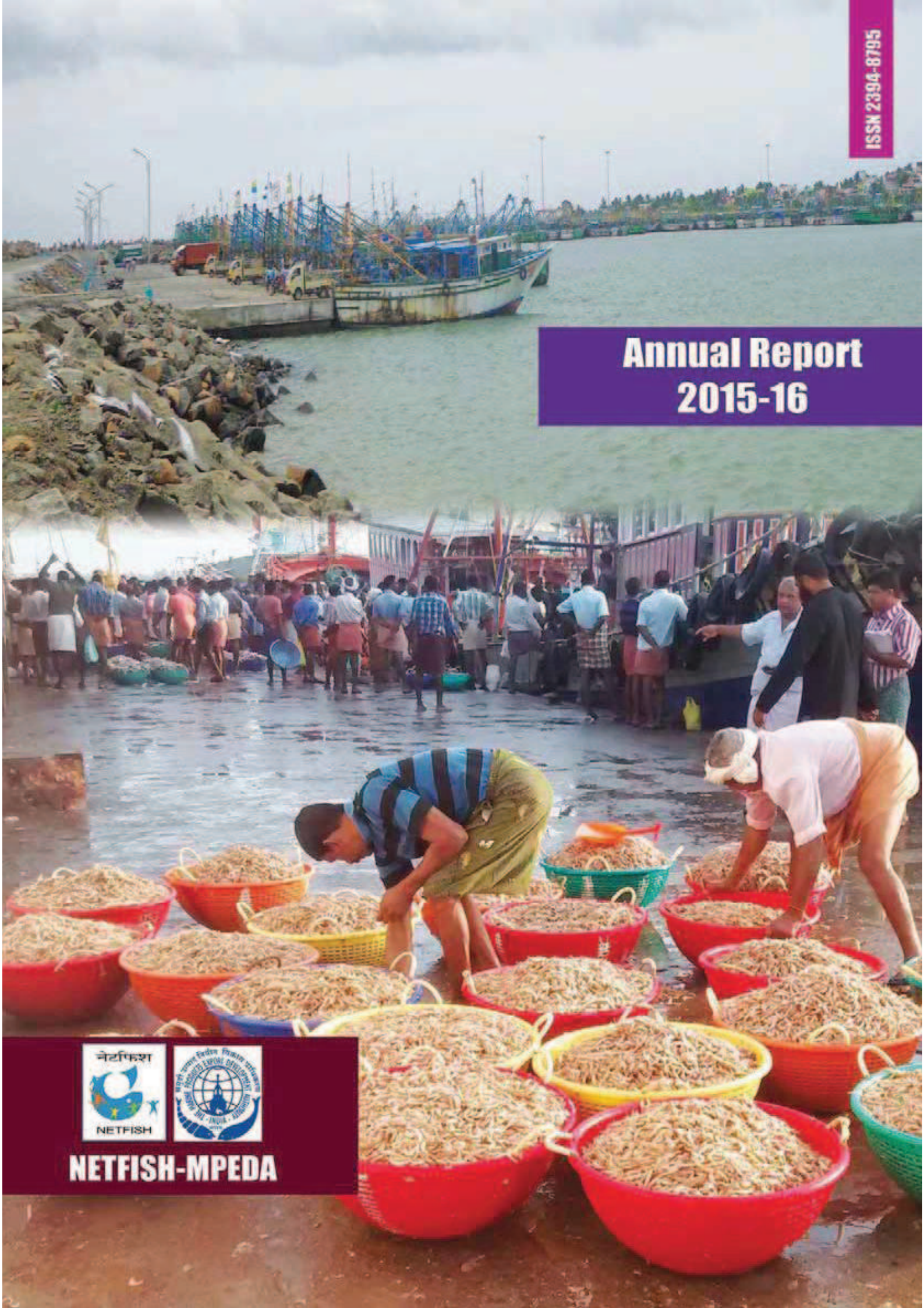


Annual Report 2015-16



NETFISH-MPEDA





NETFISH-MPEDA

ANNUAL REPORT

2015-16

**NETWORK FOR FISH QUALITY MANAGEMENT AND SUSTAINABLE FISHING
(NETFISH)**

(A REGISTERED SOCIETY OF MPEDA, MINISTRY OF COMMERCE & INDUSTRY, GOI)

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MAJOR OBJECTIVES

-  To function as the focal point for upgrading the technology and quality management of fishing and fish processing sectors at the grass root level
-  To organize appropriate training programmes on fish quality management and conservation of fishery resources in all the maritime states of India
-  To network with stake holder organization by inducting their representatives in to the general body of NETFISH
-  To assimilate, absorb and transfer technologies related to capture fisheries
-  To develop systematic linkages between international & national institutions of excellence in the field of extension
-  To facilitate public or private investment in infrastructure development



1. ABOUT NETFISH

Network for Fish Quality Management and Sustainable Fishing (NETFISH) is a registered society under the Marine Products Export Development Authority (MPEDA), Kochi. The society was formed in 2006 as per the Travancore–Cochin Literary, Scientific and Charitable Societies Registration Act, 1955. Being the extension arm of MPEDA, NETFISH carries out fisheries extension activities at grass root level, with an aim to empower fishermen community particularly on fish quality management, conservation and sustainable fishing and thus to promote the quality and sustainability of sea food export from India. Since its inception in 2007, NETFISH is engaged in conducting extensive awareness programmes among fishers and all groups of fishery stakeholders at areas in and around selected harbours and landing centers along the nine maritime states of the country. So far, more than 22,000 extension programmes of diverse types were conducted by NETFISH and around 7 lakhs fishery stakeholders were estimated to be benefitted by these trainings.

To improve the quality of the fishery products, NETFISH preaches hygienic handling habits to the fishers through its Fish quality management

programmes conducted in fishing vessels, landing sites, fishermen villages, pre-processing centers, processing factories and fish drying areas. Besides, awareness classes are organized aboard fishing vessels as well as in fishing harbours and nearby localities for tackling the issues related to sustainability of marine resources. Further to these regular programmes, a series of special programmes like street plays, clean-up programmes, mass communication programmes, school children programmes, medical camps, rallies, door to door programmes, brainstorming workshops, stakeholders meetings etc. are conducted to spread the messages more effectively among the beneficiaries.

2. THE PRESIDENT

Ms. Leena Nair IAS, Chairman of MPEDA continued as the President of NETFISH during 2015-16.

3. THE EXECUTIVE COMMITTEE

In the 9th Annual General Body Meeting held on 21st September 2015, eight new non-permanent members of the Executive Committee were selected, thus reconstituting the Executive Committee of NETFISH. The details of members of the Executive Committee for the year 2015-16 are enlisted in Table 1.

Table 1. Executive Committee members of NETFISH (2015-16)

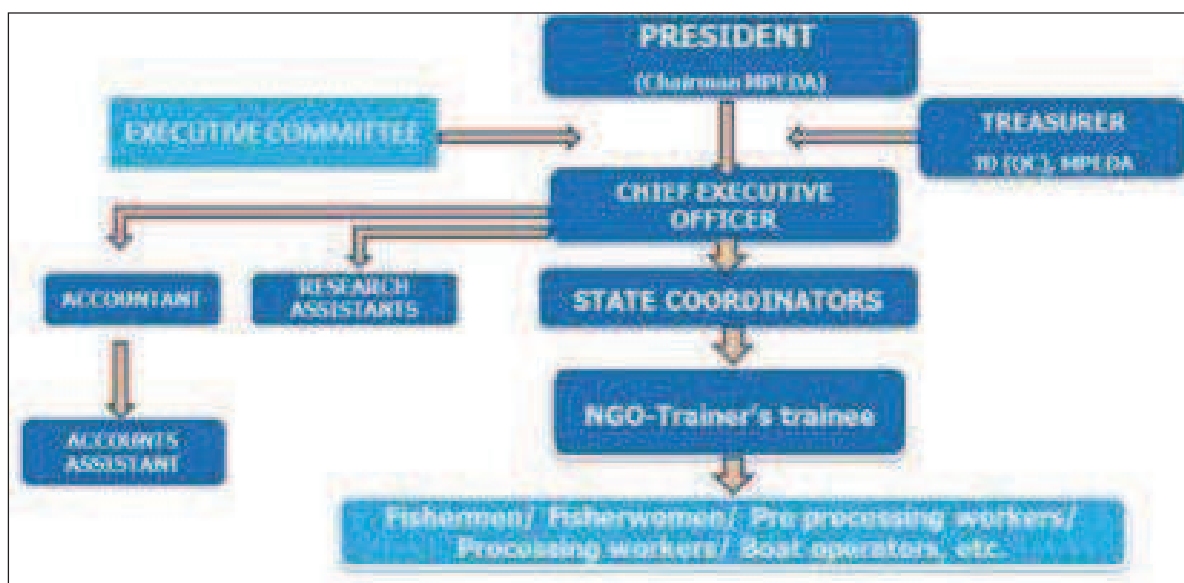
Sl.No	Name	Address
1	Ms. Leena Nair IAS	Chairman, MPEDA
2	--	Director, MPEDA
3	Mr. N. Ramesh	Director (M), MPEDA
4	Mr. B. Sreekumar	Secretary, MPEDA
5	Mr. V. Padmanabham	President, SEAI
6	Mr. Ajit B. Chavan	Director, EP (MP), MoCI
7	Dr. Ravishankar C.N.	Director, CIFT
8	Mr. R. C. Sinha	Director, CIFNET
9	Smt. Asha. C. Parameswaran	Jt. Director (QC), MPEDA
10	Dr. Joice V. Thomas	CE, NETFISH
11	Mr. B. K. Sengupta	Secretary, The Science Association of Bengal, West Bengal
12	Mr. Harekrushna Khataei	Secretary, RPRDS, Odisha
13	Mr. Arjilli Dasu	Ex. Secretary, DFYW Association, Andhra Pradesh
14	Dr. S. Velvizhi	Scientist, MSSRF, Poombuhar, Tamil Nadu
15	Mr. S. Suresh	Advisor, FDWC, Kerala
16	Mr. Venkatesh Naik	Secretary, SCODWES, Karnataka
17	Mr. B. Boghani	Ex. Director, Manav Vikas Sevabhavi Sanstha, Maharashtra
18	Mr. Kanjibhai B. Jadav	President, B.A.Y.E.R.D. F. T, Gujarat

4. MEETINGS

In all the regions, during April 2015, State Coordinators along with MPEDA officials had conducted review meetings with member NGOs to discuss on achievements and short falls of NETFISH activities carried out so far and also finalized the action plan for the year 2015-16. On 19th May 2015, a meeting was held at NETFISH Head Office with all the State Coordinators regarding various issues

in each region and suggestions for improving the situation through effective actions. The 20th Executive Committee Meeting and the Ninth Annual General body Meeting of NETFISH were convened on 21st September 2015 at MPEDA, Kochi. The review of activities and achievements of all the State Coordinators was done in the presence of MPEDA officials at MPEDA headquarters, Kochi on 22nd September 2015.

5. ORGANOGRAM



6. TARGET

Each region was assigned a target of 200 regular programmes and thus altogether 2000 regular

extension programmes were planned to execute in 2015-16 (Table 2). Besides this special programmes had to be accomplished on need basis.

Table 2. Target set for 2015-16

Sl. No:	Programmes	Quality	Conservation	Onboard	PPC/PC	Dryfish	Total
	Regions						
1	West Bengal	73	33	42	27	25	200
2	Odisha	46	35	93	23	3	200
3	Andhra Pradesh	67	49	24	24	36	200
4	Tamil Nadu-North	80	60	20	10	30	200
5	Tamil Nadu-South	74	74	12	10	30	200
6	Kerala -South	52	36	25	87	-	200
7	Kerala - North	89	79	4	24	4	200
8	Karnataka /Goa	119	30	12	20	20	200
9	Maharashtra	53	61	22	22	42	200
10	Gujarat	76	60	10	44	10	200
	Total	692	569	238	323	178	2000

7. EXTENSION ACTIVITIES

In the financial year 2015-16, NETFISH conducted 2348 extension training programmes at areas in and around selected fishing harbours and landing centers along the nine maritime states, reaching around 90,000 beneficiaries (Fig 1.). This comprised of 1910 regular awareness classes and 438 special programmes including street play (282), medical camps (7), clean-up programme (25), rally (7), school programme (31), door to door programme (2), mass communication (21) and other special programmes (63) (Table 3). The posters, leaflets, documentaries and animation films developed by NETFISH were used in the programmes for conveying the messages effectively. Information on MPEDA's subsidy schemes and guidelines for availing the support were provided to the beneficiaries during the training programmes. This year too NETFISH observed important World Days like World Oceans Day, World Fisheries Day, International Coastal Cleanup Day and World Women's Day by organizing a variety of special awareness programmes.

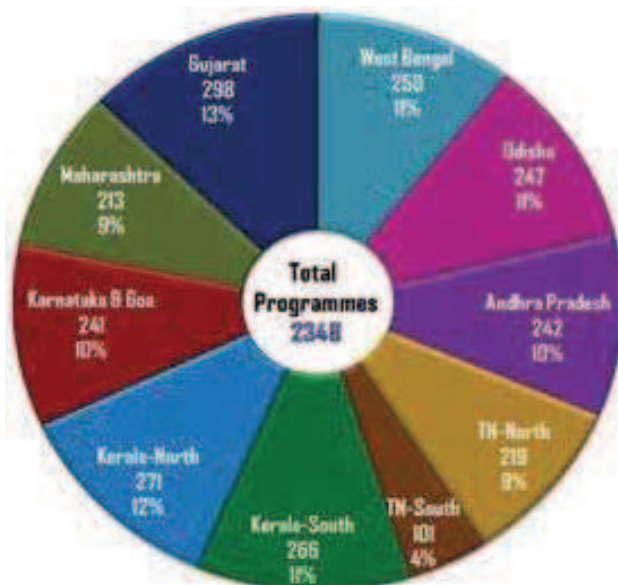


Fig: 1. Total no. of programmes conducted in each region during 2015-16

Apart from conducting training programmes, certain livelihood improvement projects were executed during the year. In Maharashtra, NETFISH is associated with MPEDA & RGCA in running a project on Mangrove Crab, which is funded by UNDP. This year, NETFISH had carried out a minor

Table.3 Details of Programmes conducted from April 2015 to March 2016

State/ Region	Regular Programmes							Special Programmes									Financial Year Total
	Landing Centre - Quality	Landing Centre - Conservation	On board	Pre-processing	Processing	Dry fish	Total	Street-plays	Medical camps	Clean-ups	Rally	School	Door to door	Mass Communication	Other special programmes	Total	
West Bengal	75	38	47	5	16	28	209	20	1	7	0	12	0	0	1	41	250
Odisha	76	57	64	3	13	10	223	14	1	1	2	0	0	0	6	24	247
Andhra Pradesh	70	51	11	23	1	38	194	30	1	2	1	0	0	9	5	48	242
Tamil Nadu- North	90	47	17	1	1	26	182	12	0	1	0	9	1	3	11	37	219
TamilNadu- South	38	37	3	0	0	12	90	0	0	1	0	2	1	2	5	11	101
Kerala-South	87	43	7	56	11	0	204	45	1	4	0	0	0	5	7	62	266
Kerala-North	78	81	6	33	0	5	203	50	1	2	1	1	0	2	11	68	271
Karnataka & Goa	121	29	12	12	8	20	202	27	1	5	2	2	0	0	2	39	241
Maharashtra	38	83	22	9	9	39	200	8	0	0	0	0	0	0	5	13	213
Gujarat	77	62	5	25	24	10	203	76	1	2	1	5	0	0	10	95	298
Total	750	528	194	167	83	188	1910	282	7	25	7	31	2	21	63	438	2348

project entitled “Socio economic up-gradation of SC/ST fisherwomen of SHGs in Sunderbans through mud crab farming” along with Digambarpur Angikar, a nonprofit organization in South 24 Parganas, West Bengal. Three Sea Clubs, supported by NETFISH, were also functioning for organizing extension activities in coastal regions through student volunteers.

Also, a series of meetings, discussions, seminars, workshops etc. were conducted involving stakeholders and officials concerned in order to resolve out solutions for several issues related to capture fisheries sector. Apart from these activities, a series of discussions were held and certain linkages were established with various national/state departments, institutes, agencies, etc. to solve various issues regarding fish quality management & sustainable fishing and also for the development of infrastructure facilities at harbours and landing centers. State coordinators had actively participated in many meetings, seminars and workshops conducted in their regions by other organizations and departments with regard to development of fisheries sector. Moreover, NETFISH had participated in exhibitions conducted at different provinces by installing stall providing information on extension services being carried out. Also, NETFISH activities and achievements were regularly publicized in

the form of articles in journals, newsletters and newspapers.

7.1 REGULAR PROGRAMMES

The regular programmes are categorized in to 6 types viz. Fish quality management programmes in landing sites, Conservation programmes in landing sites, Onboard programmes, Pre-processing centre programmes, Processing centre programmes and Dry fish programmes. Each of these programmes is limited to a maximum of 30 participants and each participant will be given stipend for attending the programme. A total of 1910 regular programmes were conducted during this year as given in Table 3 and the programme wise details are as given subsequently.

7.1.1 Fish Quality Management Programme at Landing Sites

In all, 750 fish quality management programmes were organized in landing sites and nearby villages along the maritime states. Fishermen association members, auctioneers, harbour workers, fishing vessel owners, fishing vessel crews, ice crusher workers, management society employees, fisherwomen etc. were the target group benefitted by the programme. The major topics covered were sanitation at landing sites, hygienic handling and

Fish Quality Management Programmes		
State/Region	Selected regions and No: of programmes	Total
West Bengal	Digha (38), Kakdwip (29), Freserganj (4), Raidighi(4)	75
Odisha	Paradeep (49), Balaramgadi (5), Bahabalapur (3), Chilka (17), Khurdha (2)	76
Andhra Pradesh	Visakhapatnam (32), Kakinada (18), Machilipatnam (8), Vodarevu(12)	70
Tamil Nadu-North	Pondicherry (12), Cuddalore (21), Nagapattinam(15), Karaikkal (16), Mudasalodai (9), Kasimedu (5), Chennai (2), Pazhayiar (10)	90
Tamil Nadu-South	Mandapam (13), Kanyakumari (8), Tuticorin (13), Mallipattinam (4)	38
Kerala-South	Neendakara (27), Thoppumpady (23), Kayamkulam (13), Vizhinjam (2), Chellanam (5), Sakthikulangara (7), Thottappally (4), Punnapra (6)	87
Kerala-North	Beyepore (9), Chettuva (18), Kaalamukku (8), Munakkkadavu (11), Munambam (23), Puthiyappa (8), Ponnani (1)	78
Karnataka & Goa	Mangalore (21), Malpe (25), Bythcol (4), Malim (13), Karwar (8), Bhatkal (12), Gangolli (5), Cutbona (10), Honnavar (18), Tadri (5)	121
Maharashtra	Palghar (3), Ratnagiri (14), Sindhudurg (3), Raigad (12), Harne (6)	38
Gujarat	Mangrol (12), Porbandar (18), Umergam (1), Veraval (21), Vanakbara (11), Nargol (2), Umarsadi (1), Okha (6), Navsari (3), Valsad (2)	77
Total		750

sorting of catches, role of ice, handling of ice, icing of catch, role of microbes in fish spoilage, maintenance of cold chain operation, personal hygiene, use of insulated boxes, use of plastic basket etc. The classes were mostly of interactive mode where the trainees express their views on quality maintenance at landing sites. Hands on training on cleaning of utensils, icing, handling of catch, cleaning of auction area, etc. were also given to the trainees. Leaflets on

improve hygiene standards rubber gloves, shoes and plastic shovels were distributed in Kerala North region. In Karnataka, hand gloves, hygiene kits and plastic sheets for dumping ice were supplied to the participants instead of stipend. In Sassoon dock harbour, NETFISH provided 2 stainless steel trays to promote hygienic handling of ice. In Gujarat, 500 nos. of plastic baskets were distributed to fishermen community of Umargam, Nargol and Umarsadi



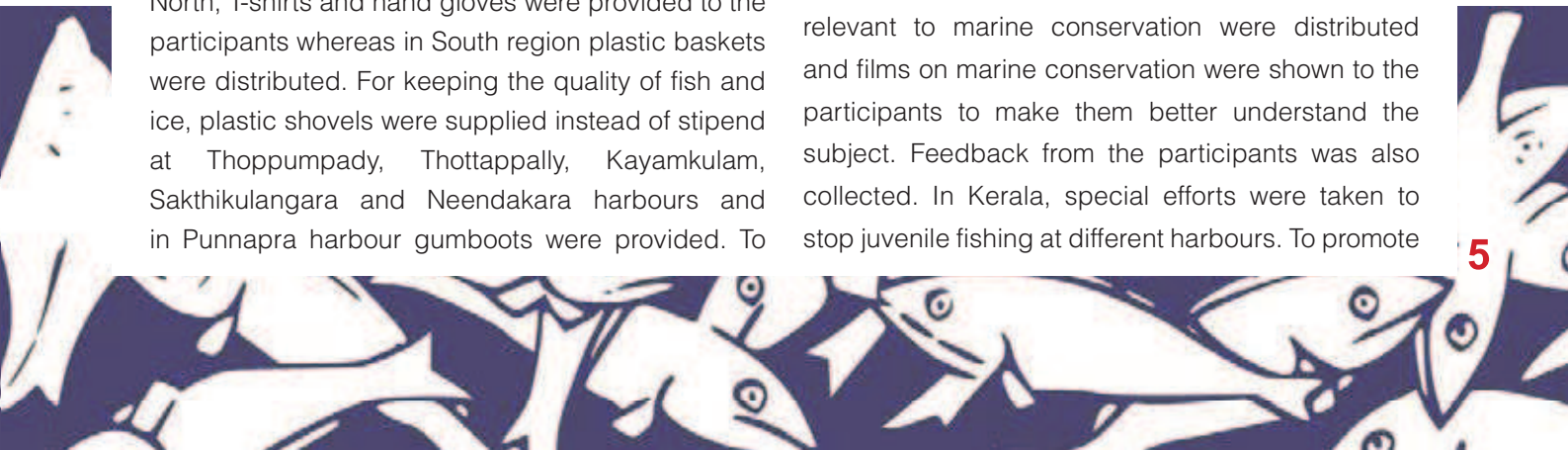
'Hygienic handling of fish at landing centre', 'Ice & Fish', 'Personal hygiene', MPEDA's subsidy schemes etc. were distributed to the participants and posters on fish quality were shown and explained in the programme. Movies related to "Handling of fishes at landing centre" were also shown to the trainees. The participant's feedback was also recorded

landing centers for replacement of bamboo basket with plastic basket. Posters/wall paintings with awareness messages displaying Do's and Don'ts were also fixed in several harbours.

7.1.2 Sustainable Fishing / Conservation Programme at Landing Sites

During most of the programmes, instead of stipend, certain fishermen aid materials were provided to enable them to initiate following hygienic practices. In West Bengal 232 nos. of PVC shovels were distributed among the boat owners of South 24 Parganas and Purba Medinipur with a view to replace iron shovel with PVC shovel. In Odisha free sanitation kits containing hypochlorite, liquid detergent and brushes and round plastic baskets were distributed among the trainees. Tarpaulin sheets, plastic baskets, and PVC shovels were distributed to the beneficiaries in Andhra Pradesh to practice keeping big fish on sheets instead of dumping on floor. In Tamil Nadu North, T-shirts and hand gloves were provided to the participants whereas in South region plastic baskets were distributed. For keeping the quality of fish and ice, plastic shovels were supplied instead of stipend at Thoppumpady, Thottappally, Kayamkulam, Sakthikulangara and Neendakara harbours and in Punnapra harbour gumboots were provided. To

With a view to generate awareness on conservation of marine resources among fishermen, auctioneers, harbour workers and other people engaged in fishery related activities, 528 numbers of classes were organized at different landing sites and fishermen villages along the coastal belt. The trainees were taught about conservation, sustainability, responsible fishing, implementation of mesh size regulation, fishing ban and its significance, impact of juvenile fishing and other destructive fishing methods, marine pollution, need of ecosystem build-up, government regulations etc. Most of these classes were carried out in an interactive mode with questions and answers from the participants. Leaflets and posters relevant to marine conservation were distributed and films on marine conservation were shown to the participants to make them better understand the subject. Feedback from the participants was also collected. In Kerala, special efforts were taken to stop juvenile fishing at different harbours. To promote



Sustainable Fishing / Conservation Programmes		
State/Region	Selected regions and No: of programmes	Total
West Bengal	Digha (22), Kakdwip (14), Raidighi (2)	38
Odisha	Paradeep (35), Balaramgadi (7), Bahabalapur (5), Chilka (10)	57
Andhra Pradesh	Visakhapatnam (18), Kakinada (19), Machilipatnam (11), Srikakulam(1), Amalapuram(2)	51
Tamil Nadu-North	Pondicherry(2), Cuddalore (16), Nagapattinam (10), Karaikkal (4), Mudasalodai (5), Kasimedu(6), Pazhaiyar (4)	47
Tamil Nadu-South	Mandapam (12), Kanyakumari(8), Tuticorin (13), Mallipattinam (4)	37
Kerala-South	Thoppumpady (8), Kayamkulam (8), Chellanam (4), Thottappally (7), Kollam (14), Punnapra (2)	43
Kerala-North	Beyepore (14), Chettuva (9), Kaalamukku (13), Munakkakadavu (8), Munambam (10), Puthiyappa (12), Ponnani (11), Chavakkad (2), Azheekode (2)	81
Karnataka & Goa	Mangalore (5), Malpe (8), Bythcol (6), Malim (2), Karwar (5), Bhatkal (3)	29
Maharashtra	Palghar (31), Ratnagiri (6), Sindhudurg (31), Raigad (6), Harne (9)	83
Gujarat	Mangrol (10), Porbandar (12), Umergam (1), Veraval (21), Vanakbara (8), Nargol (2), Umarsadi (3), Okha (1), Navsari (3), Valsad (1)	62
Total		528



sustainable fishing practices NETFISH conducted special programmes like MTSF workshops and Dol net fishery improvement workshop in collaboration with CMFRI and CIFT.

To popularize the use of square mesh cod ends in trawl nets, square mesh cod ends were supplied to selected boat operators in Kerala North region for their regular use. In Gujarat too, special awareness was given to popularize the use of 40 mm square mesh cod ends.

7.1.3 Onboard Programme

Onboard training programmes during the year

totalled to 194 programmes, by which fishing vessel crew were taught fish quality management and conservation procedures to be followed while fishing. Each programme was attended by a group of 15 trainees to whom lecture classes were given about onboard sanitation, sorting of catch, preservation and icing of catch, use of enough quantity of good quality ice, use of insulated fish boxes and fish hold, personal hygiene etc. They were also encouraged to discard endangered species of sea turtles, seahorse, sea-cucumber, molluscs, etc., caught accidentally during fishing. The practical session included hands on training like cleaning of boat deck, utensils, handling

Onboard Programmes		
State/Region	Selected regions and No: of programmes	Total
West Bengal	Digha (17), Kakdwip (23), Freserganj (3), Raidighi (4)	47
Odisha	Paradeep (40), Balaramgadi (14), Bahabalapur (10)	64
Andhra Pradesh	Visakhapatnam (5), Kakinada(6)	11
Tamil Nadu-North	Pondicherry(2), Cuddalore (3), Nagapattinam (4), Karaikkal (3), Pazhaiyar (5)	17
Tamil Nadu-South	Thanjavoor (2), Mandapam (1)	3
Kerala-South	Thoppumpady (1), Kayamkulam (4), Sakthikulangara (2)	7
Kerala-North	Munambam (6)	6
Karnataka & Goa	Mangalore (1), Malim (2), Bhatkal(1), Gangolli (1), Cutbona (2), Honnavar (1), Tadri (2), Karwar(2)	12
Maharashtra	Palghar (4), Ratnagiri (14), Harne (2), Raigad (2)	22
Gujarat	Veraval (5)	5
Total		194



of catch, catch segregation, preservation of catch in ice, etc. Leaflets and posters relevant to onboard handling of fish and responsible fishing practices were given and explained to the trainees and movies on onboard handling and conservation measures were shown in the programme. Awareness on MPEDA schemes for fishing vessels were also given in the programmes. Demonstration of square mesh cod ends was done in many of these programmes to convince fishers about benefits of square mesh .

In Odisha, hypochlorite, liquid detergent & brushes were supplied free of cost to the fishing vessels to encourage regular cleaning. In Tamil Nadu

North and South regions, boots, hand gloves, plastic bucket, wipers, detergents etc. were provided to the participants during some of the onboard programmes. In Karaikal 250 plastic shovels were given to boat members. In Kerala South cleaning kits were provided to the boats whereas in Kerala North, plastic shovel were given to the boats for ice and fish handling. In Maharashtra, 45 numbers of plastic baskets were provided instead of stipend amount. As a result of NETFISH regular awareness programmes, it is observed that many boat owners started keeping detergents in the fishing vessel to clean the fish contact surfaces

7.1.4 Pre-processing Centre Programme

To create awareness among workers, technologist and supervisors in pre-processing centres and peeling sheds, 167 training programmes were conducted during the year. The beneficiaries were given lectures on various topics including sanitation & hygienic practices in the pre-processing centre, hygienic handling of shrimps, role of ice, fish spoilage and role of microbes, personal hygiene & habits, proper use of change room and abuse of antibiotics. Emphasis was also given for the implementation of regular cleaning schedule in PPCs before and after

in Kerala North & South regions Aprons, uniforms and gumboots were distributed to pre-processing workers instead of stipend.

7.1.5 Processing Centre Programme

During the year 2015-16, a total of 83 awareness programmes were organized at processing units, mostly on demand basis. The targeted beneficiaries were processing workers, supervisors and technologists of processing centers, to whom lectures on sanitation & hygienic practices in the processing centre, HACCP system, hygienic

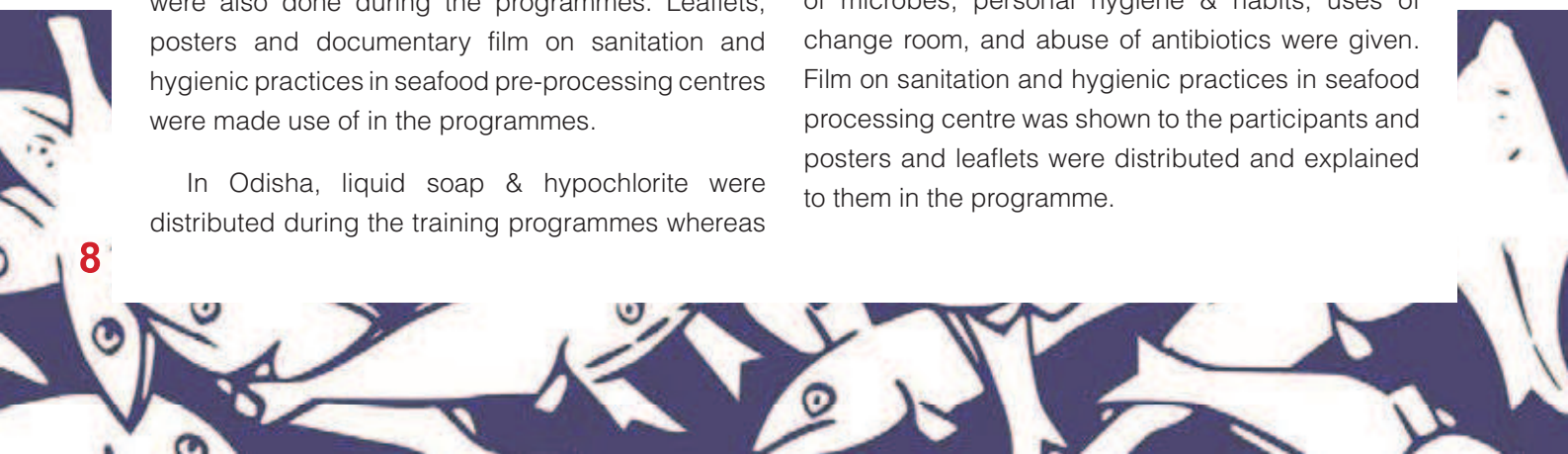
Pre-processing Centre Programmes		
State/Region	Selected regions and No: of programmes	Total
West Bengal	Kolkata (2), Digha (3)	5
Odisha	Paradeep (2), Bahabalapur(1)	3
Andhra Pradesh	Visakhapatnam (7), Kakinada (12), Machilipatnam (1), Nizampatnam(3)	23
TamilNadu-North	Chennai(1)	1
Kerala-South	Neendakara (2), Ambalappuzha (13), Aroor (33), Sakthikulangara (3), Thottappally (3), Eramalloor (2)	56
Kerala-North	Munambam (19), Edavanakkad (10), Maliankara (2), North Paravoor (2)	33
Karnataka & Goa	Mangalore (6), Malpe (4), Gangolli (2)	12
Maharashtra	Ratnagiri (2), Sindhudurg (1), Navi-Mumbai (6)	9
Gujarat	Mangrol (1), Porbandar (4), Veraval (18), Vanakbara (1), Dwaraka (1)	25
Total		167



commencement of work. Practical demonstration of change room activities and hand washing procedure were also done during the programmes. Leaflets, posters and documentary film on sanitation and hygienic practices in seafood pre-processing centres were made use of in the programmes.

In Odisha, liquid soap & hypochlorite were distributed during the training programmes whereas

handling of shrimps, physical, chemical & biological hazards, role of ice, fish spoilage and the role of microbes, personal hygiene & habits, uses of change room, and abuse of antibiotics were given. Film on sanitation and hygienic practices in seafood processing centre was shown to the participants and posters and leaflets were distributed and explained to them in the programme.



Processing Centre Programmes		
State/Region	Selected regions and No: of programmes	Total
West Bengal	Purba Medinipur(1),North 24 Parganas(4),Kolkata(11)	16
Odisha	Paradeep(3), Khurdha(8), Puri(1), Cuttack(1)	13
Andhra Pradesh	Visakhapatnam(1)	1
TamilNadu-North	Chennai(1)	1
Kerala-South	Thoppumpadi (2), Aroor (7), Sakthikulangara (2)	11
Karnataka & Goa	Mangalore (5), Malpe (1), Goa (2)	8
Maharashtra	Sindhudurg (1), Raigad (2), Navi-Mumbai (6)	9
Gujarat	Mangrol (2), Porbandar (4), Veraval (17), Dwaraka (1)	24
Total		83



7.1.6 Dry Fish Programme

A total of 188 training classes were conducted for the dry fish workers and the associated people engaged in dry fish industry during the year to create awareness on hygienic production of dry fish and to improve the export of dry fish products.

Major topics covered were sanitation & hygienic practices, handling and sorting of catches, demerits of traditional drying method, fish spoilage and role of microbes, personal hygiene, different technologies of fish drying, solar drying and its packing and adverse effect of harmful chemicals & pesticides.

Dry Fish Programmes		
State/Region	Selected regions and No: of programmes	Total
West Bengal	Digha (14), Freserganj(4), South 24 parganas(10)	28
Odisha	Paradeep (10)	10
Andhra Pradesh	Visakhapatnam (16), Kakinada (10), Nizampatnam (2), Vodarevu(10)	38
TamilNadu-North	Cuddalore(2), Poombuhar(2), Karaikkal(4), Mudasaloodai(6), Kasimedu(2), Pazhayiar(8), Annankovil(2)	26
TamilNadu-South	Mandapam (1), Kanyakumari(2), Tuticorin (5), Ramanathapuram (2), Ramnad (2)	12
Kerala-North	Munakkakadavu (5)	5
Karnataka & Goa	Mangalore (2), Malpe (3), Bhatkal (3), Karwar (6), Gangolloi(1), Honnawar (3), Tadri (2)	20
Maharashtra	Palghar (16), Ratnagiri (5), Raigad (2), Harne (16)	39
Gujarat	Umernagar (4), Nargol (1), Umarsadi (1), Valsad (4)	10
Total		188



The trainees were taught on good washing of fish, cleaning of fish contact surfaces, selection of raw materials, preparation of bed for drying, packaging and storage of finished products and marketing. They were introduced to solar drying, drying rack structures made with pipes and net and rope drying practices as part of the programme. Also, some of the Dry fish women societies of selected areas were motivated for the utilization of infrastructures constructed by the Government for the purpose. Interaction with trainees on various quality problems in dry fish was also done in the programme. Notices on MPEDA subsidy schemes were distributed and explained to the trainees.

In Gujarat, training for hygienic production of dry fish were given to Self Help Group members involved in dry fish production, at the Dry Fish Demo unit established in Umergam. During this year 120 dry fishers could be trained for improved production of quality dry fish and they have developed their own brand "Ratnasagar". The dry fish product, packed

in plastic pouch and trays, are getting 50-100 Rs/kg more than what they used to get for the traditionally dried products. In Tamil Nadu south region, coconut mat and calcium propionate were distributed to the dry fisher women to transform drying of fish on wet sand to hygienic condition and thus to improve the shelf life as well as appearance of the product. In Maharashtra, a demonstration of fish drying in solar tunnel dryer developed at CET, Dapoli was organized for the dry fish producers to convince them about the advantages of solar dryer.

7.2 SPECIAL PROGRAMMES

7.2.1 Street-play

Targeting a large number of beneficiaries including all groups of fishery stakeholders as well as general public, 282 street plays were organized on the themes fish quality management and conservation. The street plays highlighted on the importance of keeping our beaches clean, maintaining cleanliness and hygiene at landing centres and fishing harbours,

Street-Plays		
State/Region	Selected regions and No. of programmes	Total
West Bengal	Purba Medinipur(20)	20
Odisha	Paradeep (14)	14
Andhra Pradesh	Kakinada (10), Machilipatnam (15), Nizampatnam (5)	30
TamilNadu-North	Karaikal (12)	12
Kerala-South	Neendakara (5), Thoppumpady (20), Vizhinjam (10), Sakthikulangara (5), Aalappuzha (5)	45
Kerala-North	Munambam (10), Kozhikkode (15), Thrissur (10), Malappuram (15)	50
Karnataka & Goa	Karwar (6), Kumta (8), Angola (7), Honnawar (4), Tadri (1), Gangavali (1),	27
Maharashtra	Raigad (8)	8
Gujarat	Mangrol (20), Porbandar (20), Veraval (24), Vanakbara (12)	76
Total		282



hygienic handling of fishes and ice, proper icing of catch, personal hygiene, conservation of mangrove, juvenile fishing, avoid indiscriminate collection of prawn seeds and pollution of marine environment. The shows attracted huge audience in all the regions and the messages could be effectively conveyed to the audience.

7.2.2 Medical Camp

For the welfare of sea going fishermen, harbour workers, fisher folk engaged in fish drying and their family members, free medical camps were arranged at seven selected locations during this year. The programmes enabled to develop a good rapport with the fishers and to create awareness on health problem and personal hygiene. During the camp



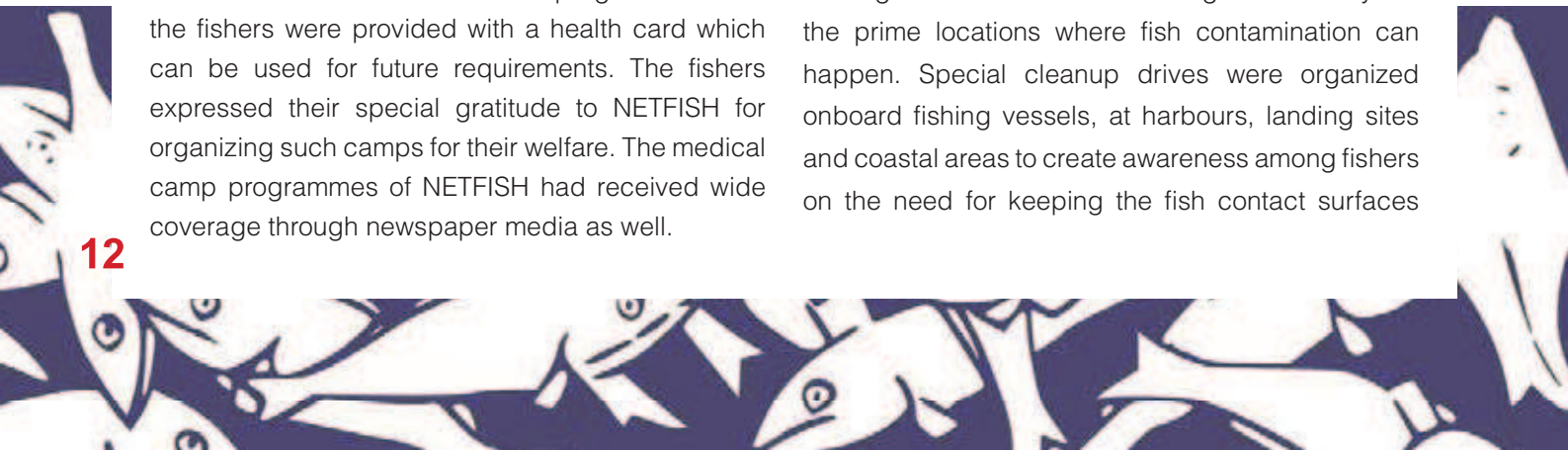
Medical Camps			
State/Region	Selected regions	Date	No: of beneficiaries
West Bengal	Fraserganj	21.11.15	89
Odisha	Paradeep	7.12.15	100
Andhra Pradesh	Kakinada	12.3.16	110
Kerala-South	Neendakara	12.2.16	282
Kerala-North	Munambam	19.1.16	300
Karnataka & Goa	Honnavar	20.1.16	200
Gujarat	Mangrol	16.2.16	75



general health check up of the participants was done by eminent doctors and those detected with health issues were given free medicines as well as proper guidance for further treatment. Blood group detection was also done in some of the programmes and the fishers were provided with a health card which can be used for future requirements. The fishers expressed their special gratitude to NETFISH for organizing such camps for their welfare. The medical camp programmes of NETFISH had received wide coverage through newspaper media as well.

7.2.3 Cleanup Programme

It is utmost important to maintain hygiene and sanitation at fishing vessels, fishing harbours, landing centres and beach landing sites as they are the prime locations where fish contamination can happen. Special cleanup drives were organized onboard fishing vessels, at harbours, landing sites and coastal areas to create awareness among fishers on the need for keeping the fish contact surfaces



clean and microbe free and also to encourage them to follow hygienic practices during fish handling.

7.2.3.1 Boat Cleanup

Boat cleanup programmes were conducted to create awareness among fishing boat owners and fishermen on proper hygiene and sanitation of fishing vessels, fish hold, fishing equipments and other accessories. In total 9 boat cleanup events were organized, which were attended by boat owners, skippers, boat crews and fishers. The programme consisted of a lecture on significances of hygiene and cleanliness of fishing boats, fish holds, nets, crates,

7.2.3.2 Harbour Cleanup

With an aim to generate awareness on hygiene and proper sanitation as well as to remove wastes, debris, plastic etc. from the harbour premises, fourteen harbour cleanup programmes were organized with the active participation of fishermen and harbour workers. Most of the programmes commenced with a talk on significance of cleaning and maintaining hygiene in the harbour delivered to the participants which was followed by distribution of cleaning materials, caps, masks and hand gloves. Debris, plastic bags, PET bottles, plastic cups, thermocol pieces, broken nets etc. were collected

Boat Cleanup Programmes			
State/Region	Selected regions	Date	Total
West Bengal	Namkhana(2), Deshpran (2), Sankarpur(2)	10.6.15, 13.6.15, 14.6.15, 12.8.15, 21.8.15, 04.10.15	6
Andhra Pradesh	Kakinada	12.3.16	1
Kerala-South	Sakthikulangara	10.2.16	1
Karnataka & Goa	Honnavar	20.1.16	1
Total			9

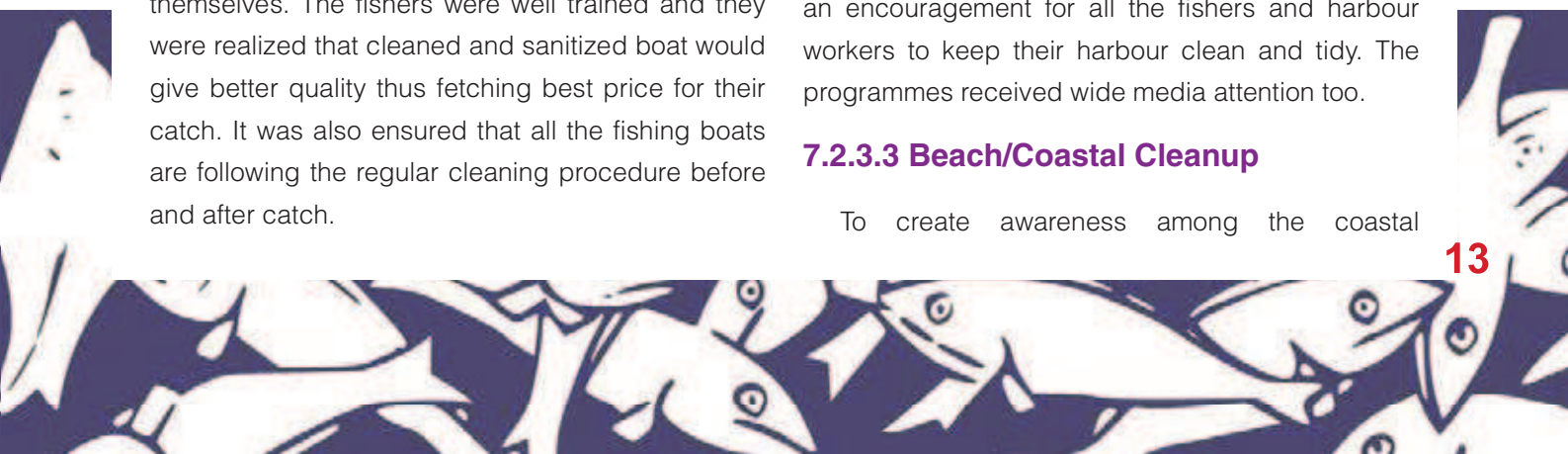


shovel and other fish contact surfaces. Afterwards, sanitation kits consisting of liquid soap and brush were distributed to each boat and the boat crew were made to clean their boats and fishing equipments themselves. The fishers were well trained and they were realized that cleaned and sanitized boat would give better quality thus fetching best price for their catch. It was also ensured that all the fishing boats are following the regular cleaning procedure before and after catch.

in polybags from the wharfs and surroundings and drainages and water logged areas were cleaned and sanitized using bleaching powder. The entire harbour was well cleaned and this has proved to be an encouragement for all the fishers and harbour workers to keep their harbour clean and tidy. The programmes received wide media attention too.

7.2.3.3 Beach/Coastal Cleanup

To create awareness among the coastal



Harbour Cleanup Programmes				
State/Region	Selected regions	Date	Total	No: of participants
Odisha	Paradeep	10.12.15	1	50
Andhra Pradesh	Kakinada	10.3.16	1	100
Tamil Nadu North	Karaikkal	02.3.16	1	175
Kerala-South	Thoppumpady, Sakthikulangara, Neendakara	23.9.15, 10.2.15, 10.2.15	3	150
Kerala-North	Munambam	17.11.15, 20.1.16	2	75
Karnataka & Goa	Honnar	19.1.16, 20.1.16, 21.1.16, 22.1.16	4	120
Gujarat	Mangrol	21.11.15, 14.2.16	2	325
Total			14	



community on coastal pollution and its impact as well as to remove debris and other materials along the coast, cleanup programmes were conducted at Digha beach and Mallipattinam with the support of volunteers including fishers and students. During the programme the participants were explained about importance of coastal cleanup programmes and later they were provided with cleaning kits including gloves, carry bags, brooms etc. as well as caps, t-shirts etc. All kind of plastic wastes and other garbages from the beach were collected in carry bags and disposed off safely. After the cleanup activity, bit notices were distributed to the fishing community by the volunteers to raise awareness on the importance of coastal cleanup.

Coastal Cleanup Programmes			
State/Region	Selected regions	Date	No: of participants
West Bengal	Digha	8.6.15	64
Tamil Nadu South	Mallipattinam	7.8.15	85





7.2.4 Rally

Rallies involving fishers, students as well as general public were conducted on special occasions to generate mass awareness on hygiene and conservation. During the event the participants held placards with messages on sustainable fishing, protecting watershed, maintaining fish quality, better market facilities, ensure better livelihood

health and hygiene, unscientific catch of juvenile fishes and destructive fishing practices. Also they voiced slogans such as *stop juvenile fishing, today's juveniles are tomorrow's wealth, maintain hygiene and sanitation in fish landing centre* etc. The participants of rally were often complimented with caps & T-shirts printed with NETFISH logo and messages.



Rally				
State/Region	Selected regions	Date	Total	No: of participants
Odisha	Paradeep	8.12.15, 15.3.16	2	130
Andhra Pradesh	Vodarevu	21.11.15	1	50
Kerala South	Thoppumpady	6.1.16	1	50
Karnataka & Goa	Karwar, Honnavar	19.6.15, 19.1.16	2	150
Gujarat	Mangrol	12.2.16	1	150
Total			7	



7.2.5 School programme

Awareness programmes for school students were conducted at 31 schools along the coastal belt in which most of the participants were students belonging to fishermen community. These children are expected to be mediators who make aware their parents and other family members engaged in fishing and allied activities. The school programmes were consisted of lecture classes on sustainable fishing, marine conservation, protection of mangroves, marine turtle conservation, by-catch reduction, marine pollution, biological crop losses by indiscriminate collection of prawn seeds, acts & rules by State Govt. & Central Govt. for fisheries conservation etc. Besides, aspects like present status of the fishery resources and exports statistics,

fish quality management measures, need of personal hygiene, etc. were also covered. For making a note of the lectures, writing pads and pens were provided to the students. Competitions such as drawing, writing, debate, quiz etc. were also conducted for the students as part of the school programme and the winners were rewarded. Documentary and animation films relevant to the subjects were shown to the students which were watched with great enthusiasm and also leaflets and posters were circulated to the students & teachers. Most of the students who attended the programmes promised to convey the messages they got from the programme to their family members who are involved in fishery activities. NETFISH received good appreciation from the principal and teachers for conducting such programmes in their school.

School Programmes			
State/Region	Selected regions	Total	No. of participants
West Bengal	Egra (2), Contai (3), Ramnagar (3), Khejuri, Freserganj, North 24 Parganas, Karalda Nimakbar	12	1063
Tamil Nadu North	Poombuhar (2), Nagapattinam (3), Karaikkal, Muthur, Chinnangudi, Thiruvengadu	9	1519
Tamil Nadu South	Tuticorin, Ramanathapuram	2	234
Kerala-North	Munambam	1	50
Karnataka & Goa	Angola	2	295
Gujarat	Mangrol (2), Veraval (2), Porbandar	5	138
Total		31	



7.2.6 Door to Door Programme

Door to Door Programmes including person to person discussion on hygiene and conservation, distribution of leaflets and posters on the subjects concerned as well as pasting of awareness stickers relevant to the sector, were held mostly at fishing villages and fish landing sites so as to reach each fisher folk personally. Two such programmes were organized during the year during which the State

Door to Door Programmes		
State/Region	Place	Date
Tamil Nadu North	Karaikal	03.3.16
TamilNadu-South	Kanyakumari	05.8.15

7.2.7 Mass Communication

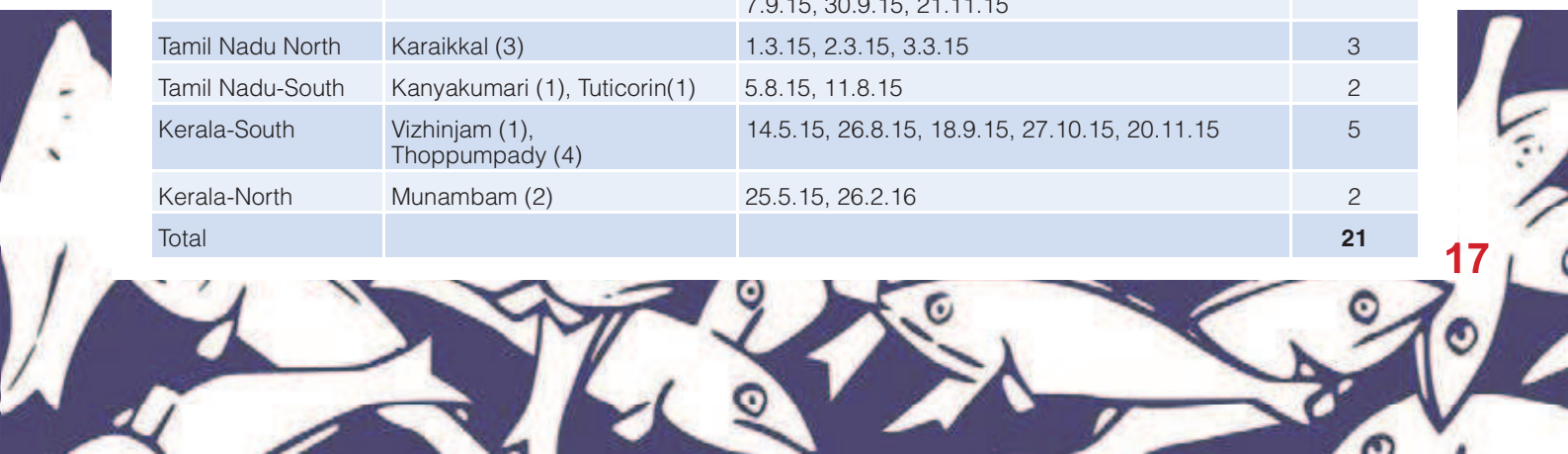
Mass communication programmes were conducted mostly by arranging mike announcements, distribution of leaflets and also displaying posters at harbours as well as nearby villages to communicate to



coordinator and the NGO team interacted with each family member of fishermen and learned their view on fish quality management and conservation. They were provided sufficient information and guidance on personal hygiene, fish quality management and conservation so as to change their negative attitudes.

the fishers even without disturbing their work. During the year 21 mass communication programmes were conducted. One of the advantages with this type of programme is its wide reach and workers can listen to the message even while at work. The targeted audience of the programme were fishermen, stakeholders, boat workers, harbour workers etc.

Mass communication programmes			
State/Region	Place	Date	Total
Andhra Pradesh	Vizag	27.6.15, 28.6.15, 6.8.15, 7.8.15, 14.8.15, 16.8.15, 7.9.15, 30.9.15, 21.11.15	9
Tamil Nadu North	Karaikkal (3)	1.3.15, 2.3.15, 3.3.15	3
Tamil Nadu-South	Kanyakumari (1), Tuticorin(1)	5.8.15, 11.8.15	2
Kerala-South	Vizhinjam (1), Thoppumpady (4)	14.5.15, 26.8.15, 18.9.15, 27.10.15, 20.11.15	5
Kerala-North	Munambam (2)	25.5.15, 26.2.16	2
Total			21





7.2.8 Other Special Programmes

7.2.8.1 World Oceans Day Celebration

To mark the World Oceans Day (8th June) an array of awareness programmes consisting of meeting, workshop, rally, competition for school children and fisher folk, clean-up programme, door to door awareness, documentary & animation film show, street play and distribution of leaflets were organized along all the coastal states.

West Bengal: A beach clean-up programme, a rally and a consultative workshop were organized at Digha, Purba Medinipur on 8th June 2015 with the participation of around 64 people including officials from MPEDA and State Fisheries Department, fishermen, school students and teachers and NGO representatives. In the clean-up activity held at New Digha beach, the students of Dulalpur K. C. Girls (H S) and Chandanpur Birendra Siksha Sadan (H S) collected all sorts of wastes from the beach and discarded them safely. Then a rally along a stretch of 2 Km from New Digha beach to Old Digha and finally a workshop on conservation were held as

part of the celebration. NETFISH movies on marine conservation were also shown in the programme.

Odisha: In Odisha an awareness rally was conducted at Paradeep Harbour by involving trawler owners, harbour management officials & trawler crew members to spread the messages on marine conservation. Later on, an awareness meeting was arranged in the harbour by participating State fisheries officials and trawler owners. The trawler association members were advised to use waste bins in trawlers to avoid throwing wastes in sea. Leaflets and awareness stickers were distributed among the participants.

Andhra Pradesh: Public awareness meetings were organized at Vishakhapatnam and Vodarevu to celebrate the day. In Vizag the meeting was organized at Pudimadaka fish landing centre which was attended by fishermen, fisherwomen, Secretary and other members of Kadapalem fishermen society. After the meeting, a rally by all the participants was also conducted. The awareness meeting at Vodarevu was arranged near the landing centre with active





participation of fishermen and members of Fishermen cooperative society. Protection of the ocean and its resources was the main point of discussion in the meetings. In the end, all the participants took an oath to protect the oceans and spread the message "Save the oceans and resources for next generations".

Tamil Nadu: To create awareness among fishing community and the general public on the ill effects of coastal pollution and juvenile fishing, a public awareness programme was arranged at Royapuram,

Chennai, on 8th June, with the participation of college students, professors from Universities and scientists from research organizations. Representatives from fishing communities took an oath to conserve the ocean from plastic wastes. Notices printed in local language depicting importance of ocean were distributed to the fishermen in the harbour.

In South Tamil Nadu, a special awareness programmes was arranged at Velivayal, Thanjavur Dist., in which fishers as well as students and



Schemes and clarified the doubts of boat owners with regard to the schemes.

In Munambam harbour, an awareness programme for boat operators and associated people was convened on 8th June, where the results of the fishing experiments conducted by NETFISH using square cod ends aboard a commercial trawler was presented by Dr. Joice V. Thomas, CE NETFISH. Boat operator's associations welcomed this and offered their support.

Karnataka: In Karnataka a series of events comprising of door to door campaign, street play, school programme and mass communication were organized. Handbills and stickers against juvenile fishing were distributed among fishers of Karwar, Belambar and Belekeri fish landing centres by door to door programme. Street play on conservation was held at Amdalli and Majali fish landing centres. The programme at Government High School Majuguni included a rally by the students and essay competition. A mass communication programme on conservation of fisheries was also held in Karwar as part of the celebration during which NETFISH videos on conservation and sustainable fishing were shown to the fishers.

Maharashtra: In Maharashtra, a speech competition was organized in Achara fishing village, Malvan, Sindhudurg which was attended by 29 fishers. Four speakers from fishers participated in the competition and expressed their view on "Sustainable fishing". The documentary film "An escape to the depths" was also shown during the programme.

teachers from Karaiyur Government Middle School and Government Middle School of Kollukkadu attended. Awareness was generated among the participants through videos, photographs and field visit to a mangrove forest. Scuba diving demo explaining various methods and techniques being followed by scuba divers was also arranged as part of the programme.

Kerala: At Neendakara, an awareness programme on "Towards Sustainable Fishing" was organized for Boat owners and trade union members. Inaugurating the programme, Shri. K.N. Vimal Kumar, JD, MPEDA – RO, Kochi talked on sustainable fishing, importance of export, export value of fishes, etc. Awareness classes on "Coastal Safety" by Shri. Ramachandran, CI of Coastal Police and on "Sea Safety" by a retired Naval Officer, Shri. Rajesh Narayan were also arranged in the programme. Smt. Vijayakumari V.K. AD, MPEDA SRO- Kollam talked on MPEDA Subsidy

Gujarat: An awareness meeting was conducted at Mangrol harbour with due participation from Dept. of Fisheries, College of Fisheries, CIFT, CMFRI, MPEDA RO and members of Boat Association/FRP Association. The dignitaries present, during their speech, emphasised on marine conservation and sustainable fishing. In the end, all the participants together took an oath that they would implement 40mm square mesh cod end in trawl net to protect undersized fishes.

7.2.8.2 World Fisheries Day Celebration

Every year on 21st November the fishing communities and fish enthusiasts worldwide celebrate World Fisheries Day to highlight the importance of maintaining the world's fisheries. This year too, NETFISH celebrated the Day with fishers by organizing several events down the coastal states of India.

West Bengal: A free medical camp was organized at Kaylaghata, Freserganj, South 24 Parganas, in collaboration with SAB, Kolkata and with the active support and participation of Kaylaghata Fishermen Association. A good number of fishermen and their family members turned out for the event. About 89 fishers were thoroughly examined by the doctors for their general health, gynaecological and

ophthalmological aspects, blood pressure, blood sugar etc. and free medicines were dispensed to the needy.

Odisha: The awareness meet conducted at Bahabalapur fish landing centre, in collaboration with Trawler Association, Bahabalapur had more than 50 participants including AD, MPEDA SRO, Bhubaneswar, District Fisheries Officer, Vice-President and Secretary of Trawler Association, President of All Odisha Fishermen Federation and trawler owners. The dignitaries spoke on conservation of juveniles of fishes, different schemes of the State Fisheries Department etc. Later on, an open house discussion on conservation of marine fishery resources was carried out in the programme.

Andhra Pradesh: Along with OXFOM and ACTION AID India a mass awareness meeting with fisher folks on the theme "Fish Quality and Conservation" was organized at Visakhapatnam in which 100 participants including fisherwomen, men and members of Fishermen cooperative societies of Vizag were attended. The dignitaries present gave messages on production of good quality dry fish and value added products, protection of oceans and its resources and remedies for safer oceans. Finally, all the participants took an oath to protect



the oceans and spread the voice on “save fish and fishery resources for future generations”. Another event including mass awareness meeting, rally and drawing competition were conducted at Vodarevu fish landing center, Chirala by involving high school children. The theme of the meeting was fishery conservation and coastal pollution. The meeting was pursued by a rally from the school to the landing center, with children holding placards and voicing slogans related to the conservation and fish quality management. Afterwards, a drawing competition on conservation aspects particularly on mangrove protection, fishing gear and sea pollution, was held and the winners were given dictionaries, books and pens as prizes.

Karnataka: A day long celebration at Honnavar was attended by AD of Fisheries, President of Mechanized fishing vessel union, President of Purse seine boat union, boat owners and crew members of fishing vessels, fishers of Tonka, Kasarkod and Honnavar fishing harbours and members of SHGs. As part of the event, 50 hygiene kits consisted of soap, liquid hand wash, hair oil, comb, tooth paste & brush were distributed to selected beneficiaries, one person each from a fishing vessel. Besides this, cleaning materials such as Chlorine, liquid detergent, buckets, brush and high quality hand gloves were given to 50 fishing vessels in the harbour. Finally, a demonstration on how to clean the fishing vessel, fishing harbour and auction hall was arranged with the help of fishers.

Maharashtra: A total of 40 fishers had turned up for the speech competition held at Karla on the topic “Conservation of Marine Environment and its Resources”. In the competition, 7 fishers took part actively and all of them emphasized on the need of involvement by fishers and the general public to save our environment and its resources. The winners were given cash prizes.

Gujarat: The harbour cleanup programme conducted at Mangrol to create awareness among fishers about the importance of cleaning and maintenance of fish quality was attended by President Kharwa Samaj, EC member of Federation of Indian Fisheries Industries,

Gujarat Region, President, Boat Association, Officials of Dept. of Fisheries etc. Around 150 volunteers had joined for the cleanup drive, to whom caps, brooms and waste collecting bags were provided. The nearby beach area was also cleaned during the programme and the wastes collected were disposed off safely. The President of fishermen community urged all temporary booth holders to keep their own premises and surroundings clean and to fix sign boards at various places in the harbour.



7.2.8.3 World Women Day celebration

NETFISH in collaboration with SOHES observed World Women’s day on 26th March 2016 at Pondicherry on the theme ‘role and responsibility of women in fisheries development’. A public meeting was organized together with National fish workers forum (NFF) and Pudhucherry fish workers forum (PFF) with the aim to encourage fisherwomen activists in Pudhucherry to involve in the NETFISH activities. In the programme, Mr. Asoka Subramaniam, a writer and a retired high school headmaster hailing from the fishing community spoke about the role played by women in fishery development. Mr. M. Ramajayam, a



poet writer and a social activist presented a beautiful poem on the abilities of women to lead the humanity. Mr. M. A. Sekar, Secretary of SOHES spoke about the role of fisherwomen in managing the families. Mr. Elango, Chairperson of National fish workers forum and also a former M.L.A of Pudhucherry assembly also spoke on the occasion. State Coordinator explained about fish quality management and sustainable fishing and also the MPEDA schemes. A few fisherwomen activists of Pudhucherry area were honoured on the occasion.

7.2.8.4. Awareness programme on prevention of coastal marine pollution

NETFISH in collaboration with Central Institute of Fisheries Nautical And Engineering Training (CIFNET), GAIA International Organization and Kadalar Monthly Magazine organized a public awareness programme on 'Prevention of Coastal Marine Pollution for the Conservation of Fishery Resources' on 16th October 2015, at CIFNET campus, Chennai. Students from different schools along the coastal blocks of Chennai as well as general public including fisher folks and other fishery stakeholders had attended the programme. Discussion and interaction with school students, essay writing and

drawing competitions were held and the winners were honoured. The fishermen association members thanked NETFISH for conducting the event.

7.2.8.5 Workshop on Dry Fish

In collaboration with Dept. of Fisheries, West Bengal six workshops on dry fish were organized in Kolkata during this fiscal year, each of three day's duration. About 275 participants including officials from CIFE & Dept. of Fisheries and members from



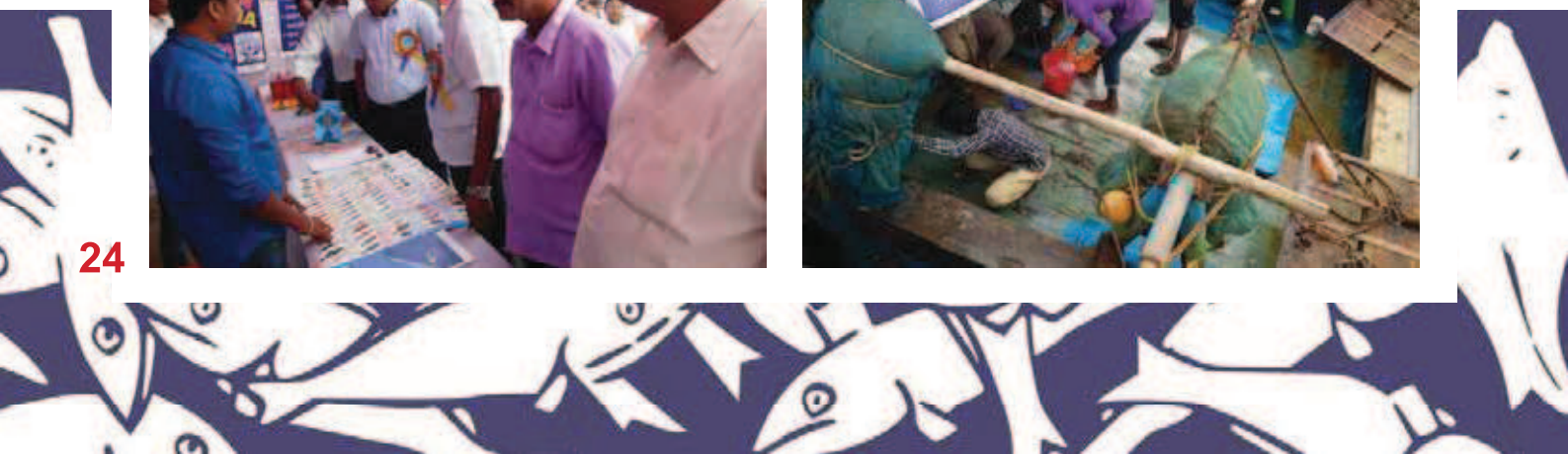
fishermen association attended the workshops. Present status of dry fish activities in India, modern and scientific technique of fish drying, packaging, use of permitted chemicals, export potential, marketing, hygienic handling, impact of harmful chemicals etc. were the various topics dealt in the training. Hands-on training on hygienic handling and preservation of dry fish using salt, Potassium Sorbate and Sodium Tri Poly Phosphate were also arranged in the programme. A discussion session with producers, suppliers and exporters regarding issues in producing quality dry fish and their marketing was also included in the workshop. As a result of the workshops lot of proposals has come up to develop dry fish & fish meal in West Bengal.

7.2.8.6. One Week at a Harbour Programme

A unique extension approach named as “One Week at a Harbour” programme was organized successfully this year at Paradeep, Munambam, Honnavar, Neendakara/Sakthikulangara, Mangrol, Karaikal and Kakinada harbours, by which a variety

of extension activities were carried out continuously for about a week at the harbour to build up a positive ambience in the mind of the people who are associated with the harbour. The objectives were (i) to improve fish and ice handling and cleanliness of the harbours (ii) to reach every fish worker in the harbour and make them to participate at least in one of the NETFISH programmes (iii) to change the mindset of the people towards better fish quality management and sustainable fisheries.

Paradeep: The five days long programme conducted from 6-10 December 2015 at Paradeep Fishing Harbour in Odisha was inaugurated by Mr. Bishnupada Sethi IAS, Commissioner/Secretary of Fisheries & ARD Dept., Govt. of Odisha. Director, JD, DD, DFO and AFO of Fisheries, Principal of Brackish Water Training Centre, Manager of Paradeep Harbour Management Society, President of OMFPA, Paradeep, members of Trawler Association etc. were present on the occasion. A free medical camp was arranged on the 2nd day, in which around 100 fishers

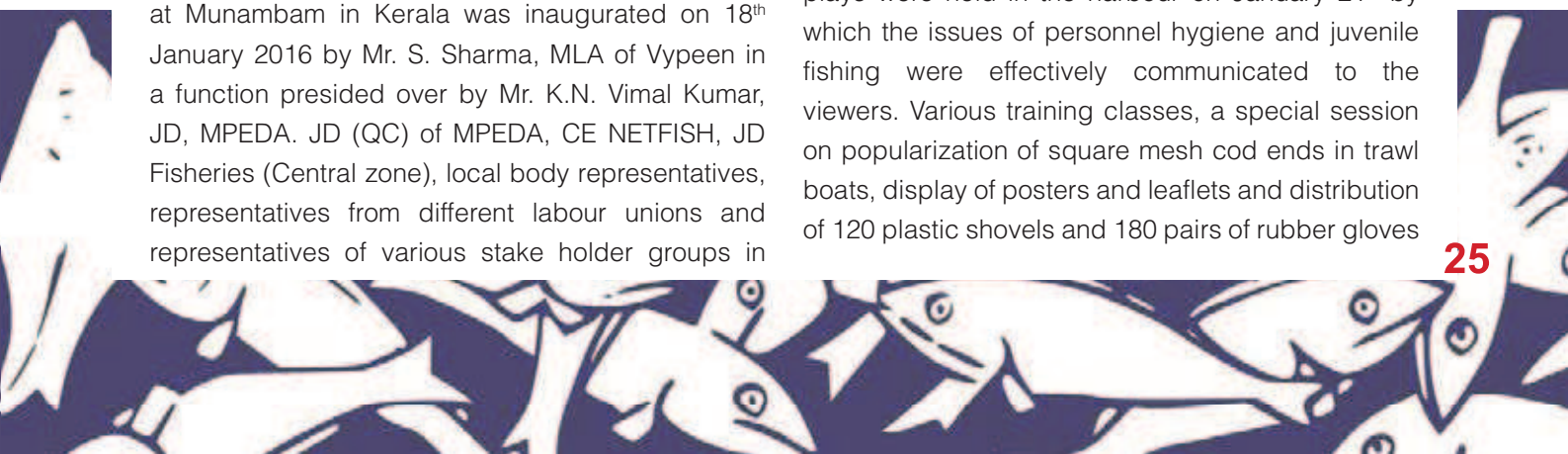




were examined by doctors and provided with blood grouping card. In the afternoon, a debate competition was held for trawler crew members and harbour workers on the topic '*Fish quality management and role of the stake holders*' and the winners were given prizes. On the next day, an awareness rally was arranged inside the harbour by involving around 100 participants including trawler owners, boat crews, traders and fisher folks. The 4th day's programme was sports competition for trawler crews, auction hall workers and trawler owners and prizes were given to winners. On the final day a mass harbour clean-up programme was conducted by involving all the users of the harbour including fishing vessel crews, traders, members of harbour management society, members of boat association etc. and cleaning accessories were provided by NETFISH. In the afternoon a debate competition was held for trawler owners and the winners were honoured. T-shirts with NETFISH name, logo and awareness messages were provided to all the participants of the programmes. Besides the above programmes, street plays were conducted twice on all the days and an exhibition stall displaying products related to fish quality and hygiene, latest technologies in fishing sector, etc. were arranged for the fishers.

Munambam: The 'one week at a harbour' programme at Munambam in Kerala was inaugurated on 18th January 2016 by Mr. S. Sharma, MLA of Vypeen in a function presided over by Mr. K.N. Vimal Kumar, JD, MPEDA. JD (QC) of MPEDA, CE NETFISH, JD Fisheries (Central zone), local body representatives, representatives from different labour unions and representatives of various stake holder groups in

the harbour felicitated on the occasion. Mr. P.K. Radhakrishnan, Panchayat President inaugurated the distribution of fishing accessories. Following the inaugural function, Sea Club members of St. Alberts College, Ernakulam performed a street play to convey the message '*to fish but not to finish it*' to the fishers, which attracted the attention of good numbers of fishers and harbour workers. The 2nd day, a free medical camp for the fisher women and children sponsored by Society for Assistance to Fisher women (SAF) - an organization under the State Fisheries Department, Kerala was conducted which was inaugurated by Smt. Asha Sanil, Ernakulam District Panchayat President. Nearly 20 Doctors and supporting staff from gynaecology, paediatrics, eye and dental divisions of the Amrita Institute of Medical Sciences and Research (AIMS), Kochi examined around 300 fishers and free medicines were given in the camp. A harbour clean-up was conducted on 20th January by involving harbour workers of various trade unions. The same day, the students and teachers from St. Marys High School, Munambam were given an opportunity to visit the harbour and to see the various activities in the harbour, different varieties of marine fishes, fishing crafts and gears etc. An awareness class and a short film on sustainable fisheries were also arranged for the students. Street plays were held in the harbour on January 21st by which the issues of personnel hygiene and juvenile fishing were effectively communicated to the viewers. Various training classes, a special session on popularization of square mesh cod ends in trawl boats, display of posters and leaflets and distribution of 120 plastic shovels and 180 pairs of rubber gloves





were also done as part of the programme.

Honnavar: The programme conducted from 19-23 January 2016 at Honnavar fishing harbour Karnataka started with a rally flagged off by Mr. Nagaraj C, AD of Fisheries, Honnavar. More than 500 people including school children, members of fishermen association, officials, fish workers, fisher women and NGOs participated in the rally, during which hand bills and leaflets were distributed to spread messages on maintaining cleanliness in harbour. The rally was followed by the inaugural ceremony in which Mr. Ashok Kumar, DD, MPEDA SRO, Mangalore inaugurated the five days programme in the harbour. Representatives of Purse-seine Boat Union, Fish Buyer's Association, Trawl Boat Union, Workers Union and Belakonda Fishermen Co-Operative Society were also present on the occasion. In the function NETFISH handed over 6 dust bins to AD Fisheries, Honnavar, to be kept in the harbour. The next day a free medical camp was organized for the fishers, in which blood grouping, blood pressure check up, HIV/AIDS checkup and general checkup were done, benefitting more than 270 fishers. On the 3rd day a stakeholder's meeting was arranged with Dry fish workers and merchants in the presence of AD of Fisheries. On 22nd January, a stakeholder's meeting was held with ice plant owners and workers in the presence of ADF. Demonstration programmes on harbour cleaning and fishing vessel cleaning, harbour clean-up programmes, street plays, awareness video shows and awareness classes

were also arranged as part of the one week camp. Fishers and merchants voluntarily participated in harbour clean-up programmes during all the 5 days. Sign boards on do's and don'ts were fixed inside and outside the auction hall.

Neendakara/Sakthikulangara: The programme conducted from 9th to 12th February 2016 in Neendakara/Sakthikulangara harbour, Kerala was inaugurated by Dr. S. Chitra, IAS, Assistant Collector, Kollam. JD, MPEDA, DD (QC) MPEDA, AD, SRO, Kollam, MPEDA Authority Member, President of Neendakara Grama Panchayat, Officials from department of fisheries & HED, representatives from various labour unions and stake holder groups in the harbour felicitated on the occasion. As part of the camp, harbour clean-up programmes, a mass boat clean-up programme, a free medical camp by SAF, street play shows, square mesh cod end popularization programme, stake holders meeting, distribution of plastic shovels and baskets and regular awareness programmes were organized in Neendakara/Sakthikulangara fishing harbour.

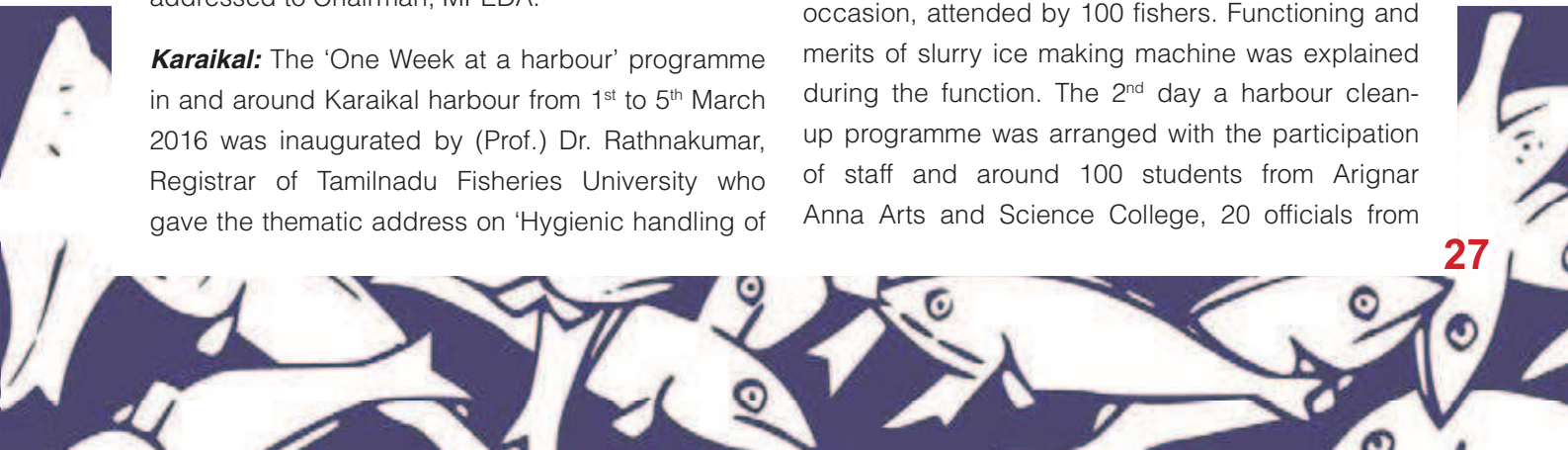
Mangrol: The programme conducted at Mangrol harbour in Gujarat from 12th to 16th February 2016 was inaugurated by Mr. A. Jeyabal, DD, MPEDA RO Veraval. Around 200 participants including representatives of all stakeholder groups, officials of CIFT, CMFRI, MPEDA, State Fisheries Dept. and College of fisheries, President of Boat Associations etc. attended the function. This was followed

by an awareness rally by involving around 150 participants consisting of students of College of Fisheries and Parmesh School and members of fishermen associations. The President of Fishermen Community, Authority Member of MPEDA, Scientist in Charge of CIFT and DD of MPEDA RO flagged off the rally. On 13th February, a fishing vessel registration camp was arranged and publicity on new subsidy schemes of MPEDA, as well as instructions on online registration and application procedures was given to the beneficiaries. In the evening session, awareness classes were conducted for fishermen with the aid of leaflets and documentary film. On the third day, a harbour clean-up programme was organized in which around 100 students of Jignasha School in Mangrol, leaders of fishermen community, members of boat association and 20 labours of Mangrol Nagarpalika actively participated and cleaned the entire harbour. President Kharwa Samaj Mangrol, Authority Member of MPEDA and President of Mahavir Fisheries Cooperative Society flagged off the clean-up event. Afterwards, a free medical camp was organized for the fishermen during which a medical doctor and a technician for diabetes examined 75 beneficiaries and free medicines were dispensed to the needy. On 15th February, street plays were performed inside the harbour and its surrounding places including a nearby school. On the final day, a training programme was conducted to make aware of boat owners about merits of square mesh nets in cod ends to conserve the marine resource. Scientist and technical officers of CIFT trained the participants on conversion of diamond mesh to square mesh. In the afternoon, a concluding meeting was arranged, during which Authority Member of MPEDA, President of the community, President of Boat Association, and President of Mahavir Fisheries Cooperative Society, Mangrol handed over their appreciation letters addressed to Chairman, MPEDA.

Karaikal: The 'One Week at a harbour' programme in and around Karaikal harbour from 1st to 5th March 2016 was inaugurated by (Prof.) Dr. Rathnakumar, Registrar of Tamilnadu Fisheries University who gave the thematic address on 'Hygienic handling of



fish and Fishing harbour management'. DD MPEDA RO Chennai, JD, AD & Sub-Inspector of Fisheries and village panchayath leaders also spoke on the occasion, attended by 100 fishers. Functioning and merits of slurry ice making machine was explained during the function. The 2nd day a harbour clean-up programme was arranged with the participation of staff and around 100 students from Arignar Anna Arts and Science College, 20 officials from



fisheries department, 40 fisher folk and 10 harbour cleaning labours. T- shirts and caps were provided to them and the collected garbage were disposed through the garbage vehicle provide by the Karaikal Municipality. On the 3rd day, a Door to Door campaign was conducted at nearby fishing villages with the support of panchayath messengers, who distributed the notice & leaflets, covering around fishermen families at 10 marine fishing villages in Karaikal municipality. On 4th March, awareness classes were arranged for fishers in Karaikal fishing harbour and the final day, stakeholder's meeting and valedictory function were conducted at the harbour where DD & AD of Fisheries conversed with around 150 fishermen representing from 10 fishing villages. Mass communication programmes including mike announcements and documentary shows were also organized in the evening hours during the first three days of the programme and in the last two days street plays were arranged at fishermen villages in the evening.

Kakinada: At Kakinada harbour in Andhra Pradesh, the programme organized from 8th to 12th March 2016 started with an inaugural function in which Mr. Kalyanam, DD of Fisheries, Kakinada was the chief guest. Officials from Dept of Fisheries, MPEDA and Kakinada Port, members of Boat owner's welfare associations and 50 fishermen from different stake holder groups attended the function. On the same day a meeting of the Fishing harbour management committee was also arranged and discussed the present conditions of the harbour and the importance of involvement of stake holders groups for the regular cleaning and sanitation activities. NETFISH documentary on hygiene in fishing harbour was shown to the members of harbour management committee and all stake holder groups who attended the function. The 2nd day, training classes were conducted to the crew members of fishing vessels including boat owners during which gum boots were distributed. On the same day NETFISH with the support of MPEDA SRO, Bhimavaram arranged a platform for the spot registration and renewal of MPEDA fishing vessel registration in which around

108 new registrations and 33 renewals were received. On 10th March, a Training programme was organized for the members of Traders and packers association in the presence of officials from Dept of Fisheries and Boat owners and President of Trades Association. The core topic was collection of wastes generated by traders and packers inside the harbour and its safe disposal. NETFISH movie on Hygienic fishing harbours was shown to the participants and tarpaulin sheets were given instead of stipend. On the same day another training class was arranged for the Dry fish producers and traders on the importance of hygiene in harbours and dry fish production. The participants were urged to use only the allotted land for drying and to maintain harbour premises clean. PVC sheets were provided to the trainees. In the afternoon, a harbour cleanup programme was conducted with the support of Sanitary Dept. and staff of Visakhapatnam Port Trust. Around 100 members from all the stakeholder groups participated in the cleanup programme which was inaugurated by the Chief Medical officer. NETFISH arranged the cleaning material. On the fourth day, another harbour cleanup drive was conducted with the support of sanitary staff of local Panchayath, members from all the stake holder groups and students of UPMP School, Kakinada. The school children came as a procession to the harbour voicing slogans related to hygiene and sanitation. Writing pads and pens were given to the school children. A medical camp was conducted on the last day of the programme by which around 106 fishers were benefitted. Free medicines were also provided as per the doctor's prescriptions. In the afternoon, a mass boat cleanup programme was arranged and cleaned 20 boats in the harbour with the active participation of boat owners and boat crews. Hands on training on boat cleaning and awareness on keeping the boat in hygienic condition during fishing was given to the crews. NETFISH provided the cleaning aid including wiper, hand gloves, liquid soap, chlorine, and brush. The 5 days programme ended with a meeting in which stakeholders and officials talked on the positive thoughts gained through the programme for improving the conditions of the harbour.

7.2.8.7. Distribution of Fishermen Aid materials

NETFISH works for the welfare of fishermen and teaches them good practices that are to be followed for the sustainability of fishing industry. In many cases the fishermen will be willing to change their unhygienic or unhealthy practices, but they refrain to do so because of lack of sufficient facilities. To make fishermen practice what was taught, NETFISH supplies some of the essential materials free of cost to the fishermen and other stakeholders. This year also materials such as life jackets, plastic shovels, plastic sheets, gloves, aprons, cleaning materials, plastic baskets, ice trays etc. were distributed to the beneficiaries.

- ❖ Distributed 231 life jackets to the fishermen of Kakdwip, Freserganj, & Sultanpur Fishing harbours in West Bengal as well as during onboard programmes in Odisha.
- ❖ Plastic baskets were provided to the stake holders

at Sethubavachatiram, Mallipattinam and Kalivayalhattam in Tanjore district (197 nos.), among fishers at Taruvaikulam and Tsunami colony in Tuticorin (303 nos.), to fishermen community at Umargam (175 nos.), Umarsadi (150 nos.) and Nargol (175 nos.) in Gujarat, to mechanized boats in the Mudasalodai landing centre (150 nos.) in Tamil Nadu North, among fishers at Kayamkulam, Chellanam, and Neendakara fishing harbours (250 nos.) in Kerala South and to fishermen in Karla and Pawas area (45 nos.) in Maharashtra.

- ❖ To avoid rusted shovels, plastic shovels were distributed to the fishers in Munambam, Beypore & Chettuva fishing harbours, Kerala (140 nos.), to fishers in Mandovi and to the presidents of 3 mechanized boat owners associations of Visakhapatnam fishing harbour (200 nos.).
- ❖ Cleaning solutions were provided during onboard training programmes in Odisha.





7.3 Activities Deserving Special Mention

7.3.1 Trainer's Training Workshop on 'Moving towards Sustainable Fishing'- A joint initiative by NETFISH with CMFRI

For initiating appropriate capacity building at the grass-root level, NETFISH along with CMFRI conducted Trainer's training workshops on 'Moving Towards Sustainable Fishing'. The objective was to create awareness among the key stakeholders about characteristic features of resource exploitation scenario and how the system could be shifted towards sustainability. Along with that, awareness was imparted on basic aspects of safety at sea and responsible fisheries. The interactive workshops were aimed to train trainers who would function as emissaries of sustainability among the fishers and participate in the tertiary level capacity building to be organized subsequently. Dr. K. Vijaykumar, Principal Scientist, CMFRI was the Course Coordinator of the programme. NETFISH had identified trainees from own organization as well as NGO's working in the fisheries sector, officials and executives of fishermen cooperative societies etc. for the programme. Under the joint initiative, 4 workshops were conducted; two along the West coast at Cochin and Mumbai and two along the East coast at Visakhapatnam and Chennai. Each of the training programmes was designed for a period of three days. Participants of the workshops included fishers, fishery association representatives, NGOs, State Govt. officials, etc. Certificates were distributed to all the participants.

- ❖ Instead of stipend, plastic sheets were provided to fishermen during the training programmes in Andhra Pradesh.
- ❖ Rubber gloves were distributed to the workers in Beypore, Puthiyappa and Munambam Harbours.
- ❖ Distributed ice boxes on subsidy through Tamil Nadu Fisheries Department apex body called Tamil Nadu State Fisheries Cooperative Federation Limited (TNFCOFED).
- ❖ Two numbers of Stainless steel trays were distributed to Karanja Machimar Society at Sassoon dock harbour.
- ❖ 34 numbers of 25 mm square mesh cod end were distributed to trawlers in Mirkarwada harbour, Maharashtra.
- ❖ 50 plastic dustbins were provided to Mahavir fisheries cooperative society, Mangrol.

Kochi: The first training programme of the series held



during 20th to 22nd May 2015 at CMFRI headquarters, Kochi was inaugurated by Dr A. Gopalakrishnan, Director CMFRI. The major participants were NETFISH State Coordinators, MPEDA Officers, NGO representatives, Sea Club members and CMFRI scientists. All the participants could fresh up their knowledge in the fisheries conservation and responsible fishing aspects and thereby good interaction was conducted in various strategies to be adopted for the sake of fishery in India. It was suggested to have sustainability and fisheries restoration projects to be initiated in the various maritime states. Fishery conservation programme by setting up co-management system with the help of fishermen community was also strongly suggested by the participants.

Vishakhapatnam: The second training was held during 28th to 30th July 2015 at CMFRI, Regional

centre at Visakhapatnam, Andhra Pradesh in which NGOs representatives and members of fishermen associations from West Bengal, Odisha and Andhra Pradesh had attended. All the participants appreciated well the exposure to the wide range of topics dealt in the programme. They also felt confident that they could initiate programmes at grass-root level with collective efforts. A strong suggestion came up from the West Bengal team was to start the selectivity studies in trawl for conserving the young ones.

Chennai: The training programme held during 12th to 14th August 2015 at CMFRI, Chennai was inaugurated by Dr. K. K. Vijayan, Director CIBA, Chennai. NGOs Representatives, State Fisheries officials, Sea Club members and members of fishermen associations from Tamil Nadu and Andhra Pradesh had attended this programme. The participants suggested to start





a Blue crab restoration programmes in South Tamil Nadu. A proposal also came up to initiate training programmes for fisheries officials and journalists since many of the journalists very often report ill news about fisheries without trying to get the veracity of the news.

Mumbai: The training programme held during 9th to 11th September, 2015 at Navi Mumbai was attended by NGO representatives, members of fishermen associations and State Fisheries officials from Gujarat and Maharashtra. Mr. Vasudevan, Chief Conservator of Forest (Mangrove Cell) IFS inaugurated the programme and Mr. Rustom Irani, President, SEAI, Mumbai was the Guest of Honour. Fishermen leaders from Arnala suggested having selectivity studies in the dol net fishery as this fishery kills large amount of juvenile fishes especially Pomfrets.

7.3.2 Dol net fishery improvement programme at Maharashtra

NETFISH-MPEDA in collaboration with CIFT, CMFRI and the Arnala Fishermen Sahakari Society Limited had conducted a workshop, "Moving Towards Sustainable Fishing- Dol Net Fishery Improvement Programme" on 5th October, 2015 in Arnala, Palghar District, Maharashtra. The major aim of this workshop was to promote sustainable Pomfret fishery by using dol nets with square mesh cod ends. During the workshop, Dr. Vinay Deshmukh, Retired Principal Scientist from CMFRI delivered a presentation on "Problems of silver Pomfret fishery in Maharashtra". This was followed by a presentation on "Square mesh cod end for dol nets: Benefits and advantages" by Dr. Prajith K.K., Scientist, CIFT. Around 48 fisher representatives from Arnala, Satpati, Dhakti Dahanu, Uttan, Edvan fishing villages took active participation in the workshop. Mr. Wayda, Assistant Commissioner of Fisheries, Palghar was also present on the occasion. Mr. Anilkumar, Deputy Director, MPEDA, RO, Mumbai and Dr. Joice V Thomas, CE, NETFISH attended the programme and provided necessary guidance to the fishers and boat owners. Dr. Purushothama and Rathish Kumar,



Scientists from CMFRI and Dinesh Singh from TCS also participated in the workshop.

The Chairman of the Arnala Fishermen Sahakari Society Limited, Arnala had offered all the necessary cooperation for the arrangement of this workshop. Mr. Santosh Kadam, State Coordinator, had briefed about the objective of the workshop and explained on the initiatives taken by NETFISH and MPEDA towards attaining the goal of sustainable fishery. This workshop was conducted as a follow-up action of the suggestions put forwards by fisher representatives during the trainer's training programme on 'Sustainable Fisheries' conducted in Mumbai jointly by NETFISH & CMFRI. This can be considered as the first attempt of the kind to improve the Dol net fishery in the state, by avoiding fishing of juveniles of pomfrets with the aid of square mesh cod ends. In this workshop it was decided to move further to popularize square mesh cod ends in dol net by conducting field trials onboard commercial fishing vessels.

7.3.3 Consultative Workshop on Marine Biodiversity Conservation and Sustainable Fishing

To create awareness on marine resources, conservation of marine biodiversity and its importance among the fisher community, NETFISH in collaboration with Fish for All Centre, MSSRF organized a Consultative workshop on Marine Biodiversity Conservation and Sustainable Fishing on 29th January 2016 at Poombuhar on the theme "Save the Ocean and Save the Nation". About 87 fishers from 15 villages of Nagapattinam and Karaikal districts took part in the workshop. Dr. Gokular Krishnan, HOD, Department of Zoology, Govt. Arts and Science College, Poombuhar gave lecture on "Need for Protection of Marine Endangered Species and Turtle conservation". Mr. Ravichandran, Senior Scientist, World Bank Project, MSSRF gave a lecture on "Conservation and Management of Mangroves". Dr. Velvizhi, Principal Scientist, MSSRF gave the lecture on "Challenges and need for promoting sustainable fisheries. Dr. R.Balasubramanian, State

Coordinator, explained on MPEDA schemes for promoting sustainable fisheries. Competition like elocution, and poem competition were also conducted and prizes were distributed to the winners. A fruitful interaction was done by the fisher folk during the programme and they urged to conduct these types of programmes at least once in six months.

7.3.4 Awareness on Conservation of Marine Biodiversity for Fisher Children

NETFISH organized special awareness cum training programmes for school/college students on 'Marine biodiversity conservation and sustainable fisheries' to create awareness among the coastal schools and fisher children as well as to sensitize their parents and neighbours about the topic. Around 1943 students and 102 teachers from 7 coastal schools and 4 colleges participated in 11 awareness programmes conducted in Nagapattinam, Poombuhar, Karaikal and Cuddalore from December 2015 to March 2016. The participants could gain the detailed knowledge on marine resources, current status and need for the importance of conservation. As part of the programme competitions such as elocution, drawing and poem competitions were conducted and prizes were distributed to the winners. Besides, 10 master students from 4 colleges were selected as master trainers.

7.3.5 IUU Awareness programme

An awareness programme on IUU Fishing was conducted at Thoothoor, Kanyakumari District



on 29.06.15. Dr. C. S. Shine Kumar, DD, MPEDA, Dr. A. Murugan, State coordinator, Mr. Mohan, DD, State Fisheries, Mr. Nabiraj, AD (Colachel), State Fisheries, Mr. Mubbarak, MSSRF, Mr. Jose

NETFISH-MPEDA

Belvin, President, Fishermen Cooperative Society, Thoothoor and representatives from various Boat Owners Association and around 23 fishers participated in the meeting. During the programme, notice in Tamil on 'Stop IUU fishing' was distributed to all stakeholders and Dr. Shine Kumar delivered a lecturer on stop of IUU fishing in a brief way and enlightened the fishermen and other stakeholders on the international regulation and impact of IUU fishing. Information on impact of fishing in the Diego Garcia waters and other trans-boundary waters was very meticulously addressed to the participants. Dr. Murugan interacted with stakeholders and sensitized the issue of IUU fishing and explained about the conservation of resources and policy matters related to fishing.

7.3.6 Campaign on advantage of Mud crab nursery

On 18th and 19th March 2016, NETFISH Andhra Pradesh along with RO MPEDA, Vizag and State fishery officials conducted an awareness campaign on Conservation of Mud crab by avoiding the wild seed collection and advantages of nursery raised uniform size crablets. The programme was conducted for fishermen in Amalapuram, East Godavari District where NETFISH initiated a new crab nursery. About 80 crab farmers attended the awareness programme and SCO NETFISH gave a presentation about crab farming based on the information gained from RGCA. The farmers got very much interested and a crab nursery was set up with 140 hapas for seed stocking.

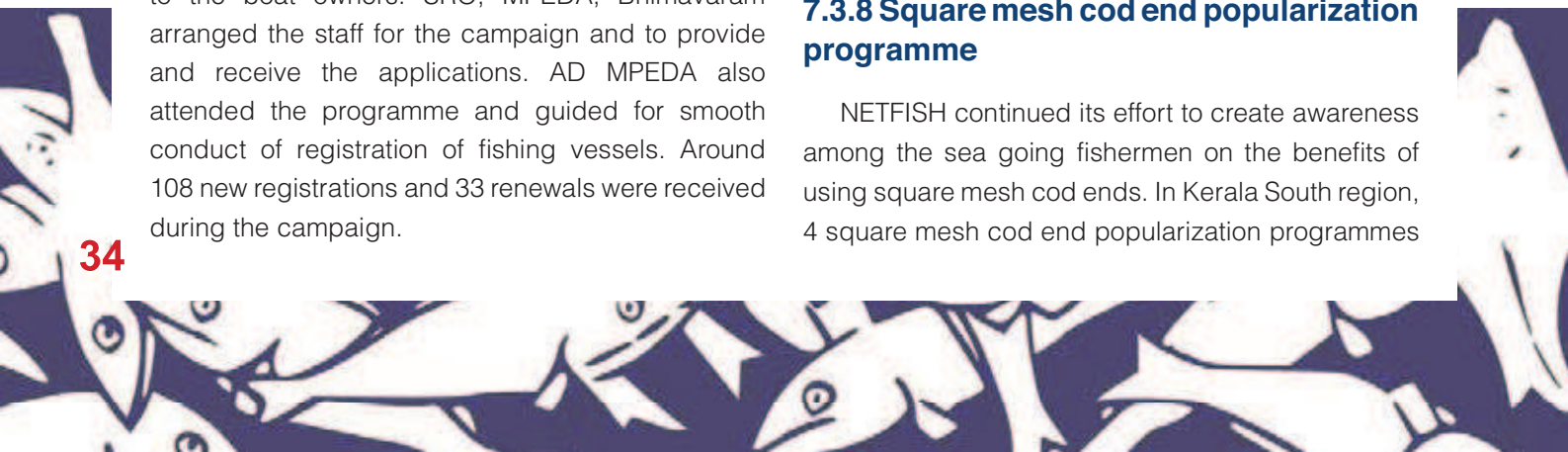
7.3.7 Campaign on MPEDA fishing vessel registration and renewal

On 09.03.2016 NETFISH Andhra Pradesh arranged a common platform for MPEDA fishing vessel spot registration and renewal facility at Kakinada fishing harbour with the prior intimation to the boat owners. SRO, MPEDA, Bhimavaram arranged the staff for the campaign and to provide and receive the applications. AD MPEDA also attended the programme and guided for smooth conduct of registration of fishing vessels. Around 108 new registrations and 33 renewals were received during the campaign.



7.3.8 Square mesh cod end popularization programme

NETFISH continued its effort to create awareness among the sea going fishermen on the benefits of using square mesh cod ends. In Kerala South region, 4 square mesh cod end popularization programmes



were conducted at Neendakara, Kayakulam, Thottappally and Thoppumpady fishing harbours. During the programme 2 square mesh cod ends were distributed to selected beneficiaries of each harbour. Onboard demonstration of square mesh cod ends were also conducted at Thottappally, Kayamkulam, Neendakara and Sakthikulangara fishing harbours. An awareness programme was conducted to boat operators and associated members in Kerala North region on 29th July 2015, during which, Shri K.N Vimal Kumar, JD, MPEDA displayed the modified square mesh cod end. More boat operators expressed their willingness to change to square mesh cod end. Another awareness programme was conducted at Munambam fishing harbour on 16th September 2015 in which 10 square mesh cod ends were distributed to boat operators in the presence of Shri. K. J. Prasanna Kumar, JD Fisheries, Shri. M.K. Sambasivan, General Manager, Matsyafed Net Factory, Shri K. N. Vimal Kumar, Dr. Joice V Thomas, and Shri. Santhosh N. K. Square mesh popularization campaigns were conducted at Beypore, Puthiyappa and Kaalamukku fishing harbours too. The Matsyafed net factory at Ernakulam (under the State Govt.) expressed interest to produce square mesh cod ends as per the order and supply through its Vyasa store network in Kerala.

7.3.9 Fish drying demonstration programme

NETFISH Mumbai conducted a demonstration programme on 'Production of dried fish in Solar Tunnel Dryer', at CET, KKV, Dapoli from 17th to 25th February 2016 with the aim to produce dry fish in a hygienic way and compare the quality of the dry fish produced using solar tunnel dryer and sun drying. Salted Mackerel, Ribbon fish with and without salt and Golden anchovy were selected for the demo programme. Around 12 fishers from Pajpandhari and Harne fishing villages had attended this programme. Dr. Mohod, Associate Professor, CET, KKV, Dapoli had delivered a presentations to explain the 'cost effective solar drying technology' developed by CET.

7.3.10 Debate competition at Porbandar

To create awareness among fishermen, NETFISH Gujarat organized a debate competition on the topic "Catching juvenile of fishes is blessing or Curse" for

fishermen community at Porbandar on 20th August 2015. President Kharwa Samaj, Porbandar, President and members from boat association, fishermen and women from community, and officials from department of fisheries attended the programme. SCO briefed about the impact of juvenile fishing. Ten participants from fishermen community took active participation and did debate on overfishing, use of 40mm square mesh in trawl nets, allowing juveniles to grow up, stop dumping of unwanted materials in sea, use of scientific/selective method for fishing, mangrove plantation, and use of TED etc. The winners were given prizes.

Feed Industry Nurturing Juvenile Fishing

Up to 100 boats in Kollam are engaged in juvenile fishing. Each boat carries 10,000 kg to 20,000 kg of juveniles

The clipping includes a photograph of a boat deck filled with fish and a small inset image of a fish. Text snippets include: "NFF to Stage March in New Delhi", "Through the initiative, the Central Fish Markets Network (CFMN) decided to stage a march in protest against government decision to draft regulations which has provisions that allow fish landings in Delhi on March 10. The plan is to organize the march from Parliament square to the Budget House. It will also support the members engaged in the community", and "SEA OF TROUBLE FOR FISHERMEN".

തീരക്കടലിൽ മത്സ്യക്കുഞ്ഞുങ്ങളെ പിടിക്കുന്ന സംഘങ്ങൾ സജീവം

മത്സ്യസമ്പത്തിന് ദീർഘനി: ഞാനും ചിലന്തികളെയും നശിപ്പിക്കുകയും ചെയ്യുന്നു. വിവിധയിൽ നഷ്ടം...



ചെറുമത്സ്യങ്ങളെ അത്യസംസ്ഥാനങ്ങളിലേക്ക് കടത്തുന്നത് വ്യാപകം

തിരം വരുതിയിലാകാൻ ഇത് കാരണമെന്ന് മത്സ്യത്തൊഴിലാളികൾ ന്യൂനം ചിലവ്

മത്സ്യസംസ്ഥാനങ്ങളിലേക്ക് കടത്തുന്നത് വ്യാപകം. തീരക്കടലിൽ മത്സ്യക്കുഞ്ഞുങ്ങളെ പിടിക്കുന്ന സംഘങ്ങൾ സജീവം. ചെറുമത്സ്യങ്ങളെ അത്യസംസ്ഥാനങ്ങളിലേക്ക് കടത്തുന്നത് വ്യാപകം. തീരക്കടലിൽ മത്സ്യക്കുഞ്ഞുങ്ങളെ പിടിക്കുന്ന സംഘങ്ങൾ സജീവം. ചെറുമത്സ്യങ്ങളെ അത്യസംസ്ഥാനങ്ങളിലേക്ക് കടത്തുന്നത് വ്യാപകം. തീരക്കടലിൽ മത്സ്യക്കുഞ്ഞുങ്ങളെ പിടിക്കുന്ന സംഘങ്ങൾ സജീവം.

7.3.11 Action against Mass Destruction of Juvenile Fishes

It was noticed that in many of the harbours in Kerala, large quantities of juvenile fishes are being landed and taken to fish meal factories. As an immediate move against this, articles along with photographs were published in newspaper dailies and recommendation letters were forwarded to all the authorities concerned for necessary actions. Understanding the worse impact of juvenile fishing, many of the fishermen associations themselves took decisions to refrain from catching juveniles of valuable fish species.

7.3.12 Installation of Exhibition Stall in Group Marriage Function of Fishermen

NETFISH installed an Exhibition stall during group marriage function held at Mangrol Fishing Harbour on 5th June 2015. All the NETFISH Training Pamphlets, Posters, Documentary /Animation film as well as MPEDA publications were displayed in the stall. Models of square mesh nets were also kept for



display. Fishermen, women and children visited the stall and collected required information from us. Most of the people who visited the stall were interested in various MPEDA subsidy schemes and had shown interest in square mesh trawl nets employed mainly for the escape of juvenile fishes. State Coordinator, NETFISH explained to the visitors about present export trends, species depletion, diversification of business and impact of juveniles fishing. The function thus provided NETFISH with a good opportunity to educate fishermen even when they are engaged in social activity. An attempt has been made to develop a healthy relationship with fishermen and to educate them under such joyful environment for a better outcome.

7.3.13 Participation in campaigns conducted by Department of Fisheries, Kerala.

In a land mark decision the Government of Kerala notified the minimum legal sizes (M.L.S.) of 14 fishery items, on 24th July 2015. The department of Fisheries



in Thrissur district had conducted three awareness programmes for the fishermen community regarding the new notification and the State Coordinator was invited to deliver the key note address on the need of MLS in the current scenario, its importance, details of the notification etc. The programmes were conducted at Chettuva harbour on 21.8.2015, Chavakkad harbour on 11.9.2015 and Azheekode- Munambam on 4.1.2016. People representatives from elected local bodies, Deputy Director of Fisheries, Fisheries field officers, officials from marine enforcement wing, officers from coastal police and fishermen from traditional and mechanized sectors participated in the programmes and had healthy discussions about MLS.

7.3.14 Verification of Aqua culture farms

As per the instruction of MPEDA, HO Cochin, State Coordinator in West Bengal carried out field verification of aquaculture farms in Purba Medinipur district from 12th November' 15 to 3rd December'15. State Coordinator has verified 302 aqua farms in Bhagawanpur -II block, 15 farms in Contai -II and 22 farms in Nandakumar block in Purba Medinipur using GPS machine.

7.3.15 Participation in Exhibitions & Workshops

NETFISH took part in several exhibitions during this year by installing a cubicle in the event displaying posters and charts representing various extension activities and awareness messages of NETFISH. NETFISH leaflets and other publications were distributed to the visitors of the stall and they were explained about extension activities by NETFISH and MPEDA subsidy schemes as well. NETFISH documentaries and animation films were also played in the stalls for the visitors. Many of the exhibitions were in collaboration with MPEDA offices. Besides these exhibitions, NETFISH SCOs had attended some of the workshops organized by other Dept./institutes/agencies. The major exhibitions & workshops attended in 2015-16 were:



- ❖ SINTEF MEET April 2015, an Indo –Norwegian workshop on “sustainable production-food and bio based science technology and innovation” organized by SINTEF-Norwegian Industry on Rest Raw Materials & MPEDA in Tamil Nadu
- ❖ Workshop on Deep sea fishing on 6th July 2015 at Andhra Pradesh
- ❖ UNASEB 2015, UGC National Seminar on ‘Biodiversity Conservation - Threats and Challenges’ at University College, Thiruvananthapuram, Kerala on 18th & 19th August 2015. NETFISH State Coordinator did the oral presentation of the research paper entitled “Efficacy of Square Mesh Cod End in Trawlers in Reducing the By-catch of Juvenile Fishes and Fuel Consumption” and bagged the prize for the second best oral presentation.
- ❖ Training programme on “Health certification for exporting ornamental fishes”, at NCAAH, CUSAT, Kochi on 28th, 29th and 30th September 2015.
- ❖ Aqua Goa Mega fish festival-2016 from 6th to 10th January at Navelim, Goa.
- ❖ ‘The Entrepreneurship & Skill Development Programme (ESDP) on Fish Processing’ sponsored by Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India and organized jointly by MPEDA and Entrepreneurship Development Institute (EDI), Govt. of TN, Chennai in association with Tuticorin District Tiny and Small Scale Industries Association (THUDITSSIA) from the 18th January to 16th February 2016.
- ❖ Annual conference of Federation of Indian Fisheries Industries (FIFI), on 7th February 2016 at West Bengal.
- ❖ National Workshop on “Marketing strategies for newly cultured fishes in India” organized by Fisheries Technocrats Forum (FTF), NFDB, CMFRI & CIBA at Chennai on 16th March 2016.

- ❖ Stakeholder consultation workshop on ‘Decline of Marine fish catch’ organized by CMFRI, Veraval on 21st April.
- ❖ State level meeting on “Conservation of Shark fish in India” Organized by CMFRI , Veraval

7.4 Projects by NETFISH

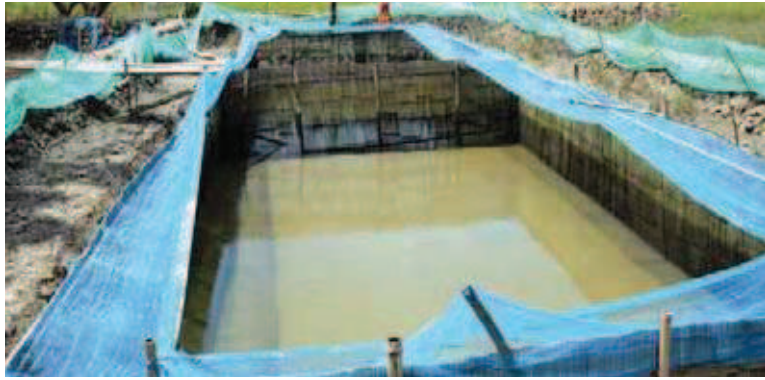
7.4.1 UNDP Funded Mud Crab Project in Sindhudurg

A project entitled “Mangrove crab stock enhancement by ranching and eco-friendly rearing in pen/ tide fed impoundments in the mangrove ecosystem of Sindhudurg district, Maharashtra through empowerment of traditional fishers” has been initiated in 2013 by MPEDA along with RGCA & NETFISH with the aid from UNDP - Forest Department, Government of Maharashtra for the benefit of traditional fisher folk. The major objectives of the project are to improve the livelihood of fishers, to conserve mangrove fauna and flora and to establish an eco-friendly ‘mangrove crab rearing technology’ among fishers. The project is being carried out in different phases in 15 villages of Devgad, Malvan and Vengurla talukas of Sindhudurg District.

During the period from December 2013 to August 2015 the first two phases of the project were completed and with the corrective measures the third crop was initiated which is in progress at 13 sites comprised of Achara New Site, Achara Old site, Shiroda site, Subhash Rawool- Vengurla site, Wadatar site, Adari site, Kolamb, Bapu Malabari Vengurla site, Kochara/ Nivati site, Parule, Taramumbri, Tambaldeg, and Morve site. The state coordinator regularly visited these sites and had discussions with the farmers to get their feedback on the crab farming. All the financial transactions with regard to the project are being directed through NETFISH.

7.4.2 Mud Crab Project in West Bengal

NETFISH had successfully completed a one year project entitled “Socio-economic Upgradation of SC/ST fisherwomen of SHGs in Sundarban’s through mud crab farming” at Purba Dwarakapur, in



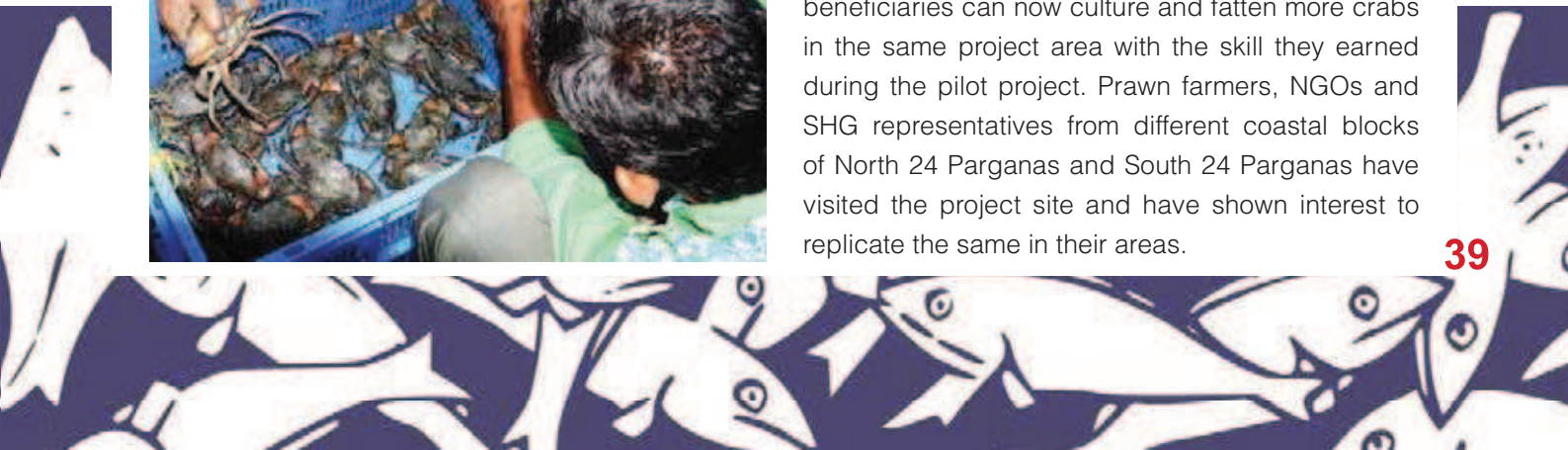
association with Digambarpur Angikar, a non profit organization in South 24 Parganas, West Bengal. The major objectives were: popularize crab culture among coastal fisherwomen through training and demonstration, generate employment among coastal people, conserve marine as well as coastal ecology



etc. The targeted beneficiaries were 50 fisherwomen who were mainly engaged in collecting shrimp seeds and catching crabs from the forest-side rivers and canals for livelihood.



On the initiation of the project, several training programmes including theory classes and hands on training were conducted for the beneficiaries on the various aspects of mud crab farming. A demonstration pond with a water depth of 2-2.5 ft and having separate chambers to stock male and female crabs (male chamber – 54.60 m² & female chamber – 58.80 m²) was set up for the crab farming. A total of 214 male crabs (23.5 Kg) and 134 female crabs (11.7 Kg) were stocked in the respective chambers in two phases (March & June). Feeding and monitoring were done on a regular basis. Harvesting was done in two phases in September 2015 which yielded 185 males (32.0 Kg) and 60 females (8.2 Kg) ie. a total of 245 crabs thus giving 70.4% survival. Among these, 130 crabs were of export quality (24.7 Kg). Fin fishes like Sea bass, Mulletts and shell fishes like prawn were also harvested from the project site, which provided an additional income. Considering the percentage of survival acquired and income earned, the project was a success. It is presumed that the beneficiaries can now culture and fatten more crabs in the same project area with the skill they earned during the pilot project. Prawn farmers, NGOs and SHG representatives from different coastal blocks of North 24 Parganas and South 24 Parganas have visited the project site and have shown interest to replicate the same in their areas.



7.5 Sea Club Activities

NETFISH set up Sea Clubs at universities/colleges/schools near coastal areas to attract youth towards fisheries extension activity by involving in fisheries development programmes in and around their institutes.

NETFISH Sea Club at St Albert's College, Ernakulam conducted a seminar on Responsible Fisheries on 20th October 2015. Dr. C. Ramachandran, Principal Scientist, Fishery Economics and Extension Division, CMFRI, Kochi inaugurated the programme and delivered a talk on 'Responsible Fishing'. Rev. Fr. Christy David Pathiala, Asst. Manager, St Albert's College, Shri K. N. Vimal Kumar, Joint Director, MPEDA RO, Prof. Harry Cleetus, Principal of St. Alberts College, Dr. Jude Martin Mendez, College Vice Principal and Shri. Santhosh N.K., NETFISH State Coordinator also felicitated the occasion. Dr Benno Periera, HOD, P.G. Dept. of Fisheries and Aquaculture did the welcome speech and Prof. Bijoy V.M. proposed vote of thanks. A competition on logo design for the Sea Club and a poster competition on responsible fishing were also conducted as part of the event. On 6th January 2016, The Sea Club members conducted an awareness campaign on responsible fisheries at Thoppumpady and Kaalamukku fishing harbours in Kochi. The campaign included two wheeler rally in the harbour, enacting of a short drama, dance, folk song, display of placards and distribution of leaflets to the fishermen and harbour workers. The fishermen and harbour workers encouraged the students and congratulated them. Approximately 40



students and 5 teachers of the Sea Club participated in the campaign.

The Sea Club of Fisheries College & Research Institute, Tuticorin organized an awareness campaign on *Conservation of Sea Turtles* on 10th August 2015 at Community Hall, Alanthalai, Tuticorin. A total of



100 persons including fishermen leaders, villagers, fisher folks and 40 Sea Club members attended the programme. Dr. G. Sugumar, Dean (In-Charge), Fisheries College and Research Institute delivered a lecture on importance of Sea Turtle in the ecosystem perspective and Dr. Murugan, State Coordinator indicated the status of Sea Turtle distribution and conservation in the District of Tuticorin and emphasized the importance of using Turtle Exclusion Devices (TED) while fishing. The participants were provided with awareness pamphlets and shown a video on Sea Turtle conservation. The meeting was productive in imparting the knowledge of the importance of Sea Turtle and its conservation necessities.

7.6 Exposure visit for NETFISH staff

A two days exposure visit was organized from 19th to 20th September 2015 for all the staff of NETFISH, during which the team visited Community Pre-processing Center at Ambalapuzha, fishing harbours at Sakthikulangara & Neendakara, Matsyafed Common Pre-processing Center at Sakthikulangara, Chinnamuttom harbour and JEPPIAAR Fishing harbour, Muttom. The basic functioning of these units, hygienic methods followed there and advanced infrastructure facilities available were observed. The visit was very useful for gaining new ideas for development of fishing sector.

7.7 Training Programme on “Mangrove Crab Culture” at RGCA, Sirkali

A team of 12 officials from NETFISH comprising the Chief Executive, State Coordinators and Research Assistants had attended a “Hands on training programme on Mangrove Crab Aquaculture” from 2nd to 6th November 2015, organized at Rajiv Gandhi Centre for Aquaculture (RGCA), Sirkali, Tamil Nadu. The training included theory and practical sessions and field visits. The trainees were provided with learning materials in CD's, training manual on crab farming and other information materials. The training programme was well arranged and provided opportunity for all the trainees to enhance their knowledge in mud crab culture thereby developing self confidence to popularize the technology among the stakeholders.





8. Specific Outcomes Achieved during the Year

8.1 WEST BENGAL

- ❖ Plastic crates and insulated fish boxes are being used in Namkhana, Fraserganj, Kakdwip, Deshapran and Digha mohana to transfer fish from harbours to the auction market.
- ❖ Majority of the fishing boats in Kakdwip, Freserganj and Namkhana, now use plastic baskets for handling of fishes onboard and at landing point.
- ❖ Auctioneers now transport fish from Digha auction market to the processing plant/ local market in insulated fish boxes and subsequently getting better price.
- ❖ Polythene/tarpaulin sheets are used to cover the crates while transporting fish from landing centre/ harbour to market or processing plant, to avoid contamination.
- ❖ Fishers from Akshaynagar, Gangasagar, and Kakdwip area have started sorting of fishes on polysheets to avoid contamination from dirt and mud.
- ❖ In Freserganj, Deshapran, Namkhana & Kakdwip, block ice are either hanged by rope & pole or carried on head by workers instead of their earlier practice of dragging it on the floor.
- ❖ Fishermen follow chill killing and cold chain system in their fishing vessels as well as in the landing centre until the catch reaches to the processing plant.
- ❖ In Sankarpur, Deshapran, Raidighi, and Shoula most of the trawlers are facilitated with ice crushing machine and fishermen are using crushed ice in their boats to minimize damage and spoilage of fishes.
- ❖ Dry fish khutis at Jaldah, New Jaldah, Junput Dadanpatrabar, Paschim Amarabati, Uttar Bakkhali, and Lakhipur have adopted drying on mat and racks to avoid contamination and hence the product quality has improved.

- ❖ Fishers of Moinapara dry fish khuti at Kakdwip are drying their fish on racks made of net; using salt while drying fish and thus producing better quality dry fish which are fetching good price in the market.
- ❖ No harmful chemicals are used in dry fish production at Jaldah, Tajpur, Dadanpatrabar, Chewasuli, and Lakhipur.
- ❖ As a result of distributing life jackets by NETFISH, fishermen are keeping adequate no. of life jackets in their boat and the State Fisheries Department has taken initiative to implement the same in MFR Act.
- ❖ After intervention of NETFISH, boat owners are availing financial assistance from MPEDA for fish holds.
- ❖ After conducting series of extension programmes and meeting with the stakeholders and boat owners, a total 127 fishing boats got registered with MPEDA in the year 2015-16.

8.2 ODISHA

- ❖ In Paradeep, Balaramgadi and Bahabalpur 80-90 % of bamboo baskets used in fishing vessels are replaced by plastic baskets.
- ❖ Trawler owners now use cleaning materials like liquid detergent & hypochlorite for cleaning their fishing vessels and other utensils.
- ❖ In Paradeep harbour, a shift from open to covered transportation of ice has occurred.
- ❖ Trawler owners and their association now realize the importance of conservation and are of the opinion for increasing the fishing ban period to more than 60 days.
- ❖ Paradeep harbour management society has appointed 6 harbour cleaning workers and also provided 15 waste bins to maintain the cleanliness of the harbour.
- ❖ Due to NETFISH intervention, the food stalls near

- to the auction hall were shifted to distant place.
- ❖ Fishing vessel owners are now interested in registering their vessels with MPEDA and availing MPEDA subsidy schemes due to NETFISH awareness programmes.
 - ❖ In Paradeep harbour, fishing vessels have started using insulated plastic wire ropes instead of steel wire rope, as a result of which greasing and unhygienic activity inside the jetty has reduced considerably.
 - ❖ Fishers at Paradeep now follow hygienic handling practices.
 - ❖ Trawler owners in Balaramgadi now clean their godown regularly by using liquid detergent & hypochlorite.
 - ❖ In Bahabalapur landing centre, the auction area are now maintained hygienically and the fishers carry enough ice while going for fishing.
 - ❖ After NETFISH intervention, fisher folk of Chilka have started their own trading through fishermen co-operative society.
- ### 8.3 ANDHRA PRADESH
- ❖ Initiation was taken to collect toll from 3 & 4 wheelers entering Visakhapatnam harbour and to use this revenue for the regular cleaning activity of the harbour.
 - ❖ Bamboo baskets are replaced completely with plastic baskets in all the major fishing harbour and nearby landing centers.
 - ❖ With the involvement of NETFISH the infrastructure facilities as well as hygiene at Mulapeta fish landing centre of Kakinada have improved and the stakeholders have decided to form a Harbour Management Society.
 - ❖ 50% of rusted iron shovels are replaced with fiber shovels at Visakhapatnam and Kakinada fishing harbours.
 - ❖ Stainless steel trays are being used by the boat owners of Kakinada for keeping crushed ice.
 - ❖ Plastic sheets and crates are mostly used for keeping tuna fish in all the fishing harbours and nearby landing centers.
 - ❖ NETFISH coordinated with Visakhapatnam Port Trust (VPT) and did arrangements for regular collection and disposal of waste generated from packing materials. Association President has arranged waste bins in the harbour.
 - ❖ In most of the fishing vessels fish holds and deck is coated with fiber for easy cleaning. Most of the motorized crafts are constructed with insulated fish hold and taking enough quantity of ice for better preservation. Regular cleaning of fish holds and fishing equipments are observed in motorized and mechanized fishing boats at major landing sites.
 - ❖ Strict fishing ban was observed all along the coast for 61 days.
 - ❖ In about 90% trawlers, cod end mesh size has increased to 23-25 mm to enable escape of juveniles. Boats are using separate mesh sized cod ends for bottom and mid-pelagic trawling as well as for fish and shrimp. The mid-pelagic cod end mesh size has increased from 23mm to 30-40mm.
 - ❖ Mud crab farmers of Vetlapalem village of Amalapuram now prefer nursery reared seeds over wild seeds.
 - ❖ Fishermen and traders at Kakinada have decided not to catch and buy big live gravid crabs.
 - ❖ Around 50% of trawlers are converted to gill netters at major harbours.
 - ❖ In Kakinada and Visakhapatnam 40% of the trawlers are using hook and line instead of gill net for Tuna fishing and are getting better price. The Boat owners are now approaching MPEDA for availing subsidy for hook and line.
 - ❖ About 60% of fishing boats are now using combination and concealed wire ropes instead of open metal wires by which the greasing

activity inside the harbour jetties has reduced.

- ❖ The pre-processing centres are following the color code of the boxes and hand washing practice has improved.
- ❖ Dry fishers of Mulapeta and Vodarevu are now using sheets for drying fish and also nets for covering. The salt curing tanks are covered with fiber cap to avoid fly infestation. Concrete platforms for drying are being constructed and in Odarevu rope drying system is also practiced.
- ❖ Boat owners are registering and renewing MPEDA registration and are applying for fish hold subsidy scheme
- ❖ Thermocol boxes are replaced with Roto moulded insulated fish boxes in landing centers and fish auction markets for preserving fish.
- ❖ Boat owners are impressed by the onboard ice making machine and a few of them have shown interest to install it by availing MPEDA subsidy.

8.4 TAMIL NADU NORTH

- ❖ Bamboo basket has been completely removed and only plastic baskets are being used for fish handling in Kasimedu, Cuddalore, Annankovil, Mudasalodai, Pazhaiyar, Karaikkal, Nagapattinam & Nagoor.
- ❖ Hygienic preparation of dry fish has improved at Kasimedu, Cuddalore, Annankovil, Mudasalodai, Pazhaiyar, Nagapattinam & Nagoor.
- ❖ Dumping of by-catch/trash fish in jetties is completely stopped at Kasimedu, Pondicherry, Cuddalore, Karaikkal, Nagapattinam & Nagoor.
- ❖ Fishers in most of the landing sites are following 1:1 ratio for icing the fish.
- ❖ The Boat owner association of Kasimedu, Pondicherry, Cuddalore, Annankovil, Mudasalodai, Karaikkal, Nagapattinam & Nagoor are taking steps to clean the harbor premises.
- ❖ The Association of Kasimedu, Annankovil &

Karaikkal have taken steps to open the toilet facility in the fishing harbours.

- ❖ Mechanized boats in Pondicherry have started using detergent and bleaching powder to clean their boats.
- ❖ Onboard handling of fish is found to be improved in Cuddalore, Pazhaiyar, Karaikkal, Nagapattinam & Nagoor and many of the fishing vessels are following the mesh size regulation.
- ❖ Harbour management committees are formed at Pazhaiyar harbour and Annankovil, Mudasalodai & Nagoor landing centres. The first initiation by the Harbour management committee at Pazhaiyar was to appoint two workers for daily cleaning of the auction hall.
- ❖ Plastic ice boxes were popularized at Nagapattinam & Nagoor.
- ❖ The pilot project on onboard usage of slurry Ice making machine was successfully completed at Karaikkal harbour.

8.5 TAMIL NADU SOUTH

- ❖ Handling of ice has improved in all the selected regions and the fishers are icing the fish at 1:1 ratio. At Mandapam, ice is crushed on tarpaulin sheets and clean shovels are used for ice handling.
- ❖ In Tuticorin, now 90% of fishers are using plastic basket instead of bamboo baskets.
- ❖ Tuticorin harbour is cleaned on a daily basis.
- ❖ Onboard hygiene has improved and most of the fishing vessels plying from Tuticorin harbour are being cleaned before and after fishing. The fish holds in the boats are also kept clean.
- ❖ Personal hygiene has found to be improved in Tuticorin & Mandapam. Gloves are used while handling fish.
- ❖ In Tuticorin & Mandapam harbours raised platforms are being used for keeping the fish for auctioning.

- ❖ Clean shovels are used for fish handling in Tuticorin and Colachel.
- ❖ Awareness on impact of bottom trawling is increasing among fishers. The Fishermen of Gulf of Mannar region are ready to divert from bottom trawling if appropriate steps are taken.
- ❖ In Tuticorin and Chinnamuttom, bottom trawlers are showing willingness to use square mesh panel in the cod end on trial basis.
- ❖ An increase in use of large mesh sized nets is observed in Chinnamuttom.
- ❖ Purse-seining in Tuticorin & Mandapam and pair trawling in Palk Bay region have reduced considerably.
- ❖ Destruction of coral reef is also reduced largely in Tuticorin.
- ❖ Berried blue crabs as well as under sized lobster (less than 50gm) caught in net are released back to sea in Tuticorin & Chinnamuttom.
- ❖ Blast fishing and turtle poaching activity have reduced to a larger extent in Mandapam.
- ❖ Awareness on State and Central Government rules and regulations has increased in Chinnamuttom & Colachel.
- ❖ IUU fishing & violation of fishing ban have reduced considerably in Colachel and Chinnamuttom.
- ❖ In Kayamkulam fishing harbour, bamboo baskets are completely replaced by plastic baskets and the conventional weighing balance is converted to platform balance for weighing fish.
- ❖ Due to NETFISH awareness programmes, more beneficiaries are coming forward for availing MPEDA subsidies. An application for slurry ice making unit was obtained from Thoppumpady.
- ❖ Due to continuous training programmes in Punnapra, fish handling workers are aware about the hygiene practices and they have started using gumboots.
- ❖ Square mesh popularization programmes were successfully organized in major harbours.

8.7 KERALA NORTH

8.6 KERALA SOUTH

- ❖ Harbour management committee has formed in Sakthikulangara and Neendakara harbours.
- ❖ Working of unhygienic peeling shed in and around the harbour is completely stopped.
- ❖ Incidence of Juvenile fishing was continuously reported in various news papers and informed to Department of fisheries and thus has controlled in almost all major harbours.
- ❖ As a result of regular meetings, all the ten units available at CPC –Ambalappuzha has become functional.
- ❖ The use of plastic shovels and rubber gloves were popularized in Munambam harbour and NETFISH has supplied 140 numbers of plastic shovels.
- ❖ Uses of plastic shovels were popularized in Munakkakadavu, Bepore and Puthiyappa fishing harbours too.
- ❖ Juvenile fishing in Munambam has been stopped after NETFISH interventions, subsequent media reports and authority actions.
- ❖ The Munambam harbour management society has appointed personnel for round the clock security of the harbour and another person for monitoring boat arrivals to combat IUU fishing.
- ❖ The Kaalamukku fishing harbour is cleaned regularly after each day's work.
- ❖ Four concrete rings were fixed at Chettuva harbour for waste deposal and the stakeholders are making use of it.
- ❖ Sign boards on Do's and Don'ts were installed in the auction hall of Munakkakadavu and Bepore fishing harbours.
- ❖ In Munakkakadavu harbour, fishers have started using plastic shoes during work.

- ❖ Workers of two PPCs in Munambam area have started using uniform, gumboots, mouth cover, head gear and aprons while at work.

8.8 KARNATAKA & GOA

- ❖ Dumping of by-catch on the wharf is almost stopped in Mangalore.
- ❖ The practice of stacking crates inside the auction hall is stopped in Malpe fishing harbour.
- ❖ In Malpe, a separate vehicle parking area is arranged by Fisheries Dept.
- ❖ Signboards are installed in Gangolli & Honnavar fishing harbours.
- ❖ In Honnavar, two wheeler parking area has been separated from the main loading area.
- ❖ Stakeholders in Tadri and Karwar have started using the auction hall properly.
- ❖ Plastic baskets are used for keeping fish and ice in South Goa and Malim.
- ❖ In Malim, fishers have started using trolleys and are keeping the plastic crates only in the designated area.

8.9 MAHARASHTRA

- ❖ Wide campaigns and distribution of square mesh cod ends has generated a positive response among fishers towards implementation of square mesh cod ends in trawl nets.
- ❖ Stainless Steel trays are being used in Sassoon dock harbour for keeping crushed ice.
- ❖ Fishers in Palghar and Mumbai declared 90 days fishing ban from 15th May to 15th August as a self regulation.
- ❖ Due to continuous follow up and technical guidance, more number of SHGs has initiated Oyster culture in Wadatar region.
- ❖ Fishers themselves have replaced bamboo baskets with plastic baskets in all selected areas.
- ❖ Improvement in hygiene and sanitary condition

are observed in seafood processing units.

- ❖ Raw material handling and personal hygiene by workers in pre-processing centres have improved.
- ❖ Drying of fish on cleaned cemented platforms or coir mesh nets instead of bare sand is observed in Sindhudurg area.
- ❖ Hygienic conditions onboard have improved as fishers started using hand gloves during fish handling and cleaning deck, fish hold and equipments before and after fishing.
- ❖ Improvement in fish handling in landing centres and harbours include use of plastic sheets and cleaned cemented platforms for keeping fish for sorting and auctioning, instead of dumping the raw material on unclean surfaces.

8.10 GUJARAT

- ❖ In Veraval harbour, fishermen have started using clean crates for fish handling.
- ❖ Most of the fishers have increased the mesh size of fishing gear to conserve resources.
- ❖ In Veraval fishing harbour the Boat Association has introduced a hygienic ice crushing facility.
- ❖ Dry fishers in Umargam are producing good quality products, packed in pouches and are earning Rs. 50-100 more than the normal price.
- ❖ Hygiene and sanitary conditions in pre-processing plants have improved.
- ❖ In Veraval and Porbandar, fishers have started cleaning boats before and after fishing.
- ❖ Fishers in Umardasi have stopped cutting down of mangroves near sea shore.
- ❖ In Veraval and Porbandar harbours, open transportation of fish has been stopped and plastic sheet covering or box with lid or insulated fish boxes are used.
- ❖ Cleanliness standard has improved in almost all the selected harbours.

Articles in MPEDA Newsletter

Highlights of marine fish landings in selected harbours of India during October 2015

Dr. C. Parameswaran, Principal Scientist, Fisheries Economics and Statistics

Fig. 1: Marine fish landings in selected harbours of India during October 2015

FOCUS AREA

Efficacy of square mesh cod end in trawlers in reducing the by-catch of juvenile fishes and fuel consumption: An experiment conducted off Munambam coast

Dr. C. Parameswaran, Principal Scientist, Fisheries Economics and Statistics

Introduction

One of the most effective measures to reduce the catch of juvenile fishes is the use of square mesh cod end in trawlers. This experiment was conducted to evaluate the efficacy of square mesh cod end in trawlers in reducing the by-catch of juvenile fishes and fuel consumption. The experiment was conducted off the coast of Munambam, Kerala.

Methodology

The experiment was conducted using two trawlers. One trawler used a square mesh cod end, and the other used a traditional mesh cod end. The experiment was conducted for a period of 10 days. The catch of juvenile fishes and fuel consumption were recorded for each day.

Results

The results of the experiment showed that the use of square mesh cod end in trawlers significantly reduced the by-catch of juvenile fishes and fuel consumption. The catch of juvenile fishes was 50% lower in the square mesh cod end trawler compared to the traditional mesh cod end trawler. Fuel consumption was also 10% lower in the square mesh cod end trawler.

NETFISH move welcomed by the boat operators of Munambam harbour

Dr. C. Parameswaran, Principal Scientist, Fisheries Economics and Statistics

Introduction

The NETFISH project has been implemented in the coastal waters of Kerala. The project aims to improve the livelihoods of coastal fishers by providing them with better fishing gear and training. The boat operators of Munambam harbour have welcomed the NETFISH project.

Benefits

The boat operators have benefited from the NETFISH project in several ways. They have received better fishing gear, which has improved their catch. They have also received training, which has helped them to become more efficient fishers. The boat operators have also benefited from the NETFISH project in terms of better prices for their fish.

NETFISH 'Sea Club' conducts seminar and awareness campaigns on 'Responsible Fisheries'

Dr. C. Parameswaran, Principal Scientist, Fisheries Economics and Statistics

Introduction

The NETFISH 'Sea Club' has conducted a seminar and awareness campaigns on 'Responsible Fisheries' in Thrippunithurai and Kakkulam fishing harbours in Kerala. The seminar was held on 20th October 2015 at St. Alberts College, Thrippunithurai. The Sea Club members also conducted awareness campaigns in Thrippunithurai and Kakkulam fishing harbours in Kerala.

Programme

The programme included a seminar on 'Responsible Fisheries' and awareness campaigns in fishing harbours. The seminar was held on 20th October 2015 at St. Alberts College, Thrippunithurai. The Sea Club members also conducted awareness campaigns in Thrippunithurai and Kakkulam fishing harbours in Kerala.

Highlights of marine fish landings in major harbours of India during December 2015

Dr. C. Parameswaran, Principal Scientist, Fisheries Economics and Statistics

Introduction

The following table shows the highlights of marine fish landings in major harbours of India during December 2015.

Sl. No.	State	Fishing Harbour	Quantity (MT)
1	Kerala	Beypore	24
2		Puducherry	22
3		Thrippunithurai	21
4		Muzhappilly	18
5		Kakkanad	17
6		Thiruvananthapuram	16
7		Chennai	15
8		Madurai	14
9		Trichy	13
10		Coimbatore	12

NETFISH in News

Modified Trawl Net Gathers Popularity Among Fishers

The modified trawl net has gained popularity among fishers in Kerala. The net is made of square mesh and is used to catch fish. The net is easy to use and has a long life span. The fishers like to use the net because it catches more fish and is easy to handle.

Netting Fishermen Thru Art

The Sea Club of St. Albert's College attracted the attention of the fishermen of Thrippunithurai and Kakkulam through street plays towards responsible fishing.

NETFISH to Apprise Fishermen of the Benefits of Square Mesh Net

NETFISH will apprise fishermen of the benefits of square mesh net. The net is made of square mesh and is used to catch fish. The net is easy to use and has a long life span. The fishers like to use the net because it catches more fish and is easy to handle.

Awareness Camp Held

A four-day awareness camp on 'Responsible Fishing and Clean Fish Handling' began at the Munambam fishing harbour here on Monday. The motto of the camp, being organised by the Network for Fish Quality Management and Sustainable Fishing (NETFISH), an agency under the Marine Products Exports Development Authority (MPEDA), is 'Clean Harbour, Clean Fish'. The programme will highlight the importance of avoiding unsustainable fishing practices like juvenile fishing. The programmes include medical camp, cultural programmes and a special session on responsible fishing. S. Shrinani MLA inaugurated the camp at a function presided over by MPEDA joint director K. N. Vittal Kumar. Asha C. Parameswaran of the MPEDA, NETFISH CEO Dr. Joyce Y. Thomas and NETFISH state coordinator N. K. Santhosh also spoke.

9. Member NGOs of NETFISH for The Year 2015-16

1. **The Science Association of Bengal (SAB)**, Diamond Harbour Road, Barisha P.O, Kolkata, West Bengal.
2. **Sarboday Sangha (SS)**, P.O Ajoya, Khejuri, Medinipur (East), West Bengal.
3. **Subha Rashmi Mahila Seva Samiti (SRMSS)**, Balasore District, Odisha.
4. **Rangalata Peoples Rural Development Society (RPRDS)**, Bentapur, Puri District, Odisha.
5. **District Fishermen Youth Welfare Association (DFYWA)**, Vivekananda Bhavan, Vishakapatnam, Andhra Pradesh.
6. **Socio Economic Alternatives Research Resource Community for Humanity (SEARCH)**, Guntur District, Andhra Pradesh.
7. **Village Resource Centre of MSSRF**, Salai Road, Kurusady, Nagercoil, Kanyakumari District, Tamil Nadu.
8. **Village Resource Centre of MSSRF**, Iraiyrasu Valagam, Thangachimadam, Ramanathapuram District, Tamil Nadu.
9. **Chevaliar Roshe Society (CRS)**, Derose Centre, Polpettai, Thoothukudi, Tamil Nadu.
10. **Organization for Marine Conservation, Awareness and Research (OMCAR Foundation)**, 69, Vendakottai road, Pattukottai (Post), Thanjavur (Dist) Tamil Nadu- 614601
11. **GAIA International Organization (GIO)**, First Main Road, Kamaraj Nager, Thiruvanniyur, Chennai, Tamil Nadu.
12. **S.O.H.E.S.**, Pillayar Kovil Street, Kanchipuram District, Tamil Nadu.
13. **Fisheries Professionals Organization (FPO)**, Chennai, Tamil Nadu.
14. **Fish For All - Research and Training Centre**, M.S.Swaminathan Research Foundation (MSSRF), Poombuhar-PO, Nagapattinam-Dt, Tamil Nadu
15. **Sahyadri Community Development & Women Empowerment Society (SCODWES)**, Savinilaya Building, Maratikoppa Main Road, Sirsi, Karnataka.
16. **Coastal And Rural Empowerment Society (CARES)**, Ranson Villa, Perlaguri Near Padavinangadi, Kavoor Post, Mangalore - 575 015, Karnataka.
17. **ManavVikas Sevabhavi (MVS)**, Chandranagar, Thane District, Maharashtra.
18. **Nagrik Bahu Udeshiya Seva Pratistan (NBUSP)**, Sindhudurg, Maharashtra.
19. **Jan Shikshan Sanstha (JSS)**, Raigad, Maharashtra
20. **Brackish Water Research Centre (BWRC)**, Kasba Mohalla, Mougul Street, Surat District, Gujarat.
21. **Shri.B.A.Yadav Education & Rural Development Foundation Trust (BAYERDFT)**, Maliya, Hatina District, Junagadh, Veraval, Gujarat.
22. **Chamunda Vikas Trust (CVT)**, Bhalpara Main Raod, Veraval-362268 , Gujarat
23. **Shivam Education & Charitable Trust (SECT)**, Pipaliya Nagar, Madhi Raod, Junagadh, Gujarat

10. Audit Reports For The Year 2015-16

ROSHAN THOMAS & Co. **CHARTERED ACCOUNTANTS**

Partners:

CA.ROSHAN THOMAS
ACA, DISA(ICA)
CA. SHARON LISS AUGUSTINE
B.Com,ACA



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INDEPENDENT AUDITOR'S REPORT

Website: www.rtnco.co.in | email: roshanthomasandco@gmail.com | Tel: 0484-2365485, 9497325485, 9745421740

To

The Members

NETWORK FOR FISH QUALITY MANAGEMENT & SUSTAINABLE FISHING (NETFISH)

We have audited the attached Balance Sheet of NETWORK FOR FISH QUALITY MANAGEMENT & SUSTAINABLE FISHING (NETFISH) as at March 31, 2016 also the Income and Expenditure Account and Receipts and Payments Account for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Standards on auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit includes performing procedures to obtain audit evidence about the amounts and disclosure in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risk of material misstatement of the financial statement whether due to fraud or error. In making those risk assessments the auditor considers internal control relevant to the company's preparation and fair presentation of the financial statement in order to design audit procedures that are appropriate in the circumstances.

An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by the management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion and to the best of our information and according to the explanation given to us, the financial statement give a true and fair view in accordance with the accounting principles generally accepted in India:

- a. in case of the Balance Sheet, of the state of affairs of the Society as at 31st March 2016
- b. in the case of the Income and Expenditure Account of the Excess of Expenditure over Income for the year ended on that date and
- c. in the case of Receipts and Payment Account of the receipts and payments for the year ended on that date

Place : Kochi
Date : 16.09.2016

For ROSHAN THOMAS & Co.
CHARTERED ACCOUNTANTS
FRN-0136115



CA ROSHAN THOMAS, ACA, DISA, (ICA)
Membership No:228912

I. SIGNIFICANT ACCOUNTING POLICIES

a. Basic of Accounting-

Accounts are prepared on accrual basis of accounting .

b. Capital Fund

Fund received from MPEDA (author/founder of the society) are credited to capital fund. Excess of Income over Expenditure/ (Excess of Expenditure over Income) for the year is also added/ (deducted) to/from the Capital Fund.

c. Fixed Assets

Fixed assets are stated at cost less depreciation

d. Depreciation-

Depreciation is provided as per the rates prescribed under the Income Tax Act 1961. 50% of the normal depreciation has been charged in case of assets acquired after 30th September of the year.

II NOTES TO ACCOUNT

a. NETFISH is a society registered under the Travancore - Cochin Literary, Scientific & Charitable Societies Registration Act, 1955 and the income of the Society is exempted under section 12AA of the Income Tax Act . 1962 vide order of the Commissioner of Income Tax Kochi dtd. 21.07 2008.

b. During the year 2015-16, an amount of Rs 2,00,00,000 has been received from MPEDA (author/founder of the society) and the same has been credited to Capital fund.

c. During the year 2015-16 an amount of Rs 25,00,000 was received for executing projects on behalf of UNDP, this has been shown as a separate Fund in Balance Sheet. The details of Fund utilization is as under.

Particulars	As on 31.03.2015	During the Year	As on 31.03.2016
UNDP Fund received from MPEDA	1,10,00,000	25,00,000	1,35,00,000
Project Advance	-16,157	26,644	-40,801
Project Expense Payable	3,89,404	19,263	4,08,667
Amount utilized Mangrove Crab Project	-82,71,639	-50,01,338	-1,32,72,976
Balance Fund in Hand	31,01,608		5,94,889

d. Traveling Expenses incurred by State Coordinators and Field Staff in connection with extension activities are classified under "Extension Activities" (Schedule 5)

e. Previous year figures have been regrouped wherever necessary

NETWORK FOR FISH QUALITY MANAGEMENT & SUSTAINABLE FISHING (NETFISH)
KOCHI (REG.NO.ER 509/06)
AUDITED BALANCE SHEET AS AT 31-03-2016

(In Rs.Ps)

	Sch	As on 31.03.16	As on 31.03.15
LIABILITIES			
CAPITAL FUND			
Opening balance		37 65 950.73	60 93 169.73
Add: Fund received from MPEDA during the year		2 00 00 000.00	1 80 00 000.00
Less: Excess of Expenditure over income for the year		-2 19 76 818.41	-2 03 27 219.00
		17 89 132.32	37 65 950.73
UNDP PROJECT FUND			
UNDP Fund received from MPEDA		1 35 00 000.00	1 10 00 000.00
Less: Project Advance		- 40 801.00	- 16 157.00
Add: Project Expense Payable		4 08 667.00	3 89 404.00
Less: Amount utilised towards Mangrove Crab Project, Mumbai		-1 32 72 976.87	- 82 71 639.00
		5 94 889.13	31 01 608.00
TOTAL		23 84 021.45	68 67 558.73
ASSETS			
FIXED ASSETS			
	1		
Opening WDV		3 19 850.73	4 58 930.73
Less: Depreciation		- 1 13 946.00	- 2 03 626.00
Closing WDV		2 05 904.73	2 55 304.73
CURRENT ASSETS, LOANS AND ADVANCES			
CASH & BANK BALANCE			
Cash in hand		--	--
Balance with banks	2	28 21 236.72	72 56 726.00
LOANS & ADVANCES			
Advance to Staff		56 933.00	73 538.00
Advance to Supplier			10 000.00
Salary & TA Claim Receivable From MPEDA		5 60 264.00	2 65 321.00
		34 38 433.72	76 05 585.00
CURRENT LIABILITIES AND PROVISIONS			
OTHER LIABILITIES & PROVISIONS			
Expenses Payable	3	1 61 840.00	2 43 406.00
Salary Payable	4	10 86 977.00	7 39 925.00
Audit Fee Payable		11 500.00	10 000.00
		12 60 317.00	9 93 331.00
NET CURRENT ASSETS		21 78 116.72	66 12 254.00
TOTAL		23 84 021.45	68 67 558.73

Subject to notes forming part of accounts and my report of even date

(Chief Executive Officer)

(Treasurer)

(Secretary)




(Auditor)



NETWORK FOR FISH QUALITY MANAGEMENT & SUSTAINABLE FISHING (NETFISH)
KOCHI (REG.NO.ER 509/06)
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2016

(In Rs.Ps)

		For the year ended 31-3-2016	For the year ended 31-3-2015
INCOME			
Miscellaneous Income			
Application Fee		10 000.00	8 000.00
Membership Fee			
Renewal Fee		5 300.00	300.00
		15 300.00	8 300.00
Profit on sale of assets			
TOTAL		15 300.00	8 300.00
EXPENDITURE			
Extension Activities	5	1 43 15 172.00	1 29 47 679.00
Employee Cost	6		
Salary - Chief Executive		6 96 561.00	6 65 673.00
Salary - State Co-ordinators		43 33 673.00	40 17 756.00
Salary - Research Assistant		4 92 500.00	6 26 046.00
Salary - Staff		4 04 064.00	3 49 509.00
Employer Contribution to PF		3 49 371.00	2 70 644.00
		62 76 169.00	59 29 628.00
Administrative Expenses	7	12 86 831.41	12 54 586.00
Depreciation	1	1 13 946.00	2 03 626.00
TOTAL		2 19 92 118.41	2 03 35 519.00
Excess of Expenditure over Income		-2 19 76 818.41	-2 03 27 219.00

Subject to notes forming part of accounts and my report of even date



(Chief Executive Officer)

(Treasurer)

(Secretary)

(Auditor)

NETWORK FOR FISH QUALITY MANAGEMENT & SUSTAINABLE FISHING (NETFISH)
KOCHI (REG.NO.ER 509/06)
RECEIPTS & PAYMENT ACCOUNT FOR THE YEAR ENDED 31.03.2016

(In Rs.Ps)

Receipts	(Rs.)	Payments	(Rs.)
Opening balance - 01.04.2015		Payments for Extension Activities	
Cash		Training Programmes	1,23,51,128.00
Bank	72,56,726.00	Other Projects	10,80,330.00
		Travelling for Extention Training Staff	8,45,154.00
Funds received from MPEDA	2,00,00,000.00		
Funds received from UNDP	25,00,000.00	UNDP Project	50,06,718.87
Other Income	15,300.00		
Salary, TA to Techical and Field Staff paid (MPEDA a/c)	54,21,378.00	Payment to Employees	59,29,117.00
		Salary, TA to Technical and Field Staff paid (MPEDA a/c)	57,16,321.00
		Establishment & Other Items	13,78,852.41
		Fixed Assets Purchased	64,546.00
		Advance to Supplier	
		Closing balance - 31.03.2016	
		Cash in hand	-
		Balance with banks	28,21,236.72
	3,51,93,404.00		3,51,93,404.00

Subject to notes forming part of accounts and my report of even date

(Chief Executive Officer)

(Treasurer)

(Secretary)

(Auditor)





OFFICE BEARERS 2015-16



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