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The shrimp industry has seen major developments and tasted success over the years. And not only are we proud to be part of it, but also take pride in pioneering it. To ensure the success and profitability of the Indian Shrimp Industry, our highly determined team with committed Aquaculture specialists constantly provide the shrimp farmers with access to the latest and updated technology.
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Tonic to boost export business. During global uncertainties

For more information contact your nearest ECGC office.
Dear friends,

The US National Marine Fisheries Service (NMFS), within the US Department of Commerce, vide Federal Register dated April 24, 2018, has lifted the stay on Inclusion of Shrimp and Abalone in the Seafood Import Monitoring Program (SIMP), effective from May 24th 2018, which was suspended because the “current data collection for U.S. aquacultured shrimp and abalone is not equivalent to the data that would be reported for imports.” By lifting the stay, it mandates that the importers of shrimp and abalone species will be required to follow the procedures such as obtaining an International Fisheries Trade Permit, submit harvest and landing information on those products to the U.S. Customs and Border Protection through the Automated Commercial Environment (ACE) portal and maintain supply chain records from the point of harvest to the point of entry into U.S. Commerce for a period of two years after entry. The compliance date for this rule for shrimp and abalone is from December 31, 2018. For India, this move is quite important as shrimp is our principal commodity of export to USA. The farmers and processors have to maintain traceability records to be provided to the importers in US for onward submission. And for that farmers now have to get habituated to record keeping for them to fulfill the traceability requirement. On a positive note, this will also help to comply with the traceability requirements for other markets, especially the European Union. Though a great deal has been covered, SIMP brings in more responsibility to MPEDA, to enroll the maximum possible extent of farms by October 2018. MPEDA also plans to organize awareness programmes to the farmers and exporters on SIMP and related record keeping.

To encourage shrimp exports further, MoC&I has permitted MPEDA to issue DS 2031 certificates for shrimp exports that are routed to the US through the third countries after reprocessing. This is being done as a temporary measure, to encourage buying by exporters and importers alike.

In another development, MPEDA – RGCA has developed open pond culture method for Asian Sea bass, which is low in capital investment unlike the cage culture. The catch is also better in this type of farming. MPEDA is hopeful that more farmers will adopt this farming technique and increase the export production of seabass further.

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MARKETING NEWS

MPEDA’s participation in Seafood Expo Global 2018 at Brussels

EU is the largest market for aquaculture products as well as value added products. During 2016-17, European Union remained the third largest destination for Indian seafood with a share of 16.73% in quantity. Frozen shrimp continued to be the major items of export to EU account 40.66% in quantity and 55.15% in USD earnings out of total export to EU. Export of L. vannamei shrimp to EU improved by 9.76% in quantity and showed increase of 11.40% in USD.

Seafood Expo Global/Seafood Processing Global (formerly the European Seafood Exposition/Seafood Processing Europe) is the world’s largest seafood trade event. More than 26,000 buyers, suppliers, media and other seafood professionals from more than 140 countries visit the exposition. Attendees come to meet existing suppliers, source new products and network with other industry professionals. It is the place where the global seafood industry meets.

Seafood Expo Global/Seafood Processing Global is organized by Diversified Communications, experts in organizing the world’s largest seafood events and leading print and online media. With a reach of more than 26,000 seafood professionals, Seafood Expo Global/Seafood Processing Global benefits from Diversified’s existing relationships and resources to ensure the right buyers, distributors, importers, exporters and wholesalers attend Seafood Expo Global/Seafood Processing Global.

Seafood Expo Global and Seafood Processing Global provides an un-paralleled opportunity for the exporters/importers to market and sell products to the global seafood stakeholders.

THE EXHIBITION

Seafood Expo Global and Seafood Processing Global form the world’s largest seafood trade event. Thousands of buyers and suppliers from around the world attend the annual, three-day exposition in Brussels, Belgium, to meet, network and do business. The gathering who attends the Expo represents importers, exporters, wholesalers, restaurants, supermarkets, hotels, other retail and foodservice companies apart from policy makers, government officials, Market researchers/analysts etc. Exhibiting suppliers offer the newest seafood products, processing and packaging equipment, and services available in the seafood market. The exposition was held from April 24 to 26 at the Expo Centre in Brussels, Belgium.

A total of 1,946 companies from 78 countries have exhibited at this year’s exposition, an increase of 87 companies over 2017, as per the official declaration made by the event organizer. This year’s event has also broken new grounds and records in terms of exhibit space, with more than 39,322
net m² occupied, surpassing last year’s numbers in terms of exhibit space by more than 1000 m².

INDIA’S PARTICIPATION

MPEDA set up an Indian Pavilion in which 19 exporters participated as co-exhibitors displaying a variety of seafood products from India and 65 exporters took table space as participants including 32 exporters who registered onsite based on the availability of table space. The Indian pavilion was located in stall no 7-1633 and 7-1733 and covered a floor space of 480 sq. m area. The stall theme of Indian Pavilion was “Irresistible seafood from Incredible India”.

MPEDA displayed wide variety of seafood consisting of frozen, chilled, dry and ready-to-eat products. Chilled items were displayed by one chiller and frozen and dried items were displayed by two freezers. In addition to seafood, MPEDA publicity literature and books were displayed and distributed to the visitors of MPEDA stall. As done in previous years a special guide containing the details of all the co-exhibitors was prepared and distributed to the visitors, which helped them to identify the right exporter for commencing their business.

Indian delegation was represented by Mr. T. Dola Sankar, IOFS, Director (Marketing), MPEDA, Mr. Maruti D. Yaligar, Deputy Director and Mr. Tambada N. Vishnu, Assistant Director. The Indian team was also well assisted and supported by the team of the Indian Embassy at Brussels. Active presence and participation of the Indian delegates including Mr. Santosh Kumar Sarangi IAS, Joint Secretary, Department of Commerce, Ministry of Commerce and Industry, Govt. of India; H. E. Ms. Gaitri Issar Kumar, Ambassador of India, Brussels; Mr. Saravesh Rai, Adviser (A&M), Embassy of India, Brussels, Mr. Mandlik, Deputy Director, EIC, Delhi, Mrs. Priyadharshini Ravindran, Second Secretary (EU), Embassy of India, Brussels added strength and support to the MPEDA delegation. The timely advices and interactions with the visitors enhanced outreach to more buyers and get them in touch with potential exporters from India.

The novel concept for enhancing the participation of the exporters through free-table space was itself a special attraction this time and it facilitated and channelized the buyers from other countries through MPEDA officials to the Indian participating exporters.


During the first day of SEG, many buyers and visitors visited the MPEDA pavilion and among the highest dignitaries, who visited Indian stall was Ms. Gaitri Issar Kumar, H. E. Ambassador of India to Belgium. She had active
interaction with the co-exhibitors and the participating exporters. Ambassador also led a panel discussion with the exporters from India and took feedback on the antibiotic issues.

MPEDA officials had interaction with the visitors all through the day and based on the outcome of the interaction and based on their requirement, directed them to exporter concerned (co-exhibitors/co-participants) so that they could further their business. Some of the buyers and visitors who were acquainted with their regular exporters directly visited the respective co-exhibitors and co-participants. Among the products displayed in the Indian pavilion, the big size tiger shrimp and groupers kept in chiller were the main attraction for all visitors and buyers.

The well packing of dry and other frozen products attracted many visitors attention towards Indian stalls. Among the enquiries received, it is noticed that many buyers were enquiring about *L. vannamei*, Black Tiger, ready to eat processed products, freshwater prawn and fish fillets.

On the second day, Indian Embassy officials visited the MPEDA stall and co-exhibitors stalls. They have discussed and reviewed the fair and response from overseas buyers. The expo was concluded on third day and the participation in the 2018 edition of Seafood Expo Global provided enhanced exposure to the current products and practices in the global seafood industry, and the European Union in particular.

**SHRIMP DIALOGUE #2**

During Brussels expo, Seafood Importers and Processors Alliance (SIPA) organised a short event of Shrimp Dialogue # 2 in continuation of their Shrimp Dialogue #1 organised at IISS, Goa bringing together the main stakeholders, including the Seafood Export Association of India, the European Commission and business representatives from Europe and from India. The event held at the Cinedoc Room of the Brussels Expo on April 25 and facilitated by SIPA and Willem van der Pijl of Seafood Trade Intelligence Portal. Mr. T. Dola Sankar IOFS, Director (Marketing), MPEDA made an oral presentation on MPEDA’s activities and initiatives in controlling the antibiotic residue in shrimp exporting to EU. Ms. Dr. Sylvie Coulon, Legislative officer, DG- Health and Food Safety an official of European Commission, participated in this session. During her deliberations the following issues has been highlighted for further compliance and its consistency.

- The Competent Authority (CA) of the export agency of India should continue ensuring that aquaculture farms that supply fishery product to EU approved establishments are regularly inspected to verify the EU hygiene provisions.

- Effort should be done at primary production level to mitigate the risks transmitted by domestic producers.

- A better understanding of the situation and cooperation between inspection services regarding the production at primary level should be analyzed.
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Further to query raised by the Director (Marketing) about the re-listing of the firms which were de-listed because of the anti-biotic issues, it was pointed out that "it is premature to draw conclusions and time limit to lift the ban before the publication of the last official audit report and the ongoing residual audit that is being taken place in India".

The concerns raised during the discussion by the official of DG Sante were

- The official controls do not fully cover all primary production, which undermines the ability of the Competent Authority to guarantee that non-eligible fishery product are excluded from the export to EU.

- The focus on export producers only might not be sufficient as the domestic producers share the same water and streams as farms providing material for export to EU.

- Official controls on the landing of wild catch are further required to be focused with close coordination with the departments or agencies concerned.

### MEETING WITH DG SANTE

Team headed by Mr. Santosh Kumar Sarangi IAS, JS, MoCI along with Mr. Sarvesh Rai, Advisor, Embassy of India, Brussels, Mr. T. Dola Sankar, Director (Marketing), MPEDA, and Mr. R.M. Mandlik, Deputy Director, EIC attended a meeting as per the prior-appointment arranged through Indian Embassy with Dr. Michael Scannel, Directorate of Food and Veterinary Office, European Commission, Health & Consumers Directorate General (DG Sante) on April 25 at the office of the latter. Dr. Sylvie Coulon, Legislative Officer, DG-Health and Food Safety was also present.

During the meeting, the following points were presented to DG Sante for substantiating MPEDA’s request for re-listing of the de-listed seafood export firms and bring
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MARKETING NEWS

Officials interacting with visitors and other stakeholders in the Indian Pavilion

MPEDA officials with Mr. R.M. Mandlik, Deputy Director, EIC

Items displayed in MPEDA pavilions in SEG Brussels
MPEDA has enrolled more than 61,000 aqua farms to ensure traceability and facilitated extensively pre harvest test among the primary production level for further ensuring antibiotic residue free aquaculture shrimp export to EU. Enrolment includes capturing of farm coordinates using GPS and further continuing its endeavour for 100% enrolment.

MPEDA is operating a nationwide network of ELISA labs to ensure Antibiotic residue free aquaculture shrimp by issuing Pre-Harvest Tests (PHT) certificates to the Aqua shrimps.

At primary production level, National Residue Control Plan (NRCP) for Aquaculture products has been implemented so as to comply with EU Directive 96/23/EC by four laboratories of MPEDA for analyzing more than 5000 samples annually.

With active persuasion and intervention by MPEDA, the leading aquaculture producing state - Andhra Pradesh, has brought out a government order through which district level and State level task forces have been created to curtail the use of banned antibiotics using a multi-pronged approach - educate, train, collect samples and test, raid and impose penalty on offenders who are found to be using/trading the banned antibiotics.

Commerce Secretary, Govt. of India has written to all the Chief Secretaries of the maritime states to consider taking similar steps in line with the state of Andhra Pradesh to check the sale/use of the banned antibiotics.

The response to MPEDA’s request from DG Sante was positive and further he added that it was premature to arrive at a decision to lift the ban before the publication of the last official audit report and ongoing residual audit that was being taken place in India.

The Indian pavilion had an overwhelming response from buyers, participants and the visitors. It was truly the world’s best show with enormous scope for business and market promotion. The trade enquiries received during SEG-2018 is listed separately in this Newsletter.

The feedback received from the co-exhibitors and participating exporters was overwhelming and satisfactory. There is a very positive feedback on providing maiden free table space this year expo and there is a request from the exporting fraternity that the offer of free table space to be continued in future expos too.
Food market for the elderly offers bright prospects

INTRODUCTION

The current old aged population (more than 60 years old) across the globe is around 143 million. In Asia, many countries face remarkable growth in old aged population. Japan sees her old aged population ratio increase continuously, and the Japanese old aged (more than 65 years old) would be 4 out of ten by 2045. In Korea also, the trend is same as old aged class would occupy 40% of the population by 2045. Other countries that face such a situation in Asia are Singapore, Thailand, Vietnam, Malaysia, Cambodia etc. The old aged population in China is estimated to be 36.8 million by 2035, though the majority of Indian population consists of younger generation now. However, since the basic pie of Indian population is quite huge, the actual absolute population of old aged could be remarkable in numbers, even though the population ratio of old aged is quite limited. By 2050, old aged society would occupy 20% share of the total population (Ref. 1), and hence have to be reckoned as one of the most important consumer group in food sector including seafood, and hence demand specific product development and marketing to cater to it.

FISH CONSUMPTION PATTERN CHANGE BY OLD AGE POPULATION

How consumption market would change by such old age people? Take Japan for instance. The old aged food consumption ratio, including seafood is drastically increasing in short time. The old-aged-fish-consumption-market-share-ratio, which include live, chilled clam items...
etc. has increased around 16% from year 2012 to 2015 and the current old aged consumption ratio of above sector touched around 44%, toward the total consumption of fish of above sector. (Ref.2)

At the same time, there is specific life style and change of physical power among the old aged. Due to weakness of physical power, except for very healthy old aged, they cannot afford to have elaborate dishes that demand sophisticated efforts and power. Hence, old aged prefer soft biting meals and easy-to-cook / prepare items. In countries like Japan or Korea, most of the old aged live single or have a small family. That means family consists of an old couple or father and child or mother and child etc., and need not make a large scale of meal every time, but prefer simple meal made by simple or short cooking or tend to use more of ready to eat value added products.

They also prefer to stay indoors due to physical weakness and at times some old aged are forced to go or stay hospital, or some special nursing home, as it is extremely difficult for the limited family member(s) to take care of old parents.

The catering service such as lunch box, semi-cooked prepared food by using microwave oven etc. for the old aged market is expected to become double in near future. The market for old age meals in hospitals or nursing homes also is drastically rising. The meals are tailored to match the eating style of old aged people. These types of food are preferred by children also as a part of their school lunch box.

PROMINENT CONSUMPTION INCREASE OF VALUE-ADDED PRODUCTS

With this as background, one of supporting index is that remarkable increase in ready-to-eat items, especially in each outlet of convenience stores and super market chains. More than 60% of fish consumption items in old age purchase in super market chains. The fish consumption of above means chilled fish, frozen items like shrimp, dried, finished products on the base of surimi such as Kamaboko etc.

As per Japan Prepared Foods Association, the total market pie of prepared foods in 2016 is 9.84 trillion Yen, showing 2.7% up from same period of 2015. The major contribution, which occupies the major share of prepared foods’ consumption is convenience store.

Also, when considering the consolidated balance sheet of four major fisheries/food companies in Japan, they are enjoying the record-breaking figures. One of major contribution of their highest profit is remarkable increase in handling quantity of value-added products and processed frozen foods. More than 20 years of chronic prolonged economic recession in Japan has changed the consumption pattern. Consumers are searching for easy-to-cook items at home with attractive price i.e., ready-to-eat-items-corner at super market chains etc. with remarkable space expansion of such corner in each outlet.

Convenience store has already started eat-in corner, for single including old aged, to eat frozen food lunch or dinner, after purchasing lunch box, noodles, salad, by using electrical micro wave oven, being installed at each outlet. At home, housewives prefer to use ready-to-eat items by using microwave oven as, younger generation and family do not have enough time for cooking, while old aged have gradually abandoned elaborate cooking by sparing their time and instead, they prefer easy cooking, caused by physical power loss. So, both the generation, prefer ready-to-eat items. Take shrimp for instance, simple PD by using microwave oven can be seen at major display corner at one of the most prestigious department store for old aged and others.

IN JAPAN, THE MARKET FOR BONELESS FISH AND SIMILAR ITEMS IS NOW WORTH 45 TO 50 BILLION YEN.

In Japan, the market for boneless fish and similar items is now worth 45 to 50 billion Yen. Five major companies such as M/s. Dairei, M/s. Maruha Nichiro, M/s. Oka Foods, M/s. Kyokuyo, M/s. Nippon Suisan, holds more than 70% market share for those products there.

The biggest boneless fish fillet company markets more than 30 different variety of boneless fish fillet. However, practically complete boneless fish is not possible, and companies market it as soft food with minimum bone, and at very reasonable price to popularize it. Another major company has started marketing less salty fish for old aged on a health point of view. For example, freeze dried soup with less salt content.

These series of new type of food for old aged, who has biting or chewing problem is becoming promising market year after year. Market reports indicate that suggested production of universal design food, which manly consists of nursing food with soft and less biting parts, touched
22.75 billion Yen in 2016, showing an increase of 12.3% from 2015. There were 1853 commercial nursing food products in the market as on May, 2017. At the same time, in accordance with the decreasing Japanese population, Japanese companies would be forced to target overseas market as main consumption areas for old aged by 2030 or 2040. (Ref.3)

Retort pouch curry, canned curry food is also in good popularity, due to remarkable development of preserved technology for keeping the original good taste. It is said that the curry taste is the final taste, which can easily be recognizable and lasting for the old aged. Japanese like curry taste items very much.

One major company has succeeded in manufacturing the retort pouch food with very low calorie items for diabetes purpose for those old aged who must control their daily calories. Younger population is also attracted to the product alike for health preservation.

Special foods have been developed for disease conditions such as diabetes, kidney diseases, liver diseases, ulcer, anaemia, pancreas diseases, hyperlipidemia, gout, in addition to the special meal prescribed at the time of medical check-up, and are recommended by medical practitioners or dieticians.

Coconut oil-based food is also quite popular for Alzheimer type dementia disorders, though it is being studied. In Japan, it is reported that by 2020, more than 7 million people would be suffering from dementia and more than 50% of dementia is above Alzheimer type, which makes coconut oil based products popular as a precaution.

CONCLUSION

As mentioned earlier, nursing food is emerging market and has bright future from fish consumption point of view. Old aged prefer soften and less biting jelly type food, besides their affinity to curry taste items that tickle their taste buds a bit and gives a lasting taste. Recently, for making up with the feeble biting power of old aged, soft and easy to swallow items are becoming popular. Thanks to the Japanese technology, the appearance of such seems to be regular on the menu.

However, when it comes to swallowing, the product shall melt easily in mouth and give minimum bite for better swallowing. Technology, by using highest pressure has succeeded in making such kind of items. Those machines are not very expensive and can fit in a small space. The production cost is also low in Japanese standards. Most important point to remember is that the hygiene control is much severe than other normal food items, as more than 50% of such nursing food is directly consumed in hospital or nursing homes. The market for such nursing food products paved way to Nursing Care Food Exhibition also.

A joint study by M/s. Nippon Suisan and Ehime University revealed that intake of white meat fish protein is quite
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effective for increasing muscle power in old aged. Study group checked up the relation between muscle power and intake quantity of Pollack meat among women aged more than 65-years. They have found that in case of a 60 kg weighing woman, a dietary supplement of more than 3.3 gram of Pollack protein per day is effective in increasing muscle power. (Ref.4)

Market promotion activities associated to old aged food shall be supported by scientific back up to succeed. Varied taste and palatable product profile that suits the old aged will provide adequate leverage in acceptance and recommendation. Highest food safety control and highest degree of traceability are compulsory to market such products in Japan.

As a conclusion, penetrating to this old aged food market is quite promising, for which an entrepreneur needs to embark on a special project to develop new type of value-added products taking into account the special needs of old aged population.

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Highlights of marine fish landings in selected harbours of India during April 2018

JIGNESH VISAVADIA, V.V. AFSAL, N.J. NEETHU AND JOICE V. THOMAS
NETFISH-MPEDA

INTRODUCTION

Fishery monitoring and catch reporting are essential parts of sustainable management of fishery resources. The concept of Catch Certification Scheme was introduced worldwide with an aim to deter Illegal Unreported and Unregulated (IUU) Fishing. MPEDA, being the nodal agency for validating the Catch Certificate for the export of seafood from India, has mandated NETFISH with collecting information on marine fish catch landings and Fishing vessel arrivals taking place at 47 major harbours and landing centres (Table 1) along the 9 maritime states in India. 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 April 2018.

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

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>State</th>
<th>Fishing harbour</th>
<th>Maharashtra</th>
<th>Karnataka</th>
<th>Odisha</th>
<th>Andhra Pradesh</th>
<th>Tamil Nadu</th>
<th>Goa</th>
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<td>1</td>
<td>Kerala</td>
<td>Beypore</td>
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<td>Puthiyappa</td>
<td>Sasson Dock</td>
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<td>Ratnagiri (Mirkarwada)</td>
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<td>Thottapally</td>
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<td>Namkhana</td>
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EVALUATION ON FISH LANDINGS

The fish catch data obtained from the 47 landing sites during April 2018 totalled to a quantity of 44819.80 tons. This total catch was composed of 17180.29 tons (38%) of Pelagic finfishes, 15036.93 tons (34%) of Demersal finfishes and 12602.58 tons (28%) of Shellfishes, whereby the Pelagic resources contributing the maximum quantity (Fig 1).

The total catch was comprised of 111 varieties of marine fishery items, of which the top five contributors in the chronological order were Japanese thread fin bream, squid, Indian mackerel, ribbon fish, and croaker (Fig 2). These five fishery items together formed 45% of the total catch. The other major fishery items were cuttlefish, lizard fish and tuna each contributing more than 1500 tons to the total landings. The spotted eagle ray, which recorded a quantity of 0.10 tons, was the species which registered the least landing during the month.

The quantity of various fishery items recorded during April 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 mostly comprised of squid, cuttlefish, octopus and whelk formed about 59% of the shellfish landing and the rest 41% were of crustaceans. The crustaceans were mainly comprised of Penaeid shrimps.

<table>
<thead>
<tr>
<th>Fishery item</th>
<th>Quantity in tons</th>
<th>% of total catch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelagic finfish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indian mackerel</td>
<td>3907.77</td>
<td>8.72</td>
</tr>
<tr>
<td>Ribbon fish</td>
<td>3758.05</td>
<td>8.38</td>
</tr>
<tr>
<td>Tuna</td>
<td>2182.09</td>
<td>4.87</td>
</tr>
<tr>
<td>Anchovy</td>
<td>937.93</td>
<td>2.09</td>
</tr>
<tr>
<td>Indian oil sardine</td>
<td>1129.40</td>
<td>2.52</td>
</tr>
<tr>
<td>Scad</td>
<td>1379.44</td>
<td>3.08</td>
</tr>
<tr>
<td>Barracuda</td>
<td>665.32</td>
<td>1.48</td>
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<tr>
<td>Horse mackerel</td>
<td>1038.12</td>
<td>2.32</td>
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<tr>
<td>Seer fish</td>
<td>499.99</td>
<td>1.12</td>
</tr>
<tr>
<td>Leather jacket</td>
<td>270.79</td>
<td>0.60</td>
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<tr>
<td>Trevally</td>
<td>377.77</td>
<td>0.84</td>
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<tr>
<td>Lesser sardines</td>
<td>306.73</td>
<td>0.68</td>
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<tr>
<td>Dolphin fish</td>
<td>156.75</td>
<td>0.35</td>
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<tr>
<td>Bombay duck</td>
<td>161.78</td>
<td>0.36</td>
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<tr>
<td>Mullet</td>
<td>117.69</td>
<td>0.26</td>
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<tr>
<td>Cobia</td>
<td>37.93</td>
<td>0.08</td>
</tr>
<tr>
<td>Marlin</td>
<td>37.00</td>
<td>0.08</td>
</tr>
<tr>
<td>Oriental bonito</td>
<td>36.40</td>
<td>0.08</td>
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<tr>
<td>Sail fish</td>
<td>30.00</td>
<td>0.07</td>
</tr>
<tr>
<td>Needle fish</td>
<td>29.67</td>
<td>0.07</td>
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<tr>
<td>Herring</td>
<td>26.30</td>
<td>0.06</td>
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<tr>
<td>Queen fish</td>
<td>19.89</td>
<td>0.04</td>
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</table>
**FOCUS AREA**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Weight (ton)</th>
<th>Quantity (ton)</th>
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<tbody>
<tr>
<td>Hilsa</td>
<td>16.61</td>
<td>0.04</td>
</tr>
<tr>
<td>Indian thread fish</td>
<td>15.96</td>
<td>0.04</td>
</tr>
<tr>
<td>Seabass</td>
<td>14.37</td>
<td>0.03</td>
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<tr>
<td>Flat needle fish</td>
<td>7.04</td>
<td>0.02</td>
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<tr>
<td>Indian ilisha</td>
<td>6.70</td>
<td>0.01</td>
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<tr>
<td>Indian salmon</td>
<td>5.98</td>
<td>0.01</td>
</tr>
<tr>
<td>Rainbow runner</td>
<td>3.96</td>
<td>0.01</td>
</tr>
<tr>
<td>Silver sillago</td>
<td>2.90</td>
<td>0.01</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>17180.29</strong></td>
<td><strong>38.33</strong></td>
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</table>

**Demersal finfish**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Weight (ton)</th>
<th>Quantity (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese Thread fin bream</td>
<td>5043.50</td>
<td>11.25</td>
</tr>
<tr>
<td>Croaker</td>
<td>2281.03</td>
<td>5.09</td>
</tr>
<tr>
<td>Lizard fish</td>
<td>1696.09</td>
<td>3.78</td>
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<tr>
<td>Sole fish</td>
<td>1056.03</td>
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<tr>
<td>Bull's eye</td>
<td>1077.82</td>
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<tr>
<td>Moon fish</td>
<td>1170.33</td>
<td>2.61</td>
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<tr>
<td>Cat fish</td>
<td>1107.22</td>
<td>2.47</td>
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<tr>
<td>Snapper</td>
<td>459.19</td>
<td>1.02</td>
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<tr>
<td>Reef cod</td>
<td>424.99</td>
<td>0.95</td>
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<tr>
<td>Pomfret</td>
<td>215.89</td>
<td>0.48</td>
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<tr>
<td>Pony fish</td>
<td>194.04</td>
<td>0.43</td>
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<tr>
<td>Eel</td>
<td>85.33</td>
<td>0.19</td>
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<tr>
<td>Ray</td>
<td>78.92</td>
<td>0.18</td>
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<tr>
<td>Goat fish</td>
<td>71.58</td>
<td>0.16</td>
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<tr>
<td>Indian halibut</td>
<td>39.81</td>
<td>0.09</td>
</tr>
<tr>
<td>Emperor bream</td>
<td>9.83</td>
<td>0.02</td>
</tr>
<tr>
<td>Black tip shark</td>
<td>8.91</td>
<td>0.02</td>
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<tr>
<td>Batfish</td>
<td>6.13</td>
<td>0.01</td>
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<tr>
<td>Parrot fish</td>
<td>3.80</td>
<td>0.01</td>
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<tr>
<td>Whip fin silver biddy</td>
<td>2.20</td>
<td>0.00</td>
</tr>
<tr>
<td>Yellow fin sea bream</td>
<td>1.73</td>
<td>0.00</td>
</tr>
<tr>
<td>Filefish</td>
<td>1.60</td>
<td>0.00</td>
</tr>
<tr>
<td>Spine foot</td>
<td>0.80</td>
<td>0.00</td>
</tr>
<tr>
<td>Tiger perch</td>
<td>0.18</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15036.93</strong></td>
<td><strong>33.55</strong></td>
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</table>

**Shellfish**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Weight (ton)</th>
<th>Quantity (ton)</th>
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</thead>
<tbody>
<tr>
<td>Penaeid shrimp</td>
<td>4248.51</td>
<td>9.48</td>
</tr>
<tr>
<td>Sea crab</td>
<td>521.00</td>
<td>1.16</td>
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**Grand Total**

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight (ton)</th>
<th>Quantity (ton)</th>
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<tbody>
<tr>
<td>Non-penaeid shrimp</td>
<td>373.60</td>
<td>0.83</td>
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<tr>
<td>Lobster</td>
<td>34.40</td>
<td>0.08</td>
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<tr>
<td>Mud crab</td>
<td>2.47</td>
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<tr>
<td><strong>Total crustaceans</strong></td>
<td><strong>5179.98</strong></td>
<td><strong>11.56</strong></td>
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**Mollusc**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Weight (ton)</th>
<th>Quantity (ton)</th>
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<tbody>
<tr>
<td>Squid</td>
<td>4630.42</td>
<td>10.33</td>
</tr>
<tr>
<td>Cuttle fish</td>
<td>1759.03</td>
<td>3.92</td>
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<tr>
<td>Octopus</td>
<td>656.45</td>
<td>1.46</td>
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<tr>
<td>Whelk</td>
<td>365.00</td>
<td>0.81</td>
</tr>
<tr>
<td>Clam</td>
<td>11.70</td>
<td>0.03</td>
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<tr>
<td><strong>Total mollusc</strong></td>
<td><strong>7422.60</strong></td>
<td><strong>16.56</strong></td>
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**Total shellfish**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Weight (ton)</th>
<th>Quantity (ton)</th>
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<tr>
<td><strong>12602.58</strong></td>
<td><strong>28.12</strong></td>
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**Grand Total**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Weight (ton)</th>
<th>Quantity (ton)</th>
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<tr>
<td><strong>44819.79</strong></td>
<td><strong>100.00</strong></td>
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**REGION-WISE LANDINGS**

The South West coast, comprised of 16 selected harbours in Kerala, Karnataka and Goa recorded the maximum landings during the month, which was to the tune of 20946.81 tons (47%). This was followed by the North West coast, comprised of seven selected landing sites in Maharashtra and Gujarat coasts, where 20187.31 tons (45%) of fishery resources were landed. Thus the landings from West coast zones together formed 92% 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 2568.41 tons of marine catch landings (6% 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 1117.26 tons (2%).

![Fig. 3. Region-wise landings recorded during April 2018](image-url)
**STATE-WISE LANDINGS**

The state of Gujarat recorded the maximum marine fish landing during April 2018, which was to the tune of 12278.87 tons, forming more than 27% of the total catch (Fig. 5). The next position was held by Karnataka, where a quantity of 9129.25 tons (20%) of fish landing was reported. Kerala held the third place with a total landing of 8022.97 tons (18%). Almost 92% of the total catch was reported from the West coast states. Along the East coast, highest landing was recorded in Tamil Nadu, which was 1619.14 tons (3%). The state of West Bengal, where 365.55 tons of fish landings was reported, was marked as the state with least landing during the month.

**FOCUS AREA**

In South West and South East regions the Pelagic finfishes dominated the landing whereas in North West the landing was dominated by Demersal finfish resources and in North 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.

**Table 3. Major items landed in each region during April 2018**

<table>
<thead>
<tr>
<th>Region</th>
<th>Item</th>
<th>Quantity in tons</th>
<th>% of total landings of the region</th>
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<tbody>
<tr>
<td>South West</td>
<td>Indian mackerel</td>
<td>3196.39</td>
<td>15.26</td>
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<tr>
<td></td>
<td>Japanese Thread fin bream</td>
<td>2298.58</td>
<td>10.97</td>
</tr>
<tr>
<td></td>
<td>Squid</td>
<td>1600.76</td>
<td>7.64</td>
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<tr>
<td></td>
<td>Lizard fish</td>
<td>1178.14</td>
<td>5.62</td>
</tr>
<tr>
<td></td>
<td>Moon fish</td>
<td>1143.87</td>
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<tr>
<td>North West</td>
<td>Squid</td>
<td>2823.99</td>
<td>13.99</td>
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<td></td>
<td>Ribbon Fish</td>
<td>2686.41</td>
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</tr>
<tr>
<td></td>
<td>Japanese Thread fin bream</td>
<td>2685.77</td>
<td>13.30</td>
</tr>
<tr>
<td></td>
<td>Croaker</td>
<td>1468.99</td>
<td>7.28</td>
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<tr>
<td></td>
<td>Indian mackerel</td>
<td>1050.11</td>
<td>5.20</td>
</tr>
<tr>
<td>South East</td>
<td>Tuna</td>
<td>464.25</td>
<td>18.08</td>
</tr>
<tr>
<td></td>
<td>Cuttlefish</td>
<td>263.67</td>
<td>10.27</td>
</tr>
</tbody>
</table>
The major five fishery items which had contributed significantly to the landings in each state during April are given in Table 4.

### Table 4. Major items landed in various states during April 2018

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity in tons</th>
<th>% of total landings of the state</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kerala</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indian Oil Sardine</td>
<td>668.13</td>
<td>8.33</td>
</tr>
<tr>
<td>Squid</td>
<td>594.30</td>
<td>7.41</td>
</tr>
<tr>
<td>Deep sea Shrimp</td>
<td>572.83</td>
<td>7.14</td>
</tr>
<tr>
<td>Indian mackerel</td>
<td>566.90</td>
<td>7.07</td>
</tr>
<tr>
<td>Cuttle Fish</td>
<td>543.52</td>
<td>6.77</td>
</tr>
<tr>
<td><strong>Karnataka</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese Thread fin bream</td>
<td>1665.56</td>
<td>18.24</td>
</tr>
<tr>
<td>Indian mackerel</td>
<td>1002.66</td>
<td>10.98</td>
</tr>
<tr>
<td>Lizard fish</td>
<td>889.52</td>
<td>9.74</td>
</tr>
<tr>
<td>Squid</td>
<td>750.66</td>
<td>8.22</td>
</tr>
<tr>
<td>Ribbon Fish</td>
<td>749.93</td>
<td>8.21</td>
</tr>
<tr>
<td><strong>Goa</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indian mackerel</td>
<td>1212.90</td>
<td>31.96</td>
</tr>
<tr>
<td>Moon fish</td>
<td>843.00</td>
<td>22.22</td>
</tr>
<tr>
<td>Japanese Thread fin bream</td>
<td>274.57</td>
<td>7.24</td>
</tr>
<tr>
<td>Squid</td>
<td>255.80</td>
<td>6.74</td>
</tr>
<tr>
<td>Tuna</td>
<td>206.40</td>
<td>5.44</td>
</tr>
<tr>
<td><strong>Maharashtra</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese Thread fin bream</td>
<td>1485.77</td>
<td>18.79</td>
</tr>
<tr>
<td>Ribbon Fish</td>
<td>723.41</td>
<td>9.15</td>
</tr>
<tr>
<td>Croaker</td>
<td>703.99</td>
<td>8.90</td>
</tr>
<tr>
<td>Brown Shrimp</td>
<td>623.29</td>
<td>7.88</td>
</tr>
<tr>
<td><strong>Horse mackerel</strong></td>
<td>571.71</td>
<td>7.23</td>
</tr>
<tr>
<td><strong>Gujarat</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squid</td>
<td>2290.50</td>
<td>18.65</td>
</tr>
<tr>
<td>Ribbon Fish</td>
<td>1963.00</td>
<td>15.99</td>
</tr>
<tr>
<td>Japanese Thread fin bream</td>
<td>1200.00</td>
<td>9.77</td>
</tr>
<tr>
<td>Cat fish</td>
<td>845.50</td>
<td>6.89</td>
</tr>
<tr>
<td>Croaker</td>
<td>765.00</td>
<td>6.23</td>
</tr>
<tr>
<td><strong>Tamil Nadu</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuna</td>
<td>292.99</td>
<td>18.10</td>
</tr>
<tr>
<td>Cuttle Fish</td>
<td>251.93</td>
<td>15.56</td>
</tr>
<tr>
<td>Squid</td>
<td>135.74</td>
<td>8.38</td>
</tr>
<tr>
<td>Indian Oil Sardine</td>
<td>114.91</td>
<td>7.10</td>
</tr>
<tr>
<td>Anchovy</td>
<td>53.52</td>
<td>3.31</td>
</tr>
<tr>
<td><strong>Andhra Pradesh</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuna</td>
<td>171.26</td>
<td>18.04</td>
</tr>
<tr>
<td>Brown Shrimp</td>
<td>133.42</td>
<td>14.05</td>
</tr>
<tr>
<td>White Prawn</td>
<td>119.71</td>
<td>12.61</td>
</tr>
<tr>
<td>Pink Shrimp</td>
<td>83.25</td>
<td>8.77</td>
</tr>
<tr>
<td>Tiger Prawn</td>
<td>62.23</td>
<td>6.56</td>
</tr>
<tr>
<td><strong>Odisha</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Croaker</td>
<td>189.40</td>
<td>25.20</td>
</tr>
<tr>
<td>Karikkadi Shrimp</td>
<td>156.59</td>
<td>20.83</td>
</tr>
<tr>
<td>Tuna</td>
<td>58.37</td>
<td>7.76</td>
</tr>
<tr>
<td>Sea Crab</td>
<td>52.80</td>
<td>7.02</td>
</tr>
<tr>
<td>Squid</td>
<td>40.00</td>
<td>5.32</td>
</tr>
</tbody>
</table>
HARBOUR-WISE LANDINGS

Figures 6 & 7 represents the fish landings recorded during the month at the selected harbours along West and East coasts respectively. Of the 47 harbours, Porbandar harbour registered the maximum landing of 5585.97 tons (12%) and it was followed by Malpe harbour with a contribution of 4808.41 tons (11%). Mangalore harbour with a quantity of 3842.84 tons (9%) and Veraval harbour with a quantity of 3775.90 tons (8%) held the subsequent positions. Along East coast, the harbour which recorded the highest landing was Visakhapatnam where 664.74 tons (1%) was landed. The least quantity of landings was recorded from Karwar harbour (0.94 tons).

EVALUATION ON BOAT ARRIVALS

A total of 21677 numbers of boat arrivals were recorded during April 2018, of which the highest number of boat arrivals was registered at Veraval harbour (3406 nos.). The Porbandar harbour with 2515 numbers of boat arrivals held the next position. Only five 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 72% 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 April 2018

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Fishing harbours</th>
<th>State</th>
<th>Number of boat arrivals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Veraval</td>
<td>Gujarat</td>
<td>3406</td>
</tr>
<tr>
<td>2</td>
<td>Porbandar</td>
<td>Gujarat</td>
<td>2515</td>
</tr>
<tr>
<td>3</td>
<td>Mangrol</td>
<td>Karnataka</td>
<td>1993</td>
</tr>
<tr>
<td>4</td>
<td>Mangalore</td>
<td>Karnataka</td>
<td>1747</td>
</tr>
<tr>
<td>5</td>
<td>Harne</td>
<td>Maharashtra</td>
<td>1085</td>
</tr>
</tbody>
</table>

COMPARATIVE ANALYSIS

Table 6 presents the comparison of the data of April with that of previous months. The total fish catch had decreased by more than 17000 tons during April when compared to that of March. The Pelagic finfish continued as the top contributor but with 1% decrease in percentage share than that of previous month. The percentage share of Demersal finfish resources increased by 2% and whereas the percentage share of shellfish landing had decreased by
1%. Japanese thread fin bream emerged as the topmost contributor among the various fishery items landed, with an 11% share of total catch and the squid was pushed to the second position. The state of Gujarat continued recording the highest landing in a month and the Porbandar harbour in Gujarat attained the top position among the 47 harbours. The total number of boat arrivals recorded had decreased in April by around 6000 boats when compared to that of March.

**SUMMARY**

In April 2018, a total landing of 44819.80 tons of marine fishery resources were recorded from the 47 major fish harbours of India, wherein pelagic finfishes contributed more quantity than demersal finfishes and shellfish stocks. Considering the fishery item wise landings, Japanese thread fin bream was the major contributor. Landings from the West coast states together formed more than 92% of the total catch, and the South West coast contributed the maximum share of 47%. The state of Gujarat recorded the highest catch among the 9 maritime states. Of the 47 selected harbours, 12 harbours recorded more than 1000 tons of fish landings and the Porbandar harbour registered the highest landing. In terms of boat arrivals, the Veraval harbour recorded the maximum boat arrivals. Along East coast Trawl ban has commenced on 15th April and this was the major reason for very low landing reports from the East coast states, which in turn has affected the total catch records.

**Table 6. Comparative analysis of the data**

<table>
<thead>
<tr>
<th></th>
<th>February 2018</th>
<th>March 2018</th>
<th>April 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Catch</strong></td>
<td>61,463.55 t</td>
<td>62,203.72 t</td>
<td>44,819.80 t</td>
</tr>
<tr>
<td>Landing of Pelagic finfishes</td>
<td>27,282.94 t (44%)</td>
<td>24,254.18 t (39%)</td>
<td>17,180.29 t (38%)</td>
</tr>
<tr>
<td>Landing of Demersal finfishes</td>
<td>18,369.24 t (30%)</td>
<td>20,134.22 t (32%)</td>
<td>15,036.93 t (34%)</td>
</tr>
<tr>
<td>Landing of Shellfishes</td>
<td>15,811.37 t (26%)</td>
<td>17,815.32 t (29%)</td>
<td>12,602.58 t (28%)</td>
</tr>
<tr>
<td>Species recorded highest landing</td>
<td>Squid (10%)</td>
<td>Squid (9%)</td>
<td>Japanese Thread fin bream (11%)</td>
</tr>
<tr>
<td>State recorded highest landing</td>
<td>Gujarat (32%)</td>
<td>Gujarat (28%)</td>
<td>Gujarat (27%)</td>
</tr>
<tr>
<td>Harbour recorded highest landing</td>
<td>Veraval (14%)</td>
<td>Beypore (18%)</td>
<td>Porbandar (12%)</td>
</tr>
<tr>
<td><strong>Total Boat Arrivals</strong></td>
<td>26,964</td>
<td>27,512</td>
<td>21,677</td>
</tr>
</tbody>
</table>

*Percentage of Total Catch*
Participation in Mathrubhumi Karshika Mela 2018

MPEDA Regional Division, Kochi jointly with NETFISH took part in the 'Mathrubhumi Karshika Mela (Agri Fest) 2018' held at Perumbavoor Government Boys Higher Secondary School Ground from April 4 to 10.

Mr. Eldhose Kunnappilly, Perumbavoor MLA, inaugurated the Agriculture Fair. In the MPEDA/NETFISH stall, a demo unit of Aquaponics system was set up, which attracted huge number of visitors. The crowd showed keen enthusiasm to know about the Aquaponics system and enquired about the cost for setting up such a unit at home. The entire fact and figures about Aquaponics were explained and hand-outs on Aquaponics were distributed to those who were interested.

Apart from the aquaponics unit, a few posters by NETFISH depicting information on NETFISH activities, trawl ban period, fish production of Kerala, Minimum Legal Size in fisheries and coastal pollution were also displayed in the stall for the public.
Shrimp Hatchery - Shrimp Farming - Fish Hatchery - Fish Farming

“Through technology, innovation and our strong commitment to product quality and service, we aim to help Aqua farmers to accomplish their goal of good production with maximum return on investment”

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Workshop for the Preparation of National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing was organized by the Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO), based on the directives of the Department of Animal Husbandry Dairying & Fisheries, Ministry of Agriculture & Farmers Welfare, Government of India. The workshop was held on April 23 and 24 at Hotel The Raintree, Alwarpet, Chennai.

The member countries of the Food and Agriculture Organisation of the United Nations (FAO-UN) had agreed in 2001 to the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU). The IPOA-IUU need to be developed as a voluntary instrument within the framework of the Code of Conduct for Responsible Fisheries and applies to all states and entities and to all fishers. Since 2001, implementation of measures to prevent, deter and eliminate IUU fishing has gained considerable significance and the IPOA-IUU has also formed the basis of European Union's legislation entitled 'Council Regulation (EC) No 1005/2008 of 29 September 2008 – Establishing a Community System to Prevent, Deter and Eliminate IUU Fishing'. Parallel to this development, implementation of measures to prevent, deter and eliminate IUU has also become an important agenda of most of the fisheries related International Agreements/Arrangements to which India is signatory and thereby committed to abide by their resolutions.

In this context, it is also relevant to highlight the IUU related resolutions of the Indian Ocean Tuna Commission, a Regional Fisheries Management Organisation (RFMO), which manages the fishery of tunas and tuna like species and also the by-catch associated with such fisheries in the Indian Ocean region. Further, the IUU matters are now also becoming a critical part of the negotiations at the World Trade Organization on the subject of fisheries subsidies, in which India is taking a leading role. The IPOA-IUU elaborates upon a set of action points for consideration of the FAO-UN member-states, which inter alia include development and implementation of a National Plan of Action to Prevent, Deter and Eliminate IUU fishing (NPOA-IUU).

Dr. T. R. Gibinkumar and Dr. Shine Kumar C. S., Deputy Directors of MPEDA, were deputed to participate in this
Apart from officials from MPEDA, officials from other departments such as Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare; Ministry of Environment, Forests and Climate Change; Marine Mercantile Department; Indian Coast Guard; Coastal Marine Police; Representatives from the Fisheries Departments of 13 coastal States and Union Territories; R&D Institutions (FSI, CMFRI, CIFT, CIFNET); NITI Aayog; NGOs; Fisher’s Organizations; International/Regional Organizations; IIFT and Bay of Bengal Programme Inter-Governmental Organisation attended this workshop.

Presentations, deliberations, group discussions and brainstorming sessions were included in the workshop that was divided into four sessions covering two days.

During the first and second sessions of the workshop, presentations were made on Status of Marine Fisheries in India with particular reference to IUU Fishing, Definition and scope of IUU Fishing in International and Regional Fisheries Instruments, Extent and impact of IUU Fishing in the Indian EEZ and adjacent seas: Evidences from global and regional studies, Presentation from coastal States/Union Territories on challenges of IUU fishing within their domain and India’s readiness to address IUU Fishing by its domestic fishing vessels: Legal and Policy Analysis.

Group discussions were conducted after dividing the delegates into three groups and deliberations were made on the following topics by each group on the interventions and actions required to be done at Central Government level, State Government level and on the technical requirements for requirements for preparation of NPOA-IUU (Legal and policy aspects), requirements for preparation of NPOA-IUU (Human Capacity Enhancement) and methodology and timeline for preparation of NPOA-IUU.

The groups presented their discussion points and the same was compiled by BOBP. In the concluding remarks BOBP informed that a draft National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing will be prepared and will be circulated among the participants of workshop for further comments.

The public review of the NPOA-IUU will be made during May to December 2018 as per the work plan and final report will be submitted to DAHDF for adoption in the first quarter of 2019.
What is Dumping? (As per WTO definition) Dumping is, in general, a situation of international price discrimination, where the price of a product when sold in the importing country is less than the price of that product in the market of the exporting country. Thus, in the simplest of cases, one identifies dumping simply by comparing prices in two markets.

However, the situation is rarely, if ever, that simple, and in most cases it is necessary to undertake a series of complex analytical steps in order to determine the appropriate price in the market of the exporting country (known as the “normal value”) and the appropriate price in the market of the importing country (known as the “export price”) so as to be able to undertake an appropriate comparison.

Method for calculation of antidumping rates by different countries

(I) KOREA

The commission calculating anti-dumping duty determines dumping margin as the difference between the weighted average normal value and the weighted average import price over the period of investigation. Normal value is calculated using one of the four methods

(a) Normal value as the exporting country’s sales price in its domestic market.

However, if more than 20 percent of the exporting country’s domestic sales are made at prices below their average cost of production/ the value of exporting country’s domestic sales are less than five percent of the value of Korean imports from the exporting country, the Commission may calculate
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the normal value using one of the two alternative methods.

(b) Normal value will be calculated from price of sales from exporting countries to third countries.

(c) Constructed normal value can be from exporting countries cost of production plus administrative selling cost and profit.

(II) INDIA

There are two fundamental parameters used for determination of dumping, namely, the normal value and the export price. Both these elements have to be compared at the same level of trade, generally at ex-factory level, for assessment of dumping.

If the normal value cannot be determined by means of the domestic sales, the following two alternative methods may be employed to determine the normal value:

(a) Comparable representative export price to an appropriate third country.

(b) Constructed normal value, i.e. the cost of production in the country of origin with reasonable addition for administrative, selling and general costs and reasonable profits.

(III) EU

Under EU rules, normal value in market economy countries may be calculated in one or more of the following ways:

(a) On the basis of domestic sales prices of the exporting producer;

(b) On the basis of prices of other exporting sellers or producers in the same country;

(c) On the basis of export prices to a third country; or

(d) By constructing a normal value based on the costs of production plus a reasonable amount to cover selling, general and administrative costs and profit.

(IV) USA

Zeroing methodology is a calculation device used by the United States to establish this anti-dumping duty. WTO rulings have confirmed that this method increases, often substantially, the exporter’s margin of dumping and thus the amount of anti-dumping duty that the exporter has to pay.

When applying zeroing, the US compares the price of the product in the export market with the price of the product in the US market, but disregards, by setting at zero, all transactions in which the price of the product in the export market is smaller than the price on the US market. The US authorities would hence, by ignoring all negative price differences find a dumping margin with the positive price difference and therefore apply a duty rate based on the positive price difference as a percentage of the total export sales value. The practice of applying zeroing has an impact in most US anti-dumping cases.

In 2004 and 2007, the EU launched WTO disputes against the US for the use of a methodology called “zeroing” in the calculation of anti-dumping duty rates. EU’s initiative was followed by a number of countries including Brazil, China, Ecuador, Japan, Korea, Mexico, Thailand and Vietnam who lodged similar cases. On February 14, 2012, the DOC published its final notice of policy change on zeroing under URAA Section 123 in the Federal Register.

DIFFERENTIAL PRICING

Under the differential pricing, US can choose between three different comparison methodologies.

(1) Comparing the weighted-average normal values to the weighted-average export prices or constructed export price (Average-to-Average);

(2) Comparing the normal values of each individual transaction to the export prices or constructed export
prices of the individual transaction (Transaction-to-Transaction); and

(3) Comparing the weighted-average normal value to the export prices, or constructed export prices, of individual transactions (Average-to-Transaction).

The average to transaction method should be used in exceptional cases, where export prices differ significantly among purchaser, region or period of time.

In the case of average to average methodology, monthly weighed average normal value is subtracted from monthly weighed average value export or constructed export price. The 12 monthly averages are then aggregated to one weighed average dumping margin.

In the average to transaction methodology, monthly weighed average normal value is subtracted from individual export transactions. Commerce assigns a value of zero to any negative individual dumping margins before weight-averaging those margins with the positive individual dumping margins. This is zeroing, which has been explained above.

The extent of all significant price differences for sale is determined by Cohen's test. If Commerce finds that less than 33% of sales pass the Cohen's d test, it will apply the Average-to-Average (A-A) comparison methodology to all sales.

If Commerce finds that more than 33% but less than 66% of sales pass the Cohen's d test, it will apply the Average-to-Transaction (A-T) comparison methodology to sales that passed the test. If Commerce finds that more than 66% of sales pass the Cohen's d test, it will apply the Average-to-Transaction (A-T) comparison methodology to all sales.

CONCLUSION

Anti-dumping measures are a tool to protect the domestic market of a country. The methodology used to determine dumping should be clear and transparent.

Targeted dumping requires the petitioner (US industry) to specify the customer, region or time involved but in the case of differential pricing, it is applied automatically to all customers, region or period without any allegation.

Differential pricing methodology used by US needs to be studied on case-by-case basis before implementation as a rule for calculation of antidumping duty rates. Cohen's d test is not the final method to measure differential pricing.

<table>
<thead>
<tr>
<th>Percentage of total sales that represent the sales that passed the Cohen’s d test</th>
<th>Applicable methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>66% or more</td>
<td>A-T methodology to all sales</td>
</tr>
<tr>
<td>More than 33% and less than 66%</td>
<td>A-T methodology to sales that passed the test Cohen’s d test</td>
</tr>
<tr>
<td>Less than 33%</td>
<td>A-A methodology for sales that failed the test</td>
</tr>
</tbody>
</table>

Cohen's d test is a recognized and accepted statistical tool, but its utilization is not indiscriminate. Cohen's d is the appropriate effect size measure if two groups have similar standard deviations and are of similar size.

Even if WTO GATT 1994 mentions the rules for calculation of dumping margins and duty assessment, it does not specify the statistical tool used to determine the same.
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   in Antidumping and International Pricing.
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Farmers Meet on “Seabass Culture”

In order to create awareness among seabass farmers in and around Krishna District, MPEDA, Regional Division, Vijayawada organized one day “farmers meet on seabass culture” at Mandal Praja Parishad Office Meeting hall, Kalidindi, Krishna district on May 3. This was the part of diversification activity taken up for aquaculture.

After registration of farmers, the meeting started with welcome address by Mr. Anil Kumar P., Joint Director, MPEDA, who emphasized the importance of seabass culture being considered as alternative species for aquaculture. He spoke on seabass having very good market rate and no serious disease problems during the culture period as compared with shrimp. He also told the farmers about RGCA, a society under MPEDA, having a seabass hatchery at Sirkazhi, Tamil Nadu and that seeds are supplied from there to farmers from different states.

In his felicitation, Mr. Yakub Bhasha, Joint Director of Fisheries, Department of A. P., explained about financial assistance/support extended to the seabass farmers by Fisheries Department.

Mr. Yakub Bhasha thanked MPEDA for organising farmer’s meet on seabass culture and requested farmers make use of technical guidance from MPEDA. He also requested MPEDA, to conduct one demonstration in seabass culture to create awareness among farmers.

Mr. Steven Davies, an expert from Australia gave a talk on Baramundi (Seabass) cage farming in Australia. He also explained the feeding methodology in open cage culture practices in Australia. He highlighted the international marketing of Seabass and urged farmers to maintain quality.

Mr. Archiman Lahiri, Deputy Director, MPEDA spoke about his practical experience of partly cage and partly open pond culture practiced in Thailand. He asked farmers to adopt the system without much expenditure to reap immediate results. He explained that in Thailand seabass farming was practicing in intensive farming yielding 17 Tons/ha.

Dr. G. Ganesh, Assistant Director, MPEDA, Satellite Centre, Nellore spoke about hatchery and grow out culture of Seabass as developed in RGCA. He explained the status on Seabass aquaculture in India. He explained in detail seabass hatchery techniques developed by MPEDA - RGCA, importance of cage farming, weaning the fries with artificial diets, grading, packing & seed transportation. He explained detailed systems followed by RGCA at Karaikal Demonstration farm for Seabass farming.

Mr. K. Shanmukha Rao, CEO, NaCSA gave a talk on role of NaCSA in formation of Aqua Societies for sustainable development. He also explained about BMP’s and its
importance in aquaculture.

Rambabu, Manager from M/s. Growel Feed Company explained about the feed company and production of seabass feed. He also displayed different grades of seabass feed manufactured by their company.

In the interaction session, farmers clarified their doubts about seed availability, feed management, marketing facilities, culture technologies with the speakers. The problems arising due to use of Tilapia as live feed was established and made clear to farmers.

The farmers meet concluded by vote of thanks by Mr. B. Narasimnha Rao, Assistant Director, MPEDA, Vijayawada.

A view of the participants
CAR-CIBA developed a cost effective and quality shrimp feed using indigenous feed ingredients for vannnamei shrimp farming, and the feed is promoted as the 'Vanami plus'. The technology is being transferred to series of private entrepreneurs for up-scaling and commercial production on a non-exclusive basis.

Adding to the list, Dr. Attar Aqua Feed commissioned a new feed mill at Bhiwani, Haryana by adopting Vanami plus feed technology of CIBA, through an MoU. It is a first of its kind in Northern India, which will be a great advantage for shrimp farmers in inland saline regions of Punjab, Haryana and Rajasthan, where the feed is brought from the southern states.

The feed mill was inaugurated by Dr. K. K. Vijayan, Director CIBA and Dr. Pravin Puthra, Assistant Director General of ICAR on May 15. With the indigenous feed technology from CIBA and an installed production capacity of 750 kg/hour, this mill can produce 8-10 ton of feed per day. The production started right on the day of inauguration by Dr. Attar Aqua Feed, at Dohki village, Charkhi Dadri district, Haryana.

At the opening of the feed mill, a farmers meeting was organised with the farmers from Haryana, Punjab and Rajasthan. Dr. K. K. Vijayan, talking on the occasion, explained this model as 'Factory to Farm', where the farmer can take the fresh feed directly from the feed mill to their farm, bypassing the agents, also savings on dealer margin. He assured that this would increase the profit margin of farmers by 20%.

Dr. Pravin, ADG (Fisheries), ICAR highlighted the role played by the CIBA in the technology backstopping to the aqua farmers. He appreciated the efforts of CIBA in developing such cost-effective technologies and stressed about the significance of this technology in reducing the cost of production of shrimp in the northern part of India, and would be a boon to small and medium farmers in the country.

Mr. Vinod Poonia, shrimp farmer and Managing Partner of Dr. Attar Aqua Feed, welcomed the farmers and briefed about the background about the joint initiative of establishing the first shrimp feed mill in the northern part of India. He also stressed on the challenges faced in establishing the shrimp feed mill and he thanked CIBA team for their guidance and help in establishing the feed mill in record time and quality shrimp feed production.
Dr. K. Ambasankar, Principal Scientist and team leader for the nutrition and Feed development program of CIBA, briefed about the significance of this MoU and highlighted the genesis of this initiative and opined that the success of this model would pave the way for many youngsters to enter in agribusiness.

Mr. Jose Antony, Scientist CIBA, gave an overview about the shrimp farming in the inland saline area and the BMPs to be followed for sustainable shrimp aquaculture, in the inland saline region. Mr. Anil Poonia from Dr. Attar Aqua Feed.

This was followed by interaction session wherein farmers interacted with the scientific team from CIBA, and clarified their queries. At the end of the interaction a field visit to the feed mill and shrimp farm was arranged.

About 150 farmers from Haryana, Punjab and Rajasthan participated in the programme. This agri-business initiative will set an example for more youth to come under the Attracting and Retaining Youth in Agriculture (ARYA) programme in the future.
In a first for the country’s aquaculture sector, the Marine Products Export Development Authority (MPEDA) has successfully demonstrated open pond culture of Asian Seabass (*Lates calcarifer*). This is expected to increase significantly the yield of this delectable much-in-demand seafood with huge export potential and help small and marginal farmers to adopt this method in a cost-effective manner.

The demonstration was made by the Rajiv Gandhi Centre of Aquaculture (RGCA), the Research & Development (R&D) arm of the MPEDA, at its demonstration farm at Karaikal in Pondicherry. Seabass, which is reared through ‘cage culture’, fetches a price of more than Rs 400 per kg in the domestic market and can yield 9.0 tons per hectare under the open pond culture system.

MPEDA Chairman Dr. A. Jayathilak IAS was present when the first catch of seabass, weighing on average 1.5 to 2 kg, was brought ashore. Nearly 1.10 tons fish was caught in a single haul from the Karaikanal demonstration farm. After the catch, he said it would be the best alternate species for shrimp which contributes more than 70 per cent of seafood exports.

"Diversified aquaculture is the key for sustainability. This kind of diversified fish is quite promising and it has the potential to significantly add to the seafood export basket. The production of up to nine tons per hectare is really encouraging. In the future, the production will be scaled up by keeping in mind the sustainability and eco-friendly culture practices,” he said, adding that “the technology for commercial production of these species would be made available to farmers very soon by RGCA.”

Dr. A. Jayathilak IAS, who is also President of RGCA, said the cage culture in ponds is a suitable method for growing Seabass, but investment costs are high and cannot be afforded by small and margin farmers.

"But the open pond culture method can help these small farmers without much investment. The new method was tried for the first time in Karaikal and it proved successful,” he pointed out.

The demonstration farm measuring 4.00 hectares belongs to the Puducherry government and it was leased out to RGCA in 2000, which has achieved a string of milestones from 2002 onwards. A number of farmers, students and researchers from India, besides foreign scientists and entrepreneurs from countries like Australia, USA, the Philippines, Thailand and Vietnam, have visited this farm.

At present, this is the best demonstration farm for seabass
and mud crab and the most ideal place for learning techniques and hands on training. So far, around 2,000 participants have been trained in this farm.

Dr. Jayathilak said RGCA is concentrating its research on seed production, nursery rearing and grow-out methods of various species like Cobia, Artemia, Scampi, Tilapia, Pompano, Grouper and Red Snapper fishes for both brackish and marine waters. While GIFT Tilapia is suited for fresh water aquaculture, mudcrab and Artemia are also the best species for diversified aquaculture, which suits women entrepreneurs, especially self-help groups.

Marine products export has been projected at 11.35 lakh MT worth six billion dollars in 2017-18, which is $300 million more from $5.7 billion in the previous year. “However, it is centric to shrimp which contributes more than 70 per cent. The new open pond culture method will greatly spur the diversification of India’s aquaculture sector,” he said.
MPEDA Sub Regional Division, Bhimavaram, organized a one-day awareness campaign against the use of banned antibiotics in aquaculture and discussion on reduction of farm gate price on May 10 at the office of the Agriculture Market yard Committee, Palakollu, West Godavari district.

The main objective was to educate the farmers and creating awareness against the use of banned antibiotics and adoptions of BMPs in shrimp culture and discussion on reduction of farm gate price. The programme was attended by 40 lead farmers and officials.

Dr. Nimmala Ramanayudu MLA, Palakollu; Mr. Anil Kumar P., Joint Director, MPEDA Regional Division, Vijayawada; Mr. G. Gandhi Bhagavan Raju, AMC, Chairman, Palakollu; Dr. Anjali, Joint Director of Fisheries, West Godavari District, Dept. of Fisheries; Mr. Koteswara Rao, Additional Director of Fisheries cum Principal SIFT, Kakinada; Mr. K. Sanmukha Rao, Chief Executive Officer, NaCSA, Kakinada; Dr. Phani Prakash, Deputy Director of Fisheries, West Godavari District, Dept. of Fisheries and Dr. P. Sreenivasulu, Assistant Director, MPEDA, Sub Regional Division, Bhimavaram attended the programme.

Dr. P. Sreenivasulu, Assistant Director, MPEDA, Bhimavaram welcomed the all the officials and made a brief presentation on the objective of the programme.

Mr. Anil Kumar P., Joint Director, MPEDA made a presentation on export trend in last two years comparing with the year 2018. He also explained the reasons behind the downfall of rates and advised for solving the current issues in aquaculture. He pointed out that the main reasons for this was the increased concern about the antibiotic residues in farmed seafood especially shrimp. The increase in the checking for antibiotics at the EU resulting in rejection of containers has contributed to decline in the farm gate prices of shrimp. The good harvests of farmed shrimp in South East Asia had increased supply of shrimp to the export market. He explained about the launching of MPEDA Fish Exchange Portal for eliminating the middleman and introduction of SIMP programme by USA.
PRODUCTS LIST

➤ BIWET - I
Phosphate free Moisture retainer & texture enhancer for Cephalopods

➤ ACUATIC - K
Whitening & Brightness enhancer for Cephalopods

➤ ARTIC - L
Glazing agent for Cephalopods & Shrimps

➤ ARTIC - P
Glazing agent for Cephalopods & Fish
Dr. Nimmala Ramanayudu, MLA, Palakollu, requested the Government for controlling the seed and feed cost. He also quoted the shrimp rate should be published in daily newspaper like egg and poultry prices. He added up majority of the farmers are always in losses when compared with exporters and feed manufacturers are getting profit.

Mr. Koteswara Rao, Additional Director of Fisheries cum Principal SIFT, Kakinada spoke about the use of inputs without Coastal Aquaculture Authority (CAA) registration as a possible cause of entry of antibiotics in shrimp farming. Many of these unregistered products may contain antibiotics and the farmers may not be aware of it as it may not be shown in the input label. He said that the State Government would be conducting raids/surprise inspections on the aquashops and punitive action would be taken.

Mr. Gandhi Bhagavan Raju, AMC, Chairman, Palakollu said that all stakeholders have equal responsibility in developing this industry. There must be control on purchase price by the Government. The Pre Harvest Test certificates should be mandatory to all aquaculture produce. The MPEDA should ban the establishment for minimum three years if it is found using antibiotics. Sufficient laboratory and cold storage to be proposed and established by the Government.

Mr. B. Suryanarayana Raju, progressive farmer, Medapadu said that it would be better if the hatcheries producing seed with antibiotic residue is banned for a period as a punishment. He urged that all the inputs shall be tested by the government laboratories for antibiotic residues.

Mr. B. Venkata Seshayya, progressive farmer, Palakollu talked about MPEDA giving a thrust to value addition to shrimp so that better prices are obtained by the farmers.

The MPEDA Laboratory and offices are required for every mandal in west Godavari district, based on the production area for which farmers are ready to give the donation.

Dr. Nimmala Ramanayudu, MLA, Palakollu distributed the farm enrolment gold card to the farmers. Dr. P. Sreenivasulu, Assistant Director, MPEDA, Bhimavaram proposed the vote of thanks.
INTRODUCTION

MPEDA-RGCA’s GIFT Tilapia Project at Monikonda village in Krishna district of Andhra Pradesh is aimed at developing and disseminating technologies on breeding, ALL MALE seed production and grow out farming of genetically improved GIFT tilapia. GIFT belongs to the species Oreochromis niloticus and is one of the most productive and internationally traded food fish in the world.

The project facility consists of a Genetic Nucleus Breeding Centre of GIFT strain established in technical collaboration with World Fish, Malaysia. The project runs a fully pedigreed selective breeding programme that can support emerging Satellite Breeding Centres and Hatcheries across the country through supply of selectively bred high quality germplasm. In addition to the supply of broodstock, all male seeds of GIFT tilapia also supplied to the registered farmers for culture. This centre also imparts training and offer consultancy services for Tilapia aquaculture in our country.

TRIAL CULTURE IN CAGES IN POND AT SPICES PARK, VANKAYALAPADU OF GUNTUR DISTRICT ANDHRA PRADESH

As per the instruction from Chairman MPEDA and under the supervision of the Deputy Director, Spices Park in Guntur, MPEDA-RGCA successfully demonstrated tilapia culture in the ponds available at the campus. A team of RGCA officials visited the site on October 17, 2017 and the team found the water parameters in the pond is suitable for Tilapia culture and recommended for cage culture of GIFT Tilapia in ponds.

The animals were stocked in the cages and periodical visits for sampling and health status assessment was performed by MPEDA-RGCA officials. The detailed report of culture is furnished below.
AQUACULTURE SCENE

Pond Details

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Total area of the pond</td>
<td>0.8 acre(approx.)</td>
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<tr>
<td>No of ponds</td>
<td>1nos</td>
</tr>
<tr>
<td>Size of ponds</td>
<td>70x50 mts</td>
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</table>

Farm Address

Spices park, MoCI, Edlapadu village, Guntur district, Andhra Pradesh.

<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Date of stocking</td>
<td>14 Nov 2017</td>
</tr>
<tr>
<td>Date of harvesting</td>
<td>19 May 2018</td>
</tr>
<tr>
<td>Days of culture</td>
<td>186 days</td>
</tr>
<tr>
<td>Size of cage</td>
<td>3x3x1 mts</td>
</tr>
<tr>
<td>Total no of fingerlings stocked</td>
<td>120 nos</td>
</tr>
<tr>
<td>Size at stocking</td>
<td>3.0 g</td>
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<tr>
<td>Total biomass stocked</td>
<td>360 g</td>
</tr>
<tr>
<td>Total no of fish harvested (from cage)</td>
<td>76 nos</td>
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<tr>
<td>Survival in cages (excluding escaped fishes from open pond)</td>
<td>63%</td>
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<tr>
<td>Total biomass harvested</td>
<td>40 kg</td>
</tr>
<tr>
<td>Abw at harvest</td>
<td>550 g</td>
</tr>
<tr>
<td>Max size</td>
<td>750 g</td>
</tr>
<tr>
<td>Min size</td>
<td>500 g</td>
</tr>
<tr>
<td>Feed used</td>
<td>uno feed</td>
</tr>
<tr>
<td>Quantity of feed used</td>
<td>45 kg</td>
</tr>
<tr>
<td>Feed conversion ratio</td>
<td>1 : 1.12</td>
</tr>
</tbody>
</table>

OBSERVATIONS

It was observed during the rearing period that the appearance/pigmentation and the health of the animal was very good.

The effort taken by the officials of the Spices Park, Guntur on trial culture of GIFT tilapia in water in-bounded area is encouraging based on this culture. This is not done for any commercial viability purpose rather than its suitability in particular region. It proved that this is successful methods to culture GIFT in water in-bounded areas. Since result is encouraging, culture can be expanded in remaining areas with necessary government approvals as per the guidelines of MoAH & FW so as to make it commercially viable.
MPEDA Satellite centre, Nellore initiated distribution of aqua farm enrolment card at Nellore district through village level meetings. The PHT card is a master card with QR Code, which will carry all the basic information of the farmer, location of the farm and farm coordinates (geo-location of the farm based on GPS data) etc.

MPEDA had been issuing a farm acknowledgement sheet and now it is changed to a digital platform, which is easy to carry and can be read through a QR Code reader application/scanner. The main idea behind this is to implement traceability of the produce up to farm level, which may be necessary for all aquaculture exports from India in future due to the alarming rejection issues from importing countries. The first farm enrolment card at Nellore district was issued by Mr. Anil Kumar P., Joint Director, Regional Division, Vijayawada to M/s. BMR Impex during the farm level meeting held on April 18.

Later MPEDA Satellite Centre conducted three village level meetings along with antibiotic campaigns, two at Kuduthipalem East and West and another at Gangapattinam on May 8 and 9 respectively, where 101 Aqua farm enrolment cards were issued to the beneficiaries from the three villages after collecting required ID proof.

Several new farmers showed interest in enrolling with MPEDA and hence 12 applications were received for new farm enrolment during the meeting. Eighty farmers attended the Kuduthipalem East and West Village meeting and forty farmers attended the Gangapattinam meeting.
The Government of India carried out an Amendment to the Government of India (Allocation of Business) Rules, 1961 on May 7, 2018 substituting “Directorate General of Trade Remedies” in place of “Directorate General of Anti-Dumping and Allied Duties” in Department of Commerce. This has paved way for creation of an integrated single umbrella National Authority to be called the Directorate General of Trade Remedies (DGTR) for providing comprehensive and swift trade defence mechanism in India. The amendment of Allocation of Business Rules has also mandated Department of Commerce with work pertaining to recommendation of Safeguard measures.

Currently, the Directorate General of Anti-dumping and Allied Duties (DGAD) deals with anti-dumping and CVD cases, Directorate General of Safeguards (DGS) deals with safeguard measures and DGFT deals with quantitative restriction (QR) safeguards. Therefore, the creation of DGTR will provide a level playing field to the domestic industry. In the last three years, India initiated more than 130 anti-dumping/countervailing duty/safeguard cases to deal with the rising incidences of unfair trade practices and to provide a level playing field to the domestic industry.

The DGTR will function as an attached office of Department of Commerce. The recommendation of DGTR for imposition of Anti-dumping, countervailing & Safeguard duties would be considered by the Department of Revenue. The DGTR will also bring in substantial reduction of the time taken to provide relief to the domestic industry.
Inputs Distribution Under STC and Training cum Demonstration on Gillnet Fishing

At Aliyar Reservoir, Tamil Nadu

The distribution of inputs to fishermen of Aliyar under Scheduled Tribe Component (STC) was organized as a public programme at Aliyar dam, Tamil Nadu on 18 April, 2018. The programme was well attended by representatives of Tamil Nadu Fisheries Development Corporation (TNFDC), Scientists from ICAR-CIFT and fishermen. The programme conducted as a part of ongoing Institute project on ‘Economic evaluation of resource use efficiency and management of reservoir ecosystem’ started with a welcome address by Mr. Krishnamoorthy, Assistant Director and Manager, TNFDC. Mr. V. Chandrasekar, Scientist, ICAR-CIFT explained the project objectives to the fishers and stressed the importance of using standardized gillnets for improving fish production. Standardized fishing gear, coracles, inputs like weighing balance, Lifebuoy, etc. were distributed to eight fishing units operating all over the year at Aliyar dam. Mr. S. Chinnadurai, Scientist, ICAR-CIFT had a detailed interaction with fishermen about their gillnet operation and suggested techniques for optimum harvest of fish. The fishermen were instructed to use two different gear sizes of gillnets, viz., 120 mm and 240 mm for optimum catch and were also asked to use gear size of greater than 110 mm to avoid the fish catch of less than 1 Kg. On 19 April, 2018 Mr. P. S. Nobi, Technical Officer, ICAR-CIFT demonstrated the use of standardized gillnet and fishing operation using coracle to the fishermen at the dam site. Information brochure in Tamil about gillnet fishing operation at reservoirs was distributed to the fishermen. The event attracted media coverage in local newspapers like Dinamani and Dinamalar.

At Kanjirapuzha, Kerala

The distribution programme of inputs to fishermen of Kanjirapuzha was held on 20 April, 2018. Representatives from Fisheries Department, Govt. of Kerala, Mr. V. Chandrasekar and Mr. S. Chinnadurai, Mr. P. S. Nobi, Technical Officer and Mr. K. D. Santhosh, Tech. Asst. from ICAR-CIFT were present during the programme. The programme was conducted as a part of ongoing Institute project on ‘Economic evaluation of resource use efficiency and management of reservoir ecosystem’. A technical information brochure in Malayalam on gillnet fishing was distributed to the fishers. There are 17 fishermen units at Kanjirapuzha and fishing operations is undertaken all round the year. Interaction with the fishermen was held after the programme. The fishermen felt the need for a sale counter with a platform for cutting and cleaning fresh fish. Wide media coverage was given to the programme in Mathrubhoomi and Malayala Manorama newspapers.

MoU Signed with Fish Worker’s Society

A MoU was signed between the Visakhapatnam Research Centre of ICAR-CIFT and M/s. Samudra Fish Workers Society, Mangamaripetta for the “Preparation of value added fish products” on 24 March, 2018. This has been undertaken as a part of the Institute Project “Evolving SMART EDP model for livelihood security of small scale fisherfolk through fish-preneurship”. The identified group is from a coastal village of Visakhapatnam district. Hands on skill development training programme for the fisherwomen of the Society was conducted on the preparation of specialty fish products like fish burgers, fish samosa, fish cutlets, fish fingers, stretched shrimp. The MoU was exchanged in presence of Dr. C. N. Ravishankar, Director ICAR-CIFT.
## Price List of MPEDA Publications/Periodicals

<table>
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<th>Sl. No.</th>
<th>Particulars</th>
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<td>Exporters Directory- Digital CD</td>
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<td>3</td>
<td>Indian Seafood - Product Catalogue</td>
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<td>Bio-Security in the Ornamental Aquatic Industry</td>
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<td>Living Jewels - A Handbook on Freshwater Ornamental Fish</td>
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<td>Hatchery Seed Production &amp; Farming of Cobia - Initiatives</td>
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- **Inside Cover**: Rs. 10,000/-, US$ 200/-
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Fax: +91 484 2312812, E-mail: newslet@mpeda.gov.in
Seafood exports may hit all-time high of $6 bn on strong volumes: MPEDA

Marine exports from India are likely to cross $6 billion during 2017-18, with volumes reaching 1.27 million tonnes.

The official figures in exports are yet to be declared by the Marine Products Export Development Authority (MPEDA).

India exported seafood worth $5.64 billion during April-January of 2017-18, up 13.27 per cent from $4.98 billion a year ago.

“Marine exports from India are expected to touch an all-time high of more than $6 billion, with volumes reaching a record 1.27 million tonnes. Newer initiatives in aquaculture, such as AQF (Aquatic Quarantine Facility) expansion, will be key to achieving the target of $10 billion in marine exports by 2022,” A Jayathilak, Chairman, MPEDA said at the foundation stone laying of the Phase-IV expansion of the AQF at Neelangarai in Chennai.

Tarun Shridhar, secretary, Department of Animal Husbandry, Dairying and Fisheries was present on the occasion.

MPEDA’s move to expand its AQF for imported Pacific White Shrimp (L. vannamei) is expected to increase shrimp farming production in the country by 0.3-0.35 million tonnes a year and generate higher revenues from seafood exports.

L vannamei, also known as white leg shrimp or king prawn, is an exotic species widely in demand in US, Europe and other global markets. Its brood stocks are imported mainly from the US and the AQF at Neelankarai was set up in 2009 to facilitate a regulated mode of introduction of this non-native species into India.

The AQF, which is set up by the Rajiv Gandhi Centre of Aquaculture (RGCA), the research and development arm of the MPEDA, will have six cubicles, three receiving areas and one packing area including one fumigation room, at the extended facility.

The additional capacity will help to quarantine up to 1,23,750 brooders per annum.

The Ministry of Agriculture has given funds to the AQF as part of the “Blue Revolution” to prioritise and promote aquaculture in India. It will help farming of L. vannamei in other potential states, such as Gujarat, Odisha, Maharashtra and Kerala, Shridhar said.
The alarming condition of the aquaculture sector has prompted Hon'ble Chief Minister of AP, Mr. N. Chandrababu Naidu, to seek the Centre's help to come up with an action plan and stabilise procurement prices. The realisation of export proceeds of shrimps nose-dived to hit the bottom-line, affecting stakeholders across the supply chain in the $5-billion seafood export market.

The export prices of shrimps, the key contributor to the country's seafood basket, have plunged by more than 20 per cent in the last couple of months because of increased supply from competing nations such as Vietnam, Thailand, and Ecuador.

Exporters are saying there has been a sharp drop of $2 per kg (30 per cent) in prices of key varieties, compared to last year. For one particular variety of shrimp, the price is around $5.40 per kg, 30 per cent lower than last year, said an exporter on condition of anonymity. The falling rupee has not been able to help much, said the exporter.

Shrimp farmers, especially in Andhra Pradesh, are forced to harvest one crop against the usual practice of three crops annually. They are suffering huge losses and even suppliers of fish feed are bearing the brunt of the production squeeze. Hatchery owners are also likely to feel the heat.

"The export rates for Indian shrimps have plummeted by more than 20 per cent compared to last financial year. The realisation of export proceeds is likely to be affected. It won't be as good as it was in the last two years. It will take time for demand to catch up. The vertically-integrated player will definitely survive the present scenario," an exporter said. There will be a sharp reduction in the turnover this year, said an official of another export company.

According to a report by Crisil Research, seafood exports will grow 17-18 per cent this financial year, 500-700 basis points (bps) slower than the 23 per cent and 25 per cent rates in FY17 and FY18, respectively.

US shrimp export realisations (in dollar terms), that account for 70 per cent of export value, are also expected to fall by 10 per cent in financial year 2019.

The alarming condition of the aquaculture sector has prompted N. Chandrababu Naidu, chief minister of Andhra Pradesh, the largest shrimp producing state in the country, to seek the Centre's help to come up with an action plan and stabilise procurement prices. The Centre has been asked to initiate steps to trade with new markets in Russia, South Korea, and Australia to arrest further slump in prices. Exports to major markets have reportedly declined drastically because of issues related to antibiotic residues. The fact that India has emerged as the largest exporter of shrimps to the US has not helped in checking the price fall.

In a letter to Union Commerce and Industry Minister Suresh Prabhu, Naidu has sought a mechanism to eliminate intermediaries between shrimp producers, processors and exporters. Rising prices for fish feed, lime, bleaching powder, medicine, daily wages and energy costs and the drop in shrimp prices have added to the miseries of shrimp farmers in Odisha, too. They are staging protests seeking CM Naveen Patnaik's aid in this regard. They are demanding a minimum support price for shrimps or a subsidy of Rs 40 per kg for verified production.
Doing something for the welfare of the society and doing business that yields profit are not mutually exclusive ideas, says MINIYA CHATTERJI LILARAMANI

In the past financial year alone, India exported USD 5.7 billion worth seafood. This is an industry flourishing along India’s long coastline and growing at a whopping 10-15% annually. Yet it is also one that is infested with middle men, market asymmetry, inaccessibility and non-transparency.

Traders and exporters of seafood in India have benefitted the most from the sales whereas the aqua farmers have barely gained. The latter have instead borne the pain of lack of transparency in the marketplace, lack of support from the banking and financial sectors, lack of access to cold storage chains, and access issues to export markets. Sadly, the government’s online fish exchange initiative has ended up as a white elephant that has yet to reach small and medium farmers who have limited access and understanding about technology.

While government agencies struggle to create a simple and workable solution on the ground, a privately driven Aqua farmers network is helping farmers find the right place and price to sell their harvest to have a reasonable profit margin. Shrimp aqua farmers make for 70% of India’s total seafood exports, and Aqua Connect – South Asia’s largest aqua farmers network — provides a free and fair market access to them.

I had first met Raja Manohar, the co-founder of Aqua Connect, while I was working for the World Economic Forum almost six years ago. At that time Raja had just been chosen as a Young Global Leader, which is a brilliant community of altruistic individuals less than age 40 who are all leaders in the field of their work. Reticent and extremely polite, Raja was always generous with offering technology related solutions to challenges faced by this community. And so I was hardly surprised when I recently heard about Raja’s latest venture.

Raja explains that his company Aqua Connect offers shrimp farmers technology driven as well as low-tech human-centred communication interventions. The Aqua connect app provides a cloud hosted solution architecture, whereas a toll-free number permits on-field research analysts to provide technical guidance to the farmers to improve their yield. In these ways farmers get advice on seed availability, technical queries, and market prices. Traditionally, farmers had to rely on middle men to sell their products to exporters, but Aqua Connect provides direct market access to the farmers so that they could command right price for their produce.

Raja tells me that in the span of a year, more than 3000 shrimp farmers in the coastal districts of Andhra and Tamilnadu are already working with Aqua Connect to communicate with export markets, and that the toll free number is in Telugu, Tamil, Hindi and English catering to farmers in the coastal areas of Andhra Pradesh, Tamil Nadu, Orissa and West Bengal.

Aqua Connect’s business model ensures that every one wins. On one hand, Aqua Connect has helped shrimp farmers connect with the hatcheries to locate the availability of good quality seeds, which is a scientific and technology intervention that has helped farmers to improve their profit margin up to 12%. On the other hand, while the farmer has free access to Aqua Connect’s services, hatcheries pay a service fee to Aqua Connect of 2Paise per seed for their services.

Post culture, Aqua Connect enables the aqua farmers to get conscious about the current price trends and find the right market place to sell, and the exporters pay a service fee to Aqua Connect of Rs 2 per kg for their services as well.

Miniya is the author of Indian Instincts: Essays on Freedom and Equality in India, Penguin Random House (2018), and the CEO of Sustain Labs Paris, the world’s first sustainability incubator.
Maharashtra will soon be having the country’s first multi-species hatchery in Sindhudurg district, rearing crabs, seabass, oysters and mussels. The state mangrove cell is currently in talks with different fisheries institutes across the country to develop the hatchery.

“We will develop the hatchery on a land of 1.5 hectares in Sindhudurg and are currently in discussion with fisheries institutes to discuss the final details. It will be the first-of-its-kind initiative, as it will bring different institutes together to develop the hatcheries,” said N Vasudevan, Additional Principal Chief Conservator of Forests, state mangrove cell.

While the crab hatchery will be developed by Rajiv Gandhi Centre for Aquaculture, the one for seabass will be built by the Central Institute of Brackishwater Aquaculture. Central Marine Fisheries Research Institute (CMFRI) will develop hatchery for oysters and mussels.

While the three hatcheries will share common facilities, these will have separate areas for the different species. “Some facilities are commonly required for all the three hatcheries, such as sewage treatment plant and algae tank. By having a multi-species hatchery, we will better economise land and other resources. But owing to biosecurity concerns, we will have to keep them separate, as a virus attack on any one of the species will easily spread to the others,” said Vasudevan.

To be developed at a cost of Rs 10 crore, while the mangrove cell will contribute Rs 3 crore, the rest will be funded by the state government. This is set to boost the local economy and employment opportunities in the area.

“I foresee a boost to aquaculture in the western coast through this. It is a model that others can also follow in the area. It will boost the local economy as nurseries and intermediaries can come up who can supply the produce,” Vasudevan said.

Meanwhile, the fisheries department is planning prawn hatcheries in Ratnagiri and Sindhudurg. This will include five small and two big hatcheries. While the big hatcheries are expected to produce around 200 million larvae per hatchery, the small ones are estimated to produce 50 million larvae per hatchery. “We are providing the big hatcheries a subsidy of 50 per cent and the small ones 25 per cent. Apart from making the produce locally available and cheaper, it will also ensure that we get better quality of prawns,” said a senior official.

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Frozen shrimp, Frozen fish

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Frozen Squid, Frozen cuttlefish, Live items

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Frozen Fish, Frozen squid, Frozen cuttlefish

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Frozen squid, Cuttlefish, live items, chilled items, others

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Frozen shrimp, chilled items
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Tuna, Frozen shrimp

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Frozen shrimp, Frozen fish, Frozen squid, Frozen Cuttlefish, Crab, Chilled items

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