



# MPEDA

Newsletter

Vol.VI/No.1/ APRIL 2018

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**105<sup>th</sup> Indian Science Congress  
at Imphal**

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**Seafood HACCP  
training programme**

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**Dr. A. JAYATHILAK IAS**  
Chairman

Dear friends,

MPEDA has successfully showcased Indian seafood along with a big team of exporters in the recently concluded Seafood Expo Global, Brussels 2018. The Indian delegation also held discussions with DG SANTE officials as a follow up to the FVO Mission visit of November, 2017 about the measures implemented at the production and processing levels to contain antibiotic residues and those to be carried forward towards reducing the sampling rates for aquaculture shrimps to test for residue, re listing of processing units etc.

Simultaneously, there was another EU audit team that visited India for inspecting the testing procedures in place for the export process chain. From the preliminary remarks, it is learned that the team is satisfied with the procedures in place, though we may have to wait for final reports of both the visits to know about the appreciation and concerns.

Reports continue to flow from different markets about high level of inventories forcing the importers to limit their orders, which in turn affect the downward linkages upto the farm level. I feel and hope that the situation is quite temporary and will be back to normalcy soon, helping the farmers, processors and importers alike. The situation underlines the importance of bringing out an active development plan to propagate and augment the trading of an alternative species. India is blessed with an array of species that are commercially quite important. All the research institutions shall strive forward to bring out and familiarize commercially viable technologies for important species of fin fishes and shell fishes.

Not limiting to that, there shall be efforts to propagate and harvest seaweeds for food and industrial use. Currently, around 42 countries produce seaweed for commercial use. China is the leading producer of seaweed, mainly harvested for food purpose. Other major producers are Korea, Japan, Indonesia, Philippines, USA, Chile, Norway etc. Top 10 countries produce 96% of the total world seaweed production. Though 60s species of seaweed were identified as commercially important, Indian seaweed production comprises limited species, which are collected from the wild or farmed. Farming is largely centered around the *Kappaphycus* species for the phycocolloid carrageenan. Agaroids and Alginids are exploited from the wild in small quantities. The country has immense scope to expand seaweed production for varied uses, and the technology is also available with institutions like Central Marine Fisheries Research Institute (CMFRI) and Central Salt and Marine Chemical Research Institute (CSMCRI). It is also important to note that for all this to happen, states shall come out with proper land and water leasing policies to encourage more entrepreneurship into aqua farming covering a variety of species.

I also take this opportunity to pay respects to the departed soul of Dr E. G. Silas, who is revered for his immense scientific and policy contributions to the Indian Fisheries sector in various official capacities including those in MPEDA and RGCA.

Thank you.



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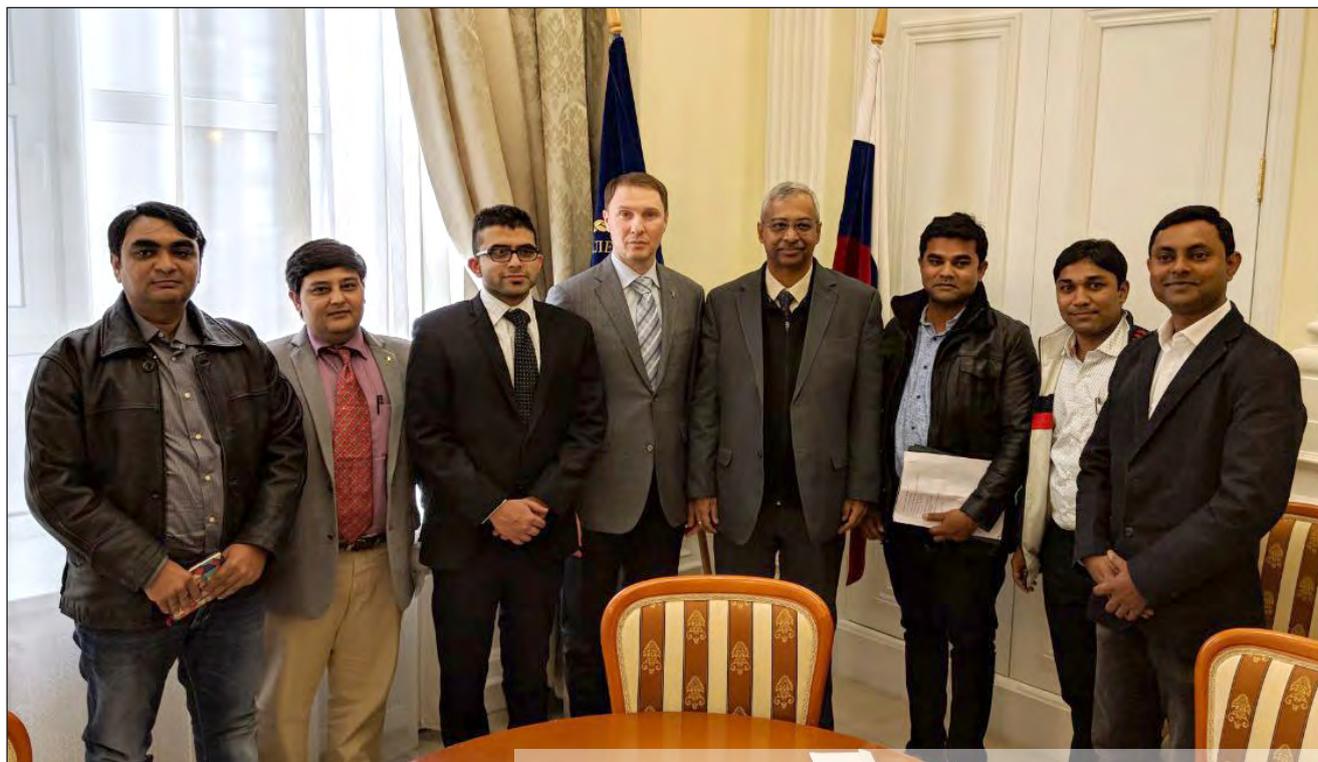
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# Indian delegation visits Russian Federation to discuss trade issues



**▲** Indian delegation lead by Dr. A. Jayathilak IAS, MPEDA meeting CCI, Russian Federation

**A**n Indian Delegation led by Dr. A. Jayathilak, IAS, Chairman, MPEDA, visited Russia to address trade issues that are acting as impediments to the Indian seafood exports to Russia. During the visit, interactions were made with Chamber of Commerce & Industries, Fisheries Association and other related government departments.

The visit was from March 20 to 23 and the members of the delegation led by Dr. A. Jayathilak were Mr. Archiman Lahiri, Deputy Director, MPEDA; Mr. Jayabalan G, Deputy Director, EIA; Mr. M. Bhagwat, M/s. Gadre Marine Exports Pvt. Ltd., Ratnagiri; Mr. N. L. Vanik, M/s. Asha Ganga Exports, Veraval; Mr. N. V. Fofandi, M/s. Deepmala Marine Exports, Veraval; Mr. N. L. Bhensla, M/s. Sail Ganga EU Exports, Veraval; Mr. H. R. Solanki, M/s. Krishna Frozen Foods, DIU (U.T); Mr. R. K. Chamadia, M/s. K. R. Seafoods Pvt. Ltd., Veraval; Mr. A. Patil, M/s. Sonia Fisheries, Mumbai; Mr. D. Shah, M/s. Castlerock Fisheries Pvt. Ltd., Mumbai; Mr. J. Rohakale, M/s. Ulka Seafoods Pvt. Ltd., Raigad; Mr. T. P. Jagadish, M/s. Jagadeesh

Marine Exports, Bhimavaram; and Mr. V. Puthusseril, M/s. Bell Foods, Kochi.

### MEETING WITH CHAMBER OF COMMERCE AND INDUSTRY OF RUSSIAN FEDERATION

The delegation had interactions with members of the Chamber of Commerce and Industry of the Russian Federation led by Mr. Alexander V. Kopkov, Director, International Cooperation Department and Mrs. Elena Gaiazova, Senior Expert at the office of The Chamber of Commerce and Industries of Russian Federation on March 20 forenoon.

Mr. Alexander expressed the strong potential of investments and strong possibilities of working together as a part of Shanghai Cooperation. He pointed out that though the relations with India were bilaterally good but in terms of business it was not good enough. Agricultural and seafood sector has immense opportunity

## MARKETING NEWS



△ Indian delegation led by Dr. A. Jayathilak meeting CCI, Russian Federation

for growth in Russia. He reminded the gathering that there are 182 registered Chamber of Commerce with 53,000 members under CCI, RF.

The Chairman made a presentation on MPEDA and highlighted the fact that about only one percent of the seafood trade to Russia was from India. He took up the issue of approval of 86 exporters that has been approved by FSVPS. Chairman has also invited the members to visit the next India International Seafood Show. Other important points discussed during the meeting were government-to-government interactions proposed during the business council of BRICS countries, food safety certificates should be discussed across the table between Indian and Russian Authorities, taking up the issue of seafood in Russia India business council, and exchange of list of interested members for seafood with CCI, RF and MPEDA.

### MEETING WITH PRESIDENT, ALL RUSSIAN ASSOCIATION OF FISHERIES ENTERPRISES, ENTREPRENEURS AND EXPORTERS

In the afternoon of the first day of tour, the trade delegation had interaction with Mr. German Zverev, President, All-Russian Association of Fisheries

Enterprises, Entrepreneurs and Exporters. Chairman, MPEDA welcomed the President for the interaction held at the Indian Embassy and gave an introduction on the Indian seafood sector. Chairman has invited the President to visit the next India International Seafood Show. During the meeting the Indian Exporters shared their business interests with their counterparts. The President of ARAFEED expressed his wish to export fish and fisheries products to India, especially blue swimming sea crab along with some other varieties of sea fishes. He also collected the details of the products that are offered from India, which have potentials in Russia.

### MEETING WITH MOSCOW CHAMBER OF COMMERCE & INDUSTRY

In the evening, the trade delegation led by the Chairman interacted with the team led by Mr. Suren O. Vardanyan, Vice President and Mr. Manish Kumar, Vice Chairman of Moscow Chamber of Commerce and Industry. Mr. Suren, gave an introduction of Moscow CCI. He highlighted the facts like there are 16000 food based companies in Moscow region, that the region, with four airports, accounts for 40% of the trade, the region contributes 25% of the GDP of Russian Federation and 33% of scientific research of Russian Federation and also that the region hosts the biggest food market called the Food City.

## MARKETING NEWS



△ Indian delegation led by Dr. A. Jayathilak IAS, MPEDA meeting CCI, Moscow

Mr. Suren also mentioned about the very good bilateral relations, yet not so encouraging business relations between the two countries. He also explained the various government initiatives for promotion of seafood in Russia. He offered to render services on intelligence, certification and preparing buyer portfolio.

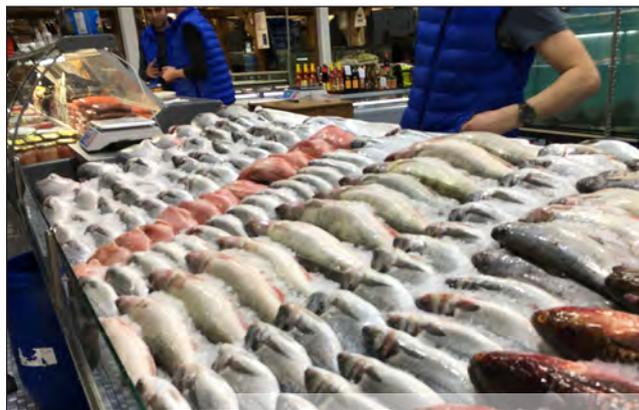
Chairman, MPEDA thanked CCI, Moscow for arranging the meeting on such a short notice and promised taking up steps to boost trade of seafood in India. He invited members of CCI, Moscow at the proposed Buyer Seller Meet on March 22. He welcomed the approach of CCI, Moscow to share the vital details necessary for ease of doing business.

### VISIT TO FOOD CITY, MOSCOW

On the second day of the tour, the delegation led by the Chairman visited the Food City, Moscow.

The Food City, Moscow is located on the outskirts of Moscow city and is developed as the first of its kind agro-cluster in Moscow. The basic concept of this is to avoid intermediaries between wholesaler and customer and to deliver food in small lots on outskirts to city rather than inside the city. Miss Tsindyaykina Ksenia, Manager, Client Support Department, hosted the delegation and gave a brief introduction. She guided the delegation for the tour to the facility, especially fish section.

The infrastructure facility of the city, spread on 124 acres, has 3,46,527 sq.m. of shopping complexes, 30,880 sq.m. of office space, more than 3,00,000 sq.m. of modern warehouses, 20,000 of parking freight transport spots, 6,000 Interceptive parking slots and a hotel with 656 rooms.



△ Seafood displayed at the Food City, Moscow

There are provision for 18 segments that included meat, dairy, semi-processed products, grocery, fruits and vegetables, tobacco products, baby foods, overalls, confectionery, fish, readymade meat and fish products, bakery products, canned products, alcoholic and non-alcoholic drinks, goods for pets, household chemicals, related products and flowers.

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 The Indian delegation led by the Chairman, MPEDA at the Food City, Moscow

The Food City's Fish segment was divided into two segments; one indoor section in the main hall and another outdoor section in small different stalls. The indoor section of the main hall was mainly focusing on the dead varieties with very less live varieties displayed, but outdoor unit was mainly found to display live varieties with very less chilled varieties. All forms of processed seafood was on racks; frozen, dried, chilled, live, smoked, salted and canned.

The delegation found during its tour that there were over 145 vendors in fish section. The major players in this section were Russian Fish Company, Sakhalin Caviar House, Aksoo- Heritage of Ancestor, OOO Pticeprom +, MRP Solomos, Zorka and Milka and LLC Victoria.

They also learnt that the frozen products were offered along with Certificate of Quality and Health Certificate. Indian origin frozen products from M/s. Ulka Seafood, M/s. Castlerock Seafoods and M/s. Abad Seafood were found to be on display.

The fresh and chilled sectioned was found to have nearly 50% dominance with crabs and Tilapia. Frozen black tiger was also understood to have a good demand for higher counts and all material found on display were sourced from Bangladesh.

Russian Blue swimming giant crab was found to be sold on live form and was understood to have a good demand. Trout were also found to have a distinct share, especially in fresh form; both in whole and fillets.

The shrimp section was having two distinctions; Northern and tropical. The shrimps were sold as fresh frozen and boiled frozen. Frozen shrimps were displayed in as small consumer packs and also lose in bulk display, were any quantity can be sourced.

All Indian exporters, who were part of delegation, had extensive discussions with the wholesalers for product trade. Important contacts were gathered and business was also discussed.

The delegation was also shown country specific outlets, where specific countries products were displayed. Country outlets of Vietnam, Macedonia, Israel, and Indonesia were visited and inputs were gathered. The exporters requested Chairman, MPEDA to have an outlet specific to Indian Seafood so that different products could be displayed.

Thermo bags were sourced from the shops displayed for keeping sea food fresh for at least 6 hours after purchase for transportation.

## MARKETING NEWS



 Chairman, MPEDA greets the Assistant to the Head of International Affairs, FSVPS

Chairman, MPEDA thanked official from Food city for guiding for the trip and sharing finer details. He expressed his desire to have contacts for further discussion on country outlets.

### MEETING FEDERAL CUSTOMS SERVICE

Later on, the delegation had interaction with team lead by Mr. Sergey A. Konovalenko, Head of the Customs Cooperation Department of the Federal Customs Service. Mr. A. I. Ryazanov, Deputy Head of the Federal Customs Service, was also the part of the meeting.

The meeting started with welcome of all officials by the Head of Customs. He spoke on the good relation Russia enjoys with India, especially customs department and told they will be happy to have more cooperation from India.

Chairman, MPEDA thanked authorities to agree for meeting on a short notice and put forward some important problems that Indian exporters were finding for trade

with Russia. This included preparing the English version of Trade manual, procedures of sampling and testing of seafood consignments, green channel requirements, monitoring mechanism of rejections and details on preferential trade agreement.

Based on the discussion points put forward, Head of Customs replied that it was mandatory to have things like Certificate of Compliance, markings on production and sampling of all consignments for export to Russia.

Indian exporters were advised to consult the Russian federal customs website or EURASIA, economic Commission website for details on regulations for export to Russia.

The delegation was told that transport companies have to follow the rules of Federal Customs. As per Eurasia, Economic Commission, single preferential tariff is allotted for developing countries, in which 75% preference from basic duties is allotted for agriculture and seafood products. However, Certificate of Authenticity is must

## MARKETING NEWS

along with the Certificate of Origin.

He also informed about the Green Corridor Project that is in the process of development. Chairman, MPEDA thanked for all efforts taken by authorities and described the meeting as a new beginning in the seafood trade from India.

### MEETING H.E. MR. PANKAJ SARAN, AMBASSADOR OF INDIA TO THE RUSSIAN FEDERATION

On the next day, the Chairman met H.E. Mr. Pankaj Saran, Ambassador of India to the Russian Federation at the Indian Embassy at Moscow. The meeting was also attended by Mr. George Thomas, Second Secretary (Commerce), Embassy of India, Moscow. Dr. Jayathilak briefed the Ambassador about the trade issues Indian exporters were facing such as the problems of inspection, rejection and quality standards that FSVPS follows. He briefed about the meetings that happened on the preceding days with Customs and CCI, RF and Moscow chapter. He also briefed about the Food City visit and the prospect for Indian outlet there. Ambassador expressed his concern for difficulties in trade from India and assured all possible official help from the Indian Embassy. He suggested taking part in two important trade shows Russia Hosts – the World Food, Moscow and St. Petersburg Economic Form. He also outlined the

proposed meeting of Indian CEOs in Russia for Eastern Economic Form.

### MEETING FEDERAL VETERINARY AND PHYTOSANITARY SURVEILLANCE SERVICE

In the afternoon on the same day, the Trade Delegation had an interaction with team led by Mr. Vasiliy Lavrovsky, Assistant to the Head International Affairs, Federal Veterinary and Phytosanitary Surveillance Service (FSVPS).

Dr. Jayathilak thanked FSVPS authorities for hosting the



**△** Indian exporters being briefed on seafood displayed at the Food City, Moscow



**△** Dr. A. Jayathilak IAS, Chairman, MPEDA being briefed on live seafood display

## MARKETING NEWS



 *A view of the Buyer Seller Meet*

meeting such a short notice and explained the mode of working of MPEDA. He invited FSVPS authorities to come over to India for reviewing of seafood facilities approved to export to Russian Federation.

Mr. Lavrovsky briefed on the huge potential that Indian seafood has in Russian federation. He expressed his willingness to lead a trade delegation from Russian Federation (RF) to India for increased trade relationship.

The official responsible for Quality Control for seafood products exported into RF explained the process adopted in case of non-compliance. Once the consignment is non-compliant then the enforcement control starts. For 3 months all products of the exporter will be tested on all quality aspects. Non-compliance during this 3 month period, respective country authorities are intimated to take respective steps. Further import from the respective exporter need to come with a written guarantee from the respective country authorities that no more detentions will happen along with inspection report, tests performed and test reports. She described that FSVPS is strict on non-complaint exporter only and not on the country.

Dr. Jayathilak thanked for the detailed information provided and stressed on uniformity of test procedure

followed in RF and in India. He sought permission to allow Indian counterpart to come to RF and get more awareness about the testing procedure and also invited FSVPS authorities to come to India to be sure about the testing procedure adopted by India.

Mr. George Thomas, Second Secretary (Commerce), Embassy of India, explained the food testing laboratory authorised by FSVPS in India and requested to review for more approvals.

Mr. Lavrovsky was eloquent on the good relations with India and invited Indian Embassy officials any time at FSVPS for interactions. He expressed his desire to increase trade among two counties particularly in timber and seafood and also to solve all trade related issues in a friendly manner.

The meeting ended with a notion of thanks from the Chairman, MPEDA.

### **BUYER-SELLER MEETING AT HOTEL RADISSION, SALVYANSKAYA**

Later in the afternoon, Dr. Jayathilak led the Trade

## MARKETING NEWS

Delegation comprising all the exporters from India to attend the Buyer Seller met organised by MPEDA. Eleven importers attended the meet with participation from the Moscow, CCI.

The meet started with a short presentation on "India's Seafood Trade with Russia" by Mr. Archiman Lahiri, Deputy Director, MPEDA. During the presentation, he explained all facts and figures related to seafood trade from India to Russian Federation. He introduced all Indian exporters present at the Buyer seller meet and thanked the Russian importers, who joined the meet.

Chairman, MPEDA welcomed all Russian importers to the meet and requested them to take the trade forward in a mutually beneficial way.

The exporters and the importers had one-to-one meetings. They have expressed their utmost satisfaction on the meet and looked forward to have more such in time to come.

Russian importers represented by companies M/s. Uhrenholt LLC, M/s. Ultra Fish Group, M/s. Sky Fish LLC, M/s. Resfood Trading Company, M/s. JSC Russkaya Rybnaya Compania RusFish and M/s. LLC La Maree and Belgorod Region representatives M/s. Magnum LLC, M/s. Eastern Seafood LLC and M/s. Delfood Ltd. attended the meet.

### MEETING DEPUTY CHIEF OF MISSION, COUNSELLOR, HEAD OF ECONOMIC AND COMMERCIAL WING AND SECOND SECRETARY (COMMERCE), EMBASSY OF INDIA

On the last day, Dr. Jayathilak met Mr. G. Balasubramanian, Deputy Chief of Mission (DCM), Mr. Inbasekar S., Counsellor, Head of Economic and Commercial Wing and Mr. George Thomas, Second Secretary (Commerce) at the Embassy of India.

DCM and the Counsellor were appraised on the outcome of the delegation meetings with various departments. Chairman, MPEDA sought increased help from the Embassy of India to issues related to sea food trade.

Thursday, being a fish day in Russian federation, was discussed to have some concept from India on sea food to increase Indian sea food popularity. DCM advised to have the Japanese model on quality to attract the Russian population towards Indian sea food. Chairman thanked all Indian Embassy staffs for making the delegation tour successful, with special reference to Mr. George Thomas, Second Secretary (Commerce). He highlighted the special efforts Mr. Thomas took for scheduling all meetings and making the Buyer Seller Meet a great success.



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# MPEDA at the Food Processing Conclave 2018, Kolkata



△ Panelists along with the moderator of the technical session on Food Safety and Sustainability

**M**PEDA was one of the invitees at the one day conference on Food Processing, organised by Confederation of Indian Industry (CII), Eastern region at Kolkata, ITC Sonar on March 24. MPEDA was invited to address the Technical session on Safety and Sustainability in Food Processing.

Mr. Abdul Rezzak Mollah, Minister-in-charge of Food Processing Industry & Horticulture, Govt. of West Bengal, inaugurated the Food Processing Conclave 2018. Mr. Ashish Bahuguna IAS, Chairman, FSSAI was the Guest of Honour. Mr. B Sumant, Chairman, CII Eastern Region; Mr. Pradip Kumar Mazumdar, Advisor to Chief Minister on Agriculture & Allied sectors; Mr. Amit Saraogi, Co-Chairman, CII & Managing Director of Anmol Feeds Pvt Ltd. were the other speakers in the inaugural session.

Mr. Mazumdar presented the present status of agriculture sector in the State. As West Bengal is the largest producer of rice, fruits and vegetables of the country, policies and plans initiated for the sectoral development in the State was also briefed in his speech.

Mr. Abdul Rezzak Mollah, Minister of FP informed that

the State Government has already initiated the process of setting up of testing facilities, hot water plants, providing modern sprinklers for farmers etc. He also hinted at the immense export potential of litchi to the European market.

## VARIOUS ASPECTS OF THE FOOD PROCESSING INDUSTRY DISCUSSED AT THE CONCLAVE

At present, the Ministry of Agriculture and APEDA have separate guidelines for organic food production. Mr. Asish Bahuguna, Chairman FSSAI, reiterated the need of a comprehensive policy for organic food production and also indicated that the draft guidelines in this regard is put on public domain for seeking views from various stakeholders.

Technical session started after the inauguration. The first session was on Procuring from East: Facilitating

## FOCUS AREA



▲ Mr. S S Shaji addressing the Technical session on Food safety and Sustainability

backward linkage. Mr. Sumant, Chairman CII (ER) was the moderator and the panellists were Mr. Albinder Dhindsa, Co founder, M/s. Grofers; Mr. Harish Sharma, Head –Spices, Dry fruits and Organics, M/s. Aditya Birla

Retail Ltd.; Mr. Somnath Chatterjee, Head- Procurement & Logistics, M/s. ITC Ltd (Food Division); Mr. Ashish Tibrewal, Regional Business Head, M/s. Big Basket and Mr. Pankaj Moona, Business Head, Wheat Products, M/s. Adani Wilmar Ltd.

The second session was on Food Safety and Sustainability. Mr. R. K. Mondal, Deputy General Manager, APEDA; Mr. Srinivas Reddy, Senior General Manager, M/s. Bluestar India; Mr. Peer Mohammed, Assistant Director, EIA and Mr. S. S. Shaji, Deputy Director, Regional Division, Kolkata were the panellists and the Moderator was Dr. Indrani Ghose, Strategic Advisor, Food Safety & Quality, CII. A presentation on Seafood Safety and Sustainability focussing on the issues, measures adopted by MPEDA and requisite policy initiatives that the State Govt need to be initiated was made at the session.

The Conclave concluded with Business to Business (B2B) and Farmer to Business (F2B) sessions.





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# Highlights of marine fish landings in selected harbours of India during March 2018

**ATANU RAY, AFSAL V.V., NEETHU N. J. AND JOICE V. THOMAS**  
NETFISH-MPEDA

## INTRODUCTION

Information on boat arrivals and fish landings at the major fishing harbours along the east and west coasts of India is recorded by NETFISH as part of MPEDA's catch certification system. NETFISH monitors the marine fish capture along Indian coast by recording the boat arrivals and fish landings at 47 major harbours and landing centres (Table 1) from the 9 maritime states in the country. The data collected are processed to arrive at species-wise, state-wise, region-wise and harbour-wise evaluation of landings using MS office (excel). This report highlights the marine fish landings at major harbours of India during March 2018.

**Table 1. List of harbours and landing centres selected for data collection**

Sl. No.	State	Fishing harbour
1	Kerala	Beypore
2		Puthiyappa
3		Thoppumpady
4		Munambam
5		Sakthikulangara
6		Thottapally
7		Kayamkulam
8		Vizhinjam
9	Karnataka	Mangalore
10		Malpe
11		Gangoli
12		Tadri
13		Karwar
14		Honnavar
15	Maharashtra	Harne

16	Maharashtra	New Ferry Wharf
17		Ratnagiri (Mirkarwada)
18	Gujarat	Sasson Dock
19		Veraval
20		Porbandar
21		Mangrol
22	West Bengal	Digha (Sankarpur)
23		Deshapran
24		Namkhana
25		Sultanpur
26		Kakdwip
27		Raidigi
28	Odisha	Paradeep
29		Balaramgadi
30		Bahabalapur
31		Dhamara
32	Andhra Pradesh	Kakinada
33		Machilipatnam
34		Nizampatnam
35		Visakhapatnam
36	Tamil Nadu	Chennai
37		Pazhaiyar
38		Nagapattinam
39		Tuticorin
40		Cuddalore
41		Mandapam
42		Colachel

## FOCUS AREA

43	Tamil Nadu	Pondicherry
44		Karaikal
45		Chinnamuttom
46	Goa	Cutbona
47		Malim

### EVALUATION ON FISH LANDINGS

A total landing of 62203.72 tons of marine fishery resources was recorded during March 2018 from the 47 landing sites, wherein the maximum contribution was from Pelagic finfish resources with a share of 24254.18 tons (39%) and then by Demersal finfishes and Shellfish resources with a contribution of 20134.22 tons (32%) and 17815.32 tons (29%) respectively (Fig 1).

In all, the fish catch for the month was composed of 114 marine fishery items, among which the top five contributors were Squid, Japanese thread fin bream, Indian mackerel, Ribbon fish, and Cuttlefish (Fig 2). These 5 fishery items together formed 38% of the total catch. Tuna, Croaker, Lizard fish and Indian oil sardine were the other major contributors with each recording a total landing of more than 2000 tons. The species which recorded least landing during the month was the Indian thread fish with a share of merely 0.10 tons.

The quantity of various fishery items recorded during March 2018 is given category-wise in Table 2. Indian mackerel, Ribbon fish and Tuna were the pelagic finfish varieties which recorded the highest landings whereas in the case of demersal finfishes, the major contributors were Japanese thread fin bream, Croakers and Lizard fish. The Molluscan stock comprised of Squid, Cuttlefish and Octopus formed 58% of the shellfish landing and the rest 42% were of Crustaceans. Among Crustaceans, Penaeid shrimps were the major contributors, wherein *Karikkadi* shrimp had the highest share (1431.35 tons).

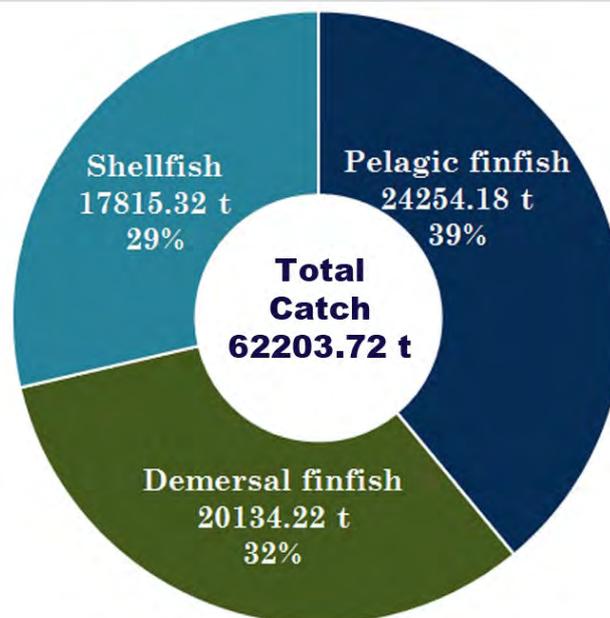


Fig. 1. Category-wise fish landings during March 2018

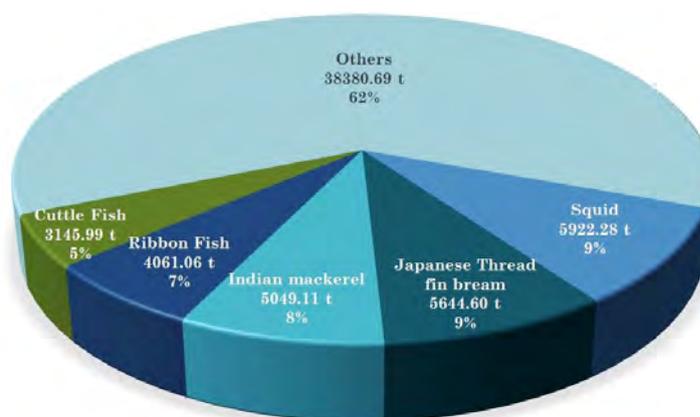


Fig. 2. Major fishery items landed during March 2018

Table 2. Category-wise landing of various fishery items during March 2018

Fishery item	Quantity in tons	% of total catch
<b>Pelagic Finfish</b>		
Indian Mackerel	5049.11	8.12
Ribbon Fish	4061.06	6.53
Tuna	3549.89	5.71
Indian Oil Sardine	2254.56	3.62

Anchovies	2067.72	3.32
Scads	1359.45	2.19
Seer Fish	1323.97	2.13
Barracuda	1235.82	1.99
Horse Mackerel	723.03	1.16
Dolphin Fish	579.88	0.93
Lesser Sardines	398.05	0.64

## FOCUS AREA

Bombay Duck	325.33	0.52
Leather Jacket	255.55	0.41
Trevally	229.38	0.37
Oriental Bonito	158.70	0.26
Sail Fish	116.27	0.19
Marlins	84.56	0.14
Herrings	80.19	0.13
Mullet	78.59	0.13
Needle Fish	64.12	0.10
Queenfish	53.97	0.09
Hilsa	48.00	0.08
Cobia	41.27	0.07
Sea Bass	38.18	0.06
Indian Salmon	29.33	0.05
Flat Needle Fish	26.89	0.04
Indian Ilisha	13.88	0.02
Silver Sillago	7.40	0.01
Indian Thread Fish	0.10	0.00
<b>Total</b>	<b>24254.18</b>	<b>38.99</b>
<b>Demersal Finfish</b>		
Japanese Thread Fin Bream	5644.60	9.07
Croakers	2753.86	4.43
Lizard Fish	2479.15	3.99
Bull's Eye	2151.36	3.46
Sole Fish	1821.95	2.93
Cat Fish	1452.54	2.34
Snapper	1112.80	1.79
Moon Fish	1003.01	1.61
Reef Cods	570.08	0.92
Pomfrets	447.24	0.72
Pony Fish	233.87	0.38
Goat Fish	145.17	0.23
Eel	139.70	0.22
Rays	115.30	0.19

Emperor Bream	16.31	0.03
Ghol	11.85	0.02
Indian Halibut	11.42	0.02
Parrot Fish	5.10	0.01
Whip Fin Silver Bidy	3.70	0.01
Perch	3.08	0.00
Black Tip Shark	2.70	0.00
Perchlet	2.27	0.00
Filefish	1.50	0.00
Yellow Fin Sea Bream	1.45	0.00
Spine Foot	1.40	0.00
Batfish	1.27	0.00
Pigmy Devil Ray	1.20	0.00
Sickle Fish	0.36	0.00
<b>Total</b>	<b>20134.22</b>	<b>32.37</b>
<b>Shellfish</b>		
<b>Crustaceans</b>		
Penaeid shrimps	6678.36	10.74
Non-penaeid shrimps	113.20	0.18
Sea Crab	722.40	1.16
Mud Crab	14.32	0.02
Lobsters	9.77	0.02
<b>Total crustaceans</b>	<b>7538.04</b>	<b>12.12</b>
<b>Mollusc</b>		
Squid	5922.28	9.52
Cuttlefish	3145.99	5.06
Octopus	1202.11	1.93
Clam	6.90	0.01
<b>Total Mollusc</b>	<b>10277.28</b>	<b>16.52</b>
<b>Total Shellfish</b>	<b>17815.32</b>	<b>28.64</b>
<b>Grand Total</b>	<b>62203.72</b>	<b>100.00</b>

## FOCUS AREA

### REGION-WISE LANDINGS

Among the four zones, the South West coast, comprised of 16 selected harbours in Kerala, Karnataka and Goa was found to record the maximum landings during the month, which was to the tune of 28775.03 tons (46%).

This was followed by the North West coast, comprised of 7 selected landing sites in Maharashtra and Gujarat coasts, where 23569.26 tons (38%) of fishery resources were landed. Thus the landings from West coast zones together formed 84% of the total catch (Fig. 3).

In the South East coast (comprised of 14 harbours in Tamil Nadu and Andhra Pradesh) a total quantity of 5371.49 tons of marine catch landings (9% of the total catch) was recorded during the period whereas in the North East region, consisting of 10 of the selected landings sites in Odisha and West Bengal, recorded the least quantity of 4487.94 tons (7%).

In South West and North West zones the Pelagic finfishes dominated the landing whereas in North West the landing was dominated by Demersal finfish resources and in South East Shellfish landing was more than the other 2 categories (Fig. 4).

The five major fishery items which had contributed predominantly to the landings in each region are given in Table 3.

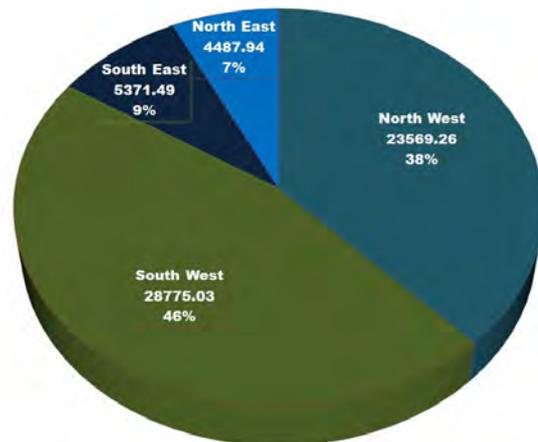


Fig. 3. Region-wise landings recorded during March 2018

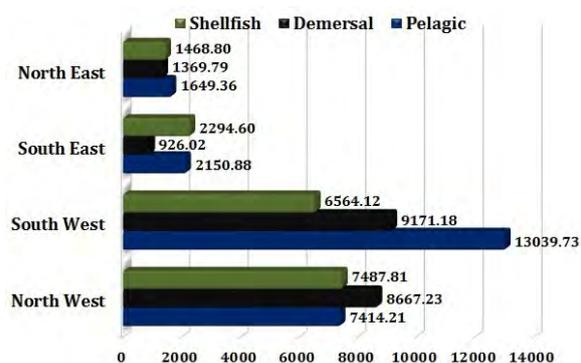


Fig. 4. Comparison of category-wise contribution (in tons) to the total landings of each region

Table 3. Major items landed in each region during March 2018

Item	Quantity in tons	% of total landings of the region
<b>South West</b>		
Indian mackerel	3589.83	12.48
Japanese Thread fin bream	2914.72	10.13
Squid	1930.05	6.71
Indian Oil Sardine	1833.21	6.37
Lizard fish	1646.61	5.72
<b>North West</b>		
Squid	3477.11	14.75
Ribbon Fish	3239.15	13.74
Japanese Thread fin bream	2559.59	10.86
Cuttlefish	1264.90	5.37
Croaker	1245.61	5.28

## FOCUS AREA

South East		
Tuna	904.76	16.84
Cuttlefish	541.51	10.08
Brown Shrimp	358.56	6.68
Squid	324.21	6.04
White Prawn	311.54	5.80
North East		
Croaker	692.398	15.43
Marine Shrimp (Karikkadi)	457.463	10.19
Ribbon Fish	266.799	5.94
Indian Oil Sardine	255.884	5.70
Bombay Duck	218.640	4.87

### STATE-WISE LANDINGS

Of the 9 maritime states in the main land of India, Gujarat recorded the maximum marine fish landing during the month, which was to the tune of 17440.24 tons, forming more than 28% of the total catch (Fig. 5). The state of Kerala, where a quantity of 16467.64 tons (26%) was registered, held the subsequent position. Karnataka held the third place with a total landing of 7837.79 tons (more than 12%). All the West coast states outnumbered the landings recorded from each East coast states. In East coast, the highest landing was reported from Tamil Nadu, which was to the tune of 2996.27 tons (around 5%). The state which recorded least landing during the month was Odisha where merely 1897.21 tons of marine fish catch was recorded.

The major five fishery items which had contributed significantly to the landings in each state during March 2018 are given in Table 4.

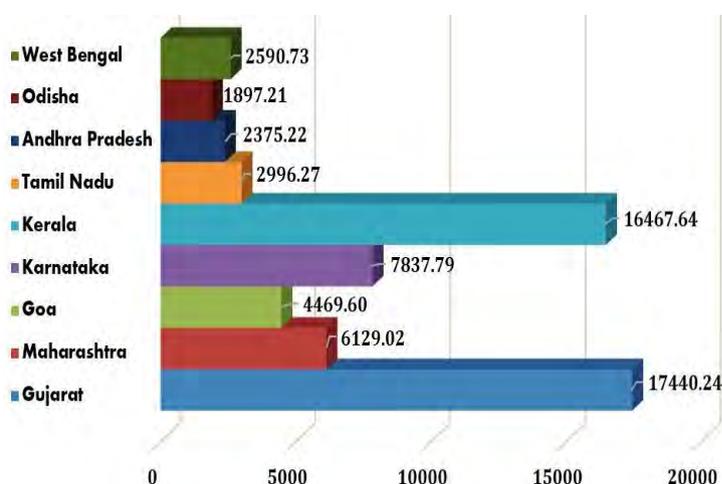


Fig. 5 State-wise fish landings (in tons) during March 2018

Table 4. Major items items landed in various states during March 2018

Item	Quantity in tons	% of total landings of the state
<b>Kerala</b>		
Indian Oil Sardine	1310.22	7.96
Squid	1191.69	7.24
Cuttlefish	1100.52	6.68

Indian mackerel	1051.40	6.38
Tuna	1028.55	6.25
<b>Karnataka</b>		
Japanese Thread fin bream	1923.63	24.54
Indian mackerel	1097.43	14.00
Lizard fish	879.02	11.22

## FOCUS AREA

Indian Scad	813.54	10.38
Indian Oil Sardine	487.99	6.23
<b>Goa</b>		
Indian mackerel	1441.00	32.24
Moon fish	764.55	17.11
Japanese Thread fin bream	465.90	10.42
Horse mackerel	317.20	7.10
Squid	311.00	6.96
<b>Maharashtra</b>		
Ribbon Fish	734.15	11.98
Squid	647.61	10.57
Indian mackerel	624.74	10.19
Japanese Thread fin bream	590.39	9.63
Brown Shrimp	473.08	7.72
<b>Gujarat</b>		
Squid	2829.50	16.22
Ribbon Fish	2505.00	14.36
Japanese Thread fin bream	1969.20	11.29
Cuttlefish	1232.00	7.06
Cat fish	1058.60	6.07
<b>Tamil Nadu</b>		
Cuttlefish	511.27	17.06
Tuna	415.12	13.85
Squid	280.43	9.36
Indian Oil Sardine	150.59	5.03
Pink Shrimp	103.32	3.45
<b>Andhra Pradesh</b>		
Tuna	489.65	20.61
Brown Shrimp	315.19	13.27
White Prawn	239.13	10.07

Pink Shrimp	203.95	8.59
Ribbon Fish	172.72	7.27
<b>Odisha</b>		
Croaker	378.56	19.95
Marine Shrimp (Karikkadi)	276.12	14.55
Ribbon Fish	122.24	6.44
Golden anchovy	114.35	6.03
Sea Crab	111.44	5.87
<b>West Bengal</b>		
Croaker	313.84	12.11
Bombay Duck	192.53	7.43
Marine Shrimp (Karikkadi)	181.34	7.00
Indian Oil Sardine	178.12	6.88
Cuttlefish	157.36	6.07

## HARBOUR-WISE LANDINGS

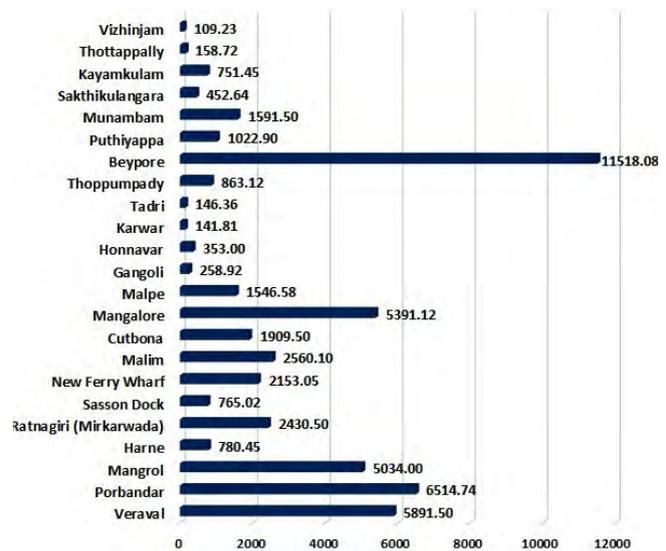


Fig. 6. Landings (in tons) at harbours along west coast during March 2018

Figures 6 & 7 represents the fish landings recorded during the month at the selected harbours along West and East coasts respectively. Out of the 47 harbours, Beypore harbour registered the maximum landing of 11518.08 tons (18%) and it was followed by Porbandar harbour with a contribution of 6514.74 tons (10%).

## FOCUS AREA

Veraval harbour with a quantity of 5891.50 tons (9%) and Mangalore harbour with a quantity of 5391.12 tons (8%) held the subsequent positions. Along East coast, the harbour which recorded the highest landing was Visakhapatnam where 1660.32 tons (> 2%) was landed. The least quantity of landings was recorded from Chinnamuttom harbour (19.09 tons).

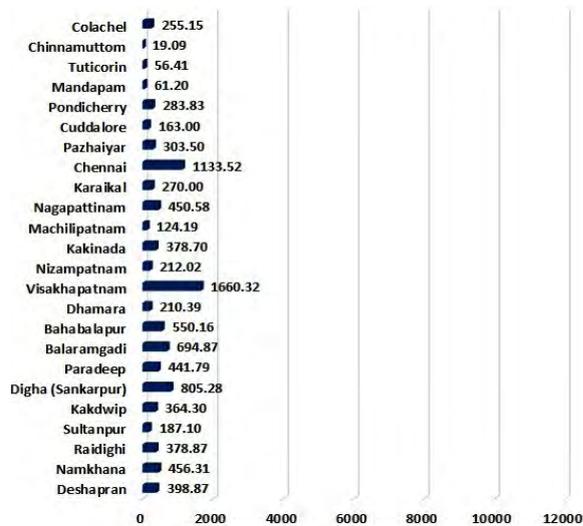


Fig. 7. Landings (in tons) at harbours along east coast during March 2018

## ESTIMATES BASED ON BOAT ARRIVAL

A total of 27512 numbers of boat arrivals were recorded during March 2018, of which the highest number of boat arrivals was registered at Veraval harbour (3786 nos.). The Porbandar harbour with 2883 numbers of boat arrivals held the next position. Only 4 out of the 47 harbours had recorded more than 1000 boat arrivals during the period, the details of which are given in table 5. Around 75% of the fishing vessels which landed their catch at the harbours belonged to the category of Trawlers and the remaining landings were by Purse seiners, Ring seiners, Gill netters, Long liners and Traditional crafts.

Table 5. Fishing harbours which recorded > 1000 boat landings during March 2018

Sl. No.	Fishing harbours	State	Number of boat landings
1	Veraval	Gujarat	3786
2	Porbandar	Gujarat	2883
3	Mangrol	Gujarat	2504
4	Mangalore	Karnataka	1763

Table 6. Comparative analysis of the data

	January 2018	February 2018	March 2018
Total Catch	86,568.64 t	61,463.55 t	62,203.72 t
Landing of Pelagic finfishes	37,443.01 t (43%)	27,282.94 t (44%)	24,254.18 t (39%)
Landing of Demersal finfishes	27,540.88 t (32%)	18,369.24 t (30%)	20,134.22 t (32%)
Landing of Shellfishes	21,584.75 t (25%)	15,811.37 t (26%)	17,815.32 t (29%)
Species recorded highest landing	Ribbon fish (9%)	Squid (10%)	Squid (9%)
State recorded highest landing	Gujarat (30%)	Gujarat (32%)	Gujarat (28%)
Harbour recorded highest landing	Beypore (13%)	Veraval (14%)	Beypore (18%)
Total Boat Arrivals	33,568	26,964	27,512

\*Percentage of Total Catch

## COMPARATIVE ANALYSIS

Table 6 shows the comparison of the data of March with that of previous months. The total fish catch had increased by around 750 tons during March when compared to that of February. In spite of the 5% decrease in percentage share, the Pelagic finfish continued as the top contributor to the total catch. Accordingly, the percentage share of Demersal finfish resources had

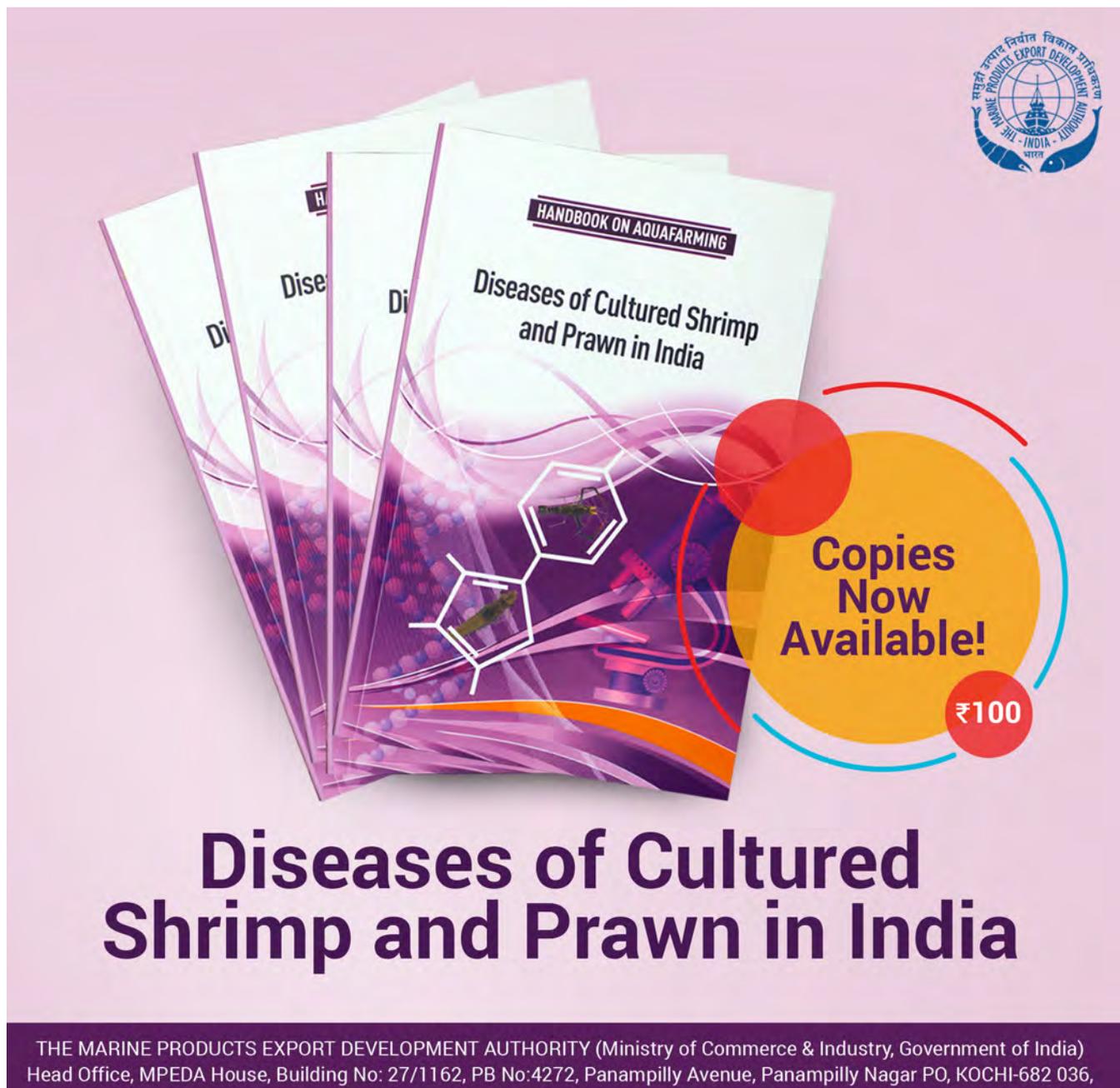
increased by 2% and the percentage share of shellfish landing increased by 3%. Squid remained in the topmost position among the various fishery items landed, forming 9% share of total catch. The state of Gujarat continued in the top position in terms of landings. However the Beypore harbour retained the top position among the harbours with maximum catch records, pushing Veraval to second position. The total number of boat arrivals recorded had increased in March by over 500 boats when compared to that of February.

## FOCUS AREA

### SUMMARY

In March 2018, a total of 62203.72 tons of marine fishery resources were landed at 47 major fish harbours of India, wherein pelagic finfishes contributed more quantity than demersal finfishes and shellfish stocks. Considering the fishery item-wise landings, Squid recorded as the major contributor. Landings from the West coast states

together formed more than 84% of the total catch, and the South West coast contributed the maximum share of more than 46%. The state of Gujarat recorded the highest catch among the 9 maritime states. Of the 47 selected harbours, 14 harbours recorded more than 1000 tons of fish landings and the Beypore harbour registered the highest landing. The maximum number of boat arrivals was recorded from Veraval harbour.



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## Mini Exhibition for Ockhi victims at Poothurai



△ Mr. Jeyabal A, Deputy Director, MPEDA interact with visitors

**M**PEDA Sub Regional Division, Tuticorin participated in the one-day Mini Exhibition organized for the benefit of families of Ockhi victims in Kanyakumari district at St. John, the Baptist's Community Hall, Poothurai, Kanyakumari on March 28.



△ Visitors being briefed on activities of MPEDA

The exhibition was organised by Mr. Ramesh Chelladurai, Nagercoil, Kanyakumari district who is now settled in Germany and working for the European Space Agency as Ground Operations Manager.

### EXHIBITION ON FISHERMEN'S SAFETY AND EMPOWERMENT HELD

The theme of the exhibition was "Fishermen's Safety and Empowerment". Exhibitors from various NGOs, private, Central and State Government agencies like Department of Fisheries, NIPHATT, Cochin and District Industrial Centre displayed their products related to fishing industry. Communication equipment like Fish Finder, GPS, Radio Telephone etc were displayed in the show. Around 14 exhibitors took part in the exhibition and 500 fisherfolk in and around Thothoor area visited the show.

An information session on the same theme too was held at the same venue. During the session, various activities of MPEDA, financial assistance schemes, activities of NETFISH, were explained to the fisher folk. The exhibition was very useful for the fishing community as they could become aware of the schemes of State/Central Governments.



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## 105<sup>th</sup> Indian Science Congress at Imphal



**△** *Dr. Harsh Vardhan, Union Minister for Science and Technology inaugurates the Pride of India Expo*

**T**he 105<sup>th</sup> edition of Indian Science Congress (ISC) was inaugurated by the Hon'ble Prime Minister of India, Shri. Narendra Modi on 16<sup>th</sup> March, 2018 at Manipur University campus, Imphal. This was the second time in the history of Indian Science congress that the event is held in North East India.

The 105<sup>th</sup> Indian Science Congress focused on translational science for promoting affordable sustainable innovation. Theme of the programme was "Reaching the Unreached through Science and Technology".

Dr. Harsh Vardhan, Union Minister for Science and Technology; Dr. Najma Heptulla, Governor of Manipur; Mr. Biren Singh, Chief Minister of Manipur; Mr. Jitendra Singh, Minister of State for Development of North East Region; Professor Adya Prasad Pandey, Vice Chancellor of Manipur University; Professor Achyuta Samanta, General President, ISC Association also participated in the inaugural function.

The Pride of India Expo was inaugurated by Dr. Harsh



**△** *Shri. Narendra Modi, Hon'ble Prime Minister of India inaugurating the 105<sup>th</sup> Indian Science Congress*

Vardhan, Union Minister for Science & Technology, Environment & Forest and Climate Change and Earth Sciences.

MPEDA has participated in the event to popularize the sea food and aquaculture in the region. Manipuris are fish loving people and there were queries from different

## FOCUS AREA



△ MPEDA officials in the stall with organiser of the Pol Expo, 2018

quarters about the availability of fish and fish products .

MPEDA displayed and sold various publications of MPEDA on aquaculture and export promotion. Videos were played throughout the day on aquaculture and hygienic way of

handling fish after harvest. A large number of persons from different walks of life like students, fish farmers, scientists etc. visited MPEDA stall. MPEDA Regional Division, Kolkata and Sub Regional Division, Guwahati co-ordinated the participation of MPEDA in the fair.

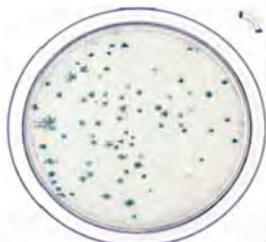


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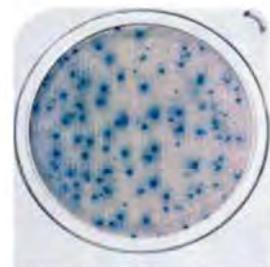
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## FOCUS AREA

# MSME International Trade Fair 2018 at Odisha



△ MPEDA's stall in Odisha MSME International trade Fair-2018

The Odisha MSME International Trade Fair, 2018 was held as part of the Entrepreneurship Week 2018 organized by the MSME Department, Government of Odisha. The Trade Fair was held from March 5-10, March 2018 at the IDICO Exhibition Ground, Bhubaneswar, Odisha with a special focus on food processing sector.

Mr. Naveen Patnaik, Chief Minister of Odisha, inaugurated the trade fair on 5<sup>th</sup> March 2018. Mr. Prafulla Samal, Minister for MSME, Mr. L N Gupta, IAS, Additional Chief Secretary, MSME Department, Govt. of Odisha and other dignitaries from various departments were present during the inaugural function.

The theme of pavilion of the exhibition was on food processing sector. Exhibitors were from the field of foods processing, engineering, chemical, government sector, handicrafts and textiles sector, etc.

MPEDA Regional Division, Bhubaneswar participated the trade fair by putting up a stall showcasing MPEDA's various activities by posters and banners. On first day, Mr. T. Dola Sankar, IOFS, Director (Marketing), MPEDA and Mr. S. S. Shaji, Deputy Director, Regional Division,



△ Mr. Amb. Kezaala Mohammed Baswari B, Deputy High Commissioner, Uganda High Commission, The Republic of Uganda, New Delhi visited MPEDA stall

Kolkata visited the stall. Mr. U. C. Mohapatra, Deputy Director, Mr. Tambada Naresh Vishnu, Asst. Director, Mr. S. Durga Rao, Field Supervisor along with staffs of MPEDA Regional Division, Bhubaneswar managed the stall.

MPEDA's stall was in Pavillion-2 (Hall-B, Stall no.27). The 3 m x 3 m stall was visited by many visitors, who enquired

## FOCUS AREA

about technical guidance on shrimp farms construction, pond preparation, pond management, harvesting, testing facilities for seafood and farmed shrimp, processing and export, certification, boat registration, setting up of ice plant, processing plant, and modern methods of handling, processing and adequate quality control measures to safeguard the quality of sea food etc. The

queries of entrepreneurs, farmers/visitors were cleared by officers present on the spot. Promotional material such as leaflets on antibiotics abuse in aquaculture, demonstration on sea bass, crab, GIFT Tilapia were distributed among the visitors. The stall attracted good number of farmers/entrepreneurs, students and general public.



## Ten Indian fisheries identified for MSC certification



 *Dr. Yemi Oloruntuyi addressing the gathering*

Considering their commercial value in overseas markets, ten marine fisheries from India have been identified as the targeted fishery for securing the eco-labelling certification of the Marine Stewardship Council (MSC), London. Blue swimming crab caught in gillnet from Mandapam, Tamil Nadu; shrimp by trawl from Kollam; red ring shrimp by trawl from Kollam; squid by trawl from Kollam; flower shrimp by trawl from Mandapam; cuttlefish by trawl from Kollam; lobster by trap from Nagercoil and Kanyakumari; skipjack tuna by hook and line from Lakshadweep; Japanese threadfin bream by trawl from the south west coast are the ten fisheries identified by a panel of stakeholders in India's marine fisheries sector. The panel included marine scientists, seafood exporters, retailers and fishermen. The panel also decided to start fishery improvement projects (FIPs) for these fisheries under

regular stakeholder consultations. A range of strategies was also formulated by the stakeholders for securing the MSC certification, a necessary endorsement for enhanced access in overseas market.

The panel, which met at the Central Marine Fisheries Research Institute (CMFRI) under the leadership of the MSC, CMFRI and the World Wildlife Fund- India (WWF) to discuss the MSC certification process, agreed that unanimous efforts are required to implement the fishery improvement plans to secure the eco-labelling certification. Speakers at the stakeholders meet highlighted that over exploitation and unregulated fishing were the major issues which should be controlled to maintain the sustainability of marine fisheries in India. Stressing the need for regular consultation of stakeholders, they called for self-imposed regulations

## FOCUS AREA



 A view of the programme

to curb over exploitation and juvenile fishing.

“Self-imposed regulations are need of the hour for maintaining sustainability of fish stocks, reducing environmental impacts and ensuring effective management of the fisheries,” Dr. Yemi Oloruntuyi, Head, Developing World Programmes of the MSC said during the panel discussion.

She also said that maintaining sustainability of fisheries was crucial to increasing their acceptability among overseas markets. “Today, it is increasingly a risky a business to sell seafood products that are not sustainable,” she said.

“Sustainability provides competitive advantage creating opportunity for well-managed fisheries. The concept behind eco-labelling is to harness consumer power to usher in positive change in the fisheries sector. The environmental benefits of eco-labelling include improved sustainability of fish stocks, reduced bycatch, improvement of habitat and ecosystem, increased compliance with regulations and ecosystem-based management,” Dr. Yemi said, adding that currently 28 per cent of fisheries are over exploited.

Presenting the roadmap for obtaining the MSC certification, Dr. Sunil Mohammed, Principal Scientist of CMFRI, said

the certification would bring in enhanced economic opportunities and market access for the fishing industry of the country, in addition to enhanced international reputation for the quality of Indian fishery management.

“The eco-labelling certification will boost India’s share of seafood export which is currently 4 per cent. It will help the fishery fetch a well-accepted markets in European and North American countries,” he said. “Among the 338 MSC certified fisheries from 36 countries, India has so far obtained only one fishery – short-necked clam fishery in Ashtamudi lake,” Dr Sunil Mohammed pointed out.

### ‘SUSTAINABLE SEAFOOD NETWORK’ LAUNCHED

A ‘Sustainable Seafood Network’ of 12 members representing CMFRI, CIFT, MPEDA, seafood industry, retailers, trawlers, traditional fishermen and NGO was also launched to accelerate the measures for maintaining sustainable practices in seafood industry. Dr Sunil Mohammed is the chairman of the Network. Dr. A Gopalakrishnan, Director of CMFRI, chaired the panel discussion, which was organized jointly by the CMFRI, MSC and WWF. The other panelists were Dr. Ram Mohan M.K., Joint Director (Marketing), MPEDA and Dr. K. K. Appukkuttan, Retd. Principal Scientist, CMFRI. 

### Training programme on Adoption of BMPs in shrimp culture & species diversification in aquaculture - Ajagarpatia



▲ Mr. U. C. Mohapatra, Deputy Director, MPEDA, RD, Bhubaneswar and Mr. Shitanath Behera, Addl. Asst. Fisheries Officer Dept. of Fisheries Kendrapara District during the training program

**A**jagarpatia village in Kendrapara district of Odisha has a vibrant *L. vannamei* shrimp farming. Many farmers there were interested to know latest technology and *L. vannamei* farming, Crab culture etc. As part of promoting sustainable development and quality aqua production in district, MPEDA Regional Division, Bhubaneswar organised a three-day training programme on adoption of BMPs in shrimp farming and species diversification from 8-10, March 2018 at Ajagarpatia.

Inaugurating the training programme, Mr. U.C. Mohapatra, Deputy Director, MPEDA, said that the training would be useful in this area as many farmers stocked seed of *L. vannamei*. He advised the trainees to improve knowledge to produce export quality shrimp. All the trainees were registered ahead of the inauguration and material like pond data registers, booklets on BMPs in shrimp farming, leaflets against antibiotic abuse in aquaculture and other relevant literatures were distributed among them. Mr. Mohapatra briefed about the status of aquaculture in Odisha and how the quality production contributed to increase in export from the State. He spoke on BMP's and

other technical aspects, harvesting and explained how economy would be boosted by the scientific methods adopted in aquaculture. He also explained assistance and financial schemes of MPEDA in vernacular language.

This was followed by class taken by Mr. Sitanath Behera, Addl. Assistant Fisheries Officer, Department of Fisheries, Kendrapara district, where he explained about the CAA licence procedure and registration, state fishery department schemes etc.

On the second day, Mr. S. Durga Rao, Field Supervisor, led the class on various topics like biological aspects of shrimp, selection of quality seeds, transportation, acclimatization and stocking of seeds, pond preparation, soil and water quality management, feed and feeding management, disease prevention and avoiding banned antibiotics and medicine use, biosecurity, economics of shrimp farming, farm enrolment and GPS in aquaculture, aqua society formation and its benefits, diversification – Mud crab culture, Seabass and Tilapia culture.

## AQUACULTURE SCENE



▲ Mr. Santanu Sahoo, TA of Fisheries Officer, Kendrapara district distributing certificates to the trainees

Short video films on shrimp farming, crab culture, sea bass culture and tilapia culture were also shown to trainees.

On the last day of the workshop, class was led by Mr. Santanu Sahoo, Junior Technical Fisheries Assistance, Department of Fisheries, Kendrapara District. He talked about the good management practices in shrimp farming. His session was followed by the class led by Assistant Director, MPEDA on site selection, construction of shrimp ponds, economics of shrimp farming, enrolment of Aquaculture farms with MPEDA and economics of shrimp farming etc. During this session, details of the newly launched fish exchange portal by MPEDA and its benefits to the farmers were explained.

Certificates and stipend were distributed to the trainees on the last day of the programme. Mr. Surbeswar Pal and Mr. Balaram Pal spoke on behalf of farmers that all the farmers would adopt scientific procedures in aquaculture. The training programme provided useful information, they said. 20 farmers participated in the programme. Discussions were also arranged for trainees to interact with MPEDA and State Fisheries officials.





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### Training programme on Adoption of BMPs in shrimp culture & species diversification in aquaculture - Kansar



△ Shri. Santanu Sahoo, Junior Technical Fisheries Assistance, Dept. of Fisheries Kendrapara District delivering a Lecture

**M**any farmers in the Kansar village of Mahakalapura Block in Kendrapara district, who do tiger shrimp farming, were interested in learning about the latest technology of *L. vannamei* farming. This was the base for the three-day training programme on adoption of BMPs in shrimp farming and species diversification, organised by Regional Division of MPEDA, Bhubaneswar from March 14 to 16. The programme was held for promoting sustainable development and quality aqua production in the district.

Mr. Naresh Vishnu Tambada, Assistant Director, MPEDA, inaugurated the training programme. Addressing the participants, he gave a brief overview about the status of aquaculture in Odisha and how quality production contributed in export from the State. He spoke on site selection for shrimp farm building, PHT enrolment, BMP's and other technical aspects.

Mr. N. V. Tambada explained assistance and financial schemes of MPEDA and about the newly-launched fish exchange portal and its usefulness for farmers. Mr.

Suresh Mohanty translated the speech to the vernacular language. He also translated the economics of shrimp farming, aqua society formation and its benefits.

All the trainees were registered ahead of the inauguration and material like pond data registers, booklets on BMPs in shrimp farming, leaflets against antibiotic abuse in aquaculture and other relevant literatures were distributed among them.

On the second day, Mr. Santanu Sahoo, Junior Technical Fisheries Assistant, Department of Fisheries, Kendrapara led the class on various topics like biological aspects of shrimp, pond preparation, soil and water quality management, feed and feed management, selection of quality seeds, transportation, acclimatisation and stocking of seeds, disease prevention and avoiding banned antibiotics and medicine use, bio-security, diversification- mud crab culture, Seabass culture and Tilapia culture.

On the last day, Mr. Sarath Kumar Jena, Senior Fisheries

## AQUACULTURE SCENE



△ A view of the trainees

Technical Assistant, Department of Fisheries Kendrapara, led the class. He explained CAA licence procedure for registration, on various State fishery department schemes and his lecture covered the good management

practices for *L. vannamei* farming.

His session was followed by the class by Assistant Director, MPEDA on the role of ELISA Lab, purpose of PHT sample testing, NRCP sample testing. He also told the participants about the opening of QC, Lab at Bhubaneswar.

Certificates and stipend were distributed to all the twenty trainees who participated in the three-day programme. Mr. Abhimanyu Rout and Mr. Nidhiram Basantia spoke on behalf of farmers and thanked the MPEDA for conducting such programmes. The training programme was very informative and made them aware about *L. vannamei* culture, BMPs for shrimp farming, crab culture sea bass culture, tilapia culture and about the role of lab for testing of shrimp for quality export without the presence of antibiotics, they said.



## Awareness campaigns on diversification



△ Campaign at Alvekudii village

**M**PEDA Sub regional Division, Karwar organised three campaigns on Diversification in Aquaculture in different farming villages namely, Honnawar, Kumta and Karwar. These campaigns were held for the benefit of local fish/shrimp farmers and new entrepreneurs.

Mr. Vijayakumar Yaragal, Deputy Director and Mr. Sheshendra M Shirodkar, Junior Technical Officer, MPEDA briefed on species diversification – Farming of Tilapia culture, seabass culture and mangrove crab culture.

Ninety participants attended these programmes. Another



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## AQUACULTURE SCENE



△ Campaign at Haldipur village



△ Campaign at Baithakol village



△ Campaign at Kodibag village

Diversification programme was conducted specially for women on International Women's Day, which fell on March 8, at the Science Centre at Karwar, Uttar Kannada. The programme was attended by 32 women

of fisherfolk/farming community. During the campaign the participants were provided with the relevant literature in vernacular language.









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# Farmers' Meet at MPEDA Satellite Centre, Nellore



△ Prof. (Dr.) T. Neeraja, Associate Professor inaugurating the farmers meet

**M**PEDA Satellite Centre, Nellore conducted a Farmers' Meet at Kuduthipalem Shiva Temple Auditorium, Indukurpet Mandal, Nellore on March 23. The main theme of the meet was to discuss the 'Problems and Challenges in Aquaculture' with the aim of ensuring good quality and sustainable shrimp production from the country. As many as 145 active farmers participated in the programme.

The programme was inaugurated by Prof. (Dr.) T. Neeraja,



△ A view of the audience

Associate Professor, Department of Aquatic Animal Health Management, Fisheries College, Muthukur. During her inaugural address, she appreciated the steps taken by MPEDA to emphasise the need for a high quality shrimp production from the country. She also pointed out that due to these continued efforts have ensured that Indian shrimp gets a high demand in the world market.

## PROBLEMS AND CHALLENGES IN AQUACULTURE DISCUSSED

Mr. P. Brahmeswara Rao, Assistant Director, Regional Division, Vijayawada welcomed the gathering. During the felicitation address, Dr. Amerneni Ravi Kumar, Alpha Biologicals, Nellore emphasised that the latest introduction of 'Fish Exchange Portal' by MPEDA will surely support the farming community to a great extent as the farmers are regularly complaining about the

## AQUACULTURE SCENE



▲ Dr. Amerneni Ravikumar during the technical session on Problems and Challenges in Shrimp farming

fluctuating shrimp price. There is a general complaint that shrimp farming is becoming not attractive due to the high production cost.

During the technical session, Dr. Amerneni Ravi Kumar, given a realistic picture of the 'Problems and challenges in shrimp farming in Andhra Pradesh'. He also mentioned the various biological, physical and chemical factors required to be maintained for a successful shrimp production. He alerted the farmers to give much importance to water quality management, which ultimately decides the fate of the culture.

In the technical session that followed, Prof. (Dr.) T. Neeraja, handled the topic 'Disease management and bio security in Aquaculture'. She explained that bio security is the key management aspects to be focussed in all shrimp farms to get a low risk operation. She also given a vivid picture to the audience regarding the various area where bio security measures to be strengthened. She also suggested the farmers to get their seed tested



▲ Prof. (Dr.) T. Neeraja handling the technical session on Disease Management and Biosecurity in Aquaculture

in any reputed labs before stocking.

The importance of fish exchange portal was explained by Mr. P. Brahmeswara Rao, Assistant Director, Regional Division Vijayawada and he suggested the farmers to make use of it. He also warned the farmers to be alert while opting aquaculture inputs especially in light of the rejections/temporary ban from the importing countries. He also explained the steps taken by MPEDA to augment a good quality shrimp production from the country. He suggested the farmers to make use of the testing facilities available at MPEDA ELISA labs so that each farmer can ensure that he is always supplying an antibiotic/chemical free shrimp to the exporter. He reminded that only products from those farmers who will never compromise on quality production will generate more demand for the products.

The farmers meet concluded with the vote of thanks by Dr. Ganesh K., Assistant Director, MPEDA Satellite Centre, Nellore.

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# Interstate study tour to Andhra Pradesh



▲ Study tour team visited at RGCA's Tilapia Broodstock Development Project and All Male Scampi Project at Manikonda

**M**PEDA Sub Regional Division, Karwar organized an interstate study tour for ten farmers from Belgaum district, Karnataka. Based on the request made by this division, Mr. Sanjeev Arkere, Assistant Director of Fisheries, Chikodi, had selected 10 farmers for tour, which was planned to be held from March 14 to March 19.

The study tour team was accompanied by Mr. G. Ramar, Junior Technical Officer, MPEDA. The team proceeded to Vijayawada from Hubli on March 14. Mr. Satyanaryana, Field Assistant of Regional Division, Vijayawada, guided the team during the field visits.

### FIELD VISITS

#### M/S.VENKAT AQUA HATCHERY (P) LTD. KANKIPADU, KRISHNA DISTRICT

On March 15, the team visited Venkat Aqua Hatchery that produces *L.vannamei* seed by bringing sea water from the coastal place like Machilipatnam. The team met Mr. Prasada Raju, Hatchery Manager, who explained the

hatchery operations and sales details to them. Later the team visited hatchery facilities like sea water reservoirs, sediment tank, settlement tank, water purification system such as rapid filters, UV radiations, slow sand filters. The visitors were told that Scampi seed was produced during 2000 to 2008, based on the demand, production is being switched over to *L. vannamei* seed production. They were also told that *L. vannamei* seed will be supplied to the farming community in freshwater to stock inland area.

#### RGCA'S TILAPIA BROODSTOCK DEVELOPMENT PROJECT, MANIKONDA, KRISHNA DISTRICT

Mr. Appala Naidu, Asst. Project Manager and Mr. Srinivas, Assistant Technical Manager had explained the activities and operations of the Tilapia broodstock development. Queries arose by the participants were clarified by them. Walked around the various facilities of the project such as various types cages, happa, protocol being maintained for broodstock and seed production and bio-security for seed production as well as broodstock development.

### **M/S.VENKATESWRA RAO FARMS AND POTHU RAJU, KOLKONDA, GUDIVADA, KRISHNA DISTRICT**

The team then visited Kolkonda village and met Mr. Satish and Mr. Pothu Raju. Mr. Satish explained to the team how the farm stocked the seed of lingur fish, which has been imported from Bangladesh and Kolkata. The stock was kept in a three-acre pond and locally produced pellet fish feed was given to them. The stock has grown to the size of 15 gms, but Mr. Satish said that the fish reaches to the marketable size of 125 gram in 9 months. The fish has high demand in abroad as well as local owing its taste. Later the team visited Mr. Pothuraju's fish farms where the stock of Rogua fish was kept in the ratio of 2000 of them in an acre. The fish had grown to about 200-250 gm in size and the team learnt that composite feed in ratio of 73:20:5:2 for rice bran, groundnut cake, cotton seed cake and mineral mixes was used. He told the team how he used to harvest the stock in nine months at an average size of 1.5 to 2.0 kgs. It was also learnt that Mr. Pothuraju maintained nursery pond for fish up to 2 months and with an average size of 150-200 grams.

### **M/S.SRINIVASA RAO FISH FARMS, KONDAGI KALIDINDI MANDAL, KRISHNA DISTRICT**

Next, day, the team visited the fish farm by Srinivasa Rao, which was located 85 kms away from Vijayawada. The team learnt that the fish fingerlings were stocked 12 months with IMC of Rougu and the fish was ready to harvest when they grow up to 2-3 kgs. The participants were taken on the feeding boats to the ponds to get a hands on experience of feeding the stock. The details of the operations of the farm were explained to them. They later visited Mr. Srinivasa Raju's farms where *L.vannamei* culture is done. The team also visited Mr. K. Ramesh Babu, Pedalanka village and the sea bass farm at Mattagunta village.

### **SRI. SIVAJI RAO FARM AND SRI. CHIRANJEEVI FARMS PEDAPATNAM, BANDAR MANDAL, KRISHNA DISTRICT**

On March 17, the team went to Pedapatnam village and visited Mr. Sivaji Rao Farms, which had stocks of *L. vannamei* seed with 15 DOC. The team learnt that this was being maintained with bio-security by installing the crab and birds fencing, foot dip at the entrance of the farm and all other ways are sealed by fencing to avoid entrance of domestic animals and human beings. They

were told by the owner that based on his experience in *L. vannamei* farming, around Rs. 5/- per shrimp is being incurred to harvest the marketable size. He also told the team that in the pre-stocking management, five litres of Novocran – an insecticide- was used for eradication of parasites and competitors, disinfectants such as bleaching powder were also used to disinfect the water, after leaving water thus for 10-15 days, then application of liming and fertilizers was practiced. Once blooming of water is observed, seed stocking will be done.



**▲** Study tour team interact with RGCA officials on packing and seed productions of Tilapia, Manikonda

### **MPEDA ELISA LAB, FISH MARKET AND BANDAR PORT, MACHILIPATNAM**

During their visit, Ms. Swathi, Lab-in-Charge, demonstrated the facilities available in lab and explained in detail about operations and activities of antibiotic traceability in shrimp as well as fish samples. Only five major banned antibiotic were being detected in this lab, even though 20 group antibiotics in aquaculture have been banned in India. Later the team visited the Port of Machilipatnam and fish market. They observed various landed fish in these places and inquired about the rate of different fishes and compared with their rates.

### **M/S.GALAXY FEEDS, GUDIVADA, KRISHNA DISTRICT**

On the last day, which was March 18, Mr. Ch. Malik, Production Manager, of the feed plant, explained the operation and production various fish feed with various size, *L. vannamei* / tiger shrimp feed in different grade to the study tour team.

The team then visited the Prakasam Barrage, Vijayawada, where they witnessed catching fish in the Krishna River and landing of various freshwater from the adjacent area of the district.



### Training programme on “Better Management Practices and Diversification in Aquaculture”



△ Dr. P. Sreenivasulu, Assistant Director, MPEDA addressing the participants

**M**PEDA Sub Regional Division, Bhimavaram, organised a 3-day training programme on “Better Management Practices and Diversification in Aquaculture” from 7-9, March 2018 at Baduva village of Yellamanchilli Mandal of West Godavari district. The training was open for general public.

The main objective was to educate the farmers on better management practices and diversification in aquaculture. As many as 18 trainees were benefited by this programme. As per the scheduled programme, Dr. P. Sreenivasulu, Assistant Director, MPEDA led the session on schemes and services of MPEDA, maintenance of pond record, farm enrolment; Mr. K. Ramanjaneyulu, Junior Technical Officer, MPEDA on disease management and diversification of aquaculture and Mr. L. K. Patnaik, Field Supervisor, MPEDA, on the selection of good quality seed, biosecurity measures, feeding management and antibiotics issues in aquaculture. Mr. Srinivas, Field Manager, NaCSA, West Godavari District, explained about the formation of aqua society and its benefits.

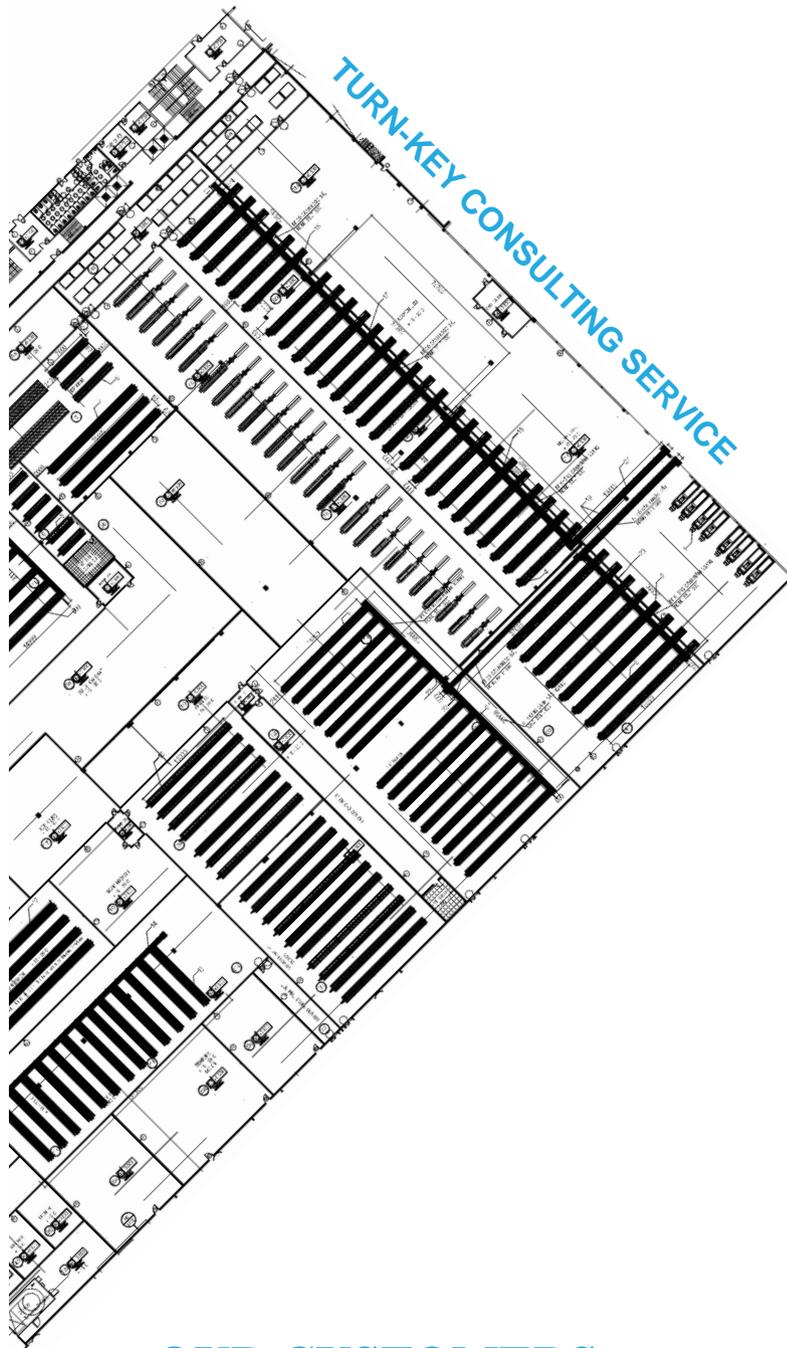


△ Distribution of certificates to the participants

On the final day, Mrs. R. Radha, Sarapancha, Baduva Village attended the programme and thanked to MPEDA for organizing a training programme and encouraged to all trainees for adoption of BMPs in shrimp culture and distributed the certificates and stipend to the trainees. A group discussion was also held with the MPEDA officials and the trainees to clear various doubts on the subject.



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## AQUACULTURE SCENE

# Seminar on Adoption of BMPs for sustainable aquaculture and diversification



△ Mr. Vijayakumar, Deputy Director, MPEDA addressing the farmers

**A**s a part of the promotional activities, a seminar on “Adoption of BMPs in Sustainable Aquaculture and Diversification” was organized at Kundapur, Udupi district, Karnataka on March 20. Mr. Vijayakumar Yaragal, Deputy Director, MPEDA welcomed the dignitaries and explained the objective of the programme. Dr. V. K. Nayak, Honorary Secretary, Uttar Kannada Jilla Vigyan Kendra inaugurated the programme and appreciated the efforts taken by MPEDA for conducting similar programmes for the benefit of farmers. He delivered lecture on “Recent technologies in brackish water shrimp farming and diversification.”

Dr. Chandrakant Lingadhant, Assistant Professor, Marine Fisheries Research Centre and Training Centre, Karnataka Veterinary and Fisheries Sciences University, Bela, Ankola Taluk delivered the guest lecture on Advances in Aquaculture - Seed Selection to Harvesting. Mr. Manjjapa N., Assistant Professor FRIC (I), Hesargatta, Bangalore, Mrs. Anjanadevi and Mr. Chandrashekar Assistant Directors from Fisheries Department were also present at the function and clarified doubts from the farmers.

Mr. Vijayakumar, Deputy Director explained recent technology in *L. vannamei* and biofloc system. He emphasized the importance of effluent treatment plant, reservoirs and biosecurity in *L. vannamei* farming and

advised not to use any banned antibiotics in aquaculture farms.

M. Thammayya Devadiga, a progressive farmer, spoke on problems faced by farmers such as disease outbreak, poor sale price and absence of insurance to crop loss. Farmers also demanded that MPEDA may look into matter such as financial assistance – subsidy, electricity tariff on agriculture rate should be as per Andhra Pradesh state policy, speedy issues of Coastal Aquaculture Licenses.

Mr. Vijayakumar, Deputy Director cleared doubts and advised famers to give presentation of demands and suggestion for better and sustainable development in aquaculture for better progress.

During his presidential address, Mr. Ibrahim and Mr. Krishnaprasad Shetty, Director, Malpefresh Marine Export Ltd. spoke on responsibility of farmers during culture period which are the primary producers. They also explained about importance of the value added marine product as well as HCCAP to be implemented in the processing plants, peeling shed, shrimp and fish farms and shrimp hatchery. As many as fifty-five farmers, feed dealers, aqua input suppliers and officials from Fisheries Departments concerned participated. The programme concluded with vote of thanks by Mr. S. M. Shirodkar, Junior Technical Officer, MPEDA.



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## Seafood HACCP training programme



△ A view of the trainees and faculty

**M**PEDA Regional Division, Kolkata organised HACCP Training programme for the technical personnel working in the seafood processing establishments in West Bengal from March 20 to 23.



△ Mr. Rajarshi Banerji, President, SEAI, West Bengal region address the gathering



△ Mr. J K Aikat inaugurating the training programme

personnel in the seafood industry who are directly involved in the production of safe seafood meant for export.

Mr. J.K. Aikat, Director, Department of Food Processing Industries and Horticulture, West Bengal inaugurated the programme. Mr. Rajarshi Banerji, President, Seafood Exporters' Association (SEAI), West Bengal Region; and Mr. Taj Mohammed, Secretary, SEAI West Bengal Region also spoke during the occasion. All the speakers emphasised the vital role and responsibility of the QC

This programme was the 107<sup>th</sup> training programme that MPEDA conducted since 1996 and over 2900 technical personnel from the seafood industry in the country have been trained so far. MPEDA organised 13 such programmes earlier in West Bengal. Twenty-six candidates representing 17 establishments attended the current training programme. The sessions were handled by Mr. S. S. Shaji, Deputy Director and Mr. V. Vinod, Assistant Director.

## India's seafood exports increase 13% despite fall in global shrimp prices

India exported seafood worth \$5.64 billion during the first 10 months of 2017-18, compared to \$4.98 billion a year ago, registering a growth rate of 13.27 per cent.

The increase in exports is despite an oversupply from major shrimp-producing nations and stringent testing norms. Quantity-wise, India exported 1,085,378 tonnes of seafood till January in FY18 against 954,744 tonnes shipped in the corresponding period of FY17. The growth in quantity was 13.68 per cent.

"India's export of seafood remained on the upward curve despite a fall in global shrimp prices triggered by an oversupply from major shrimp-producing countries and more stringent test regimes imposed by the EU to detect antibiotic residues in frozen shrimp consignments. Also, we had to face competition from countries like Ecuador and Argentina," said Dr. A Jayathilak IAS, Chairman, The Marine Products Export Development Authority.

"Still, we were able to sustain the growth momentum on export front, which is a proof of the resilience of India's seafood sector. We have initiated steps for export-oriented organic shrimp production, and launched new

strategies to boost aquaculture and improve vigilance to stop faulty consignments," he added.

The US, South East Asia and the EU continued to be the three major importers, while the demand from Japan registered a substantial increase during the period.

Frozen shrimp continued to be the top export item of the marine products basket with a share of 42.05 per cent in quantity and 69.95 per cent of the total earnings in dollar.

The US, which imported 203,837 tonnes of Indian seafood worth \$1.917 billion, remained the major importer with a share of 33.99 per cent in dollar terms. Export of frozen shrimp to the EU region decreased by 6.98 per cent and 3.26 per cent in quantity and dollar value, respectively.

Japan emerged as the major market for Black Tiger shrimp with a share of 49.38 per cent in dollar terms, followed by the US (18.09 per cent) and South East Asia (15.06 per cent). Import by Japan, the fourth largest destination for Indian seafood, increased by 17.51 per cent in quantity and 6.7 per cent in dollar terms.

-[www.business-standard.com](http://www.business-standard.com)



## Seafood exports: To sustain EU demand, India to showcase new vigilance, testing measures

To ensure continued demand for seafood from the European Union, India will showcase the new measures implemented by it to improve vigilance and testing to assure the bloc that all steps were being taken to ensure that consignments meet the required quality standards. The EU is one of India's top buyers of shrimps.

"We are worried about the EU decision to increase testing of samples from 10 per cent to 50 per cent and blacklist exporters whose consignments fail quality tests. We have taken a number of important steps to improve vigilance and testing of seafood to stop faulty consignments at our end. Detailed presentation would be made by the Export Inspection Council (EIC) officials from India to their counterparts in the EU on these measures," a government official told BusinessLine.

Information on the traceability software for seafood implemented by the country and new methods put in place to carry out inspections will be shared with the officials from Directorate General for Health and Food Safety (DG SANTE) which is responsible for the EU Commission's policies on health and food safety.

"The meeting will take place during the global seafood show in Brussels later this month," the official said. This is part of a routine exchange of information but this year it is more important for India to make a good impression as the EU has expressed its dissatisfaction with exports from India by tightening its rules on inspections and black-listing.

India's marine food exporters have been arguing that the

## NEWS SPECTRUM

EU's decision to increase the sample size from 10 per cent to 50 per cent for testing the seafood consignments from India, while keeping it at 10 per cent for other countries such as Vietnam and Bangladesh was unfair. They also want the EU to give a warning to an erring exporter whose consignment may have some quality related problem instead of banning the exporter outright.

"The EIC has discussed the two arguments with its

counterpart in the EU earlier and will do so again," the official said.

India's marine exports increased to \$6.12 billion in 2016-17, a 9.83 per cent increase from \$5.57 billion in the previous year. The EU accounts for about 18 per cent of marine exports from the country with Belgium, the Netherlands and Spain being among the top buyers.

-[www.thehindubusinessline.com](http://www.thehindubusinessline.com) 



The advertisement features a red book cover with the title "International Transport of Live Fish in the Ornamental Aquatic Industry" and the OFI logo. The cover includes a photograph of two workers in yellow safety vests handling boxes labeled "LIVE FISH" near an aircraft. Below the photo, it says "Approved by The Marine Products Export Development Authority OFI educational publication 2". To the right, a red diamond-shaped call to action reads "GET A COPY NOW!" with a price tag of "₹125" and a circular logo of the Ministry of Commerce & Industry, Government of India.

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## **India's Telangana to release close to one billion seedlings during 2018-19**



The newly crafted state in South India, Telangana, has decided to release 820 million fish seedlings during the 2018-19 financial year in an effort to increase fish production, state officials said.

The state government's fisheries minister Talasani Srinivas Yadav said that the release will help Telangana to achieve 30-percent growth in fish production to 350,000 metric tons, according to a report from Telangana Today.

The minister, while speaking at the recently concluded AquaEx 2018 event, said that currently, the state produces 271,000 metric tons, with 510 million fish seedlings distributed across the Telangana during the 2017-18 fiscal year.

As per an estimate, Telangana has India's third largest inland water resources with two big rivers, Godavari and Krishna, passing through its territories along with 77 large, medium, and small reservoirs. The state also has 24,100 tanks which are used for fish production.

The minister said that in the coming years, the state will be adding several irrigation projects that will also

increase fish production as well.

Fisheries and Animal Husbandry Secretary Sandeep Kumar Sultania said at the event that the state's fish per capita consumption is just 7 kg, compared to the national average of 11 kg per capita. The increase in fish seedlings will fill this gap, as well as increase fish output, Sultania said. Currently, to meet state fish demand, Telangana is importing fish from other states.

If the production is more than can be consumed, Telangana can also export to other states where there are huge demands, Sultania added.

The state is also implementing an Integrated Fisheries Development Scheme (IFDS) with a budgeted outlay of INR 10 billion (USD 153 million, EUR 125 million) to enhance fish seed production, offer harvesting and marketing support, and facilitate infrastructure development.

Telangana is creating new fish markets, where fish can be sold in proper hygienic conditions. The state is also organising fish events and expositions, where new developments in the fisheries sectors will be displayed.



### ICAR-CIFT conducts awareness programme on 'Fishing Capacity Management of Trawl Fishery'

An awareness programme on 'Fishing capacity management of trawl fishery' was conducted on 28 March, 2018 at Cochin Fisheries Harbour, Thoppampady, Ernakulam district as part of the institute project titled, 'Modelling studies for estimation of revenue based capacity and valuation of selected fishing systems and fish supply chain analysis'. Dr. V.K. Sajesh, Scientist, welcomed the gathering and Mrs. P. Jeyanthi, Scientist explained on the importance of the project. Dr. M.P. Remesan, Principal Scientist delivered a talk on 'Plastic menace and it's ill effects at sea and discussed about the technological intervention to reduce the hazard. In recent times, over-fishing and unscientific fishing activities

have resulted in some kind of climatic changes which ends up with irreversible effects in fishery. Expressing concern over the dwindling fisheries resources and their possible reasons, he highlighted that plastic ultimately affects the sea bottom and the flora and fauna population resulting in deterioration of fisheries resources. A demonstration on collection of waste in sea and bringing back to shore using net bag was conducted to sensitize the trawl boat operators. The programme was very interesting which created an awareness among the fishermen towards fishing capacity management and fish supply chain analysis.



### Business model for solar dried fish products established



A new business model for solar dried fish products, has been introduced in Cochin, by a start-up firm 'M/s. Aabbaa Fish Products' with the support of ICAR-Central Institute of Fisheries Technology (ICAR-CIFT), Cochin. The dry fish store opened at Chambakara St. James Church shopping complex on 10<sup>th</sup> April, 2018 is definitely an ideal choice for dry fish lovers. The design of the store, the products, and the display settings, suits the new age retailing business, and the store is the first of its kind in Kerala. M/s. Aabbaa Fish Products is expected to revamp the dry fish delicacies which are favoured by majority of the Keralites. All the products sold here are scientifically processed using the energy efficient and eco-friendly solar dryers developed by ICAR-CIFT. The quality of the solar dried fish is extremely good in terms

of hygiene, retention of nutrients, aroma and taste, as it eliminates all the disadvantages of conventional open sun drying, and are free from attack of dust, dirt, rain, insects and microorganisms. Lower and uniform levels of moisture can also be achieved for products from solar dryer when compared to the conventionally dried products. ICAR-CIFT provided all the technical support and guidance to this firm, through the Agri-Business Incubation (ABI) Centre operating at the Institute. The new store at Chambakara market was inaugurated by Mr. P. T. Thomas, MLA in presence of Mr. V. P. Chandran, Corporation Councillor, Dr. C. N. Ravishankar, Director, ICAR-CIFT, Dr. Manoj P. Samuel, Head, Engineering Division, ICAR-CIFT and Dr. George Ninan, Principal Investigator, ABI Centre.



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## Hilsa aces nutrient test

Scientists have generated India's first database that describes the nutritional composition of about 100 edible fish species through a 10-year-old research effort they say has endorsed the supremacy of the hilsa.

The database, NutriFishIn, documents the nutritional profiles of freshwater, coldwater, brackish-water and marine fish from across the country under a project supported by the Indian Council of Agricultural Research. Scientists at the ICAR-Central Inland Fisheries Research Institute, Barrackpore, who collaborated with institutions in Bhimtal, Bhubaneswar, Kochi and Mumbai, say their analysis has vindicated the significance of the traditional rice-and-fish dish in combating malnutrition.

Their database has quantified the amounts of proteins, omega-3 fatty acids and micronutrients such as vitamins and minerals in fish species.

"The hilsa, or ilish maachh, is among the best for omega-3 fatty acids, followed by sardines and the koi," said Bimal Prasanna Mohanty, Principal Scientist at the Barrackpore institute and the National Coordinator for the project.

Several studies had suggested that eating fatty fish twice a week helps reduce the risk of heart disease. The analysis leading to the NutriFishIn database has shown that the levels of health-friendly polyunsaturated fatty acids - docosahexaenoic acid and eicosapentaenoic acid - vary across species.

Unsaturated fatty acids make up about 57% of the total fat in the hilsa (*Tenualosa ilisha*). As the fat content of the muscle is much higher in the hilsa than in other species, this fish can also contribute significantly to meeting the average daily requirement of unsaturated fatty acids, the scientists said in the journal Food Chemistry.

Among the fish sampled, the yellowfin tuna was found to contain the highest concentration of protein (23.9g protein per 100g), while Bombay Duck contained the

least (8.2g per 100g).

Among commonly consumed fish, the bhetki (*Lates calcarifer*), the karimeen (*Etroplus suratensis*) and the hilsa contain over 20% protein.

The major carps - the rohu (*Labeo rohita*), the mrigal (*Cirrhinus mrigala*) and the catla (*Catla catla*) -- contain 15 to 16% protein.

Mohanty said the database also shows that the small indigenous fish found widely across the country's freshwater resources are rich in minerals and vitamins and "may help combat micronutrient deficiencies".



Three of these fish - the puti (*Amblypharyngodon mola*), the mourala (*Puntius sophore*) and the dadhika (*Esomus danricus*) - are particularly rich in vitamins A, D, E and K, the studies have shown.

The Barrackpore institute is now focusing on the small indigenous fish, which the scientists believe need to be

promoted as alternative sources of protein, calories and micronutrients.

These fish are eaten whole with their bones and head and are therefore likely to contribute minerals in higher concentrations than larger fish, Mohanty and his colleagues have said in their paper.

The database is intended for use by consumers, dieticians, physicians and food policy planners. It has drawn the attention of the World Bank, which has invited the Barrackpore institute to join an international collaborative initiative, called NutriFish1000, that seeks to promote nutrition through the consumption of fish.

A senior World Bank official described the database as "an excellent and visionary" research-and-development platform that could be exposed to governments across the world to advance global food security.

- [www.telegraphindia.com](http://www.telegraphindia.com)



## Farming fish can improve global food security and conserve land



Researchers have estimated that a 52% increase in animal production would be required to meet the dietary needs of the global population by 2050.

A new study from the University of California Santa Barbara has found that farming fish is the most feasible way to satisfy the growing demand for protein without placing too much strain on the environment.

Animal agriculture takes up large areas of land, uses massive amounts of energy, and results in harmful greenhouse gas emissions. The amount of cropland needed for raising animals could be significantly reduced with the development of more aquatic farming, or aquaculture.

The research from UC Santa Barbara is the first land-use analysis to focus on aquaculture. The findings of the study show that fish farming has great potential for improved food security and land conservation.

“While aquaculture can add some pressure because – ultimately – it is a food production system, our study demonstrates the relative amount is minuscule compared to terrestrially farmed animals,” said lead author Halley Froehlich. “Aquaculture is not going to be the main strain on future crop feed and land use. It is – and will likely continue to be – terrestrial livestock.”

The researchers set out to compare how much land

would be required to grow the seven most common crops used to feed livestock and farmed fish under several scenarios between now and 2050.

The experts modelled a business-as-usual scenario where meat consumption continues to rise at the current rate compared to fish consumption.

They also modelled two scenarios where aquaculture meets the increasing demands of the global population by 2050 and eliminates the need to raise more terrestrial animals for food.

The study revealed that replacing additional land animal production with fish production could save between 729 and 747 million hectares of land globally.

This area of land is twice the size of India, which is the seventh largest country in the world.

The research demonstrates how critical of a role that food choices will play in the future of biodiversity. Habitat loss, which is largely driven by land use changes, is the biggest threat to biodiversity.

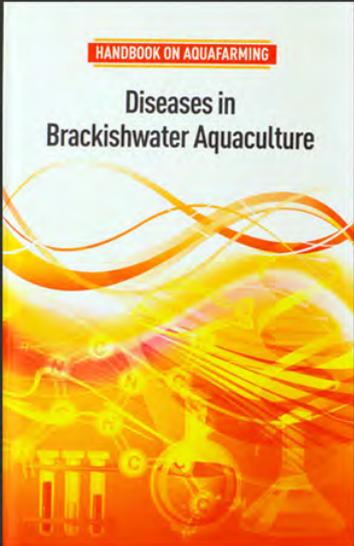
“The expansion of agriculture across the world is driving most species extinctions and the dramatic loss of ecosystems,” said study co-author Claire Runge. “This is only going to increase into the future. Aquaculture offers one way to reduce some of this pressure on our natural landscapes, wild places and wildlife.”

- [www.earth.com](http://www.earth.com)



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## APFISHTECH-2018

ICAR-Central Institute of Fisheries Technology, Cochin and Society of Fisheries Technologists, (India), SOFT (I), Cochin jointly organized 'APFISHTECH-2018', a seminar to address opportunities and challenges in Indian fisheries and aquaculture with special reference to Andhra Pradesh. The seminar was organized at Visakhapatnam during 23-24 March, 2018. Mr. V. Padmanabham, President, Seafood Exporters Association of India, inaugurated the seminar and released the Book of Abstracts. He urged that fishery sector needs to be accorded agriculture status to bring down the cost of production. Traceability of antibiotic rejections is a challenging issue that needs to be addressed on priority basis or else the exports worth 40,000 crores will be drastically affected. He said

that the stakeholders in the fishery sector need to be educated for sustainable growth. He also emphasized that challenges faced by the fishery sector are huge and it needs exchanges of views which would help in achieving wonderful results. He encouraged youngsters to take up entrepreneurship in fisheries using start-up initiatives of the government. Dr. J. K. Sundaray, Director, ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA), Bhubaneswar was the Guest of Honour. He emphasized on economical use of water in crop production. He stressed that innovation should not compromise sustainability. He underlined that aqua farmers should lay faith on capable partners in the country and use indigenous technology for economic benefits.

-CIFT



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