



# MPEDA

## Newsletter

VOL. VIII NO. 6 SEPTEMBER 2020

**Makeover of Kochi's  
Iconic Harbour**

**India's 1<sup>st</sup> Private Asian  
Seabass Hatchery**

Exporter of the Month:  
**Brahmanandam Potru,  
Devi Sea Foods Ltd**

**The Story of the  
Winged Leaf**



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## 25 Years of perfecting the science of aquaculture to help you dream bigger.

We are not just celebrating a milestone. We are celebrating India's rise as a powerhouse in shrimp production as we watch the Vannamei shrimp, that we fought to introduce, change the industry. We are celebrating countless seafood platters that our farmers brought to dinner tables all over the world. We are celebrating the success saga of our farmers, dealers, employees and partners. Join us, as we set our eyes on scaling newer heights.



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**K. S. Srinivas IAS**  
**Chairman**

Dear friends,

Though the fishing sector has opened up after the ban in the west coast, it was reported that due to the social distancing norms and shortage of workers, the sector faces raw material shortage. Many of the small scale farmers have also abstained from stocking or delayed their stocking, which has affected the farmed shrimp output. The market demand remains sluggish, especially in China and Japan while there has been slight improvement in the exports to USA and European Union. Limited flight availability has seriously impacted the export of live and chilled marine products. The exporters also have reported that the payments to them from Chinese importers are delayed as the importers are waiting the Covid-19 clearance tests on the cargo imported by the Chinese Authority.

MPEDA has continued its webinar series on major markets and on 15<sup>th</sup> September 2020 organized one on the prospects of Chinese market. 221 exporters have participated. A virtual Buyer Seller Meet (VBSM) was also arranged on 29<sup>th</sup> September 2020 in association with Embassy of India in Madrid and CONXEMAR, Spain, in which 16 exporters from India and 11 buyers from Spain have participated. The webinar held ahead of the Buyer Seller Meet was attended by 120 exporters. MPEDA has also participated in the virtual exhibition organized by the Japan International Seafood & Technology Expo (JISTE) for a period of 1 year. MPEDA, in association with Singapore India Partnership Office, Govt. of Singapore, organized a virtual Soft Shell Crab workshop on 4<sup>th</sup> September for the promotion of soft shell farming and exports.

Realizing the gaps in the first mile activity to maintain the quality and hygiene of fish landed, MPEDA has mooted a proposal to modernize the major fishing harbors of the country by identifying 25 fishing harbors that could be modernized to international standards to improve the handling, packing and transportation practices, so that landed material fetches better revenue and exporters get seafood of improved quality. As a part of it, MPEDA has selected 2 fishing harbours ie., Cochin Fishing Harbor under the Cochin Port Trust in Kerala and the Nizampatnam Fishing Harbor in Andhra Pradesh to be modernized on a pilot scale with the fund support from various Government agencies and by creating special purpose vehicle to undertake the project to its fruition. MPEDA has entered into a Memorandum of Understanding with Cochin Port Trust on 20<sup>th</sup> September 2020 for the formation of special purpose vehicle to modernize the Cochin Fishing Harbor. MPEDA is hopeful that such projects will be a landmark in the seafood industry as it will revamp the outlook and perception, the stakeholders as well as the general public keep on the quality of the seafood consumed.

Thank You

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## On the Platter



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EDITORIAL SUPPORT

**Bworld Corporate Solutions Pvt Ltd**

166, Jawahar Nagar, Kadavanthra

Kochi, Kerala, India 682 020

Phone: 0484 2206666, 2205544

[www.bworld.in](http://www.bworld.in), [life@bworld.in](mailto:life@bworld.in)

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**Bijo Francis John**

[www.mpeda.gov.in](http://www.mpeda.gov.in)

[support@mpeda.gov.in](mailto:support@mpeda.gov.in)

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INDIA Contact: www.yantaimoon.in

Mumbai: Mr.Allen

+91-9867215115

allen@yantaimoon.in

Delhi: Mr. Arjun Singh

+91-9871415167

arjun@yantaimoon.in



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## FOCUS AREA

INSTITUTE OF THE MONTH: CIFNET



**CIFNET is all  
set to take up  
new challenges**

**A.K. Choudhury**  
Director, CIFNET





*CIFNET Headquarters at Cochin*

Our nation is all set to take the big plunge in its Blue Revolution. The mandates of fisheries industries are constantly changing, with pressures of dwindling seafood resources and potential of inland fisheries development. At this juncture, there is one institution that stands like a beacon of hope for creating proficient skilled labour in fishing, especially in deep sea fishing.

The Central Institute of Fisheries Nautical and Engineering Training (CIFNET) has been doing pioneering work in this sector since its inception in 1963. Even today, “CIFNET is the only nodal agency on behalf of the Government of India to create manpower for deep sea fishing,” said A.K. Choudhury, Director, CIFNET in an exclusive chat with MPEDA Newsletter. The institute was launched in 1963 with the objective of catering to the need for skilled manpower in the fisheries sector. The industry was in a nascent stage then and there were not enough professionally trained hands engaged in fisheries, especially deep sea



fishing. The fishermen were still relying on traditional methods, while the world was opening up.

So as to update the stakeholders’ potential, the Union Government started training for deep sea fishing and the institute was then called CIFO (Central Institute Fisheries Operatives), with its headquarters at Cochin.



## FOCUS AREA

This was changed to CIFNET in 1963. By then, the manpower requirement for deep sea fishing was much in demand.

In response, CIFNET widened its scope and opened two more units, one in Chennai and another in Vishakhapatnam. By then, the Director General of Shipping, as instructed under the Merchant Shipping Act of 1958 has made it mandatory to have professionally trained skipper, chief engineer, mate and engine drivers mandatory in sea-faring vessels. This has set the mandate firm for CIFNET.

CIFNET did not stop at being one of the main driving

## INSTITUTE OF THE MONTH: CIFNET

forces behind the Blue Revolution, as envisaged by the Union Government. It kept on redefining its role and now with the Government conceptualising another key project called Prime Minister's Matsya Sampatha Yojana, the relevance of CIFNET has increased manifold.

Under the scope of PMMSY, CIFNET is given the role to reach out to the wider audience that goes well beyond the classrooms. "We have already designed 28 courses, which will be launched soon. Under the PMMSY, the various training programmes like the in-house training programme and outreach or extension training programmes are being planned. We would



*Accolades to the Institute*



*Mr. A. K. Choudhury, Director interacting with the faculty members*



*Practicals on safety at sea*



*Chart work practicals for Navigation*



*Modern reading facility in CIFNET library*



*Microbiology laboratory*

also like to see that the resources available at CIFNET are available for the fishermen. So, we would like to extend our facilities to go beyond the institution and visit fishermen villages, communities and harbours and impart training to the fishermen,” said the Director.

CIFNET has always been updating its modules to match the requirement of the industry it is associating with. It started off with two basic courses for deck hands and engine drivers. “They were later remodified as Engine Driver Fishing Vessel Course and Mate Fishing Vessel Course. These courses were for only 18 months. Again, in 2005-'06 it was felt that these two basic courses need to have more scope of employability. To increase the employability of our students, we again revised our syllabus and the 18-month course duration was increased to 24 months and courses were renamed as Vessel Navigator Course and Marine Fitter Course.” These courses are approved by the Ministry of Skill Development Enterprises.

Besides these, CIFNET is offering two regular under graduate degree courses. “In 2005, we also started

four-year degree level courses known as Bachelor of Fisheries Science (BFSc) with special emphasis on Nautical Background. This course has been recognised by DG Shipping and approved by UGC. It is offered in affiliated with CUSAT. Last year, BFSc course won the recognition of the Kerala Public Service Commission. Students, graduating from this course, are not only having the prospects of getting jobs on board fishing vessel as mate or second level officer, but also, in fisheries department under the State government in posts such as Assistant Director and Deputy Director or as technical staff in fish processing centres and technical lab assistants.”

While the units in Vishakhapatnam and Chennai are offering their service and training people along the eastern coastal region – from West Bengal to Tamil Nadu along Orissa and Andhra Pradesh up to Puducherry, the one at Cochin is not just training personnel from Kerala, but also those from neighbouring States like Karnataka and Goa.

As of now, CIFNET has excellent facilities to train

## FOCUS AREA

## INSTITUTE OF THE MONTH: CIFNET

students and professionals in almost every aspect of deep sea fishing. It can cover subjects in three key areas involved, namely seamanship navigation, fisheries technology aboard the vessel and marine engineering. Besides the state-of-the art facilities with premium class simulators, CIFNET boasts three big sea-faring vessels to give hands on training for students.

These vessels MV Prashikshani MV Skipper II and MV Tharangini are fitted with bottom trawling and tuna long line fishing gears. "We also have got fish processing lab, microbiology lab, engine room lab, refrigeration and pneumatics lab, hydraulic labs to provide the students with a comprehensive knowledge about the industry and keep them abreast with the most modern technology available anywhere in the world."

CIFNET has excellent hostel facilities available for students registering for various courses at their centres. The new hostel building at Kochi can accommodate nearly 160 students, while the old hostel building is used to accommodate fishermen joining for on the job

training. The hostels at Vishakhapatnam and Chennai can accommodate 120 and 90 students respectively.

CIFNET is working in tandem with other organisations involved in the fisheries sector. "Recently, CIFNET and MPEDA jointly agreed to offer training programmes for common fishermen at a stakeholders meeting," Mr. Choudhury said. CIFNET is gearing up to take up new challenges posed by the changing times and extend its mandate beyond deep sea fisheries training.

### Everything About Fishing

When it comes to teaching the basics about fishing, that too about deep sea fishing, there is no better place to go to that CIFNET.

The Bachelor of Fisheries Science course with special emphasis on Nautical Science (BFSc-NS) offered by CIFNET is a 4-year (8 Semester) programme. This course is mainly concerned with study of fish capturing techniques, nautical science and operation of fishing vessels.



*Navigation Simulator at CIFNET*



*Simulator training prior to onboard practicals*



*Onboard Fishing vessel M. V. Prashikshani of CIFNET*

This programme, which is affiliated to Cochin University of Science and Technology, Kochi and recognised by UGC, has an exhaustive curriculum designed to provide profound practical knowledge on various aspects of the fishing and nautical sciences and is recognised by DG Shipping for certificate of competency (CoC) examinations.

The eligibility is 10 plus 2 with 50 per cent marks in all subjects of PCB or PCM and the selection of candidates for this course is through All India Entrance Examination.

This 4-year programme is aimed at producing a new generation of experts in the fishing field who will be able to take up any challenges in the operation of fishing

vessels and related research and academic spheres with confidence.

The candidate who have successfully passed this degree and the basic modular courses with required sea experience are exempted from all written papers and directly (without Post-Sea courses) appear for the Mate Fishing Vessel oral examination leading to the issuance of Certificate of competency as Mate of a fishing vessel.

The syllabus includes a detailed study of fishing, different types of fishing operation, construction of the fishing vessel, seamanship & navigation, study of engines and other machineries on board, maintenance of fishing vessels, oceanography and

## FOCUS AREA

marine meteorology, harvesting of fish, preservation of fish, post-harvest technologies, economics of fishing among other related theories.

The Vessel Navigator and Marine Fitter courses are the other two new trade courses offered by CIFNET, for the first time in India. These course, started by National Council for Vocational Training (NCVT) under the Craftsman Training Scheme by DGET, Ministry of Labour, are aimed at producing practical tradesman in the Marine sector and manpower for the deck side and engine side of the fishing vessels. Both these courses are of two-year duration.

The eligibility for these courses is a pass in Class X with 40 per cent marks in Maths and Science and the selection is through entrance examination conducted by CIFNET.

On successful completion of the above courses they will be gaining academic and practical experience in the specialized subjects like navigation and marine Engineering so that their employability will be

## INSTITUTE OF THE MONTH: CIFNET

increased manifold with openings available the shore establishments, fishing vessels, marine crafts etc.

### Riding The Waves

There is an air of impatience aboard MV Prashikshani, as it is being refitted and dock repaired to go back to where it belongs – the high sea. This veteran vessel has made many rounds of the deep sea, bearing students of CIFNET and giving them invaluable insights about deep sea fishing techniques.

MV Prashikshani belongs to the fleet of three big vessels owned by CIFNET as part of its training facilities. While MV Prashikshani is based out of Kochi, MV Skipper II is based out of Chennai and MV Tharangini is based out of Vishakhapatnam – the other two centres of CIFNET. “MV Prashikshani has a capacity of carrying 35 persons for outer sea voyage of a fortnight. Out of these, 10 to 15 will be students and rest will be crew of the ship. However, since the number of students are high, we often do week-long trip. Our voyages might go up to the borders of the Coastal Economic Zones, may extend



*Refrigeration laboratory*



*Pneumatic laboratory*



*Hydraulic laboratory*



*Fish processing laboratory*

## FOCUS AREA

## INSTITUTE OF THE MONTH: CIFNET



*Marine Engineering workshop  
– Practicals in machining*



*Welding practicals*



*Practicals in Engine maintenance*



*Practicals in Electrical laboratory*



*Demonstration in Fishing gear workshop*

up to Lakshadweep on the west or Sri Lanka on the south,” said Arun A.S., the Skipper of MV Prashikshani. This 34.03 metre-long vessel, with call sign ATVN, was made in 1980 by Japanese company Minami-Kyusyu and has a net tonnage of 53.79 tons. It has a 26.76 metre cube freezing room, 49 metre cube fish hold and 3.20 metre cube bait hold. It can clock a maximum speed of 10 knots.

On board, the students are familiarised with the ways of seafaring as well as fishing using gears like bottom

trawling and tuna long lining. They are provided hands on experience on managing a ship at high seas. For this, the vessel is fitting with the advanced navigation and communication systems like Automatic Radar Plotting Aid, Automatic Identification System for automatic tracking of vessels and Digital Selective Calling system that allows sailors to communicate using medium frequency and high frequency maritime radio systems. These will train the students in collision avoidance procedures.

“This is one of the most-equipped vessels that can give a comprehensive training for students on deep sea fishing activities. This vessel can cover almost every aspect related to seamanship and fishing activities on board a fishing vessel,” Mr. Arun said.

MV Prashikshani has weathered many seasons and is still ready to take more students to unravel the never-ending mysteries that the open sea holds within itself. This is a unique learning platform that CIFNET has designed, to match its mandate of creating technically trained and proficient personnel who can take care of the fisheries sector in India.



# India's marine fish landings in August 2020: Pelagic fin fishes top the list

Dr. Joice V. Thomas, Dr. Afsal V. V.  
NETFISH-MPEDA

An analysis of the marine fish landings data collected from 87 harbours of the country during August 2020

A total of 37501.04 tonnes of marine fish landings was recorded from 87 selected harbours during the month of August 2020. The catch was comprised of 13763.06 tonnes (37%) of Pelagic finfishes, 12874.30 tonnes (34%) of Demersal finfishes, 7725.21 tonnes (21%) of Crustaceans, 3129.61 tonnes (8 %) of Molluscs and a meagre quantity of 8.85 tonnes of other items (Fig.1).

About 241 species of fishery items were recorded during the period, of which the major five contributors were Japanese thread fin bream (*Nemipterus japonicus*), Indian Mackerel (*Rastrelliger kanagurta*), Croaker (*Johnius Spp.*), Karikkadi shrimp (*Parapenaeopsis stylifera*) and Bombay duck (*Harpadon nehereus*) (Table 1).

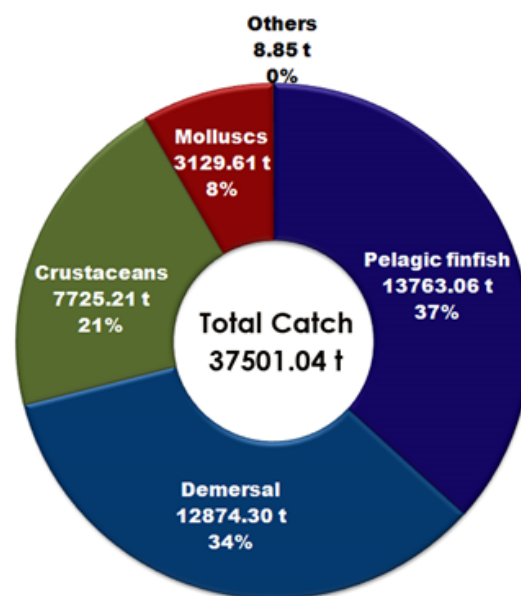


Fig. 1. Category wise fish landings during August 2020

Table 1. Major fish species landed during August 2020

Sl. No:	Common name	Scientific name	Qty. in tonnes
1	Japanese threadfin bream	<i>Nemipterus japonicus</i>	3442.19
2	Indian mackerel	<i>Rastrelliger kanagurta</i>	2815.13
3	Croaker	<i>Johnius Spp</i>	2301.22
4	Karikkadi shrimp	<i>Parapenaeopsis stylifera</i>	2134.33
5	Bombay duck	<i>Harpadon nehereus</i>	1328.51

Considering the contributions of various fishery items in general, Coastal shrimps, Threadfin breams, Indian mackerel, Tunas and Croakers were found as the major items landed during the period and these 5 fishery items had together formed 49 % of the total catch (Fig.2).

## FOCUS AREA

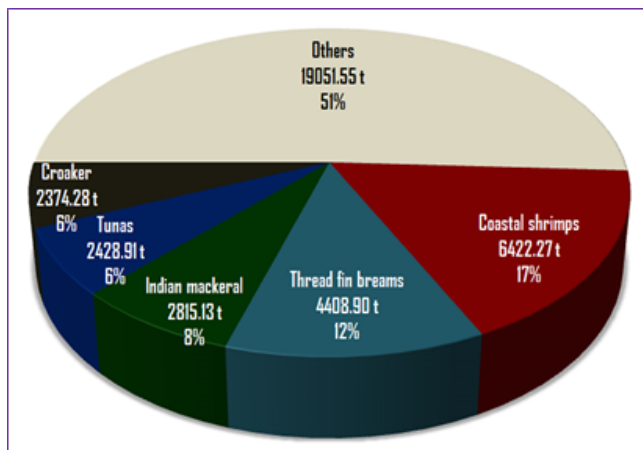


Fig. 2. Major fishery items landed during August 2020

Table 2 presents the quantity wise catch of various categories of fishery items recorded during August 2020. Among the Pelagic finfish resources, Indian mackerel, Tunas and Ribbon fishes were the major contributors whereas among Demersal finfishes, the major contributors were Threadfin breems and Croakers. Major items among Shellfishes were Coastal shrimps, Cuttle fishes and Squids. The highest contributor among the coastal shrimps was the *Karikkadi* shrimp which registered a landing to the tune of 2134 tonnes.

Table 2. Category-wise landing of various fishery items during August 2020

FISHERY ITEM	QUANTITY IN TONNES	% OF TOTAL CATCH
<b>Pelagic finfishes</b>		
Indian mackerel	2815.13	7.51
Tunas	2428.91	6.48
Ribbon fish	2270.71	6.06
Bombay duck	1328.51	3.54
Anchovies	996.95	2.66
Scads	844.08	2.25
Indian oil sardine	567.68	1.51
Shads	518.46	1.38
Lesser sardine	497.37	1.33
Barracudas	243.87	0.65
Swordfish	159.16	0.42
Mullets	145.93	0.39
Seer fish	135.00	0.36
Streaked seerfish	100.56	0.27
Herring	100.31	0.27

Trevallies	94.09	0.25
Indian salmon	90.54	0.24
Sailfish	87.42	0.23
False trevally	82.32	0.22
Dolphin fish	74.48	0.20
Marlins	50.16	0.13
Needlefish	42.26	0.11
Queen fish	31.79	0.08
Silver biddies	21.53	0.06
Halfbeaks	15.16	0.04
Cobia	10.99	0.03
Barramundi	4.21	0.01
Flying fish	3.27	0.01
Milk fish	1.83	0.00
Wahoo	0.37	0.00
<b>Total pelagic</b>	<b>13763.06</b>	<b>36.70</b>
<b>Demersal finfishes</b>		
Threadfin breems	4408.90	11.76
Croakers	2374.28	6.33
Pomfrets	1966.31	5.24
Lizard fish	1221.07	3.26
Catfish	878.32	2.34
Sole fish	485.15	1.29
Goatfish	331.79	0.88
Bullseyes	248.49	0.66
Rays	204.82	0.55
Snapper	168.02	0.45
Ponyfish	133.04	0.35
Reef cod	92.55	0.25
Moon fish	44.03	0.12
Unicorn leatherjacket	40.83	0.11
Shark	40.28	0.11
Eel	36.43	0.10
Emperor bream	32.20	0.09
Spinefoot	31.04	0.08
Silverbelly	23.92	0.06
Trigger fish	22.21	0.06
Whittings	21.43	0.06
Indian halibut	15.41	0.04
Flat head	14.85	0.04
Sea bream	9.92	0.03
Perch	9.19	0.02



## FOCUS AREA

Rabbit fish	8.62	0.02
Parrot fish	6.76	0.02
Indian threadfin	2.54	0.01
Surgeonfish	1.04	0.00
Pompano	0.45	0.00
Pinjalo	0.20	0.00
Spade fish	0.15	0.00
Surgeonfish	0.09	0.00
Total demersal	12874.30	34.33
<b>Crustaceans</b>		
Coastal shrimps	6422.27	17.13
Sea crab	1085.61	2.89
Deep Sea shrimps	197.63	0.53
Lobsters	11.97	0.03
Mud crab	7.74	0.02
Total crustacean	7725.21	20.60
<b>Molluscs</b>		
Cuttlefish	1545.50	4.12
Squid	1364.27	3.64
Octopus	219.85	0.59
Total mollusc	3129.61	8.35
<b>Others</b>		
Tilapia	4.85	0.01
Pearl spot	4.00	0.01
Total others	8.85	0.02
<b>TOTAL CATCH</b>	<b>37501.04</b>	<b>100.00</b>

### Harbour-wise landings

The total fish catch reported during the month from the selected harbours are presented in Table 3. Of the 87 harbours, the Munambam harbour in Kerala recorded the maximum fish landing of 2712.60 tonnes (7 %) and it was followed by the Porbandar harbour in Gujarat with 2043.85 tonnes (5 %) and Namkhana harbour in West Bengal with 1946.11 tonnes (5 %). The least quantity of marine fish caught was recorded from Umergaon harbour in Gujarat (0.86 tonnes).

Table 3. Harbour-wise catch quantity reported during August 2020

Sl.No:	State	Harbour	Total Catch (tonnes)
1	Gujarat	Porbandar	2043.85
2		Veraval	1056.18
3		Okha	946.46

4	Maharashtra	Mangrol	246.08
5		Jafrabad	199.08
6		Chorwad	5.61
7		Ghoghla	1.10
8		Umergaon	0.86
9		Sasoon Dock	552.50
10		Arnala	424.77
11		Ratnagiri	406.42
12		New Ferry Wharf	258.12
13	Satpati	152.29	
14	Harne	103.86	
15	Sakharinate	55.96	
16	Alibagh Koliwada	20.43	
17	Onni Bhatti Dabhol	10.33	
18	Versova	2.31	
19	Dahanu	1.84	
20	Malvan	1.71	
21	Taramumbai Devgad	1.18	
22	Goa	Vasco	34.69
23		Malim	5.01
24	Karnataka	Malpe	293.12
25		Honnavar	236.73
26		Karwar	123.14
27		Amdalli	91.14
28		Tadri	85.52
29		Bhatkal	68.94
30		Belekeri	44.95
31		Gangolli	16.14
32		Kerala	Munambam
33	Neendakara		1666.85
34	Kayamkulam		1176.55
35	Sakthikulangara		1143.30
36	Beyppore		490.68
37	Ponnani		384.81
38	Koyilandi		357.35
39	Thoppumpady		348.92
40	Vypin		300.43
41	Vaadi		226.10
42	Chellanam		218.92
43	Thangassery	199.95	

## FOCUS AREA

44		Cheruvathur	150.15	
45		Thottappally	124.03	
46		Puthiyappa	122.50	
47		Mopla Bay	66.00	
48		Chettuva	50.50	
49		Vizhinjam	22.85	
50		Munakkakadavu	8.99	
51		Tamil Nadu & Pondicherry	Nagapattinam	1871.35
52			Chennai	1537.01
53			Colachel	749.59
54	Thengaipattinam		604.04	
55	Visakhapatnam		516.76	
56	Nizampatnam		320.49	
57	Vodarevu		243.76	
58	Machilipatnam		236.84	
59	Kakinada		135.79	
60	Pudimadaka		95.34	
61	Yanam		84.94	
62	Paradeep		83.96	
63	Balramgadi		78.77	
64	Bahabalpur		59.58	
65	Balugaon		54.00	
66	Namkhana		29.13	
67	Petuaghat Deshpran		23.38	
68	Digha Sankarpur		22.25	
69	Kottaipatnam		13.33	
70	Andhra Pradesh		Visakhapatnam	1517.02
71		Nizampatnam	310.54	
72		Vodarevu	176.72	
73		Machilipatnam	164.68	
74		Kakinada	128.01	
75		Pudimadaka	83.30	
76		Yanam	10.76	
77	Odisha	Paradeep	799.01	
78		Balramgadi	707.82	
79		Bahabalpur	451.72	
80		Balugaon	98.70	

81	West Bengal	Namkhana	1946.11
82		Petuaghat Deshpran	1935.74
83		Digha Sankarpur	1627.82
84		Raidighi	1192.61
85		Fraser Ganj	982.78
86		Soula	786.99
87		Kakdwip	558.69

### State-wise landings

The state of Kerala recorded the highest marine landings during the month, which was to the tune of 9771.48 tonnes (26 %) (Fig. 3). West Bengal in the second position had contributed 9030.72 tonnes (24 %) and it was followed by Tamil Nadu with a total landing of 6760.28 tonnes (18 %). The state which reported least landing during the period was Goa, with a contribution of 39.70 tonnes.

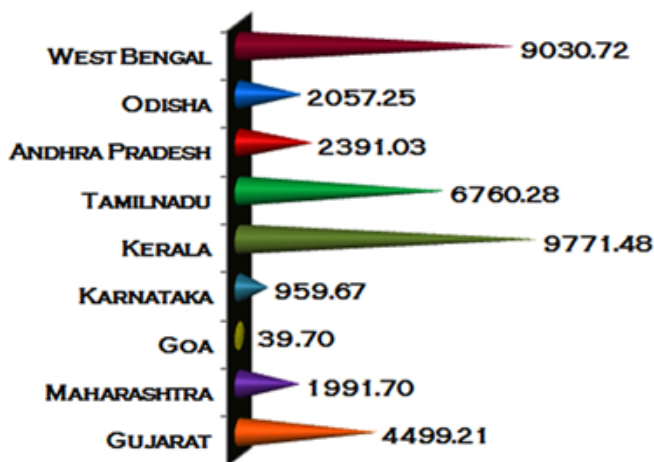


Fig.3 State wise fish Landings (in tonnes) during August 2020

### Estimations on boat arrivals

A total of 22484 numbers of boat arrivals were recorded during August 2020, of which the highest recording was from Arnala harbour in Maharashtra (1678 nos.), and it was followed by Veraval harbour with 1197 numbers of boat arrivals and Neendakara harbour with 1052 boats.

The Ghoghla harbour in Gujarat had registered the least boat arrival (3 nos.) during the period. The top ten harbours in terms of boat arrivals are enlisted in the table 4.

## FOCUS AREA

Table 4. List of top ten harbours which recorded more boat arrivals during August 2020

Sl. No.	Harbour	No. of boat arrival
1	Arnala	1678
2	Veraval	1197
3	Neendakara	1052
4	Sakthikulangara	806
5	Porbandar	748
6	Petuaghat Deshpran	574
7	Kakdwip	517
8	Digha Sankarpur	513
9	Thengaipattinam	488
10	Fraser Ganj	487

### Summary

In August 2020, a total of 37501.04 tonnes of marine landings and 22484 nos. of boat arrivals were reported from 87 major fish landing sites of India.

The Pelagic finfishes were the major contributors to the landings and Coastal shrimps were the most landed fishery item. The state of Kerala had recorded the maximum landing and Munambam harbour in the state reported the highest fish landing among the 87 harbours. The maximum boat arrivals was reported from Arnala harbour in Maharashtra. Due to the prevailing COVID-19 issues many of the harbours were not functioning as usual and hence an irregular pattern of landing could be observed during the month.

[NETFISH keeps a record of the quantity of marine landings occurring at 100 major harbour/landing centres along the 9 maritime states of India. The details of boats arriving and the various fishery items being landed by them are collected on a daily basis through the Harbour Data Collectors deployed at the harbours.

With the data collected from 87 harbours of the country during August 2020, species wise, harbour wise and state wise analysis were done and its results are presented in this report. ]



- \* ArcticBlast2 delivers around 8.000m<sup>3</sup> and ArcticBlast 5 an impressive 20.000m<sup>3</sup> air per hour.
- \* Doors in both ends - ramps available - internal lighting and "man trapped" alarm are standard.
- \* Current customer applications include:
  - \* Harvested and farmed tropical and cold water fish
  - \* Meats and meat based products
  - \* Agricultural produce including fruits
  - \* Ready to cook Food
  - \* Frozen Butter / Cheese / Milk / Cream are stored
  - \* Air Supply from refrigeration is at floor level
  - \* More than 80% of Blast Freezer length has direct air flow
  - \* Average maximum distance for air travel in 5 Models in approx 6M.
  - \* Fans at High Speed circulate the air freezing almost 150 TIMES/Hr every 24sec
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**EXPORTER OF THE MONTH**

# The Local Connect

**“Devi Seafood's fair raw material sourcing practices and prompt payment practices help to build a sustained and loyal relationship with farmers.”**

**Brahmanandam Potru**

Devi Sea Foods Limited



**Devi Seafoods Ltd.**





*Feed manufacturing facility in East Godavari District*

The new normal has set in. The brunt of pandemic and subsequent lockdown is felt across the board in the export sector. Devi Sea Foods of Visakhapatnam is no different. Their entire supply chain was disrupted. But they did not give in. They adapted to the evolving scenario that kept unfolding through the pandemic days.

“Since the beginning of COVID-19 outbreak, the situation has been continuously evolving and we re-aligned our operations to adapt and manage challenges posed both on the supply and demand aspects of the supply chain, said Brahmanandam Potru, Devi Sea Foods Limited.

The first and foremost concern was to maintain a steady raw material supply while ensuring the safety of the workforce. “During the initial stages of lockdown shrimp farmers were challenged with running their daily operations and uncertainty in demand from processing facilities. Our processing facilities accommodated harvests from such farmers and at the same time provided assurance to farmers to buy their future harvests.”

That was an important step. The assurance from a processing unit of Devi Sea Foods’ capacity helped the farmers to steady themselves after the blow. “Devi’s fair



*DEVEE brand premium shrimp feed*

raw material sourcing practices and prompt payment practices help to build a sustained and loyal relationship with farmers.”

Devi Sea foods has always kept a robust supply chain. Its integrated infrastructure included raw material sourced from its own farms and associate farms, which make for over 60 per cent of its volume. Then there are long standing supply arrangements and contract farming to have better control over its raw material sourcing.

## EXPORTER OF THE MONTH



In addition to these, Devi Sea Foods provided technical support to farmers through the Devee brand feed. This helps in ensuring better farm production and raw material supply. Shrimp larvae from Devi's own hatchery and feed from own feed mill are another key element in maintaining high quality of farming inputs. This system was in place when pandemic struck. It helped a lot to cushion the impact and move on. At the same time, the management of Devi Sea Foods worked meticulously on the backend to ensure that the work is not affected. This meant striking the delicate balance of keeping the plant operational as in pre-pandemic situation and to ensure safety of the workers in tune with post-pandemic regulations. "We were able to accomplish this by putting in measures like enhanced sanitation of the facility, thermal scanning, monitoring health of the workers, ensuring social distancing in the production areas, creating awareness about the virus and providing training on preventive measures. Our facilities have implemented SOP's specifically for COVID-19, which are updated continuously on government advisories and include contingency planning," Mr. Potru said.

This was just the beginning of the hard labour. The markets across the world had taken the plunge. Blanket restrictions on socialising and public dining brought the demand for processed seafood in the food service industry crashing down. But on the positive side, the demand steadily increased in retail segment, and this is what Devi Sea Foods latched on to.

"We were able to expand our existing footprint in this

segment due to the presence of our marketing office in the US, which minimized impact on our operations. Our operations are now running at pre-COVID levels and we continue to work with the customers on market directions and work in tandem with health authorities on to the COVID-19 preventive measures to mitigate anticipated risks."

The wholly-owned subsidiary Devi Sea Foods Inc. USA, a marketing and distribution division of the company, is constantly in touch with customers and provides support locally to customers in North America. Direct presence in the market, gives knowledge and understanding of market dynamics, this completes the integration cycle with competency in sourcing and processing.

The management of Devi Sea Foods also looked into the SOPs for sanitisation, planning production and inventories based on extended lead times to reduce and nullify the anticipated disruptions caused during shipping and transit.

It is this eye for detail that secured the position of Devi Sea Foods among the top order of seafood exporters from India. Till the 1990s, India's shrimp exports were largely dependent on Wild Catch and Black Tiger shrimp and were not considered a major supplier at the international level. Exports were limited to low value products and largely destined to the Japanese market. By 1990s, India started exploring new markets at EU and the USA. This was augmented by introduction of White Shrimp in 2010 and in next three years, India



*Surpassing global standards of shrimp processing*



*State of the art shrimp processing facilities*

has affirmed its position as a major shrimp supplier globally.

Big investments came in, facilities improved, farms expanded. There had been an overall change in the perception and it reflected in the yield too. Exports grew from 150,000 tons in 2010-'11 to around 650,000 tons in 2019-'20.

This is the right climate to re-align investments, believes Mr. Potru. "The growth has given the industry opportunity to invest in value-added products and, more importantly, increased employment opportunities significantly in the industry and offered opportunities to young entrepreneurs to grow in different parts of the value chain."

This is where Devi Sea Foods has always worked itself to perfection. It worked closely with its customers, giving itself better understanding of customer requirements and market demand. It is this knowledge which helped it understand the need for traceability, importance of sustainability and invested in shrimp hatchery, farms, feed mills and processing plants. On the top of it, Devi Sea Foods' own marketing and distribution company – Devi Sea Foods Inc in USA – makes it an integrated seafood supply source.

It is also worth noting that Devi Sea Foods has built competencies and established farms across Andhra Pradesh for shrimp, especially Black Tiger. While this is a native species, the current trend is promotion of



*Fully equipped processing lines*

an important species namely vannamei. For this, Mr. Potru has a reason too.

"Black Tiger shrimp makes up around 15 per cent of Devi Sea Foods' volume as demand has been coming down. However Black Tiger continues to have a niche exclusive market which prefers large shrimp and the colour, taste and texture they offer and command a price premium. This small segment will always remain, but to stay relevant the productivity and disease resistance in Black Tiger shrimp need to improve and we might see its resurgence in future," he said.

But the fact remains that the efficiencies in vannamei shrimp production and price competitiveness made this species more affordable to a larger section of the



## EXPORTER OF THE MONTH

market and expanded demand for it. Production of Black Tiger has been shrinking rapidly in the last few years, in India even Orissa and West Bengal, which are traditionally Black Tiger farming areas, switched over to vannamei rapidly. Farmers producing Black Tiger shrimp in small quantities are finding hard to source larvae and at times even struggling to sell their produce. Even countries like Bangladesh and Vietnam, which had decent production of Black Tiger shrimp, have started converting to White shrimp.

Right now, Devi Sea Foods is gearing up to face the new challenges thrown at it by the changing times. It has always been ahead in adapting new technologies and upgrading its facilities to meet market demand. "Devi Sea Foods has upgraded its processing infrastructure to produce higher value-added cooked products like cook-and-peel shrimp, which is cooked in shell and then peeled. In addition to this, it is offering retail products like shrimp rings in vacuum skin packaging," said Mr. Potru, giving an indication about the direction in which Devi Sea Food has set its sail.

### Product List of Devi Sea Foods Limited

a)	Raw Headless Shrimp: Headless Shell-on, Headless shell-on Ez Peel, Headless Shell-on Deveined
b)	Raw Peeled Shrimp: Peeled Deveined Tail-on, Peeled Deveined Tail-off (Cut Deveined, Pulled Vein)
c)	Cooked Shrimp: Cooked Peeled Deveined Tail-on /off, Cooked Headless Shell-on Ez Peel, Cooked and Peeled (Cooked In Shell)
d)	Value Added Products: Raw Peeled Deveined Tail-on Butterfly, Nobashi EBI (Stretched Peeled Deveined Tail-on), Shrimp Rings (Cooked peeled shrimp with Cocktail sauce)
e)	Customized: Products customized for convenience of customers menu applications.



### Major Export Destinations

USA

CANADA

SOUTH AFRICA

CHINA

MIDDLE EAST

EU



### Major Certifications

**BRC Food Safety, BAP 4 Star Rated,  
IFS Food, ASC Farm.**

# SPS - TBT UPDATES

### European Union - Supplemental rules concerning surveillance, eradication and disease free status

**E**uropean Union has notified a commission delegated regulation (EU) 2020/689 which supplement rules that are already laid down in the EU Animal Health Law ((EU) 2016/429).

The notified regulation ((EU) 2020/689) is concerned with surveillance, eradication programmes, and disease-free status for certain listed and emerging diseases in EU.

Aquatic diseases like Infectious Hematopoietic necrosis (IHN) and Infection with White spot syndrome (WSSV) virus are also listed. Rules regarding granting, maintenance, and withdrawal of disease free status has been stipulated in the regulation. In addition, requirements to restart a surveillance programme after a disease outbreak has also been included. The regulation shall apply in the EU countries from 21 April 2021.

Ref: SPS notification G/SPS/N/EU/411 dated 1<sup>st</sup> Sept 2020 (docs.wto.org)

### European Union - Disease control measures in case of outbreaks of animal diseases

European Union has notified a Commission Delegated Regulation (EU) 2020/687 which supplement rules that are already laid down in the EU Animal Health Law ((EU) 2016/429).

The notified regulation ((EU) 2020/687) is concerning the prevention and control of certain listed diseases



in the EU. The rules laid down in this Regulation set out disease control measures, which will apply in the Union in case of outbreaks of animal diseases with serious effects on the livestock.

Disease control measures in the event of suspicion of Category A, B and C diseases in aquatic animals are stipulated in the regulation. Rules and conditions regarding the establishment of restricted zones and repopulation in the event of official confirmation of a disease is also included. The regulation shall apply in the EU countries from 21 April 2021.

Ref: SPS notification G/SPS/N/EU/409 dated 31<sup>st</sup> Aug 2020

(<http://www.spsvietnam.gov.vn/en/gspneu409>)

### Japan – Act regulating Importation of Specified aquatic animals and plants

Ministry of Agriculture, Forestry and Fisheries (MAFF)- Japan has proposed an act in terms of designated aquatic animals and plants. The new act will regulate



## MARKETING NEWS

imported fish products caught by illegal, unreported and unregulated (IUU) fishing.

In order to secure proper control on illegal fishing, the Act will provide requirements for fishers, distributors, importers and exporters. As per the act/regulation, the Importers' obligation is to obtain and attach a certificate when importing the designated aquatic animals and

plants (or the products derived from them) in order to confirm that they are not caught by IUU fishing.

Detailed regulations of notification and certification and the specific list of designated aquatic animals and plants will be stipulated through another ordinance.

*Ref: TBT notification G/TBT/N/JPN/673 dated 14<sup>th</sup> Sep 2020 ([docs.wto.org](https://docs.wto.org))*



# Marine products exports decline in first half of 2020-21

On a positive note, there are initial signs of market recovery and stabilization of the industry despite COVID-19 impact

As per the provisional marine products exports data for the period April - September 2020, the export has shown a decline of 25.19% in quantity, 17.12% in Rupee value and 22.96% in US\$ earnings compared to the same period last year (Table 1).

The COVID19 pandemic has severely affected the industry both in the production side and the market side. But it is pertinent to note that the month wise exports during the period have shown an increasing trend in terms of US\$ value, showing the initial signs of market recovery and stabilization of the industry. Month wise export performance for April to September 2020 is given at Table 2.

**Table 1. Export Performance of Marine Products: April to September 2020**

Qty in MT, Value Rs. in Cr, US\$ in Million				
Month	Unit	2019	2020**	Growth %
April-September	Qty	639505	478393	-25.19
	Rs.	23483.63	19462.82	-17.12
	US\$	3397.55	2617.58	-22.96

*This report has been generated with the data compiled and reconciled by MPEDA for the period from April to June 2020; July to August 2020 provisional data was extracted from DGCIS portal and September 2020 information taken from MPEDA provisional data collection.*

Among the major Items exported during the period April – August 2020 (provisional), frozen shrimp continued to be the foremost contributor in marine products exports having a value of US\$ 1565 million with 80.35% share in the total exports. The quantity & Rupee value share of frozen shrimp is 62.87% and 82.14% respectively.

Looking at the overall exports, the unit value has increased by 11.14%, which is reflecting the better price realized for Indian marine products during this period and also signifies the gap in demand and supply. The major contributors that caused the elevation of unit value are frozen shrimp, frozen squid, dried items and live items.

Coming to the major markets for Indian Marine

products, the USA continued to be the top destination for Indian seafood with exports worth US\$ 801 million with 41.15% share among the total exports. China ranked second with exports US\$ 325.70 million having 16.72% share and the European Union ranked third with exports of US\$ 234.06 million having 12.02% share. Japan is the fourth largest destination in exports worth US\$ 215.64 million with 11.07% share.

During the period of review, the maximum export cargo for marine products was handled by Vizag port with 32.22% share, and followed by Kochi (11.32% share), Calcutta (10.83% share), JNPT (9.88% share), Krishpatnam (7.93% share). These are the top five ports that handled 72% of the total marine products exports from the country.

## MARKETING NEWS

**Table 2. Marine Products Export Performance: April to September 2020**

Qty in MT, Value Rs. in Cr, US\$ in Million				
Month	Unit	2019	2020*	Growth %
April	Qty	114413	61873	-45.92
	Rs.	3344.55	1607.27	-51.94
	US\$	490.14	213.25	-56.49
May	Qty	108507	75686	-30.25
	Rs.	3633.61	3162.97	-12.95
	US\$	525.54	422.56	-19.59
June	Qty	98059	76620	-21.86
	Rs.	3589.95	3553.43	-1.02
	US\$	521.74	483.65	-7.30
July	Qty	100782	80133	-20.49
	Rs.	4123.59	3561.52	-13.63
	US\$	605.34	474.91	-21.55
August	Qty	96121	77776	-19.09
	Rs.	4230.40	3401.87	-19.58
	US\$	609.93	455.58	-25.31
September	Qty	121623	106305	-12.59
	Rs.	4561.54	4175.75	-8.46
	US\$	644.86	567.63	-11.98
April-September	Qty	639505	478393	-25.19
	Rs.	23483.63	19462.82	-17.12
	US\$	3397.55	2617.58	-22.96

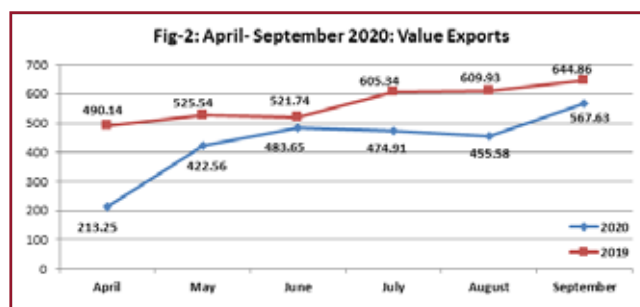
\*Provisional, (April – June 2020: MPEDA compilation; July – August 2020: DGCIS data; September 2020: MPEDA provisional data)

From Table 1, it is observed that, month-wise percentage decline in terms of quantity is reducing and the same has illustrated in Fig. 1. This is evident from the percentage reduction in exports in terms of quantity during June was 45.92% and the same has reduced to 25.19% in the month of September 2020.

This indicates clearly that the industry has slowly started exporting more marine products. Similarly exports in terms of US\$ is also improving, as the month wise percentage decline in terms of US\$ is having an improving trend.



If we look at the exports in terms of US\$ value, the export is showing an increasing trend as indicated in the Fig. 2. Overall indication is that an export of marine products has improved gradually from April 2020 to September 2020.



### A. Item - wise export analysis

Major Item group - wise summarized data during April - August 2020 (provisional) against the same period last year is shown in Table 3.

Frozen shrimp retained the position as the major item having a value of US\$ 1565 million with 80.35% share in the total exports. The quantity & Rupee value share of frozen shrimp is 62.87% and 82.14% respectively. 'Others' item basket have fared better during this period with a product share of 7.12% earning 138.67 million US\$.

The others group is mainly contributed by surimi and surimi analogue products, which is a sought after product in Japan, EU and USA markets. Surimi analogue products are value-added convenient products with affordable price tag and the trend is indicating the increased consumption of surimi analogue products during the COVID-19 period.

Frozen fish is the third major item exported with a value of US\$ 81.53 million and held a product share of 4.19%. Frozen cuttlefish and frozen squid contributed

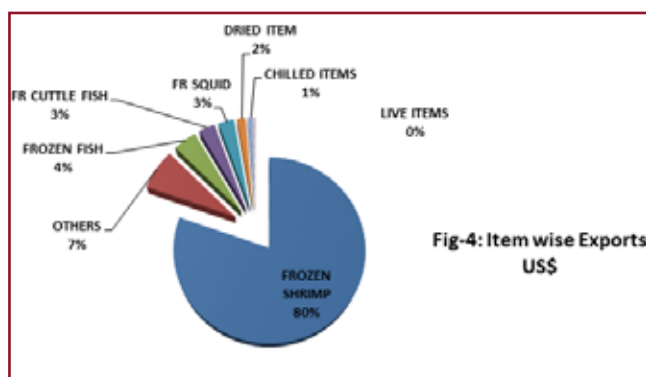
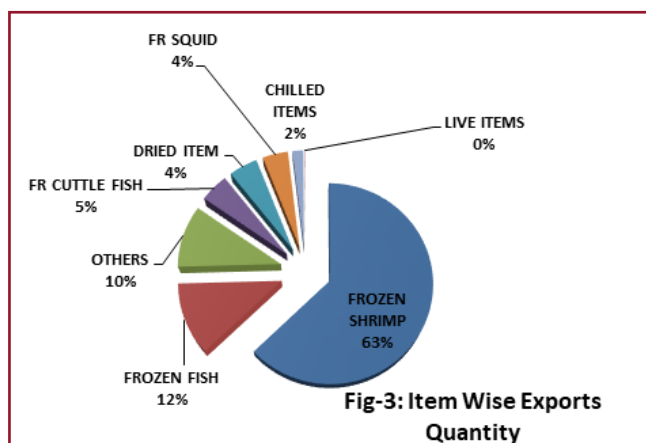
## MARKETING NEWS

2.86% and 2.75% respectively and balance shared by live, chilled and dried items by US\$ terms.

It is pertinent to note that the unit value of frozen shrimp has increased by 3.12% and since it is the main stake of Indian marine products, it is well-known that any slight change in the unit of frozen shrimp can cause drastic changes in the total export earnings. The unit value of other products has increased by 51.37% which has contributed 7.12% in US\$ earnings.

The unit value has increased for some items such as frozen squid by 11.81%, dried items by 25.78%, and live items by 78.78%. Their cumulative share in the total exports is 4.5%. If you look at the overall exports, the unit value has increased by 11.14%, which indicates that slight gap in the demand and supply resulted in the increase in commodity prices.

Basis Table 3, the export performance of major items in terms of quantity is illustrated in Fig. 3 and in US\$ terms is illustrated in Fig. 4. The export performance of major item groups compared with previous year in terms of quantity is illustrated in Fig. 5 and in terms of US\$ value is given in Fig. 6.

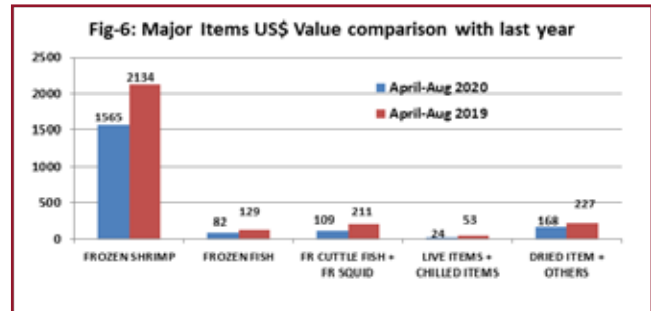
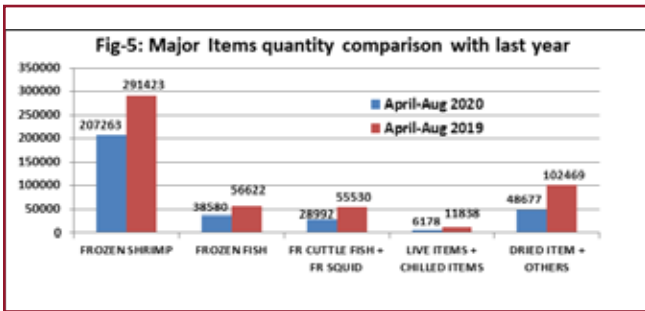


**Table 3. Item wise exports summary during April to August 2020**

Q: Quantity in Tons, V: Value in Rs. Crores, \$: USD Million

ITEM		Share %	Apr- Aug- 2020*	Apr- Aug- 2019	Growth (%)
FROZEN SHRIMP	Q:	662.87	207263	291423	-28.88
	V:	82.14	11474.84	14666.44	-21.76
	\$:	80.35	1565.00	2133.86	-26.66
	UV\$:		7.55	7.32	3.12
FROZEN FISH	Q:	11.70	38580	56622	-31.87
	V:	4.37	611.07	883.59	-30.84
	\$:	4.19	81.53	128.52	-36.56
	UV\$:		2.11	2.27	-6.90
FR CUTTLE FISH	Q:	4.68	15430	19093	-19.19
	V:	2.98	416.60	566.83	-26.50
	\$:	2.86	55.66	82.19	-32.28
	UV\$:		3.61	4.30	-16.20
FR SQUID	Q:	4.11	13562	36437	-62.78
	V:	2.86	400.06	883.46	-54.72
	\$:	2.75	53.47	128.49	-58.38
	UV\$:		3.94	3.53	11.81
DRIED ITEM	Q:	4.66	15376	44992	-65.83
	V:	1.58	221.23	471.93	-53.12
	\$:	1.52	29.56	68.76	-57.01
	UV\$:		1.92	1.53	25.78
LIVE ITEMS	Q:	0.12	394	3111	-87.34
	V:	0.23	32.35	130.92	-75.29
	\$:	0.22	4.31	19.06	-77.37
	UV\$:		10.95	6.13	78.78
CHILLED ITEMS	Q:	1.75	5784	8727	-33.72
	V:	1.04	145.29	231.40	-37.21
	\$:	1.00	19.48	33.70	-42.19
	UV\$:		3.37	3.86	-12.77
OTHERS	Q:	10.10	33301	57477	-42.06
	V:	4.79	668.44	1087.53	-38.54
	\$:	7.12	138.67	158.11	-12.30
	UV\$:		4.16	2.75	51.37
TOTAL	Q:	100.00	329689	517882	-36.34
	V:	100.00	13969.89	18922.10	-26.17
	\$:	100.00	1947.68	2752.68	-29.24
	UV\$:		5.91	5.32	11.14

# MARKETING NEWS



## B. Market - wise export analysis

During April - August 2020 (provisional), USA ranked first as the favorite export destination of Indian Marine products both in terms of US\$ value and quantity. 41.15% of the total exports in US\$ terms and 28.74% in terms of quantity has been exported to USA. China ranks second with 16.72% share in US\$ earnings and 21.65% share in total export quantity.

European Union has retained the third position with 12.02% share in US\$ earnings and 12.83% share in total export quantity. Spain, UK, Netherlands and Belgium were the favorite destinations in the EU. South East Asia, once the top destination in quantity terms has now displaced to third position in terms of quantity and fifth position in terms US\$ value. Japan secured 4<sup>th</sup> position in terms of value and fifth position in terms of quantity.

The market wise exports during April - August 2020 compared with the same period in last year is shown in Table 4.

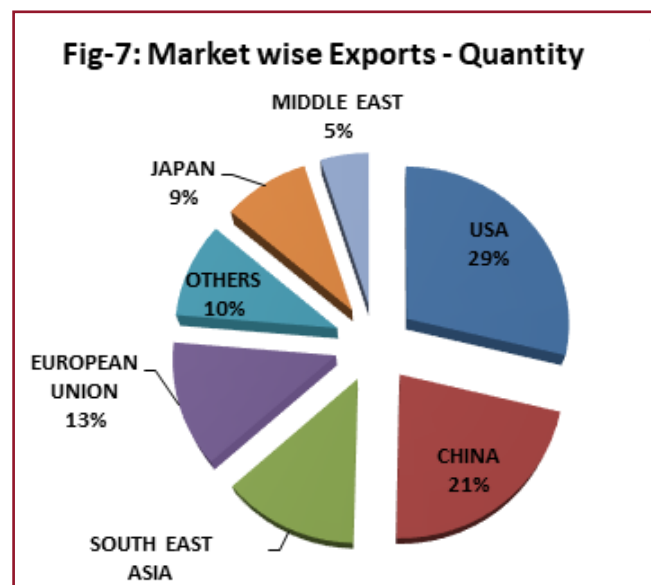
Market	Q: (Tons)	V: (Rs. Crores)	\$: (USD Million)	2020 Value	2019 Value	Change (%)
CHINA	21.65	71393	113026	3580.18	520.94	-36.83
SOUTH EAST ASIA	13.10	43203	96312	2010.99	293.11	-55.14
MIDDLE EAST	4.96	16356	26515	839.98	122.12	-38.32
OTHERS	9.83	32394	48074	1123.01	163.70	-32.62
Total	100	329689	517882	18922.10	2752.68	-26.17

\*provisional

Table 4. Market wise exports summary during April to August 2020

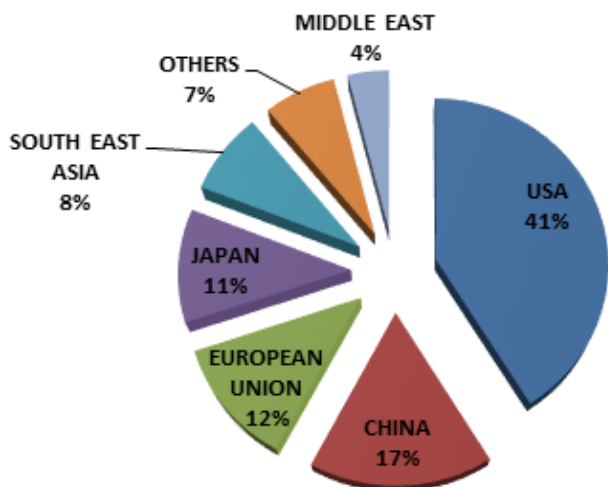
Q: Quantity in Tons, V: Value in Rs. Crores, \$: USD Million

Market	Share %	Apr- Aug- 2020*	Apr- Aug- 2019	Growth (%)
JAPAN	Q: 8.89 V: 8.91 \$: 11.07	29303 1244.47 215.64	34345 1349.95 196.42	-14.68 -7.81 9.78
USA	Q: 28.74 V: 42.90 \$: 41.15	94743 5993.63 801.40	134156 7671.49 1115.79	-29.38 -21.87 -28.18
EUROPEAN UNION	Q: 12.83 V: 12.55 \$: 12.02	42298 1752.85 234.06	65455 2346.49 340.60	-35.38 -25.30 -31.28



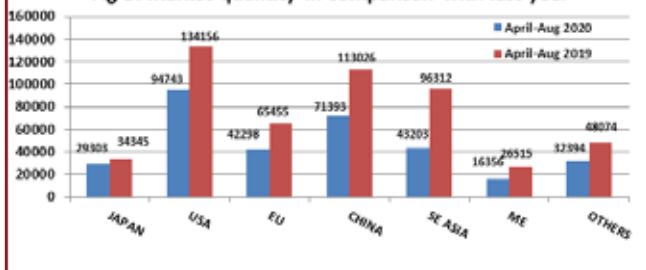
# MARKETING NEWS

**Fig-8: Market Wise Exports - US\$**

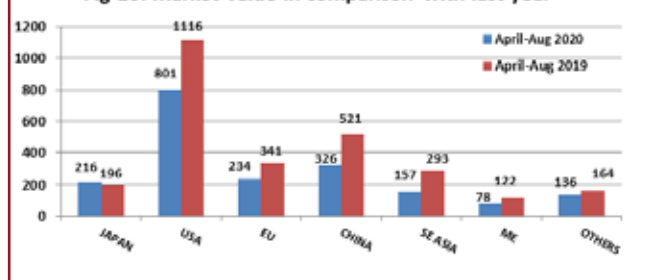


Basis Table 4, the export performance of major markets in terms of Quantity is illustrated in Fig. 7 and in US\$ terms is illustrated in Fig. 8.

**Fig-9: Market quantity in comparison with last year**



**Fig-10: Market value in comparison with last year**



Basis Table 4, the export performance of major markets compared with previous year in terms of quantity is illustrated in Fig. 9 and in terms of US\$ value is given in Fig. 10.

## C. Top 10 Country analysis:

The top 10 countries to which Indian marine products exported in terms of US\$ value are USA, China, Japan, Vietnam, UAE, Spain, Canada, UK, Belgium and Netherlands contributing 85.30% by US\$ value, 86.38% by Rupee Value and 77.63% by quantity. Japan has shown a positive growth of 9.78% by US\$ terms.

Growth was also observed in Canada at the rate of 10.70% by quantity and 5.42% by value Rupee. The unit value increase observed in Vietnam (38.99%), Japan (28.67%), Netherlands (10.79%), Spain (8.02%), Belgium (6.61%) and USA (1.70%),

**Table 5. Top 10 Country Export Summary During April-August 2020**

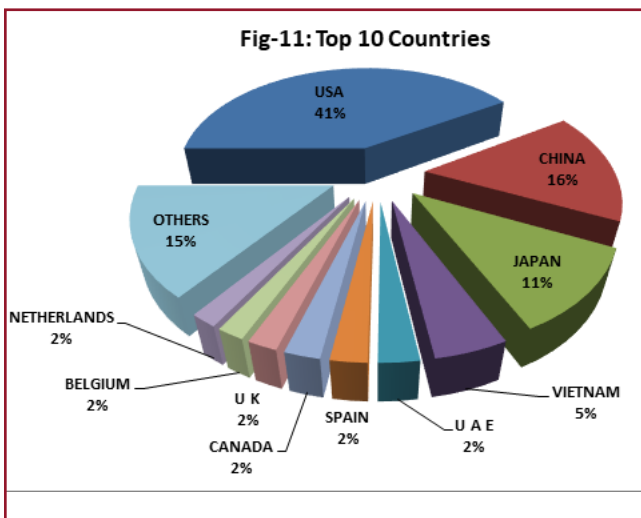
Q: Quantity in Tons, V: Value in Rs. Crores, \$: USD Million, UV\$:U US\$/Kg					
Market		Share %	Apr- Aug- 2020*	Apr- Aug- 2019	Growth (%)
USA	Q:	28.74	94743	134156	-29.38
	V:	42.90	5993.63	7671.49	-21.87
	\$:	41.15	801.40	1115.79	-28.18
	UV\$:		8.46	8.32	1.70
CHINA	Q:	21.27	70138	111584	-37.14
	V:	16.49	2303.92	3426.58	-32.76
	\$:	15.76	306.87	498.60	-38.45
	UV\$:		4.38	4.47	-2.08
JAPAN	Q:	8.89	29303	34345	-14.68
	V:	8.91	1244.47	1349.95	-7.81
	\$:	11.07	215.64	196.42	9.78
	UV\$:		7.36	5.72	28.67
VIETNAM	Q:	6.38	21024	48983	-57.08
	V:	4.90	684.24	1050.31	-34.85
	\$:	4.69	91.30	153.04	-40.34
	UV\$:		4.34	3.12	38.99
U A E	Q:	2.70	8906	13743	-35.19
	V:	2.68	374.06	538.50	-30.54
	\$:	2.57	50.02	78.28	-36.10
	UV\$:		5.62	5.70	-1.40
SPAIN	Q:	3.14	10340	14974	-30.94
	V:	2.41	336.48	417.00	-19.31
	\$:	2.30	44.89	60.18	-25.40
	UV\$:		4.34	4.02	8.02
CANADA	Q:	1.90	6273	5667	10.70
	V:	2.37	331.74	314.68	5.42
	\$:	2.28	44.45	46.02	-3.41
	UV\$:		7.09	8.12	-12.75



## MARKETING NEWS

U K	Q: V: \$: UV\$:	1.60 2.01 1.92	5283 280.71 37.48 7.09	7184 357.95 52.02 7.24	-26.46 -21.58 -27.97 -2.05
BELGIUM	Q: V: \$: UV\$:	1.44 1.86 1.78	4756 259.14 34.60 7.28	6722 316.09 45.87 6.82	-29.25 -18.02 -24.57 6.61
NETHERLANDS	Q: V: \$: UV\$:	1.57 1.85 1.78	5172 259.03 34.63 6.70	6273 261.30 37.91 6.04	-17.55 -0.87 -8.66 10.79
Total top 10	Q: V: \$: UV\$:	77.63 86.38 85.30	255938 12067.42 1661.28 6.49	383629 15703.85 2284.14 5.95	-33.29 -23.16 -27.27 9.02
Total	Q: V: \$: UV\$:	100.00 100.00 100.00	329689 13969.89 1947.68 5.91	517882 18,922.10 2,752.68 5.32	-36.34 -26.17 -29.24 11.14

Performance of top 10 countries has been illustrated in Fig. 11. These top ten countries are importing 85.3% of India's marine products.



In the top 10 countries as per Table 6, India's marine products export share to each country is furnished in the Table 7.

This signifies that there is ample potential available to increase export share in these destinations.

**Table 7. India's Export share in top 10 countries (2019)**

Sl. No.	Country Name	Import	India's Export % Share	%Scope to increase India's Marine Export
1.	Spain	7913	2	98
2.	United Kingdom	4418	3	97
3.	Netherlands	3177	3	97
4.	Japan	14763	3	97
5.	Canada	2936	5	95
6.	Belgium	2086	5	95
7.	China	15749	8	92
8.	United States Of America	23062	11	89
9.	Vietnam	1605	13	87
10.	United Arab Emirates	766	25	75

Source: Trademap

### D. Port Wise Export Summary:

During April- August 2020, the port that handled maximum marine products export cargo is Vizag, valued US\$ 627.51 million (32.22% share), and then by Kochi US\$ 220.57 million (11.32% share), Calcutta US\$ 211.01 million (10.83% share), JNPT US\$ 192.49 million (9.88% share), Krishnapatnam US\$ 154.37 million (7.93% share).

These top five ports handled about 72.18% of marine products export cargo. The detailed list of port wise exports are provided in Table-6.

**Table 6. Port Wise exports summary for April to August- 2020**

Q: Quantity in Tons, V: Value in Rs. Crores, \$: USD Million

Ports	Share %	Apr - Aug- 2020*	Apr- Aug- 2019	Growth (%)
VIZAG	Q: 24.66 V: 33.63 \$: 32.22	81298 4697.76 627.51	105572 5,605.17 815.53	-22.99 -16.19 -23.06

## MARKETING NEWS

KOCHI	Q:	13.12	43271	56484	-23.39
	V:	11.82	1651.78	1,887.25	-12.48
	§:	11.32	220.57	273.87	-19.46
CALCUTTA	Q:	10.06	33182	54518	-39.14
	V:	11.30	1578.38	2,376.55	-33.59
	§:	10.83	211.01	345.91	-39.00
J N P	Q:	7.86	25915	58882	-55.99
	V:	6.64	927.83	1,742.01	-46.74
	§:	9.88	192.49	253.16	-23.96
KRISHNA-PATNAM	Q:	6.22	20519	43644	-52.98
	V:	8.28	1156.97	2,222.45	-47.94
	§:	7.93	154.37	323.68	-52.31
PIPAVAV	Q:	14.92	49181	76433	-35.65
	V:	6.90	963.55	1,375.11	-29.93
	§:	6.61	128.75	200.35	-35.74
TUTICORIN	Q:	5.40	17805	24021	-25.88
	V:	6.73	940.30	1,249.61	-24.75
	§:	6.46	125.85	181.69	-30.73
CHENNAI	Q:	5.36	17662	23733	-25.58
	V:	5.96	833.25	922.48	-9.67
	§:	5.72	111.36	134.18	-17.01
KATTUPALI/ENNORE	Q:	3.32	10931	11344	-3.64
	V:	3.83	534.74	498.70	7.23
	§:	3.67	71.42	72.54	-1.55
MANGALORE/ICD	Q:	5.84	19237	39953	-51.85
	V:	1.92	268.38	465.65	-42.36
	§:	2.49	48.58	67.81	-28.35
OTHERS	Q:	3.24	10,687	23,298	-54.13
	V:	2.98	416.95	577.11	-27.75
	§:	2.86	55.77	83.96	-33.58
Total	Q:	100.00	329689	517882	-36.34
	V:	100.00	13969.89	18,922.10	-26.17
	§:	100.00	1947.68	2,752.68	-29.24

\*provisional

### Overall Summary:

The marine product exports during April-September 2020 though decreased compare to same period last year, it is getting improving each month, that is showing the rebound of the industry after COVID-19 pandemic.

There is an overall improvement shown in unit value realization. Frozen shrimp continued to be the major item exported with 80.35% share by US\$ terms. The USA, China, EU & Japan markets together contributes 80.96% by US\$ value.

Specific increase in the consumption of Value added convenience products such as Surimi Analogues was observed during this period, which is a positive sign for the efforts of MPEDA to improve exports of Value added products.

The top 10 countries that imports 85% of India's marine product also offer enough opportunities for increasing the trade. India need to make its marketing strategies more aggressive by exploring more and more options in the digital media with special attention on social media marketing during this pandemic period, where physical meetings and trade fairs has become difficult to anticipate in the near future.

The industry is hopeful that as the Covid-19 impact deteriorates, the consumer behavior pertaining to seafood consumption comes near to normalcy coupled with the reasons viz., festivals, New Year & Christmas celebrations, especially in major markets like USA, China, EU & Japan.

MPEDA has conducted about 4 Webinars on major markets like USA, Korea, China and Spain and 2 Virtual Buyer Seller Meets (VBSMs), which has highlighted the surge in the consumption of value-added products in retail packets.

Many exporters in India has also conceived this trend and slowly started their transition for catering to this global demand and got themselves rewarded. With the present trend in rejuvenation of exports foreseeing the festival season coupled with the decreasing grip of the pandemic in major markets, the exports of marine products are expected to increase in the coming months also.



# Vietnam's shrimp exports to EU grow, thanks to EVFTA

**R**ight before the EU-Vietnam Free Trade Agreement (EVFTA) came into force on August 1, Vietnam's shrimp exports to the EU had increased by 2% year-on-year to US\$54.2 million in July after declining for three consecutive months from April to June, according to the Vietnam Association of Seafood Exporters and Producers' (VASEP) data.

The growth in July signals improvement in the months to come. In the first half of August, the country exported US\$29.4 million worth of shrimp to the EU, surging by 26% compared with the same period last year. August's shrimp exports to the EU would increase by up to 20% year-on-year.

The General Director of a shrimp export company in the Mekong Delta province of Soc Trang told The Saigon Times that the EVFTA's incentives have helped increase the competitiveness of Vietnamese shrimp products in the market. Some Vietnamese shrimp products such as frozen tiger prawns enjoy preferential tariffs of 0%, while the EU still imposes tariffs from 4.2% to 12% on the shrimp products of Vietnam's rivals such as Thailand, India, Indonesia and Ecuador.

VASEP forecast that from now until the end of this year, Vietnam's shrimp exports to the EU will continue to increase, but at moderate rates due to the Covid-19 pandemic. According to VASEP, the demand for fresh shrimp at restaurants in the EU will continue to fall amid the complicated developments of Covid-19, while the demand for shrimp in supermarkets and retail chains will increase, as people prefer cooking at home. Therefore, the demand for frozen and instant shrimp products will increase, while it will decline for fresh shrimp.

VASEP suggested that Vietnamese exporters focus more on frozen shrimp products to take advantage of this trend, especially during the year-end peak season. The EU is currently Vietnam's fourth largest shrimp importer after the United States, Japan and China, accounting for 13.3% of Vietnam's total shrimp export value.

*Source:* <http://vietfishmagazine.com/news/vietnamese-shrimps-going-to-eu-is-expected-to-grow-thanks-to-evfta.html>

Vietnam earned nearly \$385 million from exporting shrimps in September 2020, marking 25% growth in earnings compared to last year. This is the highest growth rate recorded since March this year. In September 2020, there was a sharp increase in exports of Vietnamese shrimps to major destinations such as the US (+39,6%), China (+22,9%), the EU (+35,4%), South Korea (+3,2%), the UK (+54,3%), Canada (+47%), and Australia (+50,7%). Remarkably, sales to the EU in September 2020 have reached the highest level since earlier this year, partly due to benefits from the EVFTA. All main destinations of Vietnamese shrimps have boosted their purchases to serve festivals at the end of this year.

The accumulated value of shrimp exports as of September reached \$2.7 billion, up 10.5% compared to the same period last year, with white leg shrimps accounting for 72% of the total export volume and black tiger shrimp accounting for 16% and marine shrimps at 22%.

The US is the leading market for Vietnamese shrimps, with a density of nearly 24%. Vietnam has more competitive advantages in shrimps than India and Ecuador and bounced back fast after the Covid-19 pandemic. After 9 months, shrimp exports to the US reached more than \$634.4 million, up 33% from last year. The US is considered a market with the most stable demand.

After some decrease over the last few months, exports of Vietnamese shrimps to the EU started to grow in the third quarter of 2020. After the first 9 months, exports of shrimps to this market reached more than \$371 million, up 2.3%.

The EU is considered the main destination of Vietnamese shrimps in the last few months of the year. Sales to the EU are forecast to increase over the coming months. Vietnam expects to earn \$3.7 billion in 2020, up 9.8% from last year.

In September 2020, exports of Vietnamese shrimps reached nearly \$385 million, up more than 25% as compared to the same period last year.

*Source:* [vietfishmagazine.com \(https://vietshrimp.net/exports-of-shrimps-sharply-grow/\)](https://vietshrimp.net/exports-of-shrimps-sharply-grow/)



# Russia aims to increase efficiency of fisheries sector through digitization

An online International Conference by Russian authorities evaluated the pandemic's impact on global seafood market and the means to overcome the crisis

There is no doubt that the COVID-19 has affected the global fisheries market. The negative influences can be broadly categorized in terms of slowdown in demand, growth in business expenditures, supply reduction of aquaculture resources, rise in logistic costs and unavailability of human resources. All these factors have had an adverse impact on the performance of the industry.

According to FAO data, the industry may face long-term recession even after quarantine restrictions are relaxed or removed. At this juncture, the Russian Federal Agency for Fisheries, All Russian Association of Fishery Enterprises, Entrepreneurs and Exporters jointly organized a limited access Online International Conference "World Fish Market: International Cooperation Vs. Pandemic" on September 22, 2020.

The conference set the stage for interaction between major trade partners in fisheries and for understanding the present situation in the pandemic period. General intent of the online conference was to have an assessment on how things will be going on later and about the perspectives of Russian and world fisheries market. The conference also expected to answer the key questions like surviving global crisis and the future of the industry. The Conference was conducted with the provision of simultaneous interpretation in Russian & English.

### The major topics for discussion were:

- Evaluation of the pandemic's influence on world fisheries market
- Scale of decline in fisheries production

- Drop in demand
- Possible duration of consumer market recession
- Split of logistic chains
- Perspectives of HoReCa segment

The event was materialized with the initiation by Federal Agency for Fisheries, All Russian Association of Fishery Enterprises, Entrepreneurs and Exporters. Mr. Ilya Shestakov, Deputy Minister of Agriculture & Head of the Federal Agency for Fisheries in his introductory speech mentioned that there is 10% increase in agriculture production this year in spite of the pandemic.

He also mentioned that they are in a mission to digitalize the entire fishing industry to increase efficiency since digitalization is an essential element of a modern and competitive industry. Use of digital technologies increases the transparency and clarity of regulation, as well as the efficiency of data processing, which is very important.

Mr. Marcio Castro de Souza, Senior Fishery Officer at FAO for trade issues presented the FAO report on the State of World Fisheries (SOFIA). In his presentation, he expressed concern on overfishing and the depleting fish stock in the ocean waters. The decline of global fish stocks has implications for both the food security and the livelihood of many communities around the world.

Statistics show that by 2022, aquaculture will surpass the capture fisheries and by 2030, 53% of the total fishery production will be from aquaculture.

## MARKETING NEWS

The major challenges faced by fishing industry today are technology, capital availability, climate change, governance, food safety, traceability, fisheries management, fraud, land availability for aquaculture and most recently the COVID 19 market challenges.

In a presentation, Mr. Ragnar Arnason, Professor of Economics, University of Ireland explained how the world bank views the pandemic's impact on the fisheries market. He explained that at present world ocean fishery is in a bad shape and the fishing effort is approximately 179% of the optimal and lost profit is to the tune of USD 83 Billion. According to him, challenges for capture fisheries can be summarized as follows: fish prices will converge to aquaculture cost of production. Scarcity premium on fish price will gradually disappear. Profitability of fishing will suffer and it will be particularly bad for common property fisheries and for developing countries.

Mr. Fan Xubing, Managing Director and General Manager, Beijing Seabridge Marketing and Consulting spoke on 'Will China still be a main driver of world fisheries market?' He explained that China will likely have increased influence on the global fish markets. China is 2<sup>nd</sup> in seafood imports during the year 2019.

China and Korea are Russia's main export destinations. Russia's whole frozen fish exports by species include Alaskan Pollock, Herring, Cod and Pacific Salmon. He also expressed concerns over the detection COVID-19 virus in seafood imports to China.

The topic presented by Ms. Demi Korban, Business Reporter, IntraFish International News Holding was 'COVID-19 impact on Seafood'. As per the survey conducted by Intrafish showed that 49% of the industry has been severely affected and with some impact on the remaining 45% and minimal impact on balance 7%. Due to COVID -19 countries shut their borders and many fish buyers have been rethinking on how seafood gets processed. Investments have been ploughed into domestic or close-by by processing as this new level of conservatism on the entire supply chain can be seen. She also observed that the sea food processors are decreasing their dependence on China and COVID-19 has accelerated this process. This is going to give good potential to other Asian countries. Their survey also observed that the logistics supply chain was also hit by COVID-19 (Air Cargo 44%, Ocean Freight 24%, Trucking 20% and Cold Storage 13%). Ms. Korban

informed that the new trend is online marketing, in which 62% growth was observed.

A discussion of the current state of the Russian fish industry was arranged during the conference. The discussion was attended by Mr. Petr Savchuk, Deputy Head, Federal Agency for Fisheries; Mr. Sergey Mitin, Deputy Chairman, Council of the Federation Committee for Agrarian and Food Policy and Environmental Management; Mr. Sergey Tarusov, Chairman, Rybolovetsky Kolkhoz n.a. Lenin; Mr. Aleksey Buglak, President, Pollock Catchers Association. Mr. Alexey Buglak, expressed his concern over a decline in sales of Pollock in the world market and an associated reduction in export earnings. Demand for Pollock reduced drastically during the years and which in turn affected the income of Pollock fishery. Changed consumer behavior, decline in Pollock fillet demand are the other major problems faced by Pollock industry.

Mr. Alexander Panov, Executive Director, Sberbank spoke about the impact of new economic conditions and financial stability of fishery enterprises. The highlights of his talks were finished products, fuel price, and dynamics of national currency. He mentioned that economic, climatic and regulatory factors are the other elements affecting the financial stability of fishery enterprises.

The Q&A session witnessed overwhelming response. The participants were mostly concerned about global demand drop.

### **During discussion speakers pointed out the following consequences:**

- Demand drop
- Expenditures growth (especially for companies with a big share of manual labor)
- Changing behavior of consumers (frozen production demand rise, panic purchase of long expire date products)
- Desire to investigate local and neighboring markets
- New role of online trade, its influence on current trade order
- HoReCa crises, refocusing on delivery and take away



- Digitalization (wish to avoid personal contacts)
- Fleet proceeding to sea problems (due to virus testing necessity and strict restrictions from foreign states)

The key trend which was emphasized by all the speakers is an increasing role of aquaculture caused by the wish to be closer to the market and to provide sustainable delivery.

The conference was concluded by the closing remarks of Mr. Ilya Shestakov, Deputy Minister of Agriculture of the Russian Federation & Head of the Federal Agency

for Fisheries. He mentioned that in Russia, the sectors which suffered the most are small enterprises which are finding it hard to fulfill the Russian Agency for Health and Consumer Right's requirements, producers who use a lot of manual labor and HoReCa sector. At present, online trade is very promising and is found to be good for premium products. He also mentioned that the state of fish industry would depend on how long pandemic influence will last and it is the time to analyze the long-term impact which is going to happen in the years to come.

The international conference "World Fish Market:



International Cooperation Vs Pandemic” was broadcast in live format. For 2.5 hours, 11 speakers analyzed COVID-19 pandemic influence on the fish market, identified current trends and gave forecasts for the future.

About 281 people watched the broadcast, among them 40% were from foreign countries viz., Norway, Denmark, Iceland, United Kingdom, the Netherlands, Latvia, Germany, Italy, Spain, Israel, Turkey, Iran, UAE, Morocco, Mauritania, Mozambique, Senegal, Guinea Bissau, Comoro Islands, Madagascar, South Africa, India, China, South Korea, Chile and the USA.

The event was moderated by Mr. Kirill Tokarev, Editor in Chief, TV presenter, RBC (Russian multimedia holding). From MPEDA Mr. K S Srinivas, IAS Chairman, Mr. Anil Kumar P, Joint Director, Dr. T R Gibinkumar, Deputy Director & Ms. Biji K, JTO attended the online conference.

The discussion will be continued in offline format at IV Global Fishery Forum & Seafood Expo Russia which will take place on 6-8 July, 2021 in Saint-Petersburg. The videos of the conference broadcast is available on YouTube channel. (<https://www.youtube.com/watch?v=N-1-7g4-COA&feature=youtu.be>)

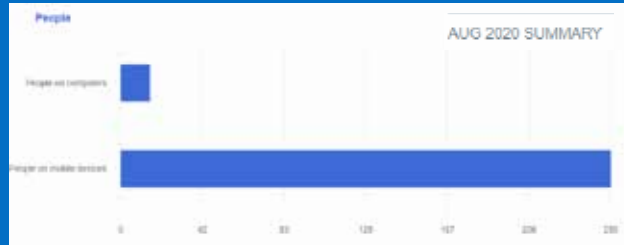
# facebook

Page followers - 14.7 K

Page Like - 14.6 K

Reach - 28 K

Engagement - 2.4 K



Type	Average Reach	Average Engagement
Video	3,376	102
Photo	1,281	32
Shared Video	614	19
Link	506	8

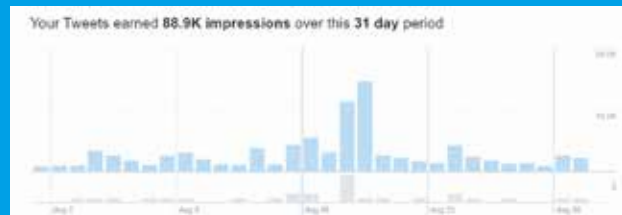
# twitter

Engagement - 2.3 %

Link Clicks - 44

Retweet - 46

Likes - 269



AUG 2020 SUMMARY

Tweets	27	Tweet impressions	88.9K
Profile visits	1,917	Mentions	65
New followers	171		



# Instagram

Followers - 1.9 K

Reach - 1.5 K

Interactions - 2.9 K

Impression - 25K

Profile Visits - 238

Web Tap - 8



# YOUTUBE

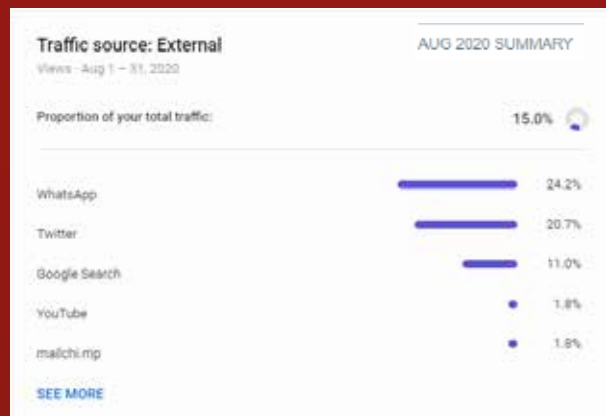
Total Views - 1.5K

Impression - 20.7 K

Unique Views - 898

Total Watch Time - 44.8 hr

CTR - 4.9 %



# On a mission to boost india's marine fisheries & post-harvest infrastructure

MPEDA's ambitious project to modernize 25 key fishing harbours of the country will start from Kerala's landmark Thoppumpady harbour



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## COVER STORY

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**W**ith more than 8000 kilometre-long coastal line, 2 million square kilometre of Exclusive Economic Zone (EEZ) and half a million square kilometre of Continental Shelf, India is a major marine fish producer in the world. The warm, fertile inshore waters of India are among the most productive fishing grounds globally.

The country has about 50 major fishing harbors and more than 100 minor fishing harbors, which contribute about 65 per cent of India's total seafood exports in terms of quantity. However, the unit value realization for Indian sea-caught material is lower than those of the neighboring countries. In addition, there is an

estimated loss of 20 to 25 per cent of the catch during the post harvest operations.

Being the nodal agency for the holistic development of seafood industry in India, the Marine Products Export Development Authority (MPEDA) decided to dive deep into this problem. After detailed analysis, it was found that the lower unit value realization and post-harvest losses can mainly be attributed to poor infrastructure facilities at the fishing harbours and lack of professional management.

To this end, MPEDA proposed to upgrade 25 major fishing harbours, which contribute lion's share of



## COVER STORY

landings in the country for export. In the initial phase, two harbours -- Cochin Fisheries Harbour in West Coast & Nizampattinam Fishing Harbour in East Coast -- will be modernized.

### Cochin Fisheries Harbour

The Cochin Port Trust (CPT) runs the Thoppumpady fishing harbour, one of the most important harbours in Kerala with an average landing of 250 tons of fish every day.

Of this, a major share is procured for exports. However, the existing infrastructure facilities at the harbour, which was commissioned in 1978, are not adequate enough

to address the issues.

In September, a Memorandum of Understanding (MoU) was signed between Dr. M. Beena, IAS, Chairperson, CPT and Mr. K. S. Srinivas, IAS, Chairman, MPEDA, for modernizing the harbour at a cost of Rs. 140 crore. The project will be implemented through the formation of a Special Purpose Vehicle (SPV) and by mobilizing resources from various Central Government Schemes.

#### Facilities to be created under the Project

Under the project, the Cochin Harbour will get important facilities including:

- a) Airconditioned auction halls



## COVER STORY

**b)** Packing hall and loading and unloading bays

**c)** Ice plant

**d)** Reverse Osmosis plant and rain water harvesting system

**e)** Automation equipments such as tripods, conveyor belts, and pallet jacks for easier and better movement of fish within the harbour

**f)** Electrical substations

**(g)** Effluent treatment plant

**(h)** Retail market, fish dressing unit, net mending area

**(i)** Offices, dormitories, food court, drivers waiting area, canteen

**(j)** Vehicle parking areas

Currently, none of the harbours in the country has these facilities. The modernization project is expected to give a major fillip to the seafood export sector with higher value realization and less post-harvest losses. Improved infrastructure, trained human resources and support facilities will help us to move up the value chain and realize our full export potential.





# Story of the Winged Leaf



V.K. Dey

V K Dey has over three decades of experience in diverse sectors of seafood industry in Asia-Pacific region. He was the Deputy Director of MPEDA and then associated with INFOFISH, Malaysia. As part of INFOFISH, he was involved in several studies related to seafood industry in the Asia-Pacific region and beyond, including setting up of Aqua-technology Park for ornamental fish. MPEDA has published *Living Jewels*, a collection of his articles on ornamental fish.

Angelfish, *Pterophyllum scalare*, originate from South American freshwater rivers and tributaries such as the Amazon basin and Guyana River where the water bodies have densely overgrown aquatic plants. They are small genus of freshwater fish from the family Cichlidae which are dearer to most aquarists. Angelfish prefer an environment with thick aquatic vegetation as in their natural habitat. Broad leaf aquatic plants are the favourites for Angelfish as they can lay their eggs on them. More than twenty-five varieties of Angelfish, which have been developed through cross breeding of *P scalare* and *P eimekei*, are in the market today. They were bred selectively to establish the new strain. Angelfish was introduced in the US market during the 1940s and then to Europe, though it was described as early as 1840.

The Angelfish is laterally compressed and has flat, upright disc-like body. It looks like a disc on edge with long dorsal and ventral fins. The long fins coming out of the top and bottom and have two feelers in front of the anal fin. The long pectoral fins and wide spread tail, giving a leafy appearance. Angelfish is aptly named as "pterophyllum", derived from the Greek word, meaning 'winged leaf' while "scalare" means like a flight of stairs, referring to the dorsal fin.

There are short finned and long finned varieties. The tail is vertically oriented and has a shovel-like shape to long and short depending upon the variety. With three vertical bands on the body and fins and thinner and paler bars in between, they look majestic and impressive in appearance. The ideal water quality for Angelfish is slightly acidic soft water (pH 6.8). The maximum size is 6" in length. They can survive on artificial food, preferably on flake food, however live feed such as blood worms or brine shrimp and mosquito larvae are well accepted.

Angelfish are very popular and a favourite among hobbyists as they are beautiful and look graceful in the aquarium. There are about 25 varieties now with unique colour patterns, single coloured ones like black, silver and gold and colour patterned ones such as leopard, striped or zebra and lace-like, mottled or marble, half black etc. Black veil tail, diamond, ghost, blushing, golden marble, pearl scale and koi are the other popular varieties.

The colour of the Black Angelfish is solid black while the Silver is the normal colouring of wild Angel, with four dark vertical bars running through a white body, the first passes through the eye, the second in front of the top and bottom fin, the third through the top and bottom fin while the fourth at the beginning of the tail fin. Some have black speckles over the anterior portion of the body. The colour of the golden angels may vary from solid white to golden colour without other markings, over the head and back area with a mantle of gold.

Zebra Angelfish have more vertical stripes which continue on right through the tail, while Half Black Angels are white in front and the black cuts right through the top and bottom fins right through the tail. The Black Lace are just the beginning of the solid black variety and the difference between the Black Lace and Silver Angel is the intensity of colour especially on the fins where one can notice a frilly or lace like effect.

Veiltail Angels have elongated fin and this could be in all colour varieties depending on the selection of breeding. Blushing Angels have red cheek area without any pattern on the white body while Pearl Scale Angels have rough looking scales which are in different colour varieties.



# Aquarium plant of the month

### *Hygrophila difformis* (Water wisteria)

**H***ygrophila difformis*, commonly known as water wisteria (though it is not closely related to true wisteria), is an aquatic plant in the acanthus family. It is found in marshy habitats on the Indian subcontinent in Bangladesh, Bhutan, India and Nepal.

Stems can grow up to a height of 20 to 50 cm with a width of 15 to 25 cm. It is generally considered as a plant for the beginners, which will help create balance in the aquarium from the start.

Its rapid growth helps prevent algae because the plant absorbs a great number of nutrients from the water. The shortage of micronutrients leads to pale leaves, which may be an indication that the aquarium needs fertiliser.



### Cultivation

Water wisteria is easy to grow and as such it is a very popular plant for the tropical aquarium. It grows best in good light with a nutrient rich water and substrate and it benefits from additional CO<sup>2</sup>.

It can be easily propagated from cuttings. The water's temperature plays a vital role in determining the shape and structure of the leaves. When the temperature is high, they will grow larger with more space between each leaf than they would do in colder temperatures. Add quality substrate to aid the roots of the plant to hold tightly in the aquarium.

A quality substrate would be one that has the complete essential nutrients required for plants to grow and thrive. It's essential to make sure to install the mechanical filters that will not cause too much surface splashing for keeping the plants undisturbed. Take care to apply liquid water fertilizer, especially the ones that contain Iron to experience a major growth and health benefits.

### Heterophylly

*Hydrophila difformis* shows heterophylly which is the occurrence of two different leaf morphologies in the same plant.





## AQUACULTURE SCENE



Plant info	
Family:	Acanthaceae
Genus:	Hygrophila
Species:	<i>Hygrophila difformis</i>
Conservation status:	Least Concern
Type:	Stem
Origin:	Asia
Growth rate:	High
Light demand:	Low (Min 0.5 W/L for 10-20 hours/day)
CO2 :	Low- rarely needs any additional carbon dioxide booster.
Temperature range :	18-30°C.

Water wisteria is friendly and is compatible with most types of fish, but, it's best to keep them with smaller fish. The larger fish could damage the thin leaves of the plant. They do well with smaller non-cichlid fish and should never live with goldfish.



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# Adherence to COVID-19 Guidelines: MPEDA conducts inspections at processing plants

Audits were carried out by field offices to ensure implementation of COVID-19 guidelines laid down by MPEDA at processing plants

In order to ensure adherence to COVID-19 guidelines laid down by MPEDA, the officials of the Regional Divisions of MPEDA in Bhimavaram, Chennai, Goa, Kochi, Maharashtra, Mangalore, Tuticorin, Veraval and Vizag inspected seafood processing plants at their respective regions.

## BHIMAVARAM

The officials of MPEDA Sub Regional Division Bhimavaram inspected the processing plants of M/s. Veerabhadra Exports Pvt. Ltd, Kakinada and M/s. Abad Overseas Pvt. Ltd, Nizampatnam. During the visit, it was found that they have been maintaining maximum precautions as per the guidelines to prevent Coronavirus contamination.

## MANGALORE

MPEDA RD Mangalore officials visited processing/ fishmeal plants of M/s. Raj Fishmeal & Oil Company, M/s. Mangalore Marine, M/s. F3 Marine, M/s. Geltec and M/s. Seahath Canning. During the visit, it has been observed that the above plants are implementing the COVID-19 guidelines without fail.

## CHENNAI

During the visit undertaken by MPEDA RD Chennai officials to M/s. BMR Industries Pvt. Ltd., Royale Marine Impex Pvt. Ltd., M/s. Aquatica Frozen Foods Global Pvt. Ltd. M/s Crystal Sea Foods Pvt. Ltd., M/s.



## QUALITY FRONT



K.V. Marine Exports Pvt. Ltd. And M/s. ABAD Overseas Pvt. Ltd., they observed that the above plants are implementing the COVID-19 guidelines as prescribed by MPEDA.

### KOCHI

The officers of RD Kochi had visited the processing plants M/s. Mangala Marine Exim, M/s. Indian Marine Industries, M/s. Uniroyal Marine Exports Ltd and M/s. Kay Kay Exports. During the visit, it has been observed that the above plants are following the guidelines in the units, strict checking of body temperature of all employees and visitors, social distancing and sanitization of packing material by 1% hypochlorite etc., sanitization, visual observation and reporting of symptoms, and provision of quarters and canteen facilities to the workers to avoid social contacts.

### TUTICORIN

Officials of MPEDA's Sub Regional Division Tuticorin visited the following seafood establishments: M/s. Asvini Fisheries, M/s. Nila Seafoods Pvt. Ltd., M/s. Diamond Seafood Exports, M/s. Kadalkanny Frozen Foods, M/s. Theva & Co, M/s. Edhayam Frozen Foods

Pvt. Ltd., M/s. Gladson Exporters, M/s. Kondiya Fresh Foods, M/s. Ashok Impex, M/s. Diamond Aqua Fishes, M/s. J.R.S Traders, M/s. Surya Sea Food Exports, M/s. Vitality Aquaculture Pvt. Ltd, M/s. V.V. Marine Products, M/s. Peninsular Fisheries Pvt. Ltd., M/s. JRJ Sea Foods India Pvt. Ltd., M/s. Cascarino Enterprises, M/s. Hameed Marine Pvt. Ltd., M/s. Messiah Fisheries, M/s. Asixa Marine, M/s. Britto Sea Foods, M/s. Marble Valley Foods & Beverages (p) Ltd, M/s. Premier Marine Products (p) Ltd, M/s. Prince Sea Foods and M/s. Amalya Sea Foods.

During the visit, it was observed that workers/visitors are checked for compliance that includes wearing face masks, disinfection of vehicle tires by spreading strong disinfectant, checking of body temperature by an infrared thermometer, hand sanitization using approved sanitizer (Ethanol, 75%, or 1% hypochlorite) etc. Visitors are enquired about the general health condition and requested to declare if any have any of the symptoms associated with COVID-19 like cough, shortness of breath, breathing difficulty, fatigue, headache, etc. At the entrance of the production units, posters are pasted/ displayed on the wall regarding the inspection of hand washing, wearing of face mask, social distance, etc to create awareness about COVID-19 and undertaking

## QUALITY FRONT

for the workers. Foot-operated waste bins are placed to discard used masks/gloves.

### VIZAG

Officials of MPEDA Sub Regional Division Vizag visited the M/s. Liberty Frozen Foods Pvt. Ltd., M/s. Ghan Marine Products and M/s. Nagahanuman Fish Packers. During the inspection, it was found that the said units were properly maintaining the set up parameters as per the guidelines.

It has been found that from entry point to shipment point the Unit Officials, workers and other staff were maintaining the COVID-19 SOP's. The units are having a system of CCP-3 for packing and labelling. All the

lab documents and workers' health cards were verified and found that the doctor was cross verified and given fitness. It has been found that before shipment the containers were properly fumigated with Virex 256.

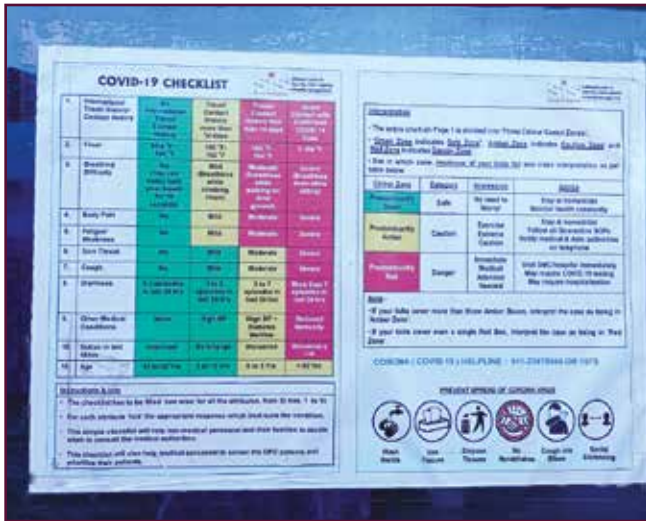
### VERAVAL

MPEDA Regional Division Veraval officials had visited the processing plants M/s. Star Marine Products, M/s. Jinny Marine Traders, M/s. Deepmala Foods, M/s. Castlerock Fisheries Pvt. Ltd.

During the visit, it was found that the processing plants are following COVID-19 guidelines properly. Few minor deficiencies pointed out were rectified by the units immediately.



# QUALITY FRONT



## GOA

MPEDA officials from Mangalore visited processing plants of M/s. Sai Kishan Fisheries Expansion and M/s. Niyaz Seafood. During the visit, it was observed that the above plants are implementing the COVID 19 guidelines prescribed by MPEDA.

## MUMBAI

MPEDA Regional Division Mumbai officials had inspected the seafood processing establishments

M/s. Ulka Seafoods Pvt. Ltd, M/s. Dolphin Marine Foods & Processors (India) Pvt. Ltd., M/s. Shree Dutt Aquaculture Farms Pvt. Ltd., M/s. H N Indigo Pvt. Ltd., M/s. West Coast Frozen Foods Pvt. Ltd., M/s. Zeal Aqua Limited and M/s. Mindhola Foods LLP, to ensure strict implementation of COVID guidelines. During the visit, it was noticed that seafood establishments (6 nos in Gujarat and 2 nos in Maharashtra) found to be following COVID-19 guidelines properly. Few minor deficiencies noticed were explained to the parties and requested to them to rectify, which were verified later for compliance.



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# Startup to setup India's first private Asian Seabass hatchery



Source: FishBase



India's first Asian private seabass (*Lates calcarifer*) hatchery has been set up by three graduates from the Mangalore Fisheries College.

Established with technical support from the ICAR Central Institute of Brackishwater Aquaculture (CIBA) in Chennai, it is the first start-up of its kind in India's private sector.

An MoU was signed between the CIBA and Canares Aquaculture, which is owned by the graduates, allowing them to use CIBA's technology for seabass seed production in exchange for 5,000 rupees for transfer of their technology and 10 per cent royalty on the net profit of the company. Canares has 80 tanks in the hatchery, giving them the capacity to produce 3 million fish a year.

Karthik Gowda VS, Kaushik Alike and Sachin V Savan were inspired to launch the venture following a visit to CIBA's seabass hatchery at Muttukadu experimental station during their degree programme. CIBA helped to enabled them to obtain funding to launch the firm from industrialist HS Gajanan, who owned a defunct shrimp hatchery.

"We had discussions with him. He and his wife became our angel investors. The shrimp hatchery building which he had bought earlier is now the sea bass hatchery," Kaushik told IANS.

According to The New Indian Express, KK Vijayan, Director of CIBA, called the initiative a milestone in brackishwater aquaculture.

"It is a path-breaking development in country's aquaculture sector with youngsters coming to this field. Start-up ventures will pave way for a resurgence and growth in the brackishwater aquaculture, especially Asian seabass farming in the country," he said.

Vijayan noted that the private sector has been reluctant to enter marine fish seed production, due to the relatively long production cycle and need for unique skill sets to rear marine fish larvae. "It is heartening to see fisheries graduates becoming aquaculture entrepreneurs. Since they are equipped with technical skills in the area, they are more likely to become successful entrepreneurs," he said.

-www.thefishsite.com



# Biofloc Tech to boost fish production in Odisha

**O**disha Government has introduced a new scheme for promoting intensive aquaculture in artificial tanks at very high densities through biofloc technology in the State. The scheme aimed at increasing fish productivity and making the State self-sufficient in fish production by providing livelihood support to unemployed youth besides, extending technical support to interested progressive farmers and entrepreneurs of the State.

Biofloc based farming is a new technology for promotion of intensive fish/shrimp production in a limited area without significantly increasing the usage of the basic natural resources of water and land. A person having land holding as small as 150-200 sq metre with either municipal piped water supply or bore well water supply can start fish farming with minimal investment. Fisheries and Animal Resources department has finalised the modalities.

“The scheme will help fish farmers and young entrepreneurs in a great way. The new and emerging biofloc technology will provide an accelerated boost to the fish production and encourage small land holders

to take up fish farming,” said an official. The technology will help for growing freshwater fish species such as genetically improved farmed Tilapia, Magur, Pangasius, Anabas and Common Carp. As part of the technology, the waste organic matter in the tank like feed waste is digested using pro-biotics (helpful bacteria) and carbon source like molasses and gets converted to fish feed.

While two ton of fish can be produced from one acre of earthen tank (4000 sq metre area) through normal pond based farming in six months, the same quantity of fish can be grown in only four small tanks of each four metre diameter and 1.2 metre depth installed in a floor area of about 100-150 sq metre by using bio-floc fish farm mechanism. Fish grows to about 200 gm within three months and 700 to 800 gm within six months.

“The unit cost for installation of a bio-floc unit of two tanks is Rs 1.5 lakh while a bio-floc unit of six tanks costs approximately `4 lakh. The State Government provides a subsidy of 40 pc to general fish farmers and 60 pc to SC and ST beneficiaries,” the official added.

-www.newindianexpress.com



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# Rare fish sighted by Andhra University scientists in Sileru

A rare fish called Mahseer (scientific name *Tor*) was sighted and fished out from the upper part of Sileru river, by a team of researchers from the Department of Zoology, Andhra University, on Monday. This fish is listed under the endangered category by IUCN (International Union for Conservation of Nature).

Mahseer, as commonly called, is normally found in the Himalayan region in the rivers running through the cooler climates of Himachal Pradesh, Uttarakhand, Nepal and Bhutan. But it is rare to find it in this part of the country, said Professor D.E. Babu, whose team spotted the fish. According to Prof. Babu, the species of fish, which is called the Golden Mahseer is found in the Himalayan region, where the temperature around year does not exceed 20° Celsius. "Finding this variety in this region is a rarity and calls for a much detailed study," he said. Earlier, it was sighted and picked up in 2018 from this region, but the fresh finding indicates that they are breeding and are native to this region.

"In the Godavari river there are about 135 recorded fish species and the Grey Mahseer is one of them, but the golden one is rarely found," he said. It can grow up to 20 kg and the one found weighs around 7 kg and is over 47 cm long.

## Useful for troops

"Animals, including fishes are sensitive to temperature and it is a limiting factor. This Golden Mahseer can withstand extreme temperature up to zero degree Celsius, as it has the unique anti-freezing protein," he said.

Since the Golden Mahseer is found in Sileru and the grey ones are found in the Godavari, the government should explore the possibility of conserving and rearing it for its commercial and medicinal values. "We can extract and use the anti-freezing protein for developing alternative therapy for our troops posted in Siachen and at other hostile places.

This protein does not allow the formation of ice cones in the blood, which normally happens in sub-zero temperatures," he said. The upper part of the Polavaram dam, where the depth is good and the area is vast, provides a natural environment for conserving and breeding this fish, said Prof. Babu.

Brooders can be arranged through special techniques and the upper Polavaram suits for natural breeding, he said.

-www.thehindu.com



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# PM Modi launches Flagship Fisheries Scheme, e-Gopala App for farmers as part of Atmanirbhar Programme

Prime Minister Narendra Modi on 10/09/2020 launched Matsya Sampada Yojana (PMMSY), a flagship scheme for focused and sustainable development of fisheries sector in the country.

PM Modi also inaugurated the e-Gopala App, a comprehensive breed improvement marketplace and information portal for direct use of farmers.

Prime Minister Narendra Modi said, "People engaged in pisciculture will benefit largely from this scheme. It is our aim that in the next 3-4 years we double our production and give fisheries sector a boost."

He spoke Jyoti Mandal, Raju, Brijesh and Monica, farmers who are engaged in animal husbandry and fisheries sector and said that their stories have encouraged the prime minister and are a source of inspiration to farmers across the nation.

"PMMSY will pave the path for a renewed White revolution (dairy sector) and Sweet revolution (apiculture sector)," the prime minister said. He further added that 21 states in India will launch the scheme and will boost for the fortunes of several milkmen and apiculturists.

The PMMSY scheme will see an estimated investment of Rs 20,050 crore from 2020-21 to 2024-25 as part of Aatmanirbhar Bharat (self-reliant India) package. According to the Prime Minister's Office (PMO), this is the highest ever investment in the fisheries sector.

Prime Minister also outlined that the project will also boost Ganga cleanliness projects and subsequently the aim to provide clean environment to dolphins under Project Dolphin will also receive a boost.

Prime Minister Modi also lauded Nitish Kumar, Bihar's chief minister, for providing farmers with support during the times of coronavirus pandemic.

Bihar CM Nitish Kumar said that the project will allow people involved in pisciculture and animal husbandry to

help bring variety and new technologies in the sector. He said that the steps taken by the government will boost India's aim to become self-reliant.

PM said that farmers played a pivotal role in providing food to the nation during the lockdown phase and when coronavirus was spreading.

Highlighting the success of the PMKISAN scheme in the state, the Prime minister said that Bihar's 75 lakh farmers have received more than Rs 6,000 crore due to the scheme.

The project in Bihar envisages investment of Rs 1,390 crore with the central share of Rs 535 crore and the additional fish production target pegged at three lakh tons. During the current fiscal, the Union government has sanctioned Bihar's proposal costing Rs 107 crore.

At present, no digital platform is available in the country for farmers managing livestock including buying and selling of disease free germplasm in all forms, availability of quality breeding services and guiding farmers for animal nutrition, treatment of animals using appropriate medicine.

There is no mechanism to send alerts on due date for vaccination, pregnancy diagnosis and calving among other issues and inform farmers about various government schemes and campaigns in the area.

The e-Gopala app will provide solutions to farmers on all these aspects.

The PMMSY aims at enhancing fish production by an additional 70 lakh ton by 2024-25, increasing fisheries export earnings to Rs 1,00,000 crore by 2024-25, doubling of incomes of fishers and fish farmers, reducing post-harvest losses from 20-25 per cent to about 10 per cent and generation of additional 55 lakhs direct and indirect gainful employment opportunities in fisheries sector and allied activities.

-www.hindustantimes.com



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