

MPEDA NEWSLETTER

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The Marine Products Export Development Authority

(Ministry of Commerce & Industry, Government of India)

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MPEDA Newsletter

Vol. IV No. 7 October 2016

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On the Platter.....!!



Dear friends,

It is delighting to note that the export of marine products is slowly regaining its course as we analyse the export figures for the first half of the fiscal. The provisional figures during April-September 2016 show nearly 2% growth in quantity. In Rupee value, the exports grew by 15% and 11% in US \$ earnings compared to the same period last year. The unit value realisation also showed 9% increase to 5.90 USD/Kg, propelled by increased shrimp exports.

During the first six months, India has exported around 4,42,000 tons of marine products worth US\$ 2.6 Billion. Frozen Shrimp is still the principal item of export followed by frozen fish. There is a positive growth in the exports of cephalopods, especially on the revenue part. South East Asia and the United States of America continue to be the major import destinations of our products in value terms. The figures are indicative that India will be able to cross the 5 billion mark once again in its marine products exports.

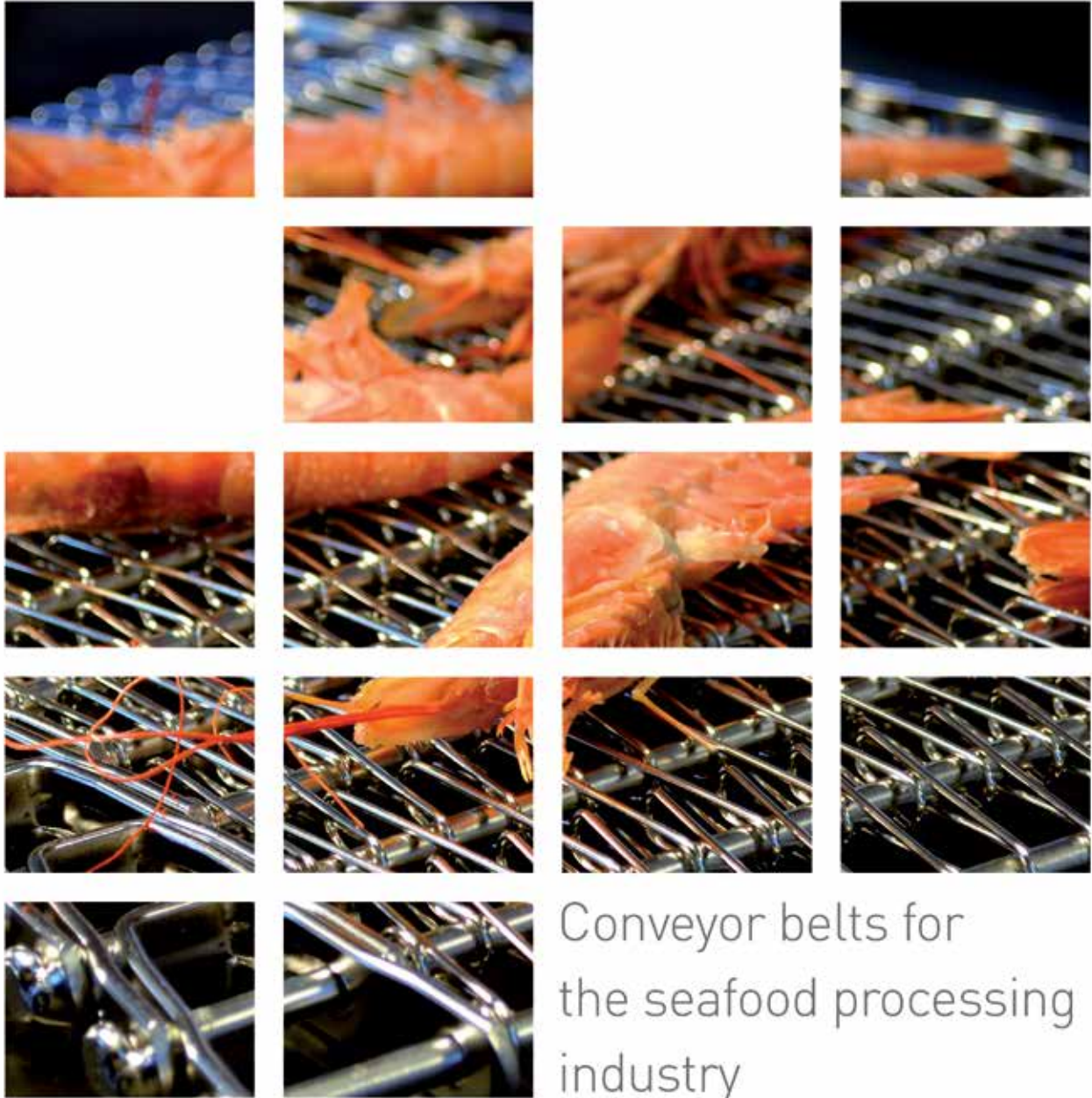
However, there are certain grey areas that include the diminishing catches from our seas, and the continued trend of raw material supply to South East Asia, especially Vietnam to manufacture value added products. The industry shall change its course of action to become a major player in value addition and reprocessing. This is what we have achieved with the Spices production sector, in which India is the world leader. In spices, India got itself transformed from a raw material supplier to a producer and supplier of various grades and types of value added products that remain unmatched in the world markets.

Similar saga of success is possible in the seafood sector too, as we are among the world leaders in fish production. MPEDA plans certain positive interventions in this direction and has drafted certain strategies. We will be glad to receive suggestions from the stakeholders to define the future course of action to be followed by the sector in all its spheres.

Thank you.

October 2016
Kochi - 36

Dr. A JAYATHILAK IAS
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Participation of MPEDA in Kerala Union of Working Journalists (KUWJ) exhibition

MPEDA has participated in the exhibition held at Ernakulam Town hall from 14-15 October, 2016 organized by the Kerala Union of Working Journalists (KUWJ), in connection with their annual conference. MPEDA has set up a stall of 200 sq. ft. (6m x 3m) area which was decorated with three aquaria; one each with fresh water and marine ornamental fishes and third one with mud crabs. Display of live mud crab weighing 1.8 kg to touch and feel the live one attracted many visitors and was the centre of attraction of the exhibition. In addition, different value added products were also displayed in a deep freezer in the stall. The front side of the stall was decorated with models of different varieties of fishes and crabs. This attracted visitors in large number. Various types of priced publications of MPEDA, on aquaculture, ornamental fish and export were also displayed in the stall and got sold out in large volumes.

The important personalities that visited MPEDA stall included the



Mr. Ramesh Chennithala, MLA, Opposition Leader in Kerala Assembly visits MPEDA stall



Mr. O Rajagopal, MLA, Nemom visits MPEDA stall

Mr. Ramesh Chennithala, MLA and the leader of Opposition, Kerala Legislative Assembly and Mr. O Rajagopal, MLA, Nemom.

The participation of MPEDA was organized by Mrs. Elsamma Ithack, Mr. V V Suresh Kumar, Assistant Directors and other staff members.



A view of the MPEDA stall



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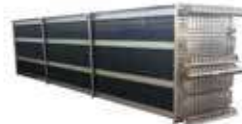
Evaporation Condenser



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Evaporating Coil (Cu tube & Al fin)



Plate Contact Freezer



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Cooking Machine (Water & Steam)



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Breeding machine (Line)



Tunnel Powder Coating Machine



Shrimp Fryer



Automatic Pan separating Conveyor



Shrimp Peeler

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Marine products exports grew in the first half of 2016-17

The export of marine products during April-September 2016 has shown a positive growth of 1.94% in quantity, 15.32% in rupee value and 11.22% in US \$ earnings compared to the same period last year, based on the provisional figures. The unit value realisation also increased from 5.41 USD/Kg to 5.90 USD/Kg with a positive growth of 9.11%.

During the period India has exported 4,42,035 MT of marine products worth US\$ 2.6 Billion. South East Asia and the United States of America continued to be the major import destinations of Indian marine products in terms of value. Frozen Shrimp remained the major item of export followed by frozen fish.

The export performance during April to September 2016 compared to 2015 is given in table 1.

Major items of exports

Frozen shrimp continued to be the major item of export in terms of quantity and value, accounting for a share of 50.80% in quantity and 73.99% of the total US\$ earnings. Shrimp exports during the period increased by 8.61% in terms of quantity. The unit value realization also increased to 8.59 US\$/Kg from 8.28 in the same period last year, with a growth of 3.81%.

The export of Vannamei shrimp

Table 1. Export performance during Apr - Sep 2016 compared to Apr-Sep 2015

Export Details	2016-17 (Provisional)	2015-16	Growth %
Quantity in Tons	442035	433632	1.94
Value in Crores	17237.73	14947.87	15.32
USD in Million	2606.87	2343.81	11.22
Unit Value (USD/Kg)	5.90	5.41	9.11

recorded a positive growth of 19.35% in terms of quantity, 30.31% in rupee value and 25.19% in terms of US \$ earnings. The unit value also improved to 8.59 US\$/Kg from 8.19 US\$/Kg compared to the same period last year. USA is the biggest market for *L. vannamei* shrimps followed by South East Asia.

Export of frozen Squid has shown a positive growth of 4.35%, 33.30% and 29.64% in terms of quantity, rupee value and US dollar earnings respectively. Frozen Cuttlefish has also shown a positive growth of 0.81% in terms of quantity, 19.99% in rupee value and 16.41% in terms of US dollar. However, the export of Frozen Fish and Live items declined in quantity but improved in value terms. Chilled and Dried items showed a negative growth in quantity as well as in value terms. Item-wise export details are given in table 2.

Major export markets

The mid-year trend indicates that South East Asia remains as the

largest market for Indian marine products in terms of quantity with a share of 36.04% followed by USA (21.21%), EU (18.43%), Japan (7.76%), Middle East (5.40%), China (2.89%) and other countries (8.28%).

Value-wise, USA is the largest buyer of Indian marine products and recorded a share of 34% followed by South East Asia (26.62%), EU (17.26%), Japan (8.47%), Middle East (4.86%), China (2.88%) and other countries (5.91%). USA and South East Asian market recorded a positive growth in terms of quantity as well as in value terms. Export to Japan, China and Middle East declined in quantity as well as in value terms. Exports to EU and Other countries have shown improvement in Rupee value. The market wise export details are given in table 3.

With the current trend, it is expected that the marine products export will cross US \$ 5 billion during 2016-17.

Table 2. Major item-wise export (April to September 2016)

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

Item		Share %	Apr- Sep-2016	Apr-Sep-2015	Growth (%)
FROZEN SHRIMP	Q:	50.80	224535	206735	8.61
	V:	74.13	12778.77	10890.75	17.34
	\$:	73.99	1928.94	1710.81	12.75
	UV\$:		8.59	8.28	3.81
FROZEN FISH	Q:	18.62	82302	84853	-3.01
	V:	7.69	1326.28	1254.10	5.76
	\$:	7.69	200.53	194.60	3.04
	UV\$:		2.44	2.29	6.24
FR CUTTLE FISH	Q:	5	23034	22851	0.81
	V:	3.83	660.72	550.67	19.99
	\$:	3.83	99.72	85.67	16.41
	UV\$:		4.33	3.75	15.48
FR SQUID	Q:	9	40981	39271	4.35
	V:	5.63	969.85	727.59	33.30
	\$:	5.63	146.80	113.24	29.64
	UV\$:		3.58	2.88	24.23
DRIED ITEM	Q:	1	4967	10842	-54.18
	V:	1.12	193.58	240.74	-19.59
	\$:	1.12	29.24	37.78	-22.61
	UV\$:		5.89	3.49	68.91
LIVE ITEMS	Q:	0	2123	2414	-12.05
	V:	0.78	135.02	128.75	4.86
	\$:	0.78	20.40	20.20	0.99
	UV\$:		9.61	8.37	14.83
CHILLED ITEMS	Q:	3	13301	18127	-26.62
	V:	1.87	321.68	381.02	-15.57
	\$:	1.86	48.57	59.90	-18.92
	UV\$:		3.65	3.30	10.49
OTHERS	Q:	11	50791	48541	4.64
	V:	4.94	851.84	774.26	10.02
	\$:	5.09	132.68	121.61	9.10
	UV\$:		2.61	2.51	4.26
TOTAL	Q:	100	442035	433632	1.94
	V:	100	17237.73	14947.87	15.32
	\$:	100	2606.87	2343.81	11.22
	UV\$:		5.90	5.41	9.11

Table 3. Market-wise export (April to September 2016)

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

Country		Share %	Apr- Sep-2016	Apr-Sep-2015	Growth (%)
JAPAN	Q:	7.76	34287	38007	-9.79
	V:	8.33	1435.53	1490.21	-3.67
	\$:	8.47	220.69	233.68	-5.56
USA	Q:	21.21	93754	85162	10.09
	V:	34.07	5872.23	4716.89	24.49
	\$:	34.00	886.35	741.30	19.57
EUROPEAN UNION	Q:	18.43	81466	84215	-3.26
	V:	17.28	2977.83	2891.54	2.98
	\$:	17.26	449.84	453.05	-0.71
CHINA	Q:	2.89	12757	23690	-46.15
	V:	2.88	497.15	690.97	-28.05
	\$:	2.88	75.12	108.27	-30.62
SOUTH EAST ASIA	Q:	36.04	159315	130272	22.29
	V:	26.66	4595.23	3303.65	39.10
	\$:	26.62	694.05	515.92	34.53
MIDDLE EAST	Q:	5.40	23867	27177	-12.18
	V:	4.87	839.41	868.78	-3.38
	\$:	4.86	126.74	136.79	-7.34
OTHERS	Q:	8.28	36588	45109	-18.89
	V:	5.92	1020.36	985.83	3.50
	\$:	5.91	154.08	154.80	-0.47
Total	Q:	100	442035	433632	1.94
	V:	100	17237.73	14947.87	15.32
	\$:	100	2606.87	2343.81	11.22

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Highlights of marine fish landings in selected harbours of India during August 2016

Santosh Kadam, Afsal V V, Neethu N J and Joice V Thomas, NETFISH-MPEDA

Introduction

India has very rich diversity in the marine fishery resources with more than 1000 species being landed along more than 1000 landing sites located across the coastal states. Information on boat arrivals and fish landings at the major fishing harbours along the east and west coasts of India is recorded by NETFISH as part of MPEDA's catch certification system. NETFISH monitors the marine fish capture along Indian coast by recording the boat arrivals and fish landings at 46 major harbours and landing centres (Table 1) from the 9 maritime states in the country. The data collected are processed to arrive at species-wise, state-wise, region-wise and harbour-wise evaluation of landings using MS office (excel). This report highlights the marine fish landings at major harbours of India during August 2016.

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

Sl. No.	State	Fishing harbour
1	Kerala	Bey pore
2		Puthiyappa
3		Thoppumpady
4		Munambam
5		Sakthikulangara
6		Thottapally
7		Kayamkulam
8		Vizhinjam

9	Karnataka	Mangalore
10		Malpe
11		Gangoli
12		Tadri
13		Karwar
14		Honnavar
15	Maharashtra	Harne
16		New Ferry Wharf
17		Ratnagiri (Mirkarwada)
18		Sasson Dock
19	Gujarat	Veraval
20		Porbandar
21		Mangrol
22	West Bengal	Digha (Sankarpur)
23		Deshapran
24		Namkhana
25		Sultanpur
26		Kakdwip
27		Raidigi
28	Odisha	Paradeep
29		Balaramgadi
30		Bahabalapur
31		Dhamara
32	Andhra Pradesh	Visakhapatnam
33		Kakinada
34		Machilipatnam
35		Nizampatnam
36	Tamil Nadu	Chennai
37		Pazhaiyar
38		Nagapattinam
39		Tuticorin
40		Cuddalore
41		Mandapam
42		Chinnamuttom
43		Colachel
44		Pondicherry
45		Karaikal
46	Goa	Cutbona

Estimates based on landings

Marine fish landings recorded during August 2016 from 22 harbours/landing centres in West coast and 24 harbours/landing centres in East coast of India totalled to 48725.30 tons. Shellfish resources dominated the landings with a contribution of 18995.90 tons (39%) and the landings of pelagic finfish and demersal finfish resources were to the tune of 18291.10 tons (38%) and 11438.29 tons (23%) respectively (Fig 1).

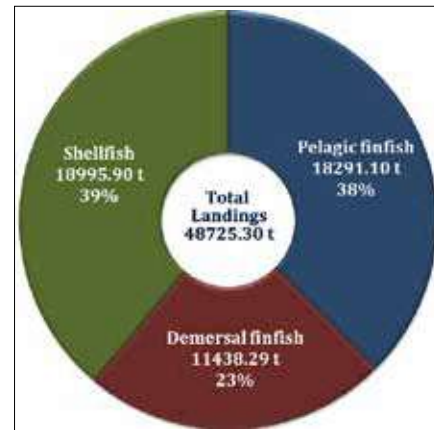


Fig. 1. Category-wise fish landings during August 2016

A total of 104 fish varieties were recorded during August 2016, of which the top five contributors were Squid, Cuttlefish, Indian Mackerel, Japanese Thread fin bream and Ribbon fish which together accounted for 46% of the total landings (Fig. 2). Karikkadi shrimp, Indian Oil Sardine, Croaker, Octopus, Poovalan shrimp, Lizard

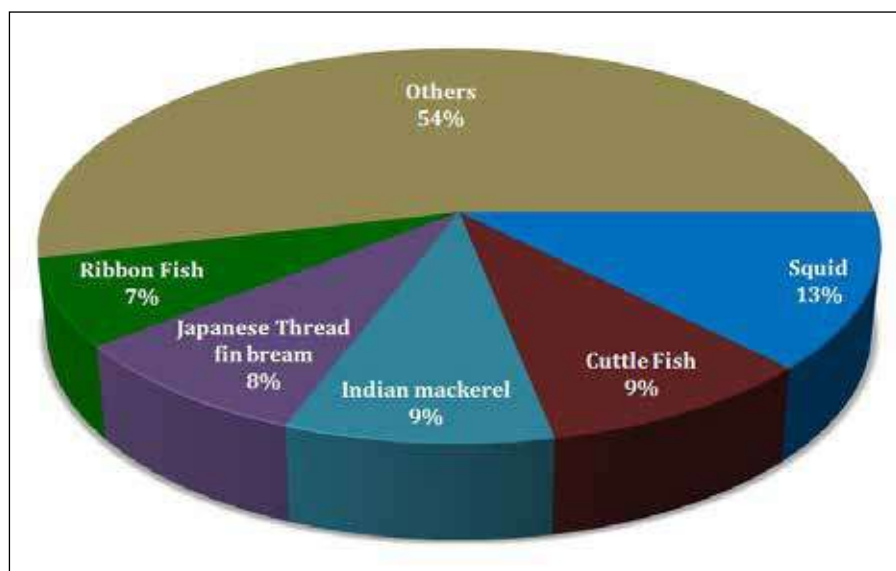


Fig. 2. Major items landed during August 2016

fish, Snapper, Tuna and Anchovy also contributed more than 1000 tons to the total landings.

Category and item wise breakups of the total landings recorded during the month is given in Table 2. Indian Mackerel topped the position among pelagic finfishes with a landing of 4288.93 tons, which is 8.80% of the total catch. Ribbon fish also contributed significantly to the landings with a quantity of 3452.04 tons (7.08%) whereas the Indian Oil Sardine recorded a landing of 1667.98 tons (3.42%). Anchovies, Tunas, Snappers & Hilsa were the other pelagic fishery resources which contributed more than 2% to the total landings. Among demersal finfish stocks, the major landings were of Japanese Thread fin bream with 4144.28 tons (8.51%) and followed by Croakers and Pomfrets contributing 1554.47 tons (3.19%) and 1383.79 tons (2.84%) respectively. Bull's eyes and Lizard fish also contributed more than 2% to the total demersal resource landings. In the case of

Shellfish landings, Molluscan stocks recorded more quantity (*ie.* 1190.57 tons) than Crustaceans (7005.34 tons). Among Crustaceans, majority of the landings *ie.* 6251.33 tons were of Penaeid shrimps, out of which Karikkadi shrimp landing was the highest (2174.09 tons). The contribution by Squid and Cuttlefish to the total landings accounted to 6179.45 tons (12.68%) and 4505.78 tons (9.25%) respectively.

Table 2. Category-wise landings of various fish species during August 2016

No.	Fish item	Quantity in tons	% of total landings
Pelagic finfish			
1	Indian Mackerel	4288.93	8.80
2	Ribbon Fish	3452.04	7.08
3	Indian Oil Sardine	1667.98	3.42
4	Anchovies	1279.35	2.63
5	Tuna	1266.15	2.60
6	Snapper	1151.53	2.36
7	Hilsa	984.90	2.02
8	Seer Fish	869.51	1.78

9	Bombay Duck	733.00	1.50
10	Horse mackerel	437.71	0.90
11	Scads	427.76	0.88
12	Barracudas	357.80	0.73
13	Trevallies	245.31	0.50
14	Herrings	223.90	0.46
15	Marlins	122.88	0.25
16	Leather jacket	121.27	0.25
17	Sail fish	112.38	0.23
18	Silver sillago	110.54	0.23
19	Lesser Sardines	98.54	0.20
20	Mullet	65.85	0.14
21	Oriental Bonito	54.50	0.11
22	Dolphin fish	52.88	0.11
23	Queenfish	46.94	0.10
24	Sea bass	36.11	0.07
25	Indian ilisha	29.90	0.06
26	Cobia	20.41	0.04
27	Needle fish	19.50	0.04
28	Milk fish	10.14	0.02
29	Indian salmon	2.94	0.01
30	Halfbeak	0.33	0.00
31	Indian thread fish	0.15	0.00
Total		18291.10	37.54
Demersal finfish			
32	Japanese Thread fin bream	4144.28	8.51
33	Croakers	1554.47	3.19
34	Pomfrets	1383.79	2.84
35	Bull's eye	1206.91	2.48
36	Lizard fish	1156.24	2.37
37	Cat fish	486.17	1.00
38	Sole fish	440.84	0.90
39	Reef cods	283.55	0.58
40	Eel	153.58	0.32

41	Goat fish	151.09	0.31
42	Pony fishes	119.47	0.25
43	Rays	115.26	0.24
44	Moon fish	99.89	0.20
45	Parrot fish	39.49	0.08
46	Whip fin silver biddy	33.60	0.07
47	Emperor Bream	24.72	0.05
48	Indian Halibut	19.28	0.04
49	Ghol	12.18	0.02
50	Filefish	6.50	0.01
51	Yellow fin sea bream	2.85	0.01
52	Spine foot	2.25	0.00
53	Guitar fish	0.95	0.00
54	Tiger Perch	0.50	0.00
55	Trigger fish	0.30	0.00
56	Spade fish	0.15	0.00
Total		11438.29	23.48
Shellfish			
<i>Crustaceans</i>			
57	Penaeid Shrimps	6251.33	12.83
58	Sea Crab	676.32	1.39
59	Lobsters	59.63	0.12
60	Mud Crab	14.01	0.03
61	Non-penaeid Shrimps	4.05	0.01
Total		7005.34	14.38
<i>Molluscs</i>			
62	Squid	6179.45	12.68
63	Cuttlefish	4505.78	9.25
64	Octopus	1305.34	2.68
Total Shellfishes		11990.57	24.61
Total		18995.90	38.99
Grand total		48725.30	100.00

Region-wise landings

Among the 46 landing sites selected for the analysis, 15 belongs to South West region (Kerala, Karnataka &

Goa), 7 landing sites to North West region (Maharashtra & Gujarat), 14 to South East region (Tamil Nadu & Andhra Pradesh) and 10 to North East region (Odisha & West Bengal). The landings recorded from the selected harbours of South West region accounted to 26579.04 tons which is 55% of the total landings during the month. North East and South East regions contributed 8797.35 tons (18%) and 7477.20 tons (15%) respectively and the North West region recorded the lowest quantity of 5871.71 tons

(12%) (Fig. 3).

In the South West and South East regions the shellfish stocks dominated the landings whereas in North West and North East coasts the Pelagic finfish landings was more than that of shellfishes (Fig. 4). The landing of demersal finfishes was the lowest in all the regions during August (Fig. 4).

The fishery items which contributed predominantly to the landings of each region are enlisted in Table 3. Squid had contributed more than 10% to the total landings of 3 regions viz. South West, North West and South East, but in North East Squid landing was only 3% of the total landings. Cuttlefish too contributed well to the total landings of all the regions except North East. Ribbon fish landings formed 35% of the total landings in North West region and could find a space among the top five contributors in South East and North East as well.

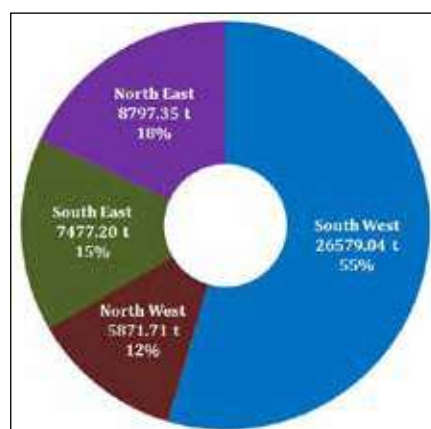


Fig. 3. Region-wise landings recorded during August 2016

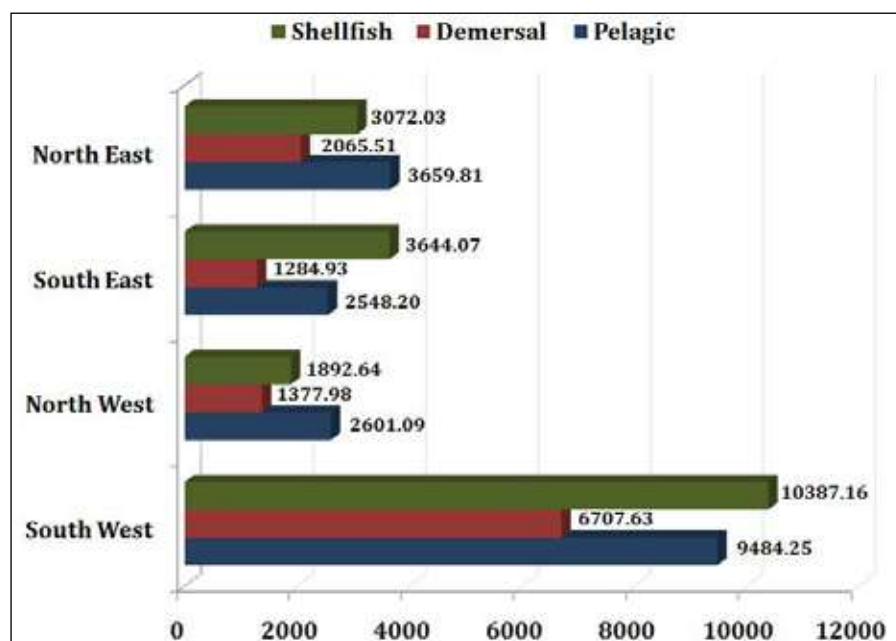


Fig. 4. Comparison of category-wise contribution (in tons) to the total landings of each region

Table 3. Major items landed in each region during August 2016

Item	Quantity in tons	% of total landings of the region
South West		
Japanese Thread fin bream	3872.12	14.57
Squid	3867.82	14.55
Indian mackerel	3548.03	13.35
Cuttlefish	3183.42	11.98
Indian Oil Sardine	1208.97	4.55
North West		
Ribbon Fish	2067.12	35.21
Squid	1027.96	17.51
Croaker	447.24	7.62
Cuttlefish	409.05	6.97
Silver pomfret	215.57	3.67
South East		
Squid	989.06	13.23
Cuttlefish	790.29	10.57
Poovalan Shrimp	419.95	5.62
Ribbon Fish	318.46	4.26
Indian mackerel	300.96	4.03
North East		
Hilsa	974.09	11.07
Croaker	938.51	10.67
Karikkadi Shrimp	867.16	9.86
Bombay Duck	661.78	7.52
Ribbon Fish	594.48	6.76

State-wise landings

Kerala, Karnataka and West Bengal recorded as the top three maritime states in terms of quantity of marine fish landed during August 2016. Catch from these states accounted for around 65% of the total landings (Fig. 5). The landing recorded

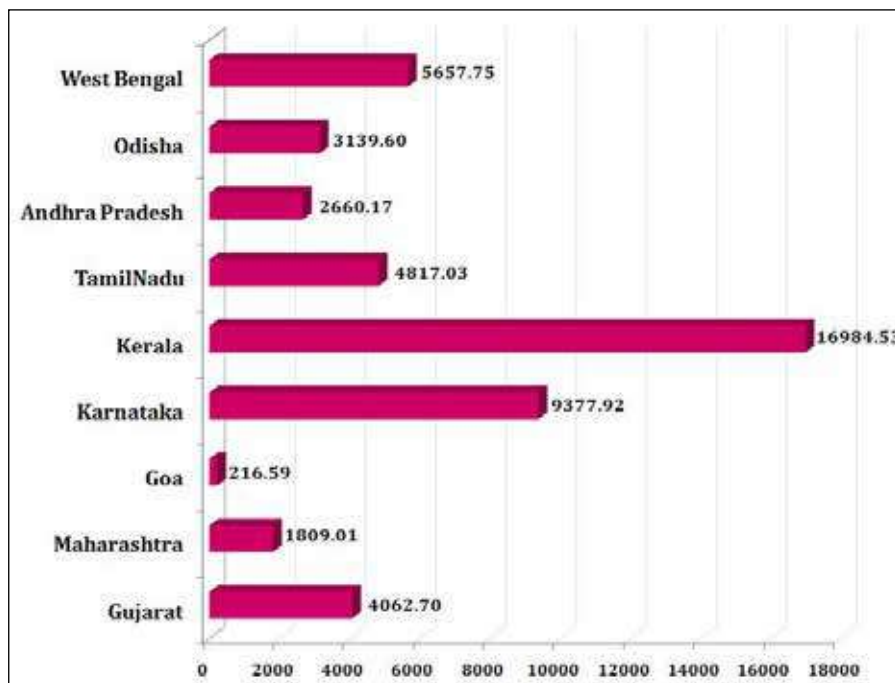


Fig. 5. State-wise fish landings (in tons) during August 2016

from Kerala was more than that of Karnataka by about 7500 tons. The state of Goa recorded the least landings.

The major five fishery items landed in each state during August are enlisted in Table 4. Squid was among the most landed items in 5 maritime states viz. Kerala, Karnataka, Maharashtra, Gujarat and Tamil Nadu. Cuttlefish, Indian Mackerel and Ribbon fish too recorded as the fish items which formed a major part of the landings at 4 maritime states, though the states differed item-wise. The landing of Croaker was noticeably high in Gujarat, Odisha and West Bengal whereas the Karikkadi shrimp recorded a fair good quantity in Kerala, Odisha and West Bengal.

Harbour-wise landings

Of the 46 harbours, from where the landing data was collected, the Munambam harbour in Kerala

Table 4. Major items landed in various states during August 2016

Item	Quantity in tons	% of total landings of the state
Kerala		
Japanese Thread fin bream	2891.44	17.02
Cuttlefish	2633.17	15.50
Squid	2144.75	12.63
Karikkadi Shrimp	1171.30	6.90
Snapper	1015.15	5.98
Karnataka		
Indian mackerel	2456.22	26.19
Squid	1723.07	18.37
Japanese Thread fin bream	980.68	10.46
Cuttlefish	550.25	5.87
Indian Oil Sardine	534.40	5.70
Goa		
Indian mackerel	156.22	72.13
Tuna	16.80	7.76

Moon fish	15.60	7.20
Needle fish	12.40	5.73
Flower Prawn	10.79	4.98
Maharashtra		
Squid	515.64	28.50
Ribbon Fish	350.98	19.40
Horse mackerel	125.20	6.92
White Prawn	118.74	6.56
Seer Fish	96.20	5.32
Gujarat		
Ribbon Fish	1716.14	42.24
Squid	512.32	12.61
Cuttlefish	408.93	10.07
Croaker	386.79	9.52
Silver pomfret	151.08	3.72
Tamil Nadu		
Squid	920.66	19.11
Cuttlefish	732.29	15.20
Indian Scad	271.75	5.64
Indian mackerel	218.01	4.53
Barracuda	177.85	3.69
Andhra Pradesh		
Pink Shrimp	353.35	13.28
Ribbon Fish	252.25	9.48
White Prawn	216.60	8.14
Tiger Prawn	216.14	8.13
Flower Prawn	188.70	7.09
Odisha		
Ribbon Fish	523.87	16.69
Karikkadi Shrimp	438.80	13.98
Croaker	387.48	12.34
Sea Crab	186.08	5.93
Sole fish	155.78	4.96
West Bengal		
Hilsa	893.55	15.79
Bombay Duck	580.39	10.26
Croaker	551.03	9.74
Karikkadi Shrimp	428.37	7.57
Indian mackerel	256.17	4.53

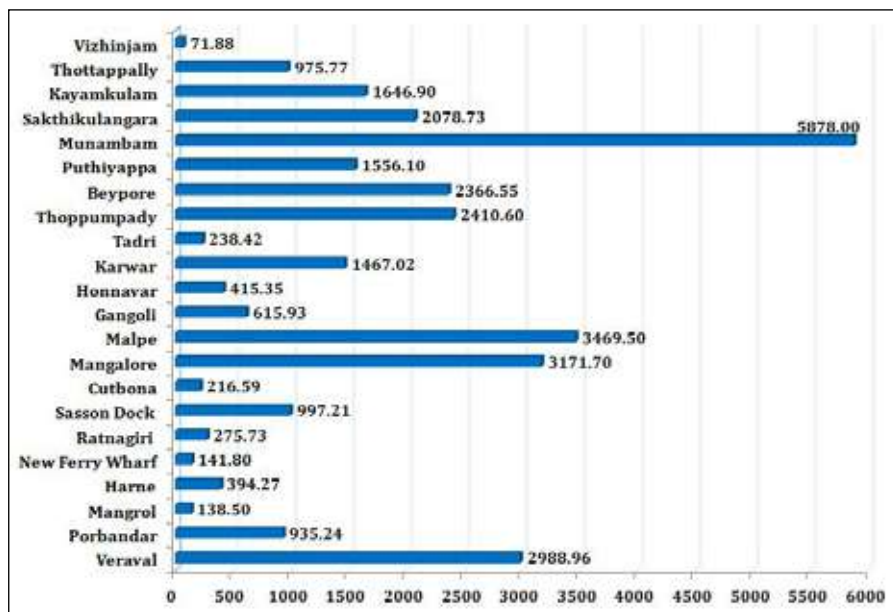


Fig. 6. Landings (in tons) at harbours along west coast during August 2016

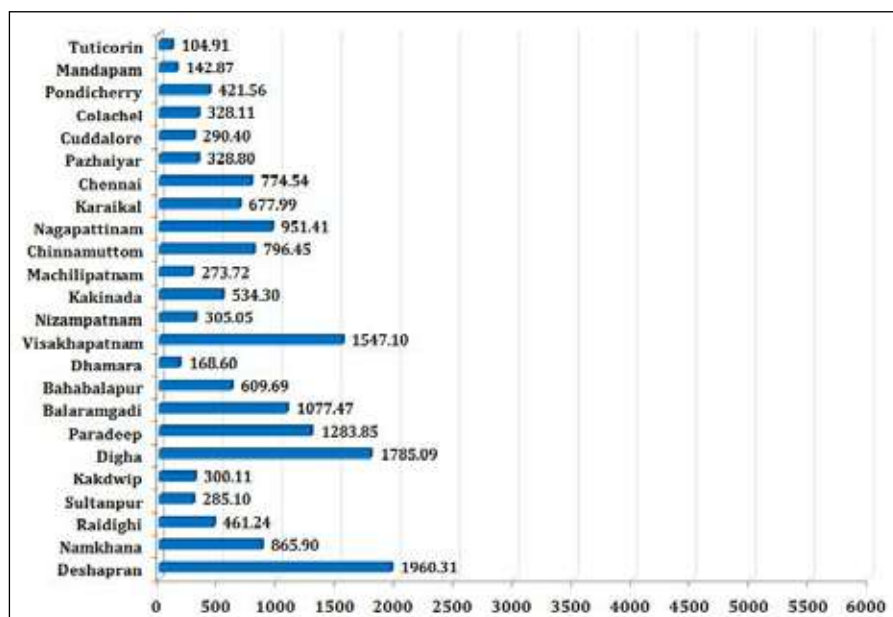


Fig. 7. Landings (in tons) at harbours along east coast during August 2016

recorded the highest landing, which was to the tune of 5878.00 tons of fish (12%). Figure 6 & 7 represents the harbour-wise landings along West coast and East coast respectively. Malpe and Mangalore harbours in Karnataka accomplished the second and third positions with each contributing 3469.50 tons and 3171.70 tons correspondingly. The

maximum landing recorded along East coast was at Deshapran harbour in West Bengal with a contribution of 1960.31 tons. In August, 15 of the selected harbours recorded a landing of more than 1000 tons, out of which 10 harbours were along West coast and remaining in East coast. The least quantity landed was at Vizhinjam harbour in Kerala.

Estimates based on boat arrival

In total, 24455 boat landings were reported during the month from the selected harbours. The harbours which recorded more than 1000 boat landings in the month are given in table 5. The Veraval fishing harbour in Gujarat recorded the highest boat landing of 1466, followed by Chinnamuttom in Tamil Nadu with 1356 boats and Malpe in Karnataka with 1176 boats. More than 80% of the fishing vessels which landed their catch at the harbours belonged to the category of Trawlers. The remaining boat landings were comprised of Purse seiners, Ring seiners, Gill netters and traditional crafts.

Comparative analysis

A comparison of the August month's data with that of June & July is presented in the Table 6. It was found that the total fish catch has increased in August by a huge margin of more than 30000 tons, when compared to that of previous months. The shellfish landing was found increasing over the months and in August it surpassed the quantity of pelagic finfish landing. The pelagic finfish landing in turn had decreased by 7%. Demersal finfish stocks have shown not much variation in the percentage of landings, though a 2% increase can be noted in August than that of July. In August, Squid has taken over the top position among the fishery items with maximum landing and the landings of Japanese Thread fin bream and Anchovy were comparatively low. Kerala

Table 5. Fishing harbours which recorded > 1000 boat landings during August 2016

Sl. No.	Fishing harbours	State	Number of boat landings
1	Veraval	Gujarat	1466
2	Chinnamuttom	Tamil Nadu	1356
3	Malpe	Karnataka	1176

Table 6. Comparative analysis of the data

	June 2016	July 2016	August 2016
Total Landings	17718.12 t	17453.75 t	48725.30 t
Landing of Pelagic finfishes	42%	45%	38%
Landing of Demersal finfishes	25%	21%	23%
Landing of Shellfishes	33%	34%	39%
Species recorded highest landing	Japanese Thread fin bream (7%)	Anchovy (13%)	Squid (13%)
State recorded highest landing	Kerala (45%)	Tamil Nadu (30%)	Kerala (35%)
Harbour recorded highest landing	Thoppumpady (14%)	Kayamkulam (12%)	Munambam (12%)
Total Boat landings	6,239	13,441	24,455

registered the maximum landings during August when Tamil Nadu was placed in the fourth position. The Munambam harbour in Kerala gained the position of the harbour with highest landing by shifting Thoppumpady & Kayamkulam to lower positions. The total number of boat landings recorded had increased in August when compared to that of previous months.

Conclusion

During August 2016, the fish landings recorded from 46 major fishing harbours of India accounted to a total of 45725.30 tons in which Shellfish (39%) contributed more than that of pelagic finfish (38%)

and demersal finfish (23%). The reason for more fish landings during August than the previous months can be attributed to the lifting of trawl ban along West coast on 31st July. The majority of the landings were from South West coast, of which Kerala contributed the major share. About 15 of the selected harbours recorded more than 1000 tons of marine fish landings during the month, again the harbours along the West coast contributing more. Kerala, Karnataka and West Bengal were the lead states in fish landings and the Munambam harbour in Kerala had the highest landing. However, the maximum boat arrival during the month were recorded in Veraval harbour. ■

Celebration of International Coastal Cleanup Day

Marine pollution is posing threat not only to the oceans and marine life, but also to human health and safety. Vast amounts of plastic debris generated by human deeds are ultimately reaching world's oceans through various sources. Our beaches are collecting spots for trash from city streets and highways. If not removed, this debris will end up in the ocean. Avoiding dumping wastes on beaches along with regular beach cleanups are essential to keep our oceans safe from pollution, to a great extent. The International Coastal Cleanup Day is observed worldwide every year on the third Saturday of September. This event aims at generating awareness among the public on the harmful impacts of pollution and its sources and to engage people in removing trash from the beaches thereby to change their behaviour. NETFISH in West Bengal and Tamil Nadu observed the International



School students cleaning the Tajpur beach

Coastal Cleanup Day by conducting special cleanup drives, rallies and awareness meetings.

In West Bengal, a beach cleanup, a rally and a consultative workshop on 'Biodiversity Conservation and Marine Ecosystem' were held on 20th September 2016 at Tajpur, Purba Medinipur, in collaboration with Ramnagar-I Biodiversity Management Committee. The event was inaugurated by Mrs.

Rasmi Kamal IAS, Hon'ble District Magistrate of Purba Medinipur. Mrs. Rina Niranjana, IAS, SDO Contai, Mr. Suman Biswas IAS, ADM Environment & Tourism & DPO SSM, Mr. Ramkrishna Sardaer, Assistant Director of Fisheries (Marine), Contai, Dr. Anirban Roy, Research Officer, West Bengal Biodiversity Board (WBBDB), Dr. Rupam Mandol, Project Coordinator, WBBDB, Chairman of Biodiversity Management Committee of different blocks of Purba Medinipur such as Ramnagar-I, Contai- I, Patashpur-I, Khejuri I & II and Bhagabanpur – II, fisher folks, school students, teachers, media personnel, NGO representatives, and Harbour Data Collectors too attended the occasion. The beach cleanup was conducted with the active participation of school students of Hirapur Dashagram High School (HS), Khudbheri HS & Bodhra Pantheswari HS. NETFISH provided hand gloves, caps and big poly



A view of the rally

bags to the participants to collect the wastes. They removed the debris including plastic bags, pet bottles, plastic cups, thermocol pieces, broken nets etc. All the wastes were collected in waste disposal polythene bags and removed from the locality. Then, a rally was conducted in Tajpur sea beach, with the participants holding banners and posters on conservation and with the theme of Swachh Bharat Mission “*Ek kadam Swachata ki aur*”. In the workshop conducted, Dr. Anirban Roy, Research Officer, West Bengal Biodiversity Board (WBBDB) gave a speech on biodiversity and its significance. Mr. Atanu Ray, NETFISH State co-ordinator gave a lecture to the school students on International Coastal Cleanup Day, its history and significances and abuse of plastic and its impact in fisheries. Dr. Rupam Mandal, Project co-ordinator, (WBBDB) elaborated on importance of the day, ecology and marine life etc. NETFISH documentary film on Marine Conservation and animation film on Conservation entitled “Escape to



Students watching NETFISH animation film



A view of the biodiversity awareness programme



Participants of the cleanup drive at Marina Beach

depth” were shown to the students.

In Tamil Nadu, NETFISH in collaboration with National Green Crops organized a Coastal cleanup and Marine Biodiversity Awareness programme at Chennai on 23rd September 2016. Dr. H Malleshappa IFS, Director, Dept of Environment, Government of Tamil Nadu inaugurated the programme. Mr. Vijayakumar C Yaragal, Deputy Director, MPEDA highlighted on the importance of the day and the role of teachers in spreading awareness to the public. About 145 teacher trainees from District Institute of

Education & Training (DIET) along with Director, Deputy Director, District Co-ordinator, Eco club Co-ordinator, officials from DIET and MPEDA actively participated in the cleanup drive. Huge amount of waste materials were collected from the Marina Beach in an hour and were handed over to the Chennai Corporation sanitation staff. They also urged the public to avoid disposal of plastic wastes in the beach. An oath for protecting the coastal areas was also taken by all the participants. Later on, a Marine Biodiversity Awareness programme

was conducted, in which an awareness class on conservation of coastal area was delivered by Dr. Sathish Sahayak, Programme Manager, Ornamental Fish Division, MPEDA to the participants. Dr. R Balasubramanian, State Co-ordinator, NETFISH in his talk explained on the role of teachers in coastal conservation, conservation of turtles and environment and the role played by the ocean in maintaining the Earth’s climate. Finally, Mr. G Thangaraj, Co-ordinator, National Green Crops proposed the vote of thanks. ■

Special Package for MPEDA Publications

	General - Publications	Special Package
1	Indian Fishery Hand Book	<p>Rs. 300 only for a set of 16</p> <p>MPEDA priced publications as a part of stock clearance</p>
2	Exporters Directory – Digital CD	
3	Product Catalogue	
4	Fin Fishes and Shell Fishes of India	
5	Seafood Delicacies from India	
	Ornamental Fish – Publications	
6	Ornamental Traders/Exporters Directory	
7	Water Quality in the Ornamental Aquatic Industry – Serial 1	
8	International Transport of Live Fish in the Ornamental Aquatic Industry – Serial 2	
9	Live Food Culture for the Ornamental Aquatic Industry – Serial 3	
10	Bio-Security in the Ornamental Aquatic Industry – Serial 4	
11	Living Jewels – A Handbook on Freshwater Ornamental Fish	
12	Chart on Freshwater Ornamental Fish	
	Aquaculture – Publications	
13	Diseases in Brackishwater Aquaculture	
14	Diseases of Cultured Shrimp & Prawns in India	
15	Breeding, Seed Production & Farming of Mud Crab	
16	Hatchery Seed Production & Farming of Cobia - Initiative	

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Training programme on value added fishery products at NIFPHATT, Kochi

NETFISH team comprising State Co-ordinators and Research Assistants had attended three days training programme on “Value added fishery products” at National Institute of Fisheries Post Harvest Technology and Training (NIFPHATT), Kochi from 30th September to 3rd October 2016. Mr. C Sreekumar, Processing-cum-Quality Assurance Supervisor, NIFPHATT was the course coordinator for the training programme. The programme was started with a presentation by Mr. Sreekumar introducing NIFPHATT and its activities to the trainees. Afterwards, the trainees were taken to the fish processing plant where they could see the method of processing of fish for the preparation of keema. The trainees also visited the cold store and canning plant of NIFPHATT.



Participants of the training programme along with NIFPHATT officials

Mr. Sreekumar, Course Co-ordinator and Mrs. Remya, Technologist with the help of supporting staff handled the demonstration sessions on preparation of value added products. During the 3-day training programme, the trainees were taught to prepare ready to eat products like fish pickle, fish curry, fish pollichadhu, dried prawn masala fry and dried prawn chutney,

breaded and battered products like fish cutlet and fish finger, ready to cook products like fish wafer, etc. in a hygienic way without the usage of any additives. The dishes prepared ensure good taste and better shelf life.

On the last day, an interaction session was carried out with Dr. S Girija, Director, NIFPHATT, where



View of different sessions of the training programme

the State Co-ordinators shared their work experience and also expressed their high satisfaction about the training programme. The officials from NIFPHATT expressed their interest in future collaboration with NETFISH in conducting different programmes for the improvement of livelihood of fishermen community. The training programme ended with a valedictory function where

the Director, NIFPHATT distributed certificates to the trainees.

The training programme was very informative and the skill attained can be used to train the fisher folks and women SHGs who can take up production of value added fishery items either as an additional income generator or as an alternative livelihood. The importance of value added fishery

products is gaining importance as it would enhance storage and shelf life and proper marketing would provide revenue as well as hygienic products to the export market. In the future awareness programmes of NETFISH, hygienic production of value added fishery products will be promoted and the interested fishers especially fisherwomen will be given proper guidance and training. ■

Price List of MPEDA Publications/Periodicals

Periodicals		Annual Subscription (Rs.)
1	Prime Weekly (Price Indicator for Marine Products)	350.00
2	MPEDA Newsletter	480.00
General - Publications		Price/copy (Postage extra)
3	Indian Fishery Handbook	250.00
4	Exporters Directory – Digital CD	50.00
5	Product Catalogue	150.00
6	Fin Fishes and Shell Fishes of India	125.00
7	Statistics of Marine Products – 2010	550.00
8	Seafood Delicacies from India	100.00
9	MPEDA Act, Rules & Regulations	25.00
10	Chart on Commercial Fishes of India	75.00
11	Coffee Table Book	900.00
Ornamental Fish – Publications		
12	Ornamental Traders/Exporters Directory	25.00
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19	Diseases in Brackishwater Aquaculture	100.00
20	Diseases of Cultured Shrimp & Prawns in India	100.00
21	Breeding, Seed Production & Farming of Mud Crab	50.00
22	Hatchery Seed Production & Farming of Cobia - Initiative	50.00

Training programme on “Ornamental fish breeding and culture: a source of livelihood”

MPEDA, Ornamental Fish Division (OFD), Bhopal, Madhya Pradesh project office has supported a 5-day training programme sponsored by National Fisheries Development Board (NFDB), Hyderabad under the Blue Revolution Programme and organized by Krishi Vigyan Kendra, Dewas affiliated to Rajmata Vijayaraje Scindia Agriculture University, Gwalior and Indian Council of Agricultural Research (ICAR), New Delhi on “Ornamental fish breeding and culture: a source of livelihood” during 3-7, October, 2016 at Conference Hall of Krishi Vigyan Kendra, Dewas, Madhya Pradesh. 20 beneficiaries from various part of Dewas district of Madhya Pradesh attended the training programme.

The Programme was inaugurated by Dr. R P Sharma, Senior Scientist & Head, Krishi Vigyan Kendra, Dewas, in the presence of Dr. Laxmi, Training Coordinator & Scientist (Fisheries), Dr. Nishith Gupta, Scientist (Horticulture), Dr. K S Bhargav, Scientist (Agriculture Engineering), Dr. Manish Kumar, Scientist (Entomology), Dr. R J Tiwari, Scientist (Soil Science), Dr. Nirja Patel, Scientist (Extension) and Dr. Moni Singh, Scientist (Homo Science), KVK, Dewas, Madhya Pradesh.



Dr. R P Sharma, Senior Scientist & Head, Krishi Vigyan Kendra, Dewas inaugurated the training programme by lighting the traditional lamp



Dr. Laxmi, Scientist (Fisheries), KVK, Dewas briefed the participants about aquarium fabrication and management



Mr. Mohammed Arif Ansari, PM, MPEDA-OFD, Madhya Pradesh discussed with participants on establishment of Ornamental Fish Breeding Unit

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The technical sessions were handled by Mr. Mohammed Arif Ansari, Programme Manager-OFD, MPEDA, Madhya Pradesh, Dr. Shirish Agnihotri, Assistant Research Officer Fisheries, Bhopal, Dr. Ameen Khan, Faculty (Fisheries), Dept. of Zoology and Fisheries, Atal Bihari Vajpayee Hindi Vishwavidyalaya, Bhopal and Dr. Laxmi, Scientist (Fisheries), Krishi Vigyan Kendra, Dewas. Topics such as introduction to biology and varieties of ornamental fishes, importance of ornamental fish culture, breeding techniques of live bearers and egg layers, aquarium fabrication and setting, identification of important ornamental aquatic plants, design and construction of ornamental fish farm and introduction to farm equipments, water quality analysis and water management (ornamental fish culture),



Dr. Laxmi, Training Coordinator & Scientist (Fisheries), Krishi Vigyan Kendra, Dewas interacts the participants on glass tank unit

entrepreneurship development exposure visit to MPEDA assisted and marketing strategies, packing ornamental farm, Raza Ornamental and transportation of ornamental Fish Farm at Dharampuri village, fishes, importance of artificial Dhar district during the training. larval rearing-production of live Certificates were distributed to the feed, fish health management etc. participants during the valedictory were presented and discussed. function held on the last day of the The trainees were also given an programme.



Participants with MPEDA and KVK officials at Krishi Vigyan Kendra, Dewas, Madhya Pradesh

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AQUACULTURE SCENE

Training programmes and campaigns in aquaculture by MPEDA field offices

Regional Centre, Vijayawada

MPEDA Regional Centre, Vijayawada organised a 5-day training programme for SC/ST beneficiaries from 12-16, September 2016 on "Better Management Practices in Shrimp Farming and Diversified Aquaculture" at Community hall, Ananthavaram village, Tanguturu Mandal, Prakasam district, Andhra Pradesh.

Mr. C J Sampath Kumar, Joint Director (Training), MPEDA, Vijayawada inaugurated the training programme. The technical sessions were handled by Mr. C J Sampath Kumar, Joint Director (Training), Dr. P Sreenivasulu, Assistant Director, Mr. Archiman Lahiri, Assistant Director, Mr. DSD Suman Joshi, Field Supervisor, MPEDA, Mr. Wilson Prabhakar, Executive Director, SC Corporation, Ongole, Mr. Lal Mohammad, Assistant Director, Fisheries, Ongole, Govt. of Andhra Pradesh.

Topics such as Best Management Practices in aquaculture, abuse of antibiotics, role of MPEDA, RGCA and NaCSA in helping the farmers in various aspects of aquaculture, pond preparation to marketing of shrimps, *L. Vannamei* culture, seed quality, PCR kits and its significance, water quality and disease management, importance for forming aqua societies and subsidy available for various purpose



Mr. C J Sampath Kumar, Joint Director (Training) taking class



A view of the participants

under new schemes, *M-Krishi* App developed by MPEDA and its uses in aquaculture, bio security measures, handling of harvested shrimp, poly culture of shrimp with mullet species, control of the disease outbreak, seed selection, common disease in aquaculture and its measures, Pre Harvest Test, State Government schemes that will benefit the SC aqua farmers, strategies followed to get best benefits in aquaculture, various

State Government promotional schemes related to aquaculture, advanced techniques to reduce the cost of production, etc. were presented and discussed.

The 5-day programme was coordinated by Mr. DSD Suman Joshi, Field Supervisor, Mr. N Subba Rao, Field Assistant and Mr. Bharathg Raju, NaCSA, Field Manager. Certificates and stipend were distributed on the last day of the programme.

Regional Centre, Bhubaneswar

MPEDA Regional Centre, Bhubaneswar organized a 3-day training programme from 21-23, September 2016 at Multi purpose cyclone centre, Bangor village and a 5-day training programme from 19-23, September 2016 at Sunapur village, Ganjam district on "Adoption of BMP's in Aquaculture and Species Diversification" for the benefit of aqua farmers and SC shrimp farmers respectively.

The training programme at Bangor village was inaugurated by Mr. Santosh Dalai, District Fisheries Officer, Puri. Technical sessions were handled by Mr. U C Mohapatra, Deputy Director, Mr. N V Tambada, Assistant Director, Mr. S M Shirodkar, Junior Technical Officer, MPEDA, Mr. Duryodhana Sahoo, AFO, Puri and Mr. Sakrajit Patashani, Field Manger, NaSCA, Puri. Topics such as site selection, construction/maintenance of shrimp farm, biological aspects of shrimp, selection of quality seeds, transportation, acclimatization & stocking of seeds, pond preparation, soil /water quality management, feed & feeding management, disease prevention & avoiding banned antibiotics/ medicine use, biosecurity in *L. vannamei* farming, economics of shrimp farming, farm enrollment/registration & GPS in aquaculture, introduction of export oriented diversified species, procedure for CAA registration, status of aquaculture in Odisha, promotional activities and norms on online application for financial schemes of MPEDA, schemes of State Fisheries Dept. etc. were presented and discussed.



Mr. Santosh Dalai, District Fisheries Officer, Puri addressing the farmers



A view of the trainees at Bangor village



Mr. B Srikanth, PM, RGCA, Gopalpur addressing the farmers

Pond data registers, booklets on BMPs in shrimp farming, leaflets against antibiotic abuse in aquaculture & other relevant literatures were provided to the trainees during registration. A short film on sustainable aquaculture in Odiya by NaSCA & video films

on Crab culture, Sea bass culture, Tilapia culture were also shown. On 22nd September 2016, a field trip was arranged to the nearby shrimp farms to provide an opportunity to the trainees to familiarize with bio security measures, shrimp health check, feed check tray observation,

water quality monitoring etc. The programme was attended by 17 participants. Certificates and stipend were distributed to the trainees on the last day of the programme.


The programme at Sunapur village was inaugurated by Mr. A Trinadha Rao, Panchayat Executive Officer, Sunapur village, Ganjam district. Technical sessions were handled by Mr. U C Mohapatra, Deputy Director, Mr. N V Tambada, Assistant Director, Mr. Shirodkar, Junior Technical Officer, Mr. S Durga Rao, Field Supervisor, MPEDA, Mr. Sakrajit Patasani, Field Manager, NaCSA, Assistant Fisheries Officer, Department of fisheries, Brahmpur, Ganjam district, Dr. B Srikanth, Project Manager, RGCA,



A view of the trainees at Sunapur village

Gopalpur. In addition to the regular topics, NRCP programme, post harvest handling and marketing, good management practices in aquaculture, formation of aqua societies for adoption of BMPs, diseases in aquaculture and their prevention, RGCA activities, Tiger SPF brood stock project, etc. were presented and discussed.

On 21st September 2016 a field trip there was a to Viswanatha Raju Aqua Farm to provide an opportunity to the trainees to familiarize with bio security measures, shrimp health check, feed check tray observation, water quality monitoring etc. Certificates and stipends were distributed to the trainees on the last day of the programme.



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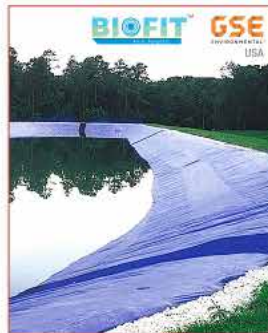
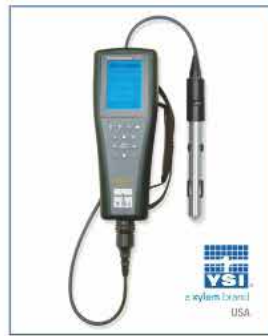
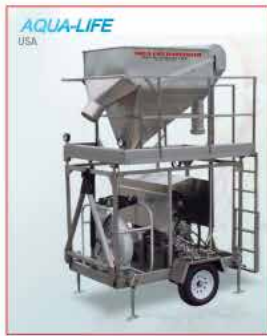
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CMFRI succeeds in seed production of orange spotted grouper

The Central Marine Fisheries Research Institute (CMFRI) has succeeded in the mass scale seed production of orange spotted grouper (*Epinephelus coiodes*), a highly demanded fish species in the market.

The hatchery seed production of the species, carried by the Visakhapatnam Regional Centre of CMFRI, is expected to boost the sea cage culture enterprises in the country.

The orange spotted grouper is a commercially important carnivorous fish with high market demand in many parts of the world

Dr. Shubhadeep Ghosh, Senior Scientist at Visakhapatnam said that the institute made this achievement after the continuous efforts of scientists and technical staff for the last two years to enhance the survival rate of the larvae. "Initial success in seed production of the fish was achieved in 2014, but the survival rate of the larvae was very low. After manipulating different water quality and feeding protocols, enhanced survival rate with 10% was achieved this time", he said

The larvae are now in advanced fry stage with a size of around 3 cm after 42 days of rearing in the hatchery and ready to be transferred to the nursery rearing. Later the fingerlings can be used for mariculture in grow-out cages, he said.

High scope for mariculture

Dr. Gopalakrishnan, CMFRI Director has said the success in seed production of orange spotted grouper has raised a ray of hope for the mariculture of the fish using hatchery produced seeds in the country. "The development will generate enormous scope for mariculture helping the farmers to carry out sea cage culture of the species, opening a good business opportunity for fish farmers and exporters in the country. Orange spotted grouper is a potential species for mariculture because it is compatible to high temperature, hardy nature and tastier with high market value", he said.

"In most of the major fish landing centres, the fish fetches Rs 400-450/kg in wholesale market, whereas the live fish sale in international market fetches 3-4 times higher

prices, indicating the prospects of mariculture of the species", Dr. Gopalakrishnan said.

To meet FAO demand

In the context that FAO demanding the species be cultured and produced one lakh ton a year globally, the success in the seed production of the fish will help India to contribute significantly to the global production of the grouper, he added.

High export market

Orange spotted grouper is available globally but predominantly in the tropical and sub-tropical waters and it forms the mainstay in the world Live Reef Food Fish (LRFF) trade, particularly in several Asian countries such as Hong Kong, China, Taiwan, Singapore and Malaysia. Known as 'amur', the groupers are highly demanded in the Middle East countries. In India, it is distributed in both east and west coasts.

- *The Times of India*

Fatty acids from fish beneficial to prevent Alzheimer's

Omega-3 polyunsaturated fatty acids from fish may help to remove metabolites, including amyloid-beta peptides

which is one of the factors that lead to Alzheimer's, finds a study conducted by researchers from the University of Macau.

The research published in the FASEB Journal suggested that Omega-3 polyunsaturated fatty acids (PUFAs) found in fish oil could improve the

function of the glymphatic system, which facilitates the clearance of waste from the brain.

To make this discovery, scientists first used transgenic fat-1 mice, which express high endogenous Omega-3 PUFAs in the brain, to investigate the effect of Omega-3 PUFAs on the clearance function of the glymphatic system.

Compared to the wild-type mice, the fat-1 mice with enriched endogenous Omega-3 PUFAs significantly promote the clearance function of

the lymphatic system, including the amyloid-beta clearance from the brain.

Wild-type mice were supplemented with fish oil, which contains high concentrations of Omega-3 PUFAs, and found that fish oil-supplemented mice also improved the clearance function of the glymphatic system compared to the control mice without fish oil supplementation.

Omega-3 PUFAs help maintain the brain homeostasis, which may provide benefits in a number of

neurological diseases, such as Alzheimer's disease, traumatic brain injury, and sleep impairment, among others.

"The brain is an extremely vascularised organ, while we might also bear in mind that Omega-3 fatty acids may impact neurons, glia, and astrocytes themselves," said Thoru Pederson, Editor-in-Chief of The FASEB Journal

- www.thehansindia.com

Chennai to get India's 1st ornamental fish tech park

Chennai is all set to get India's first aquatic rainbow technology park, a state-of-the-art exclusive facility for ornamental fish, which is being readied for launch in March next.

The 10 crore facility under construction at Madhavaram would help boost production of ornamental fish, raising hopes of making Tamil Nadu the top ornamental fish exporter in the country. The State is now in the second position after West Bengal. However, of the total export of ornamental fish, only one-tenth (8-9 crore) comes from organised aquaculture. Wild caught fish constitute the major portion of the rest.

In Chennai, Kolathur with a good mix of both cottage and commercial-scale production is

a vibrant ornamental fish trade centre. But the lack of technology, shortage of breeder availability and change in hardness of water has had an impact on production.

"Once the eight-acre facility comes up at Madhavaram in North Chennai, Kolathur nearby will become the hub of ornamental aquaculture in India," said S Felix, Dean of Fisheries College and Research Institute, Ponneri.

The institute, under the Tamil Nadu Fisheries University (TNFU), is undertaking construction of the park for the last seven months. The university registrar K Rathnakumar said that the tech park exclusively for ornamental fish will have seven independent units including multi-species hatchery and live feed culture units.

It will also have a quarantine lab where exotic fish varieties imported from other countries can be quarantined and put to use, he said. The administration has planned to provide the entire facility to the actual stakeholders - fish growers in and around Chennai, particularly Kolathur, who lack expertise on handling disease outbreaks.

Researchers in TNFU are optimistic that a diagnostic lab set up here will not only help in treating bacterial, parasite or viral infections, but also in growing the fish to a marketable size.

The second phase of development, expected to begin next month, has plans to build a shopping complex as part of the facility.

- *The New India Express*

Recognition to Dr. Elavarasan

Dr. K Elavarasan, Scientist, Fish Processing Division, ICAR-Central Institute of Fisheries Technology, Cochin received the best oral presentation award in the International Conference on “Emerging Issues in Quality and Safety of Fish and Shellfish” organized by Tamil Nadu Fisheries University, at Chennai during 11-12 August, 2016. Dr. Elavarasan presented the paper entitled, “Physico-chemical and sensory characterization of meat from a deep-sea fish, starry flying gurnard



Dr. Elavarasan receiving the award

(*Dactylopytena peterseni*)” authored by K Elavarasan, Anuj Kumar, Devananda Uchoi, Mandakini Devi, C S Tejjal, K Sathish Kumar, George Ninan and A A Zynudheen. - CIFT

Farmers find holy grail in exotic shrimp

Farmers in coastal areas are abandoning rice cultivation and moving to farming exotic shrimp to get a slice of booming seafood exports which gives much higher income and has lower risk.

In Andhra Pradesh, exotic breed of shrimp called *Litopenaeus vannamei* has triggered a boom that saw the state grab a 45% share of the Indian seafood exports which have escalated to Rs. 30000 crore.

Official data show area under paddy in the state has been progressively decreasing over the last few years. Paddy cultivation shrank 10% in 2015-16 after dipping 7% in the previous year, mostly in coastal districts.

“The prime reason is that income from a shrimp farm is five times higher than paddy. Another reason is shortage of labour. While an acre

of paddy farm requires 45 workers, the labour requirement for a shrimp farm is much less,” said Dr. P Satyanarayana, Director of Andhra Pradesh Rice Research Institute.

The conversion of paddy fields is rapid in coastal districts of east and west Godavari, Krishna, Nellore, Prakasham and Guntur, where floods and cyclones have ravaged paddy in the past.

Increasing salinity has affected paddy cultivation,” he said. Total area under paddy bucked the trend three years ago as the interior regions received plenty of rainfall.

Paddy’s loss in aquaculture’s gain. As per state data, area under fish ponds grew 9% to 1,22,916 hectares in 2014-15 on top of a 4% expansion in the previous year.

Farmers turned to seafood after

exports jumped 60% to Rs 30,213 crore in 2013-14. Vannamei shrimp led this staggering growth. Marine Products Export Development Authority (MPEDA) Chairman Dr. A Jayathilak compares the silent revolution to the boom in the Gulf jobs that happened in Kerala.

“The initial investment in a shrimp farm may be as high at Rs 12 lakh per hectare. The income in the first year is Rs 6 lakh and by the second year the entire cost of investment can be recovered and it is profit from the third year onwards” he said.

MPEDA reckons that the estimated potential area of brackish water land availability for aquaculture in Andhra Pradesh is 1.5 lakh hectares, of which the state has used up about 57%.

- The Economic Times

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New fish species in Arunachal

A team of scientists from the Arunachal Pradesh Regional Centre of the Zoological Survey of India has discovered a new species of fish in the remote Anjaw district recently.

The species, belonging to the genus *Physoschistura*, was discovered in the Lohit river in Walong, an official statement said on 27/10/2016. Lakpa Tamang, who along with Bikramjit Sinha led the survey team, named the species *Physoschistura walongensis* in a nod to its area of discovery. Tamang is not new to such discoveries.

-The Times of India



Shrimp feed manufacturing company Waterbase bags award

Waterbase Limited, shrimp feed manufacturing company, has been awarded “2016 India Shrimp Feed Industry new product innovation leadership award” by Frost & Sullivan, a leading global strategy consulting company.

The advanced pelleting technology equipment coupled with its implementation of stringent quality assurance protocols to ensure that feed quality is maintained to the assured specifications renders an unrivalled competitive edge to the company, a press release said.

The company is currently focused on manufacturing shrimp feeds and processing & export of shrimps. The manufacturing and processing facilities are located near Nellore in Andhra Pradesh

- Business Line

Promotion

Dr. Ram Mohan M K, Deputy Director, Marketing Services Section promoted as Joint Director (Marketing) and posted at MPEDA Head Office, Kochi.

Transfer

Mr. Sashikant G Padwal, Senior Clerk, MPEDA Regional Centre, Panvel transferred to MPEDA Sub Regional Office Mangalore.

Retirements

- ❖ Mrs. P Usha, Rajbhasha Lipik, MPEDA Head Office upon superannuation after completing 34 years of excellent service in various capacities.
- ❖ Mrs. Mary Lila E X, Senior Stenographer, MPEDA Regional Office, Kolkata upon superannuation after completing 30 years of excellent service in various capacities.

- ❖ Mrs. Soudamini K, Accounts Assistant, MPEDA Regional Centre, Kochi upon superannuation after completing 31 years of excellent service in various capacities.
- ❖ Mr. Gadidesi Yesudas, Junior Clerk, MPEDA Regional Centre, Vijayawada upon superannuation after completing 34 years of excellent service in various capacities.



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