products,
Aldrin, Dieldrin, Endrin, DDT, BHCα, BHCβ, BHCγ, BHCδ	Fish & Fishery Products,
Chloramphenicol	Fish & Fishery Products,
Oxytetracycline	Fish & Fishery Products,
Sulphonamides – Sulphamethoxazole, Sulphamethizole, Sulphadiazine	Fish & Fishery Products,
3.Nitrofurans metabolites- AOZ, AMOZ, AHD & SEM	Fish & Fishery Products,
Sulphite as SO₂	Fish & Fishery Products,
Phosphate as P₂ O₅	Fish & Fishery Products,
Total Volatile Base Nitrogen (TVBN) as N	Fish & Fishery Products,
Trimethyl amine (TMA) as N	Fish & Fishery Products,
Histamine	Fish & Fishery Products,

28

CHEMICAL TESTING

Specific Test or Parameter	Products, Materials or Items (Matrices)
Light Berries	Black Pepper/ Ground Pepper (Spices)
Insect infested/ Moldy Berries	Black Pepper/ Ground Pepper (Spices)
Live/Dead Insects	Black Pepper/ Ground Pepper (Spices)
Excreta –Mammalian	Black Pepper/ Ground Pepper (Spices)
Excreta other than Mammalian	Black Pepper/ Ground Pepper (Spices)
Light Filth	Black Pepper/ Ground Pepper (Spices)
Heavy filth	Black Pepper/ Ground Pepper (Spices)
Extraneous matter (Sifting & picking)	Black Pepper/ Ground Pepper (Spices)
Moisture	Black Pepper/ Ground Pepper (Spices), Honey, Milk & Milk Products,
Total Ash	Black Pepper/ Ground Pepper (Spices), Tea, Honey, Milk & Milk Products,
Acid Insoluble Ash	Black Pepper/ Ground Pepper (Spices), Tea,
Crude Fibre	Black Pepper/ Ground Pepper (Spices), Tea,
Volatile oil	Black Pepper/ Ground Pepper (Spices)
Aldrin, Dieldrin, Endrin, Endosulphan- α , Endosulphan- β , DDT, BHC α , BHC β , BHC γ , BHC δ , Hepta Chlor, Heptachlor Exo epoxide	Black Pepper/ Ground Pepper (Spices), Tea, Egg Products, Honey
Extraneous Matter	Dried Whole Ginger (Spices)

29

CHEMICAL TESTING

Specific Test or Parameter	Products, Materials or Items (Matrices)
Additives: SO ₂ contents for bleached varieties	Dried Whole Ginger (Spices)
Water Soluble Ash, Alkalinity of Water Soluble ash, Water Extract, Aflatoxin	Tea,
Lead	Tea, Honey,
Copper, Iron, Zinc, Cadmium	Tea,
Arsenic, Copper, Total reducing sugar, Sucrose,	Honey
Acidity/ Titrable Acidity	Honey, Milk & Milk Products,
Total Fatty matter, Free Caustic Alkali, Chloride, Matter insoluble in alcohol, Rosin Acid	Toilet Soap
Purity	Common Salt
Phosphate as P ₂ O ₅	Tri Sodium Phosphate

30

CHEMICAL TESTING

Specific Test or Parameter	Matrices
Physical Parameters: Colour, Odor, Taste, Turbidity, Total solids, pH, Conductivity	Water (Potable)
Chemical Parameters: Nitrate as N, Nitrite as N, Sulphide, Manganese, Copper, Zinc, Chloride, Sulphate, Magnesium, Calcium, Total Hardness, Sodium, Arsenic, Cadmium, Cyanide, Chromium, Mercury, Lead, Nickel, Iron, Aluminum, Selenium, TOC, Phenolic subs., Ammonium, Oxidisability, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (k) fluoranthene, Benzo (ghi) pyrene, Indeno (1,2,3-cd) pyrene, Aldrin, Dieldrin, Endrin, Endosulphan- α , Endosulphan- β , DDT, BHC α , BHC β , BHC γ , BHC δ , Hepta Chlor, Heptachlor Exo epoxide	

31

SAMPLE RECEIPT, TESTING AND ISSUE OF TEST REPORT

- ☐ Source of sample – Primarily Monitoring samples (drawn by EIA officials) and lab also accepts voluntary samples from the industry.
- ☐ Lab has adequate provisions of sample Storage
- ☐ Sample Receiving Section: Coding and Labeling
- ☐ Distribution of Coded Samples to concerned sections for testing along with Job Order
- ☐ Coded samples are tested for specified parameters and completed Result worksheets and Job Order are returned to Sample Reporting Section.
- ☐ After decoding the Result sheet, the Test Reports are prepared which are verified by designated officials and issued to the respective costumers (EIA- Inspectorate/ Industry).

32

QUALITY ASSURANCE & QUALITY CONTROL

- ❑ Laboratory as a policy regularly participates in various Proficiency Testing / ILC Programme conducted by other accredited laboratories/NABL/KFDA/ Invitations from NRLs/CRLs of EU etc.
- ❑ Laboratory has also participated in programme like FEPAS for Microbiological parameters and FAPAS for Chemical parameters conducted by Central Science Laboratory, York, UK.
- ❑ Lab also has internal quality control programme like duplicate testing, intra/inter lab analysis, use of Internal standards, spike recovery as applicable.

33



EXPORT INSPECTION AGENCY - KOCHI

THANK YOU FOR KIND ATTENTION...

B. K Jayant, Deputy Director (Lab)

34

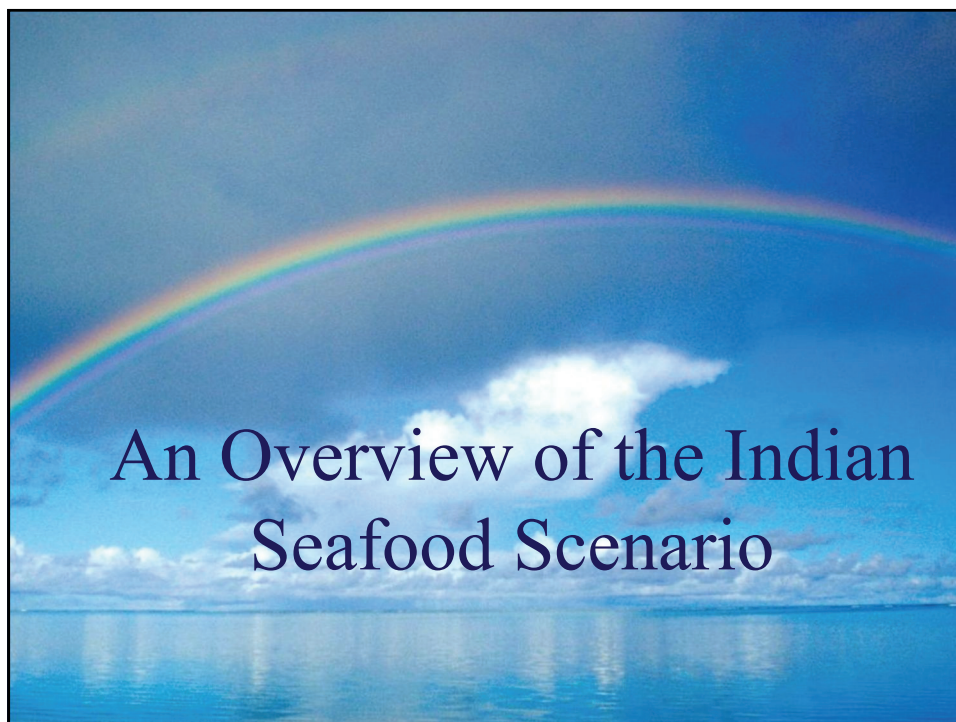
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TOPICS

1. An Overview of the Indian Seafood Scenario
2. Food Safety – Hygiene and Control Measures
3. System for Exports from India to EU
4. Trade Relations with Japan





INDIAN SEAFOOD SCENARIO

- Length of Coastline : 8129 Kms
- Exclusive Economic Zone : 2.02 Mill.Sq.km.
- Marine Resource Potential : 3.90 Mill.M.T
- Present Level of Exploitation : 3.00 Mill M T
- Inland Resource : 4.50 Mill Ha
- Present Level of Exploitation : 5.00 Mill M T



INDIAN SEAFOOD SCENARIO (Contd...)

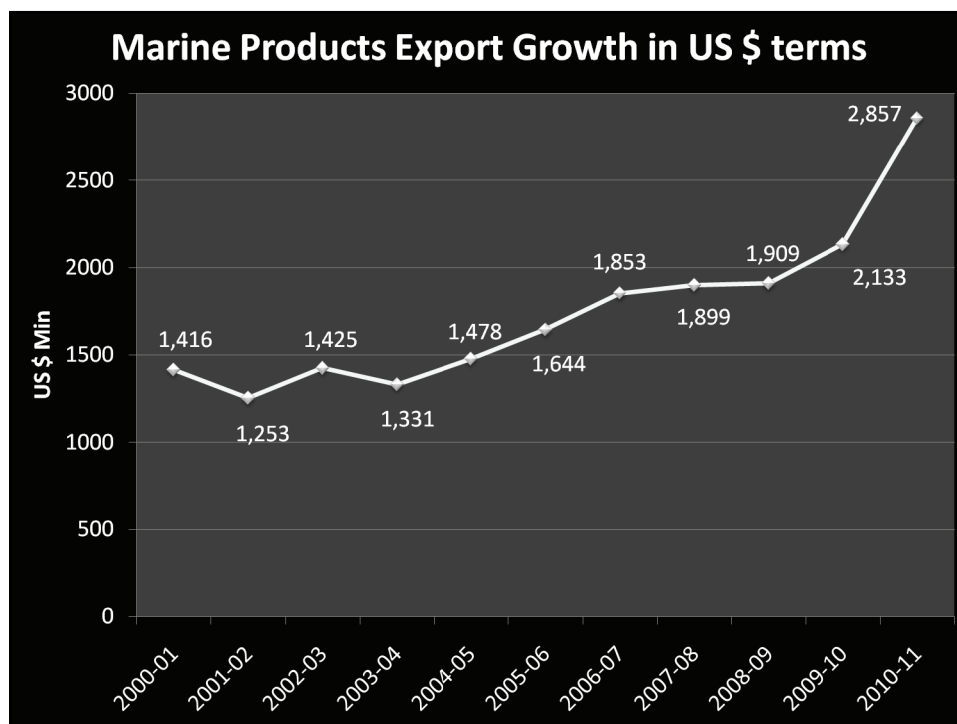
- Over 432 seafood Processing Establishments engaged in processing seafood for export.
- 237 establishments approved for exports to EU countries .
- Installed Capacity :Over 16500 MT / Day.
- Major Markets: EU,USA, JAPAN, CHINA, South East Asian Countries.
- Major Items Exported: Fr. Shrimp, Fr. Fish, Fr. Cephalopods, Dried/Chilled / Live & Other Items.



INDIAN SEAFOOD TRADE

- 2 % share in world seafood export trade
- 22th position in world seafood exports
- 1st largest supplier of shrimp to Japan
- 5th topmost supplier of shrimp to Europe
- Marine products contribute 1.30 % of India's total exports.
- India exports marine products to 95 countries





THE MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY (MPEDA)

- MPEDA is a statutory body established by an Act of the Indian Parliament in 1972, constituted under the MoCI to promote production and export of marine products.
- Over 1000 Seafood exporters and 432 seafood processing establishments are registered with the Authority.



MPEDA - BROAD OBJECTIVES

- Development, conservation and management of off-shore / deep-sea fishing.
- Registration of seafood exporters and seafood processing establishments, fishing vessels etc.
- Laying down standards and specifications for registration of different entities.



MPEDA - BROAD OBJECTIVES

(Contd...)

- Rendering technical guidance and assistance for export promotion/development of marine products.
- Providing market intelligence to seafood exporters.
- Imparting training on various aspects viz., HACCP (Quality Control) & Processing, Aquaculture, Trade Promotion, Extension Activities etc.

SOCIETIES UNDER MPEDA

- Network for Fish Quality Management and Sustainable Fishing (NETFISH)
- National Center for Sustainable Aquaculture (NaCSA)
- Rajiv Gandhi Centre for Aquaculture (RGCA)

EIC/EIA

- EIC is an advisory body to the Govt. Of India set up under the Export (QC&I) Act 1963.
- EIC is empowered to:
 - notify commodities subjected to QC&I prior to export.
 - establish standards for quality.
 - specify type of QC&I to be applied to different commodities.



FOOD SAFETY – HYGIENE AND CONTROL MEASURES

- The basic law applicable for export of F&FP from India are the GoI Order & Notification No. 729 (E) and 730 (E), 1995.
- Implementation of HACCP system in all seafood processing establishments is mandatory to ensure the hygiene and safety of the products exported.
- HACCP compliance audit is carried out prior to approval of the establishments to ensure food safety.



HAZARD ANALYSIS AND CRITICAL CONTROL POINTS (HACCP)

- HACCP is a preventive food safety management system that emphasizes on process controls and concentrate on points critical to the safety of the product.
- This management tool is neither a stand-alone nor a zero-risk system.



HACCP Training

- MPEDA organizes HACCP training programmes to the seafood processing technologists towards capacity building.
- The programme is based on the standardized curriculum of the US FDA.
- The faculty for the training programme have undergone advanced training on “Conducting Seafood Inspections (FD 249)” under US FDA Office of Regulatory Affairs.



HACCP TRAINING

(Contd...)

- Since 1996, MPEDA has organized over 90 training programmes and has trained more than 3000 technical personnel of the Indian seafood industry.
- The course is divided into three distinct segments:
 - HACCP Fundamentals
 - Relationship of HACCP with regulatory requirements
 - Work sessions to develop a ‘Seafood HACCP Plan’



HACCP TRAINING

(Contd...)

The course also gives special emphasis on:

- Good Manufacturing Practices (GMPs) and Sanitation Standard Operating Procedures (SSOPs) to ensure food hygiene
- Traceability System
- Awareness on the national regulations and international regulatory requirements with special reference to EU

PRE-REQUISITE PROGRAMMES

Sl. No	GMPs	SSOPs
1.	Personnel	Safety of Water and Ice
2.	Plant and Grounds	Condition and Cleanliness of FCS
3.	Sanitary operations	Prevention cross contamination
4.	Sanitary facilities & controls	Maintenance of hand washing, hand sanitizing and toilet facilities
5.	Equipment and utensils	Protection from adulterants
6.	Processes and controls	Labeling, storage and use of toxic
7.	Storage and distribution	Control of employee health conditions
8.	-----	Exclusion of pests

LOGICAL SEQUENCE OF HACCP IMPLEMENTATION

HACCP Team Assembly
Description of products
Intended use & consumer
Construction of the flow diagram
Verification of the flow diagram
Conduct hazard analysis
Determine Critical Control Points (CCPs)
Establish Critical Limits (CLs)
Establish monitoring procedures
Establish corrective action procedures
Establish record-keeping system
Establish verification procedures



System for Exports from
India to EU

REGISTRATION & APPROVAL OF ESTABLISHMENTS

- MPEDA is the registering authority of all seafood processing establishments exporting Fish & Fishery Products (F&FP) from the country.
- EIA (under EIC) is the Competent Authority approving the establishments to carry out export of F&FP through the Inter Departmental Panel (IDP) inspections.



REGISTRATION & APPROVAL OF ESTABLISHMENTS

(Contd...)

- The registration of the establishment is based on compliance to standards specified, including permission/NOC from civic authorities concerned, Pollution Control Board (PCB), etc.
- Approval is granted based on the assessment and subsequent recommendation of an IDP comprising of members from MPEDA, EIA and CIFT.
- Approval by Competent Authority (EIA) will be followed by issuing an approval number & certificate of approval to the establishment (valid for two years).



EXPORTS FROM INDIA TO EU

- The establishments have to comply with relevant EU norms and are approved based on the assessment and recommendation of the IDP.
- Concurrence of the European Commission is required for the approvals granted by the Central Competent Authority (EIC).
- Consignment-wise health certificate is issued by the Competent Authority based on their monitoring to ensure compliance with relevant regulations and guarantees given to the Commission.



A FEW RELEVANT EC REGULATIONS

178/2002/EC (Basic Food Law)

- (Ch-I Art.1~3,18,19,20,Ch- III, Ch-IV-Art 50)

852/2004/EC (Hygiene)

- (Ch-I Art 1&2,Ch-II Art.5,Annx-II Ch-I & Ch-VII)

853/2004/EC (Hygiene)

- (Sec-I Annx-II, Sec-VIII - Ch-I~VIII)

854/2004/EC (Food Control)

- (Ch-1, Annx-III, Art 12-1&2)

882/EC/2004 (Food Control)

- (Art 46 (1) (b) ~ (e), (g) & (h).

98/83/EC (Quality of Water)

96/23/EC (Residue Control)

1005/2008/EC (IUU Fishing)

1010/2009/EC (IUU-Implementation)

95/2/EC

1333/2007

} (Food Additives)



STATE-WISE SUMMARY OF INDIAN SEAFOOD ESTABLISHMENTS APPROVED FOR EXPORTS TO EU

MARITIME STATES	PP	PPa	CS	TOTAL
Gujarat	14	19	1	33+1
Maharashtra	4	26	1	30+1
Goa	1	2	—	3
Karnataka	7	1	—	8
Kerala	55	20	25	75+25
Tamilnadu	6	22	2	28+2
Andhra Pradesh	1	40	1	41+1
Orissa	1	7	—	8
West Bengal	1	10	1	11+1
Total	90	147	31	237+31=268

PP : Processing Plant; PPa : Processing plant engaged in fully or partially farm raised material; CS : Exclusive Cold storage facility for F & FP


INSPECTION BY FVO MISSION OF THE EUROPEAN COMMISSION

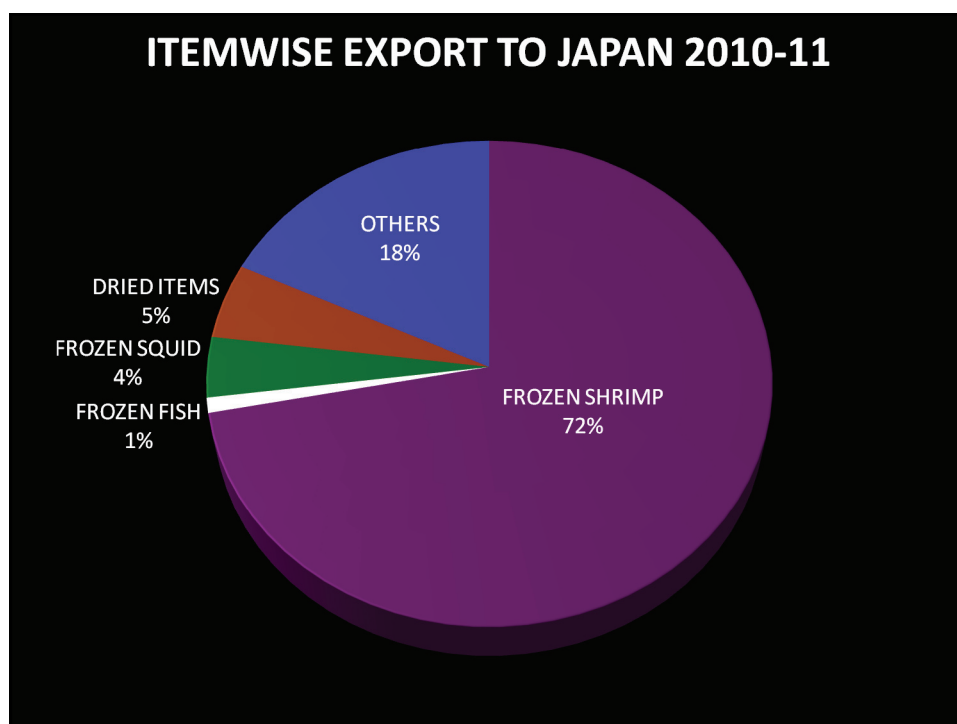
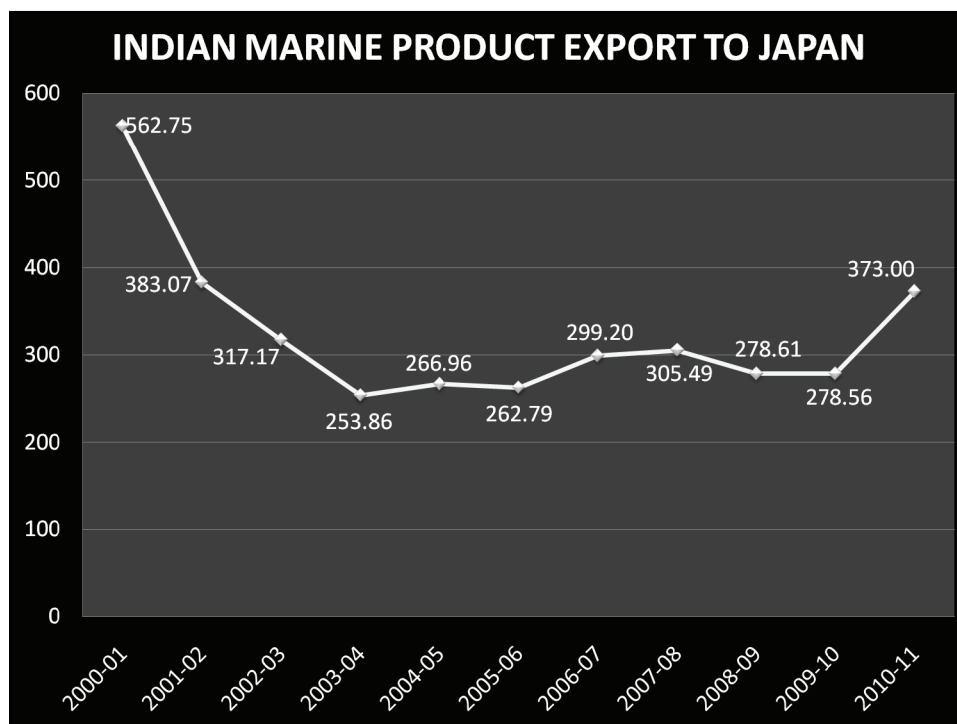
- The Food & Veterinary Office of the European Commission inspects different entities once in two years (Article 46 – 882/2004/EC).
- The Mission carries out inspection of residue control in the primary production areas and maintenance of hygiene in the establishments and allied facilities.
- MPEDA serves as a regulatory agency for residue control and submits NRCP to the Commission every year.



Trade Relations with Japan

TRADE RELATIONS WITH JAPAN

- India would like to continue very cordial trade relationship with Japan.
 - GoI has established a Trade Promotion Office in Tokyo, Japan to liaise with the Japanese authorities for a smooth export deal with India.
 - GoI also envisages mutual support and technical assistance to boost trade relationship between both countries.
- 



MPEDA QUALITY MARKING SCHEME

- MPEDA has introduced a 'Logo Scheme' to promote the trade of prime quality seafood products from the country.
- This Quality Marking Scheme provides for according special recognition to the processors of superior quality seafood marketed by Indian seafood units.
- The logo is a symbol of quality, targeted to enhance consumer confidence aimed towards creating a brand image for Indian Seafood in international markets.



TRADE RELATIONS WITH JAPAN

- Products with the MPEDA Quality Logo have been introduced into the Japanese market.
- India would like to further boost trade relations with Japan by providing superior quality value-added products.
- India looks forward to have technical collaborations with Japan in processing value-added convenience products preferred by the Japanese seafood consumers, utilizing the abundant black tiger and vannamei resources available in India.



