



NETFISH - MPEDA



Annual Report 2009 - 10



**Network for Fish Quality Management
& Sustainable Fishing**
(A registered society under the MPEDA)

NETFISH NETWORK



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ANNUAL REPORT 2009-10



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and Sustainable Fishing (NETFISH)**

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KOCHI



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CONTENTS

Page No.

1. The NETFISH.....	1
2. President	1
3. Executive Committee	1
4. Meetings	1
5. Office Structure	2
6. Target set for 2009-10	2
7. Training programmes	2
8. Catch certificate campaign by NETFISH	23
9. Audit Report 2009-10	24

Abbreviations used

AFT	:	Aqua Farm Training
AP	:	Andhra Pradesh
C&SFT	:	Conservation and Sustainable Fishing Training
CCC	:	Catch Certificate Campaign
DFT	:	Dry Fish Training
FMT	:	Fish Market Training
LT	:	Landing centre Training
MC	:	Mass Communication
Ob. T	:	Onboard Training
PPCT	:	Pre Processing Centre Training
Sc. P	:	School Programmes
SP	:	Street Plays
WB	:	West Bengal

1. The NETFISH

Network for Fish Quality Management and Sustainable Fishing (NETFISH) is a society under the Marine Products Export Development Authority (MPEDA), Kochi. The Society is registered under the Travancore–Cochin Literary, Scientific and Charitable Societies Registration Act, 1955. NETFISH was formed with a view to organize grass root level training programmes among fisher folk to change their mindset towards fish quality management and sustainable fishing. NETFISH organizes capacity building programmes in fishing and fish processing sectors in areas such as quality management, post harvest handling and conservation of fishery resources.

2. President

Ms. Leena Nair IAS took over the Presidentship of NETFISH from Mr. Mohan Kumar I.A.S on 19th May, 2009.

3. Executive committee

The Executive Committee of the society for the year 2009-10 was reconstituted in the Third Annual General Body Meeting held at MPEDA head quarters, Cochin on 01-10-2009. The new Executive Committee members of NETFISH are given in Table 1.

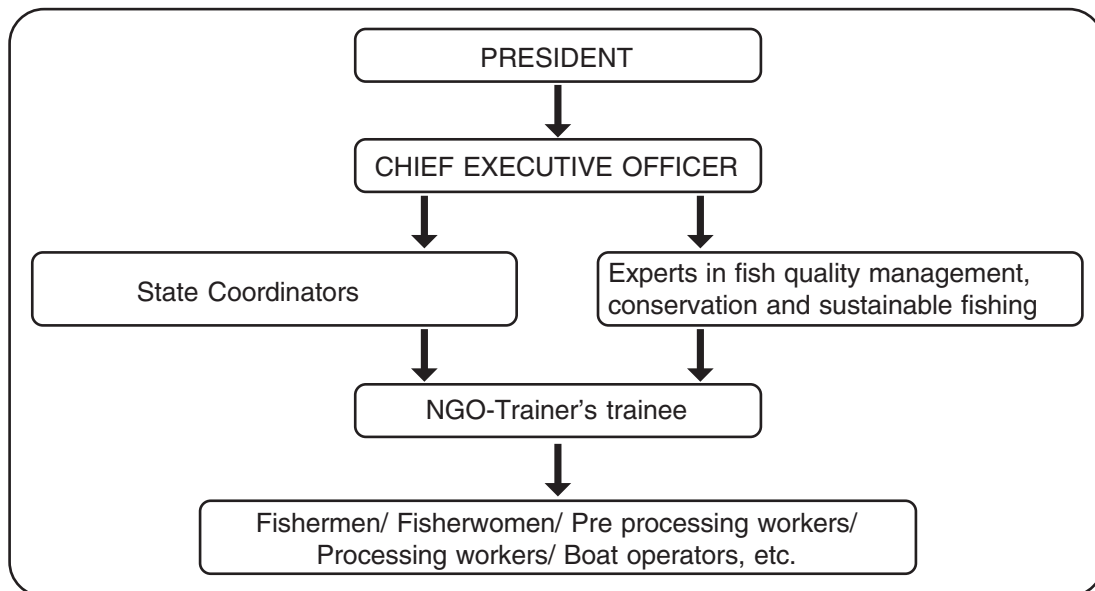
4. Meetings

The Annual General Body meeting of the NETFISH was held at MPEDA head quarters, Cochin on 01-10-2009. The Monitoring Committee consisting of Secretary, MPEDA and JD (QC) met 6 times during the year and scrutinized the monthly activities of NETFISH. The Executive Committee met twice during the year 2009-10. Both the meetings were held at MPEDA head quarters, Cochin on 26-08-2009 and 08.03.2010 respectively.

Table 1 Executive Committee members of NETFISH (2009-10)

Sl.No.	Name	Capacity
1	Ms. Leena Nair I. A. S	Chairman, MPEDA
2	Shri. J. Ramesh	Secretary, MPEDA
3	Shri. B. Vishnu Bhat	Director, MPEDA
4	Shri. Kuruvilla Thomas	Director (M), MPEDA
5	Shri. T.M. Shivakumar	Director, MoCI, New Delhi
6	Shri. Joy Ipe Kurian	Jt. Director (Q.C.), MPEDA
7	Dr. Meena Kumari	Director, CIFT
8	Shri. G. H. Manikfan	Director, CIFNET
9	Dr. Joice V Thomas	Chief Executive, NETFISH
10	Shri. Anwar Hashim	President, SEAI
11	Shri. V. Vivekanandan	Chief Advisor, SIFFS
12	Shri. Lachman Nayak	Secretary, CPDA, Odisha
13	Prof. Rajeswari Joshi	Administrator, Sneha Kunja Trust, Karnataka
14	Dr. Namalwar Rajan	Chairman, GAIA International, Tamil Nadu
15	Shri. Arjili Dasu	Secretary, DYFWA, Andhra Pradesh
16	Shri. Naren Jadav	Jan Shikshan Sanstha, Maharashtra
17	Shri. Tarun Kumar Giri	The Science Association of Bengal, West Bengal
18	Shri. Usmunguni Sherisyar	Setu Information Center, Gujarat

5. Office Structure



6. Target set for 2009-10

A target of 2400 programmes was set for NETFISH for the year 2009-10. The Target for each region was 240 regular programmes and all the regions achieved the target within stipulated time. The details of targets set for each region is given in the Table 2.

7. Training programmes

NETFISH conducted 3701 extension training programmes during 2009-10 which included 2826 regular programmes and 875 Catch certificate campaigns organized as part of the implementation of

European Union imposed Catch Certificate system in India (Table 3). In each maritime state, certain key areas were selected based on a study conducted by NETFISH to understand the place with regard to fish export. A variety of training programmes including training classes, street plays, mass communication, documentary and animation film shows, distribution of posters, leaflets and notices, medical camps, awareness programmes for school children, coastal cleanup, mass boat cleanup, jathas, rallies, door to door programmes were conducted repeatedly in the selected areas to get the desired outcomes. In order to cater to the

Table 2 Target of NETFISH for 2009-10

Programmes	WB	Odisha	AP	Tuticorin (TN)	Chennai (TN)	Kollam (Kerala)	Kochi (Kerala)	Karnataka	Maharashtra /Goa	Gujarat	Total
Ob.T	15	40	20	20	20	20	20	10	15	20	200
LT	85	15	100	100	170	120	170	60	70	90	980
C&SFT	50	135	50	100				100	110	90	635
PPCT	20	15	20	20	50	100	50	20	20	20	335
DFT	15	20	30					35	15	3	118
AFT	50	15	20					15	10		110
FMT	5									4	9
MC										3	3
Sc.P										10	10
Total	240	240	240	240	240	240	240	240	240	240	2400

requirements in fishing sector, NETFISH designed its activity on a three tier system by (i) Giving a variety of training programmes repeatedly in selected places as an effort to change the mindset of people towards hygienic practices and conservation of marine resources; (ii) Practical demonstration of different aspects of hygienic handling of fish and conservation by organizing coastal cleanup programmes, mass boat cleanup programmes, biodiversity day celebrations etc. with the cooperation of member NGOs, stakeholders and Govt. officials (iii) Meetings and discussions with various concerned Government agencies like Harbour Engineering Department, State Fisheries Department, NFDB to develop infrastructural facilities at harbours and landing centers. NETFISH is liaised with State as well as National level extension agencies to network and implement its goal much effectively. State coordinators of NETFISH maintained a healthy relationship with local community leaders. This helped NETFISH to achieve its goals. Co-management of resources was found very effective in places like Munambam and NETFISH is trying to replicate this model in to other fishing harbours also.

As a result of these efforts NETFISH could achieve its goal with regard to quality management and conservation of fishery resources, to a great extend.

7.1 West Bengal

West Bengal is the leading inland fish and fish seed producer in the country that contributes nearly 12 lakh tonnes of fish to the national food basket. The mainstay of fishery resource of the state are ponds and tanks (2.76 lakh ha), floodplain wetlands (42,000 ha) and area for coastal aquaculture (4 lakh ha). The mean fish yield from ponds under FFDA is 2.7 tonnes/ha/year. West Bengal has a long coastline of 158 km and the annual marine capture fish production is 1.82 lakh tonnes. Unregulated entry of exotic and invasive fish species, availability of quality seed of shrimp and scampi are issues to be addressed.

Challenges observed in the state

- a) Main problems regarding fish quality management were:
- ❖ Improper handling of catch at landing centers and fishing harbours
 - ❖ Usage of bamboo baskets in fishing vessel for handling the catches
 - ❖ Personal habits and hygiene yet to be improved in fishing harbour/landing centre, onboard, PPC etc
 - ❖ Lack of infrastructural facilities in fish landing centre and fishing harbour
 - ❖ Sanitation conditions are poor in ice plant and facilities have to be provided

Table 3. Various extension training programmes conducted by NETFISH during 2009-10

Sl. No.	State/Region	Landing centre	Conservation	Onboard	Pre-processing	Aquafarm	Dryfish	Fish market	Street plays	Tuna	Medical camp	Rally	Harbour Cleanup	School Programme	Special Programmes	Door to Door	Mass Communication	Total	CC Campaign	Grand Total
1	Kollam (Kerala)	75	41	11	109				70									306	87	393
2	Cochin (Kerala)	148	80	16					70									314	70	384
3	Karnataka	102	91	6	14	10	28		46	1	2	2			3		2	307	129	436
4	Maharashtra	71	110	11	24	9	15		11									251	142	393
5	Gujarat	106	86	7	15	0	8	2	0	0	0	0	0	3	1	0	1	229	55	284
6	Tuticorin (TN)	107	123	20	24	0	0	0	56	2	6	0	0	7	3	0	0	348	111	459
7	Chennai (TN)	10	91	5	0	0	0	0	60	0	0	0	0	0	0	0	0	166	47	213
8	Andhra Pradesh	104	51	20	18	5	25	5	27	8	0	0	0	2	2	0	0	267	68	335
9	Odisha	15	135	92	15	15	20	0	7	0	0	0	0	0	9	0	0	308	105	413
10	West Bengal	87	50	18	19	51	16	5	56	0	1	0	0	15	0	12	0	330	61	391
	Total	825	858	206	238	90	112	12	403	11	9	2	0	27	18	12	3	2826	875	3701

- ❖ Non-availability of good quality ice.
 - ❖ Proper drainage system for waste water disposal is not available in landing centres & fishing harbours
 - ❖ Improper pond preparation and culture practices leads to muddy-moldy problem for Black tiger in shrimp farms
 - ❖ Chill killing practice is not followed in some of the aquaculture areas
- b) Problems regarding conservation of marine resources were:
- ❖ Indiscriminate collection of shrimp seed from riverbank and seashore of South 24 Parganas. Alternative livelihood is to be arranged for the seed collectors to eradicate this process.
 - ❖ Strict implementation of mesh size regulation.
 - ❖ Suitable devices such as square mesh panels in trawl net etc. are to be developed for reduction of by-catch and to save the juvenile fishes.
 - ❖ Capture of undersized Cephalopods (>50 gm) is to be stopped.
 - ❖ Introduction of new vessels are to be stopped in off shore and in shore waters.

Activities during 2009-10

During 2009-10, NETFISH conducted 391 extension programmes in West Bengal, which consisted of 246 regular programmes, 84 special programmes and 61 awareness Campaigns on Catch Certificate Scheme. The area wise details of programmes are given in the table 4.

The areas in and around Sultanpur, Kakwidip,

Fraserganj and Digha fish landing centres were selected for conducting programmes on fish quality management, conservation & sustainable fishing and onboard trainings. The fisherfolk engaged in fishing and related activities were made aware of the quality and conservation aspects through repeated training programmes. A few programmes for improving the quality of dryfish and also the hygienic conditions at fishmarkets were also organized at a few selected places near to these selected landing centres. During the year, the pre-processing centres at North 24 Parganas were selected for conducting the programmes aiming at the improvement in the personal hygiene and sanitation of pre-processing workers at work. Aquafarm programmes were organized at selected aquaculture sites in Purba Medinipur, North 24 Parganas and South 24 Parganas. Many of the awareness programmes in Aqua farms were organized in collaboration with MPEDA, SRC(Aqua), Kolkata and NaCSA.

Apart from the above-targeted regular training programmes, 84 special programmes, including Medical camps, School programmes, Mass communication, door-to-door survey and Street plays were conducted as described below.

7.1.1 Medical Camp

A Free Medical Camp was arranged in collaboration with Rotary Club of Barisha, Kolkata at Sridam Gangasagar Swami Kapilananda Vidyabhaban, Sagar Island, South 24 Parganas on 5th April'09. About 125 people were examined by four doctors (Gynecologist, Ophthalmologist, Child specialist & General Medicine) and free medicines were dispensed among them as per doctor's prescriptions.

Table 4. Various training programmes conducted in West Bengal during 2009-10

No.	Selected Areas	LT	C&SFT	Ob.T	PPCT	AFT	DFT	FMT	Special	Total	SP	CCC	Grand Total
1	Sultanpur	20	12	2			1	2	5	42	4	16	62
2	Kakdwip	17	5					1	2	25	4	15	44
3	Freserganj	26	5	12			2		4	49	4	14	67
4	Digha	24	28	4			13	2	16	87	4	16	107
5	North 24 Parganas/Kolkata				18	2			1	21	16		37
6	South 24 Parganas					5				5	8		13
7	Purba Medinipur				1	44				45	16		61
	Total	87	50	18	19	51	16	5	28	274	56	61	391

In addition to the medical checkup camp an awareness campaign was also held on “Let us fight together against *Tuberculosis*” for the fisher folks. Free detection of blood sugar of the fisher folks was also done by Rotary Club during the programme.

7.1.2 School Programme

In order to percolate the messages on Fish Quality Management and Conservation of Fish Resources & Sustainable Fishing, NETFISH conducted awareness programme at different schools of the coastal blocks among the students of Class VIII to XII. During the year, 15 school programmes were arranged at Medinipur East, Purba Medinipur and South 24 Parganas. Lectures on aspects such as sustainable fishing, conservation of fishery resources, protection of mangrove vegetation, marine turtle, fish seed etc. were delivered during the programme. Besides these, aspects such as present status of the fishery resources and exports of the state and country, fish quality management and personal hygiene are also covered.

7.1.3 Mass Communication

NETFISH participated in an Agriculture Mela arranged by Freserganj Panchayat, South 24 Parganas on 5th January 2010. NETFISH posters and leaflets were displayed in its stall and the state coordinator delivered a talk on Fish Quality Management, Conservation and Sustainable Fishing, Catch Certificate Schemes and MPEDA’s subsidy schemes.

7.1.4 Door to door survey

The door to door survey programme of NETFISH are meant to get feedbacks from fishers who have attended awareness & training programmes on conservation of fish resources and fish quality management. Questionnaires on above topics were prepared and door to door surveys undertaken. This year, 12 door to door surveys were held along Medinipur East & South 24 Parganas. The successful participants were given special incentives and rewards. Based upon the feedback received from fishers the lecture style and other programmes were modified to suit the target group.

7.1.5 Street plays

NETFISH arranged street plays, a vital tool, to

create awareness not only for fishermen community but also for general people. In West Bengal two organizations namely, Angan Natya Sanstha, Kolkata and Contai Pratikee, Purba Medinipur performed series of Street Plays in South 24 Parganas and Purba Medinipur district respectively.

Street plays on fish quality management and conservation of fish resources covered issues such as cleaning of beach, landing centre and fishing harbour, handling of fishes and ice in landing centre and harbour, icing of the catch, personal hygiene and habits of fisher folks, conservation of mangrove, juvenile fishing, use of ‘meen jal’ for collection of prawn seeds from river and sea, marine pollution, protection of marine environment etc. Besides the above aspects, the concept of Catch Certificate Scheme was also included for its propagation among boat owners, auctioneers, skippers, fishermen etc. A total of 56 programmes were performed in various fish landing centres, fishing harbours, fishing villages and fish markets during 2009-10. A satisfactory response was received from the audiences.

7.1.6 Other Activities

In addition to above programmes the other activities of NETFISH in West Bengal were:

- ❖ On 24th April’09 the State Coordinator has attended a seminar on “Brain Storming Session on Alternative Livelihood Option for Fisher folk of Sundarban” which was jointly organized by W.B. University of Animal & Fishery Sciences and Sundarban Development Board (SDB) at Dhamakhali, North 24 Parganas. State coordinator NETFISH delivered a talk on Alternative livelihood of fisher folks of Sundarban. Activities of NETFISH in the field of conservation and sustainable fishing, the role of MPEDA and other societies of MPEDA for the benefits of fishermen community and the formation of Society were also discussed in detail.
- ❖ NETFISH started distributing T-shirts and caps to the trainees in stead of disbursement of stipend for attending the awareness programmes and Door to door programmes. NETFISH & MPEDA logo and slogans such as “*Today’s Juveniles are Tomorrow’s Wealth, Do not catch juveniles*” and “*Use sufficient ice after catch and*

Use insulated fish box , reduce ice consumption and improve quality of catch” were printed on T-shirt & Caps for popularizing and campaigning of the organization and its objectives. It is well accepted by the fishers.

- ❖ On 18th & 19th August’09 three awareness programmes were conducted to popularize MPEDA scheme on Ice plant at Digha Mohana and Kakdwip & Diamond Harbour respectively. The Dry fish consultant of MPEDA, Dy. Director and Asst.Directors of MPEDA RO-Kolkata delivered talks on MPEDA scheme for getting quality ice
- ❖ On 14th October’09 a farmers’ meet at Paschim Naichanpur, Moyna, Medinipur East, was organized by MPEDA, SRC (Aqua), Kolkata on “Eco-friendly and Sustainable Aquaculture and Campaign on Abuse of Antibiotics”. State Coordinator, NETFISH delivered a lecture on Post harvest handling of aquaculture shrimps, impact of chill killing practices and different quality aspects of black tiger shrimp meant for export. An animation film on illegal usage of antibiotics in aqua farms and a documentary film on Post harvest handling of aquaculture shrimps were shown to the participants.
- ❖ On 7th November’09 a SC/ST training programme for Scampi farmers’ on Sustainable Aquaculture at Tentulia, Swarupnagar, North 24 Parganas was organized by MPEDA, SRC (Aqua), Kolkata. State Coordinator, NETFISH took a class on Post harvest handling of aquaculture shrimps, impact of chill killing practices, different quality aspects of Scampi meant for export, usage of antibiotics and muddy problem. An animation film on illegal usage of antibiotics and a documentary film on Post harvest handling of aquaculture shrimps were also shown to the participants.
- ❖ On 3rd & 4th December’09 the state co-ordinator attended the training programme on usage of software for implementation of catch certification scheme at Chennai organized by MPEDA, Cochin.
- ❖ On 19th December ’09 the state co-ordinator attended the training programme on usage of software for implementation of catch certification scheme at Bengal Chamber of Commerce

organized by MPEDA, Kolkata.

Outcomes noticed in the state

- ❖ About 15-20% of fishing boats, nets and accessories are properly cleaned before and after fishing.
- ❖ Fisherman started sorting, cleaning and preserving valued fishes (exportable fishes) in separate crates, insulated fish boxes and fish hold.
- ❖ Fishermen started following closed season for fishing.
- ❖ In areas such as Dadanpatrabar, Jaldah, Chwasuli and New-Jaldah fisherfolk started using nylon bag nets instead of bamboo baskets for carrying fish.
- ❖ At Kakdwip fishing harbour:
 - Plastic baskets are being used onboard as well as in harbour for handling and sorting of catch.
 - Ice is transported with proper cover to avoid contamination.
 - Segregation of catch is being done on poly sheet instead of dumping on soil .
- ❖ Prawn farmers:
 - Started avoiding usage of antibiotics in cultured shrimps
 - Showing interest in registering farms under Coastal Aquaculture Authority (CAA). Smooth registration is going on at Purba Medinipur district.
 - Chill killing practices is being followed in 40-50% farms in Purba Medinipur.

7.2 Odisha

Odisha, located on the east coast of India and endowed with a long coast line of 480 Kms, offers vast scope for development of inland, brackish water and marine fisheries. The state has 30 districts of which six are coastal districts namely Balasore, Bhadrak, Kendrapada, Jagatsinghpur, Puri & Ganjam situated along the coast of Bay of Bengal. Chilika, the biggest brackishwater lagoon of Asia is in Odisha and it too provides vast scope for fish production. Eventhough the overall fisheries potential is around 5,13,667 M.T, the contribution from fisheries sector to State’s GDP is only around 2.32%. The fishermen population of the State is about 10.84 lakhs, of which about 7.51 lakhs

in Inland Sector and 3.33 lakhs in Marine Sector. Under the marine sector there are 559 marine fisherman villages with a population of 1, 73,197 who depend on the marine resources for their livelihood. There are 64 fish landing centers, which include 4 Fishing Harbours and 16 Jetties. Paradeep and Dhamara are the major fishing harbours. The export of marine product is less when compared to the size and resources potential of the state. At present Odisha is having 23 exporters who are processing in 19 nos. of modern processing plants spreading throughout the coastal districts of Odisha. Out of these 19 processing plants, 5 are of European Union standards. The total contribution of sea food production of Odisha in the basket of Indian sea food export is 8% in terms of quantity and 5% in terms of value. Decline of oceanic catch, un-utilization of vast coastal land for aquaculture and inadequate infrastructure has adversely affected sea-food export of the state.

Challenges observed in the state

- a) Regarding the fish quality management, the major problems observed in the state are as follows;
- ❖ The basic infrastructural facilities in the harbours and landing centre are not up to the requirements.
 - ❖ Adequate knowledge on Fish Quality Management is still lacking among the fisherfolk. Most of the Fishermen are illiterate and they are reluctant to accept the correct and better methods. Instead they are interested in following the traditional method of post harvest handling of fishery products.
 - ❖ In Chilka area fishermen are not using enough ice due to lack of Ice plants near to fishermen villages.
 - ❖ Fishermen are still reluctant to use insulated

ice box to preserve their catch. Instead they are using plastic bags, open trays, etc.

- ❖ In many trawlers and gill net vessels phenol is used for cleaning purpose.
- b) Main issues regarding conservation were;
- ❖ Mangrove forests are not sufficient enough to protect the coastal areas.
 - ❖ Alternative livelihood has to be arranged for the wild seed collectors.
 - ❖ Strict implementation of mesh size regulation is required.
 - ❖ Introduction of new vessel has to be stopped in offshore and inshore waters.
 - ❖ Proper implementation of close season.
 - ❖ Create awareness among the coastal villages to conserve the marine resources particularly marine turtles.

Activities during 2009-10

With a vision to upgrade fish quality and conservation of fishery resources NETFISH Odisha, is conducting repeated extension training programmes for fisherman, Dryfish workers, Pre-processing workers, Aquaculture farmers, Mechanized boat members, Fishing harbour workers, Landing centre workers, etc. A total of 413 programmes including 292 regular programmes, 16 special programmes and 105 catch certificate campaigns were conducted during 2009-10. The regular programmes consisted of Landing centre training programmes on Fish quality management, Conservation and sustainable fishing awareness programmes, Onboard training programmes, Pre-processing trainings, Aquafarm trainings and Dryfish awareness programmes. The special programmes such as street plays, awareness camps and door to door awareness were also carried out in Odisha. The programme wise details are as given in Table 5.

Table 5. Various training programmes conducted in Odisha during 2009-10

No:	Selected areas	LT	C&SFT	ObT	PPCT	AFT	DFT	Special	Total	SP	CCC	Grand Total
1	Paradeep		3		6				9		24	33
2	Bahabalapur	3	13	35	1	2	4		58		20	78
3	Balaramgadi	2	14	25	5	6			52		24	76
4	Chilika	2	65	8					75		20	95
5	Other areas	8	40	24	3	7	16	9	107	7	17	131
	Total	15	135	92	15	15	20	9	301	7	105	413

The details of special programmes conducted during the year are as follows.

7.2.1 Street Plays

Altogether 7 street plays were organized at fishermen villages in Konark and Astranga.

7.2.2 Door to Door Programmes

7 door to door awareness programmes were conducted at the fishermen areas in Astranga with the help of member NGOs. The surveys helped NETFISH to interact closely with fishermen and necessary modifications in the NETFISH programmes were carried out based on the feedback collected.

7.2.3 Awareness Camp:

During the year 2009-10, NETFISH participated in 2 awareness camps at Balasore and Bhubaneswar. The details of awareness camp are given in Table 6.

Table 6. Awareness camps attended by NETFISH

Place	Date	Subject	Organised By
Balasore	6.3.10 - 9.3.10	Quality and Sustainability	Industry Dept., Govt. of Odisha
Bhubaneswar	23.3.10 - 26.3.10	Quality and Sustainability	Ministry Of Agriculture, Govt. of India

Outcomes noticed in the state

- ❖ In Bahabalapur, each and every owner of gill netters/trawlers has agreed to avoid the use phenol for cleaning purpose of their trawlers/gill netters.
- ❖ As a result of repeated awareness programmes one Fisherman co-operative society in Astranga, of Puri district purchased 102 numbers of insulated ice-boxes by MPEDA Subsidy scheme.
- ❖ In Bahabalapur fishing Landing centre nearly 80% of trawlers converted their fish hold to rack system.
- ❖ At Talasari fish landing centre of Balasore district and Nuagarh fishing harbour of Puri district, regular cleaning is carried out by the fishermen association as per the cleaning method and schedule prepared by NETFISH.
- ❖ Use of bamboo baskets has reduced in all fish-

ing harbours and landing centers.

- ❖ NETFISH Committee was formed in eight fishing villages of Puri district- Barakudi, Baghalanzi, Mudirath & Karimpur (Chilka Area), Kaliakana, Balipantal, Nua-Kaliakana, Miradi (Astranga Area).

7.3 Andhra Pradesh

The State of Andhra Pradesh is having rich fishery resources with a coast line of 974 Km spread over in 9 coastal districts. They are Srikakulam (200Km), Vijayanagaram (29Km), Visakhapatnam (136Km), East Godavari (61Km), West Godavari (20Km), Krishna (111Km), Guntur (43), Prakasam (105Km), and Nellore district (69Km). The state has 4 major fishing harbours and 36 minor fish landing centers. About 2028 mechanized boats, 5056 motorized boats and 17762 traditional boats are operating in Andhra waters.

Challenges observed in the state

- a) Due to lack of proper awareness among fisherfolk on hygiene and sanitation the following were the major problems to be attended regarding the fish quality management.
 - ❖ Personal hygiene of the fish handling workers was below satisfactory level.
 - ❖ Unhygienic handling of ice.
 - ❖ Unhygienic fish handling at auction halls in fishing harbours, landing centers due to the lack of sufficient infrastructure facilities.
 - ❖ Use of bamboo baskets for carrying ice and fish at harbours and landing centres.
 - ❖ Salt curing and fish drying activities at harbour.
 - ❖ Poor sanitation condition at fish landing areas of harbours.
 - ❖ Drying of fishes directly on sand.

- ❖ Insufficient fish and ice storage boxes in multi-day fishing vessels.
 - ❖ Improper chill killing practice in aquafarms.
- b) Main issues regarding conservation are:
- ❖ Improper observation of closed season for fishing
 - ❖ By-catch of turtles in fishing nets.
 - ❖ Use of small sized mesh (shrimp nets) irrespective of the seasons.
 - ❖ Catching of berry crabs.
 - ❖ No awareness on long liner hooks with regards to sustainable fishing.
 - ❖ Trash fish landing in most of the fishing harbours and landing centers.
 - ❖ Mangroves and its purpose as nursery grounds for fishes are less known to the fisherfolks.

Activities during 2009-10

In Andhra Pradesh, 4 major harbours viz. Visakhapatnam, Kakinada, Machelipatnam and Nizampatnam were chosen as focus areas to conduct training programmes. Repeated programmes were organized at these 4 major fishing harbours and at the major fish landing centers and villages in and around them. 4 NGO's were selected by NETFISH, in the Andhra Pradesh to carry out the activities in the state. Altogether 335 programmes were conducted during the fiscal year which included 228 regular programmes, 39 special programmes and 68 catch certificate campaigns. Most of the programmes were conducted at Kakinada harbour during the year. The programme wise descriptions are given in Table 7.

Apart from the regular NETFISH programmes special programmes and activities like School programmes, Awareness meetings, Tuna awareness programmes, Street Plays, etc. were also con-

ducted during the year.

7.3.1 School Children Awareness Programmes

Two 'School children awareness' programmes were conducted for fisher community children on 12th & 16th September 2009 at Kakinada and Uppada fish landing centre through the JKWS & APSFDWA organizations. Awareness was created on personnel hygiene and methods on conservation of Fishery resources and its influence in future fishery resources. NETFISH provided pens and led pencils for the participants.

7.3.2 Awareness on MPEDA subsidy schemes

Eight awareness programmes on MPEDA Tuna ice box subsidy scheme were organized at Visakhapatnam, Pudimadaka, Kakinada, Uppada fish landing centers. Awareness camps were also arranged for the stakeholders at Machelipatnam, Kakinada and Visakhapatnam on MPEDA subsidy schemes for fishing vessel modification, fish hold modification, construction of new fish hold, insulated ice boxes, ice plant up-gradation etc.

7.3.3 Street Plays

To improve the awareness on fish quality management among fisher folk and stake holders, 27 street plays were organized by M/s Srujana cultural association. Street plays were conducted mostly in fishing harbours and landing centers.

7.3.4 Catch Certificate Campaigns

For the successful implementation of the catch certificate system, 68 programmes such as mass communication, awareness meetings, helpdesks etc were arranged for stake holders at the selected fishing harbours. Officials from MPEDA as well as state fisheries associated with NETFISH in conduct-

Table 7. Various training programmes conducted in Andhra Pradesh during 2009-10

No:	Selected areas	LT	C&SFT	ObT	PPCT	AFT	DFT	Special	Total	SP	CCC	Grand Total
1	Visakhapatnam	39	18	10	2		7	4	80	7	18	105
2	Kakinada	54	22	10	16		15	4	121	12	18	151
3	Machelipatnam	5	5				1	2	13	4	16	33
4	Nizampatnam	11	6				2	2	21	4	16	41
5	Tallarevu					2			2			2
6	Other areas					3			3			3
	Total	109	51	20	18	5	25	12	240	27	68	335

ing the awareness meetings for the target groups. The purpose of catch certificate and the system were explained to the participants during the programmes.

7.3.5 Other Activities

- ❖ On 14th Oct, 2009, NETFISH conducted a Fish Quality Management training Programme jointly with State Institute of Fisheries Technology (SIFT) Kakinada.
- ❖ On 27th Oct, 2009, NETFISH conducted a special training programme to the boat owners at AP Mechanized Boat Owners Association hall of Visakhapatnam fishing harbour. The programme mainly dealt with reduction of Trash fishing as part of responsible fishing. Scientists, from CIFT, Visakhapatnam explained the Fishing net mesh size regulations, Code of conduct for responsible fishing and the experiment conducted by CIFT on mesh at cod end in trawl nets, etc. Practical demonstration was also done on cutting fishing net to get the particular square shape mesh.
- ❖ On 21st Nov 2009, Worlds Fisheries Day, NETFISH participated in an awareness camp on Fish Quality Management training Programme organized by State Institute of Fisheries Technology (SIFT) Kakinada. MPEDA Registration procedure, Subsidy schemes and the procedure to be followed while applying for the eligible schemes were explained in the camp. NETFISH presented 30 pairs of hand gloves to encourage the fishermen in maintaining quality standards while handling fishes so as to fetch good price in the market.
- ❖ On 09.03.10, in a trainers training programme conducted by State Institute of Fisheries Technology, Kakinada to fishery development officers, State coordinator NETFISH presented the documentaries on Onboard handling and Post harvesting handling in aquafarms and the leaflets produced by NETFISH were also distributed to the participants.

Outcomes observed in the state

- ❖ As a result of repeated programmes, awareness on hygienic handling of fish spreading among the stake holders and the hygiene and sanita-

tion at Visakhapatnam fishing harbour has showed noticeable improvements.

- ❖ At Visakhapatnam fishing harbour, large quantity of crushed ice is being unloaded in to the boats directly from the vehicles without dumping it on wharf
- ❖ Understanding the importance of hygiene, some of the boat owners at Visakhapatnam fishing harbour have started using Nilkamal round plastic baskets for handling ice and fish.
- ❖ At Kakinada fishing harbour most of the traders are collecting crushed ice directly in to crates for reicing of materials. They also started using round plastic baskets and weighing nets for shifting materials from boats to auction hall.
- ❖ Boat owners are changing to hook and line fishing practices for tuna fishing to avoid by catch in the gill net at Uppada and Pudimadaka fish landing center.
- ❖ Dry fishers started using available cement flat forms at Uppada fish landing center instead of dumping on sand. PVC sheets are being used for drying where cement platforms are not available.
- ❖ Trash fish landings directly on wharf was controlled at Nizampatnam fishing harbour.
- ❖ Some of the aquafarms stated using chill killing practices and also use plastic sheets for sorting shrimps in the farms.
- ❖ Based on the awareness programmes conducted boat owners of Nizampatnam and Machelipatnam harbours came forward for MPEDA registration of fishing vessels.
- ❖ Boat owners of Pudimadaka fish landing center most of the boats are operating long line hooks instead of gill nets for catching marketable size fish as an conservation aspect to avoid by catch reduction. 4 societies came forward to supply fish directly to Tuna fish processor of Visakhapatnam by maintaining Tuna onboard handling practices.
- ❖ Trawlers have started daily washing of vessels at Visakhapatnam fishing harbour.

7.4 Tamil Nadu

Tamil Nadu, a leading fish producing state in India, is having 13 coastal districts and 591 fishing villages. More than 0.8 million people depend di-

rectly on fisheries for their livelihoods and a larger population in Tamil Nadu is indirectly dependent on it. The general fish quality management standard of the state has improved above average to good and further improvements are possible through well planned awareness programmes supported by basic infrastructural facilities.

Challenges observed at the selected areas

In general lack of adequate infrastructural facilities along with improper awareness among the stake holders is the basic problem affecting fish quality management and conservation of fishery resources.

a) Main problems regarding the fish quality management were:

- ❖ The availability of enough water is still a problem in most of the coastal districts. This in turn has affected the availability of good quality ice as well as the regular washing and cleaning of harbours, landing centres.
- ❖ Adequate numbers of Ice plants are not available in Thanjavur and Pudukottai districts. In many places ice is being crushed using clubs as ice-crushers are not available. Sometimes ice was being crushed on bare floor too. Icing the material in 1:1 ratio is also not seen in several regions.
- ❖ Overall personal hygiene of fishers is not satisfactory. Lack of proper toilet and rest rooms for fish workers at harbours and landing centres has affected the personal hygiene of workers.
- ❖ Due to lack of raised platforms, plastic sheets etc., fishes are being put on direct floor or beaches for auctioning. Cement Platforms for auctioning are to be constructed in small landing centres.
- ❖ Bamboo baskets are being used for loading and unloading fishes. Ice boxes and plastic crates may be supplied to fisherfolk operating mechanized and country crafts using subsidy schemes.
- ❖ Harbour/landing centre premises are not clean. Wastes are thrown everywhere due to lack of sufficient waste bins. Drainage system has to be developed in many regions. Because of the absence of specific

parking areas, vehicles are parked in an around the harbour.

- ❖ In Tuticorin fishing harbour the area allotted for auctioning of trash fish for poultry feed is not maintained properly. The cement platform is damaged, which creates foul smell especially during rainy season. Soaking of cephalopods is still practised by the merchants of the harbour.
 - ❖ In Mallipattinam fishing harbour mechanised boats are not washing before and after going for fishing. Drying of waste fishes for poultry feed is done inside the harbour premises.
 - ❖ In Pazhaiyar fishing harbour though there is a specific fish drying yard, fisherwomen are using the parking area in front of the auction hall for drying fish and the fishes are being dried directly on floor.
- b) Identified problems regarding the conservation of marine resources:
- ❖ Pair Trawling, banned by the State Govt., is been practiced by many mechanized boats at Mallipattinam and Mandapam Fishing Harbours.
 - ❖ Purse-seining is being carried out by country craft fishermen of Rameswaram (Ramanathapuram district), Periathalai (Tuticorin district), Ovari (Tirunelveli district) and Arokiapuram (Kanyakumari district).
 - ❖ Dynamite fishing is found practised by fishermen in Thondi, Thirupalaikudi and Dhanukodi (in Ramanathapuram district) and Therespuram (Tuticorin district).
 - ❖ Trawl net using fishermen of Tuticorin and Chinnamuttam Fishing Harbours are not following the mesh size regulation measures.
 - ❖ Fishermen carry water packets for drinking water while going into the sea and the empty plastic bags are being thrown into the sea, which will directly harm the marine creatures.

Activities during 2009-10

The state having a vast coastline was segregated to Northern and Southern Regions by NETFISH for the ease of conducting programmes. The Northern Region (Chennai region) consist of 7 Coastal districts ie: from Nagapattanam to

Thiruvallur and Pondicherry and the Southern Region (Tuticorin region) consist of 6 coastal districts ie: from Thanjavur to Kanyakumari.

Along the Chennai region the major selected harbours/landing centres were Pazhayar, Nagapattinam, Cuddalore and Kasimedu. Varieties of programmes were organized in and around these selected areas and also at a few other areas as per the requirements. Altogether 213 programmes were conducted comprising of 106 regular programmes, 60 street play and 47 catch certificate campaigns. The details are as given in Table 8.

Along Tuticorin region a total of 459

The special programmes conducted along Tuticorin region included Medical camps, coastal clean-up, school children programmes, workshops, street plays etc. the details of which are as furnished below.

7.4.1 Medical Camps

Six medical camps were organized during the period from May to September 2009 in association with MSSRF, Thangachimadam. The fisherfolks from fishing villages such as Olaikuda, Vaniyankulam, MGR Nagar, Thamaraikulam, Sundaramudaiyan and Pamban were provided with free medical check-ups and free medicines.

Table 8. Various training programmes conducted in Chennai region during 2009-10

No:	Selected harbour	LT	C&SFT	ObT	Total	SP	CCC	Grand Total
1	Pazhayar	2	15		17	8	10	35
2	Nagapattinam	2	20	1	23	16	12	51
3	Cuddalore		18	2	20	8	10	38
4	Kashimedu	6	22	2	30	12	15	57
5	Other Areas		16		16	16		32
	Total	10	91	5	106	60	47	213

programmes were arranged during the year which includes 292 regular programmes, 74 special programmes and 111 catch certificate campaigns. Among regular programmes the quality, conservation and onboard training programmes were conducted at the places in and around the 4 selected harbours viz. Mallipattanam, Mandapam, Tuticorin and Chinnamuttam, with a few programmes at other nearby fishing villages also. The pre-processing training programmes were arranged only at Tuticorin region as most of the pre-processing units are situated there. The programme details are given in Table 9.

7.4.2 Coastal clean-up

A wide coastal cleanup programme was organized during September 2009 in association with the member NGO- People's Action for Development, Vembar. The coastal areas from Therespuram in Tuticorin to Rameswaram in Ramanathapuram were cleaned devoid of plastics, damaged nets, thermocole floats etc. School children and fisherfolk from these areas actively participated in this coastal clean-up programme knowing the importance of keeping their coastal areas clean for a healthy livelihood.

Table 9. Various training programmes conducted in Tuticorin region during 2009-10

No:	Selected areas	LT	C&SFT	ObT	PPCT	Special	Total	SP	CCC	Grand total
1	Mallipattinam	48	27	8			83	12	15	110
2	Mandapam	39	57	4		7	107	16	20	143
3	Thoothukudi	6	5	4	24	3	42	16	22	80
4	Chinnamuttam		5	4		5	14	8	16	38
5	Other areas	14	29	-		3	46	4	38	88
	Total:	107	123	20	24	18	292	56	111	459

7.4.3 School Programme

A programme on conservation of marine resources was arranged at St. Joseph Primary School, Verkodu on 22nd October 2009. Most of the children participated in the programme belong to parents who are actively involved in fishing and allied activities. The children were made aware of our marine resources, its sustainable use for their future well being, various conservation measures etc.

7.4.4 Street Plays

Street plays are used as a powerful and interesting tool to spread the NETFISH messages among fisherfolk. 56 plays were performed at selected locations in fishing villages during the year.

7.4.5 Other Activities

- ❖ With the monetary support provided by IFAD (International Fund for Agriculture Development) Women development Corporation of Kanyakumari conducted 5 days workshop in 5 fishing villages namely, Leepuram, Rajakkamangalamthurai, Thengapatnam, Melmidalam and Thuthoor. The fisherfolks of these villages actively participated in these workshops. NETFISH also attended the programme and gave awareness on fish quality management and conservation of marine resources to the participants.
- ❖ NETFISH supplied hygienic kits to the mechanized boat workers (gill netters) of Tharuvaikulam fishing harbours in Tuticorin district. Such activities are expected to encourage fishermen in practicing hygiene while handling fishes.

Outcomes observed in the state

- ❖ Many of the country craft fishermen, mechanized boat fishermen, fishing vessel crews, pre-processing workers ice plant owners and other stakeholders who have attended the training programmes are now aware of the importance of fish quality management and resource conservation.
- ❖ The country craft fishermen at Tuticorin, Tirunelveli and Kanyakumari districts started taking enough quantity of ice in ice boxes while going for fishing.
- ❖ Ice is used in 1:1 ratio for preserving the quality

of the catch.

- ❖ The mechanized boat workers started using the hygienic kits supplied to them.
- ❖ Fishermen started cleaning boats with detergents and bleaching powder.
- ❖ Fisherfolk were made well aware of FAD (Fish Aggregating Device) and AR (Artificial Reef) for increasing fish population.
- ❖ Fisherfolk are showing interest in protecting mangroves and nurturing mangroves in the estuarine area so as to improve the breeding of prawns, crabs and fishes.

7.5 . Kerala

Fisheries form one of the most important sectors in Kerala's economy. Kerala is bordered on the west by the Arabian Sea, rich in marine flora and fauna. The coastline of the state runs to a length of about 590km. The territorial limits of the state is about 22 kms from the sea shore and the total area covered by the sea that falls within this territory comes up to around 13,000 square kilometers. This is the area in which the marine fishermen of the state are allowed to venture. The shallow seabed surrounding the state of Kerala comes to around 3919 square kilometers. This is the most fertile region of the Arabian Sea as far as fisheries are concerned. The potential of the state in terms of marine fisheries is believed to be about 5.17 lakh tones. Not only do the fisheries contribute to about 3 percent of the economy of Kerala they also earn the state a great deal of foreign exchange and goodwill. The fisheries of the state are famous all over the world and are exported to various countries. The inshore waters are under heavy or excessive fishing pressures. Most of the resources are already optimally exploited. NETFISH conducted a survey to identify the existing fish quality and conservation problems of the state to address and came out with the following points to be addressed immediately.

Challenges noticed in the State

- ❖ Unhygienic situation of the Cochin Fisheries Harbour such as improper washing of the auction hall and surroundings.
- ❖ Fish cutting in the gill net section of the Cochin Fisheries Harbour.
- ❖ Stalking crates on the raised platform was a

- common practice in the Cochin Fisheries harbour and the waste water oozes out to the auction hall.
- ❖ Improper lighting and drinking water facility at the Cochin Fisheries Harbour.
 - ❖ Landing and auctioning of spoiled fish in the gill net section of the Cochin Fisheries harbour.
 - ❖ Unhygienic practices at Munambam fishing harbour like serving tea and snacks, chewing pan and smoking cigarettes at auction hall etc. and handling fish with leg.
 - ❖ Unhygienic practices at Munakkakadavu, Ponnani, Valapattanam, Baypore and Puthiappa landing centers due to poor infrastructure facilities
 - ❖ De-gilling and auctioning fish directly on sand and floor in Thottapally harbour
 - ❖ Unhygienic condition at Neendakara/Sakthikulangara fishing harbour and mismanagement of facilities.
 - ❖ The numbers of fishing boats in Sakthikulangara harbour has increased considerably but the landing facility available at present is not sufficient. Length of the wharf/jetty is to be increased.
 - ❖ Rampant peeling activities in harbour premises
 - ❖ Usage of bamboo baskets for fish handling

- ❖ Unhygienic condition of the Vizhinjam fishing harbour
- ❖ Mixing fish with sand for sale at Vizhinjam
- ❖ Lenient implementation of the MFRAs.

Activities during 2009-10

In order to tackle the various problems identified by NETFISH in the state, a variety of awareness programmes were organized at some selected regions during 2009-10. Fish cutting and retail sale inside the auction hall, lack of proper cleaning in and around the harbour, dumping of spoiled tuna, berthing of unclean boats, stalking of fish on raised platforms, lack of proper maintenance etc. were some of the problems in the Cochin Fisheries Harbour. In order to overcome these problems the State Coordinator met the Cochin port trust authorities and made them aware of the pathetic condition of the harbour. After several rounds of discussions and consultations, Port Authority agreed to appoint workers by outsourcing for daily cleaning of the harbour. NETFISH also informed the Port Authority about the availability of fund from both NFDB and Ministry of Agriculture for the upgradation of the harbour and assisted in submission of detailed project proposal. A team including Chief executive NETFISH, State Coordinator and Chief Engineer

Table 10. Various programmes conducted in Kollam region during 2009-10

No.	Selected harbours	LT	C&SFT	Ob.T	PPCT	Total	SP	CCC	Grand Total
1	Thoppumpady	26				26	5	13	44
2	Aroor				24	24			24
3	Ambalapuzha				85	85			85
4	Thottapally-Arattuppuzha	4	21	2		27	10	17	54
5	Neendakara /Sakthikulangara	21	20	9		50	11	57	118
6	Vizhinjam	24				24	15		39
7	Other areas						29		29
	Total	75	41	11	109	236	70	87	393

Table 11. Various programmes conducted in Cochin region during 2009-10

No.	Selected harbours	LT	C&SFT	Ob.T	Total	SP	CCC	Grand Total
1	Munambam	12	6		18		17	35
2	Munakkakadavu	12	19	4	35	10		45
3	Puthiyappa/Beyppore	64	31	3	98	28	36	162
4	Valapattanam	34	12	6	52	14	8	74
5	Other areas	26	12	3	41	18	9	68
	Total	148	80	16	244	70	70	384

Cochin port trust, and other port officials visited the Munambam harbour to observe the activities of Munambam Harbour Management Society. The Ministry of Agriculture, govt. of India sanctioned 10 crore 8 lakh rupees for the overall up-gradation of Cochin Fisheries Harbour.

7.5.1 Participation In Matsyamahotsav-2009

NETFISH participated in the MATSYAMAHOTSAV-2009 organised by MATSYAFED from 8th to 13th May 2009 at Kanakakunnu, Thiruvananthapuram in connection with its silver jubilee celebrations. NETFISH took a stall in the exhibition in which the posters and leaflets of NETFISH were displayed. Animation and documentary films of NETFISH on sustainable fishing, hygienic handling of fish onboard and in landing centres, etc. were also shown. Hon'ble Minister for Fisheries and Hon'ble Minister for Co-operation, Govt. of Kerala visited the NETFISH stall and observed the various activities being conducted by NETFISH. Other eminent personalities like Former MPEDA chairman Shri. G. Mohankumar IAS, Fisheries Director Shri. Sheik Pareed, Matsyafed Chairman Adv.V.V.Saseendran, Hon'ble Judge Shri Viswanatha Menon, Scientists from various institutes, fishermen from different parts of Kerala and thousands of other participants also visited NETFISH stall. NETFISH organized a street play "Kadalinte Kanivukal Kathupottam" on 12.5.09 at Suryakanthi auditorium, Kanakakunnu as the part of cultural programmes arranged by Matsyafed. The role of NETFISH street play in educating the fishermen was appreciated by the participants.

Outcomes noticed in Kerala region

Thoppumpady

NETFISH conducted 44 training programmes at Cochin Fisheries Harbour, Thoppumpady to create awareness among fisher folk regarding the importance of hygienic handling of fish, conservation and sustainable fishing and the Catch certificate scheme implemented by European Union (EU). As a result of all these activities Cochin Fisheries Harbour was changed considerably. The practice of cutting and selling fish inside the harbour is completely stopped and proper cleaning schedule is being maintained inside the harbour.

Aroor

Six pre-processing centers were selected and 22 extension training programmes were organized in these sheds. As a result:

- ❖ Hygienic condition of these peeling sheds has improved considerably
- ❖ 40% of the floor peeling has changed to table peeling

Ambalapuzha

Ten peeling sheds were identified for imparting training programmes and 85 extension training programmes were organized in these sheds. As a result:

- ❖ The hygienic conditions of these peeling sheds have improved greatly.
- ❖ The materials are being put on plastic basins instead of the floor.

Thottappilly

As a result of NETFISH training programmes, the following changes have taken place:

- ❖ Degilling of fish on plastic sheets instead of the earlier practice of putting fish directly on beach sand
- ❖ Auctioning fish in baskets instead of the earlier practice of auctioning in beach sand
- ❖ Juvenile fishing is very much controlled in Arattupuzha and Thrikkunnapuzha region
- ❖ 50 % of the Mini trawling boats are now converted to gill net fishing in Arattupuzha, Thrikkunnapuzha and Purakkad region. Fishermen themselves agree that mini trawling is very destructive and the fishery resources have reduced as a result of this.

Neendakara/Sakthikulangara

119 extension training programmes with a combination of 51 fishermen programmes and 68 special programmes such as street plays and catch certificate campaigns were conducted in Neendakara/ Sakthikulangara area. As a result of NETFISH training and meeting with Harbour Engineering Division of Sakthikulangara/Neendakara and other stakeholders the following changes have taken place;

- ❖ Overall hygienic condition of the harbour has improved

- ❖ A committee was developed with the help of HED, Sakthikulangara to formulate a harbour management society like Munambam Harbour Management Society for proper management and hygienic handling at harbour. A final approval is awaiting from the Govt. of Kerala.
- ❖ About 80% of the bamboo baskets are now replaced by plastic baskets

Vizhinjam

At Vizhinjam region the main problem identified by NETFISH was the mixing of sand with fish. This practice is generally followed by fisherwomen to show the customers that the fish is very fresh. They were totally unaware of the fact that the beach sand they mix with fish contains loads of harmful micro-organisms. 57 extension training for fisherwomen, fishermen and auctioneers as NETFISH regular programmes and 49 street plays as special programmes were organized at Vizhinjam, Pulluvila and Anchuthengu coastal regions of Thiuruvananthapuram district.

- ❖ Now the condition has improved very much and about 30% of the fisherwomen have given up the practice of mixing sand with fish.

Munambam

Munambam fisheries harbour is managed by a Harbour Management Society. Before NETFISH's intervention, the hygienic condition at the harbour was poor; the parking of vehicles was not in an organized manner; there were no system for daily washing of the harbour; raised platforms were not used for auctioning; tea and snacks were served inside the harbour; fishermen handling fish with leg; lots of small scale shops were located inside the harbour premises. NETFISH organised 35 training programmes at this harbour on various aspects including Catch certificate scheme. NETFISH in co-operation with Harbour Management Society could shift all shops located inside the harbour to a newly built building; assigned separate parking area for two wheelers and trucks; established a system for daily washing of the harbour, etc. Munambam harbour has now become one of the model harbours in India.

Munakkakadavu

Lack of proper infrastructural facility was found to be the main constraint at Munakkakadavu Fisheries Harbour, Thrissur district. NETFISH has submitted a report to the concerned Harbour Engineering Department regarding the present condition of the harbour and persuaded them to provide the essential infrastructure in the harbour. 35 training programmes were organized at this harbour and regular monitoring was also done. As a result of the continuous interaction with stakeholders the fishermen are now handling the fish hygienically. State Coordinator had a meeting with the Municipal Chairman, Chavakkad for arranging light facility at the Munakkakadavu Fisheries Harbour. As a result enough lights have been fixed at the harbour. NETFISH intervened effectively to arrange drinking water and toilet facility at this harbour. Proper parking space was also arranged in the harbour.

Beypore/Puthiyappa

NETFISH persuaded Harbour Engineering Department to submit a project proposal to NFDB for the up-gradation of Puthiyappa harbour and as a result, funds have been allotted and the renovation work is in progress at the harbour. The following changes have taken place as a result of the regular training programmes:

- ❖ Hygienic handling and overall cleanliness of the Beypore and Puthiyappa harbour has improved considerably.
- ❖ Bamboo baskets have been replaced by plastic baskets.

Valapattanam

❖ Valapattanam harbour of Kannur is a moderately big harbour with nearly 500 boats operating from this harbour. At times when boats cannot enter the Mappila bay harbour of Kannur district due to sand bank formation, boats from there are coming to Valapattanam harbour and it becomes overcrowded. Now renovation work is going on at this harbour and a new wharf and a new net mending hall have been constructed and the work of the auction hall is progressing. Total 75 training programmes have been organized by NETFISH at this harbour.

- ❖ At **Thalassery landing centre** fish and meat

market were located at the fish landing centre itself. As a result waste material from the meat and fish were found mixed with fish. As a result of the training classes by NETFISH separate platform is now used for auctioning of fish.

7.6 Karnataka

Karnataka state along the south west coast of India is at the forefront of marine fisheries development in India. Historically known as the mackerel coast it has a coastline of 300 Km and continental shelf of about 25000km². The state contribution of total marine fish production of India is varied from 6 to 14% annually. Karnataka state has been a pioneer in the introduction of mechanized fishing technologies, development of fishing ports and improvement of the living standard of fishers. The state has largest purse seine fleet in India and its trawl fleet is modern and dynamic. The introduction of more efficient gears resulted in a steep increase in marine catches. But later on, this over exploitation has led to the decline of resources, thereby lowering the profit for fishers and revenue of the state. Unsustainable fishing practices and unhygienic handling of fish is the major problem faced by the fisheries sector of Karnataka nowadays. At this juncture NETFISH conducted a detailed survey to identify problems persisting in the state with regard to fish quality management and conservation of fishery resources.

Inadequacies which needs to be addressed in the state:

- ❖ Inadequate Infrastructure facilities for berthing the fishing vessels.
- ❖ Lack of broad and lengthy wharfs, modern auction halls and public toilets/ bath rooms etc. at Mangalore and Malpe harbours.

- ❖ Insufficient potable water for drinking, washing and cleaning of landing centers, fishing vessels and to the labour force in all the fishing harbours.
- ❖ Lack of good quality ice in sufficient quantity.
- ❖ Improper washing of harbours and landing centers.
- ❖ Lack of proper Harbour management committees at all the harbours/ landing centres.
- ❖ Improper implementation of mesh size regulation.

Activities during 2009-10

Altogether 436 training programmes were organized in Karnataka during 2009-10 These trainings include fishermen training programmes at landing centers, onboard trainings, tuna trainings, pre processing centre trainings etc. Apart from the regular training programmes of NETFISH special programmes such as street plays, processions, rallies, and medical camps were also organized during the year. Details of the training programmes are given in table 12.

7.6.1 Summer Camp for children of Fisher Community

3 day Summer camp for fishermen community children were held in Karikal village of Bhatkal taluk, Dhareshwar and Aghanashini of Kumata taluk, Kharvikeri of Honnavar taluk and Bilihoigi – Kanagil of Ankola taluk from 22nd to 24th April 2009. Children were taught conservation related songs, participated in indoor and outdoor games, storytelling, dance, wealth from waste etc. Children were also informed about the need of conserving the coastal environment, the cause of fish depletion, measures to protect marine life etc. Selected children were trained in Street play regarding Fishermen's life and

Table 12. Various training programmes conducted in Karnataka during 2009-10

No.	Selected Areas	LT	C&SFT	Ob.T	PPCT	AFT	DFT	Special	Total	SP	CCC	Grand total
1	Mangalore	20	10		6		6	4	46	15	30	91
2	Malpe	15	10		8		6		39	10	22	71
3	Honnavar	18	17	2		2	10	2	51	12	20	83
4	Karwar	12	12	1		2		3	30	6	16	52
5	Malim	4	4					1	9			9
6	Gangolli	7	7	1		2			17	3	14	34
7	Other Areas	26	31	2		4	6		69			
	Total	102	91	6	14	10	28	10	261	46	129	436

sustainable fisheries. These children also participated in the Street Play competition organised at Dhareshwar of Kumata taluk on 25th April 2009.

7.6.2 Village adoption by NETFISH and KVAFSU

The Directorate of Extension, KVAFSU, (Bidar), Extension Education Wing, College of Fisheries, Managlaore in collaboration with NETFISH – MPEDA, Mangalore had organized a function on 8-05-2009 at Sasihitlu village, Dakshina Kannada district to adopt the same village for overall development with a focus on fisheries in particular and animal husbandry, poultry, dairy in general. A memorandum of Understanding was signed between Gram Panchayat leaders, Haleyangadi and the Director of Extension, KVAFSU, Bidar. According to the agreement the EEW, College of Fisheries, Mangalore will chalk out programmes and schemes for the next three years for transforming the fishing village into a model one. Inaugurating the function Mr. Monappa Karkera, Board Member, KVAFSU, Bidar advised the fishermen to adopt code of conduct for responsible fisheries and conserve fishery resources. NETFISH Street plays in Tulu were presented on the occasion to highlight the importance of conservation of fishery resources.

7.6.3 Workshop on fisheries resource conservation

NETFISH organized a workshop on Fisheries Resource Conservation on 24th July 2009 at Harwada. The CE, NETFISH inaugurated the workshop and President, Gram panchayat presided over the function. The Superintendent, Marine research station, Ankola, and State Coordinator NETFISH took classes on conservation and employment opportunities for fishers during the ban season. More than 100 fishers attended the function.

7.6.4 VANAMAHOTSAVA in Honnavar Landing Centre

NETFISH-MPEDA, Snehakunja Trust Honnavar, Dept. of fisheries and Karavali fishermen association jointly organized 'VANAMAHOTSAVA' programme in the premises of Honnavar landing centre. The Zonal forest officer Shri S.V.Naik inaugurated the programme and gave a talk on role and importance of mangroves

in preventing erosion and flood near the beaches and rivers respectively. During the meeting, the speakers urged the fisher folk to grow mangroves in order to increase fish population and practice conservation measures to protect our rich resources.

7.6.5 Jatha on Beach Cleaning

The Beach Cleaning program was organized under NETFISH umbrella to create awareness among the fishermen community and people of Hipli about sea water and beach pollution and to involve them in beach cleaning by way of Shramadana.

More than 70 fishermen and women participated in the activity and a jatha was held from Samudaya Bhavan to beach to create awareness among the public about sea and beach pollution. Simialr programme was organized at Dubinshashi also where more than 50 fishers were participated. During Shramadana people participated actively to clean the beach surroundings. Old nets, bottles and unwanted materials on the beach were collected and disposed off.

7.6.6 Free Medical Camps

A free medical camp was organised at fisher community hamlet, Dhareshwar on 23.7.2009. Medical Officer, Vivekananda Arogya Dhama, Snehakunja, Kasargode examined the patients and free medicines were given. During this programme, fishers were advised to keep the landing centre clean, avoid the bad habits and improve personal hygiene. The beneficiaries were happy that the camp was arranged at their working place (landing centre) itself as they did not have to lose their day's labour. NETFISH organized four medical camps specially for those who have suffered from very heavy rain in various region of North Karnataka in October 2009.

7.6.7 Awareness Programme on MPEDA Scheme for Ice Plant Construction/ Renovation

Awareness programmes were conducted for ice plant owners, fishermen societies and aqua farms, state fishery officials and business personals. About 48 persons attended this programme. MPEDA officials delivered lectures in various aspects in Ice plant construction, production and profitability. The

technical consultant to MPEDA delivered a detailed lecture on technical aspects of the Ice plants (from construction to production). Photo copies of the scheme were distributed to all participants.

7.6.8 Fish farmer's day celebration

On 28.8.2009, the fish farmer's day was celebrated in Marine fisheries research station at Ankola. NETFISH State coordinator participated as chief guest and delivered a talk on problems of shrimp culture in Karnataka and suggested corrective actions /follow up to be carried out. Emphasis was given to produce quality shrimps by practicing GAP and farmers were urged to carry out scientific farming.

7.6.9 Survey of plastic basket requirement

NETFISH conducted a survey along landing centres and fishing harbours of Mangalore, Malpe etc with regard to the replacement of bamboo baskets with plastic baskets. It was observed that approximately 1000 baskets were used in Landing centres especially in Mangalore for the trading of dry fish, manure and fish meal only.

7.6.10 Work shop for SHGs in Karwar

State Coordinator participated in a workshop organized by Rural Development and Training institute, Haliyal on 26/3/2010 and delivered a lecture on fish quality Management and opportunities to SHGs in fisheries.

Outcomes observed in the state

- ❖ A system for daily washing of harbours, jetties and auction halls is being practiced in Mangalore, Malpe, Honnavar and Gangolli fishing harbours.
- ❖ Tadri landing centre is being cleaned up regularly by the local fisher groups
- ❖ Dumping of fishes is stopped to considerable extent at Mangalore and Malpe fishing harbours.
- ❖ Dumping of trash fishes at harbour premises almost stopped at Mangalore and Malpe.
- ❖ Dryfish activities at harbour premises considerably reduced at Mangalore, Malpe, Honnavar, Karwar and Gangolli.
- ❖ Cutting and selling of fishes in auction halls of Mangalore and Honnavar harbours were reduced considerably.

7.7 Maharashtra & Goa

Maharashtra has 6 maritime districts namely Thane, Greater Mumbai, Mumbai Suburb, Raigad, Ratnagiri and Sindhudurg. There are 3 major fishing harbours viz. Sasson dock, New ferry wharf and Ratnagiri. There are 184 landing centers in the state including major and minor landing centres. The state has an average annual catch of 3.95 lakh tonnes that contributes 15.4% of the total marine fish landings of the country.

The state depends on traditional fishing by 'dol' nets, gillnets, 'rampani' and hooks and line, the landings from which was dominated until early 1980s. But intensive shrimp trawling with multi-day fishing trips, introduction of purse seines in the late eighties and enhancement of overall fishing effort by more than three folds has resulted in the declining of catch in the state. Of late, oil and natural gas exploration surveys and non-fishing zones around the oil wells in the traditional 'dol' and gillnet areas have been creating further problems. Incursions by trawlers in 'dol' net grounds for Bombay duck and targeting of silver pomfrets by 'dol' netters in the nursery areas have created conflicts among trawlers, 'dol' netters and gill netters in the northern districts, while similar conflict was noticed for mackerel amongst 'rampani', purse seine and trawler operators in the southern districts. On account of poor availability of high value fishes, the hooks and line fishery and 'rampani' operations are on the verge of closure. NETFISH conducted a detailed survey to identify various short falls of the state regarding fish quality management and conservation.

Challenges observed at the selected harbours of the State

Ratnagiri

- ❖ No Supply of drinking water/ potable water
- ❖ No auction halls and raised platforms, no adequate toilet facilities, and lack of proper maintenance
- ❖ Siltation is one of the major problems in this harbour which prevent the free passage of vessels
- ❖ No vehicle parking facilities.
- ❖ No rest rooms for fishermen and workers.
- ❖ Filthy smell in harbour premises.

- ❖ Polluted water in the harbour is used by fishermen to wash the deck surface
- ❖ Hygiene and sanitary conditions on board and at landing centers are very poor.
- ❖ Majority of fishing vessels are not clean
- ❖ Using mesh size of about 18mm in length in trawl net, purse seine nets.

Harne

- ❖ It is a natural landing centre, there is no wharf
- ❖ Mechanized vessels cannot come directly to the landing centre as there is no sufficient depth. Small boats carry catch from these vessels to landing centre.
- ❖ No Supply of sufficient drinking water / potable water.
- ❖ Inadequate toilet facilities.
- ❖ No auctioning halls and raised platforms
- ❖ No proper roads to the landing centre.
- ❖ No compound wall for harbour.
- ❖ No ice factory at the harbour.
- ❖ Hygiene and sanitary conditions on board and at landing centre are not satisfactory.
- ❖ Some fishermen keep fish directly on sand.
- ❖ Industrial pollution is the major problem in nearby areas.
- ❖ No proper maintenance in the harbour.
- ❖ Use of beach/ landing centre premises for toilet purpose.
- ❖ Use small mesh size nets for fishing. Juvenile fishing is a common practice.

Sasson Dock

- ❖ No Supply of sufficient drinking water/ potable water.
- ❖ No adequate toilet facilities
- ❖ No proper roads.
- ❖ Auction halls not maintained properly.

- ❖ Raised platforms not used for auctioning.
- ❖ Inadequate parking facilities.
- ❖ Drainage system not working satisfactorily.
- ❖ No sufficient lights in the harbour.
- ❖ No rest room for fishermen and workers.
- ❖ There are two ice factories in the harbour premises but this ice is not sufficient.
- ❖ No net mending hall.
- ❖ Peeling/ pre-processing activities are conducted on floor unhygienically.
- ❖ Unhygienic handling of fish catch is a general practice.
- ❖ Filthy smell in harbour premises.

Activities during 2009-10

NETFISH could organize 393 different types of training programmes throughout Maharashtra and Goa during 2009-10. 11 street play programmes were conducted in Thane and Raigad district. Response of fishermen communities towards street plays was exciting. NETFISH street play programmes were given wide coverage by news papers.

Outcomes observed in the state

Sindhudurg

- ❖ Dry fish fisher folk use fencing to avoid quadrupeds. They started using platforms, coir or plastic sheets to avoid contamination with direct soil.
- ❖ Fishermen (Women) have now started using plastic crates/ baskets at Malvan and Vengurle area.
- ❖ Plastic sheets are used to keep fishes.
- ❖ Ice is being properly used while packing fishes.
- ❖ Improved hygienic conditions are now observed on sea shores
- ❖ Fishes are now properly washed using fresh water.

Table 13. Various programmes conducted in Maharashtra during 2009-10

No.	Selected areas	LT	C&SFT	Ob.T	PPCT	AFT	DFT	Total	SP	CCC	Grand total
1	Ratnagiri	9	17	5	8	3	4	46		36	82
2	Harne	13	12				4	29		36	65
3	Sasson dock	4	3	4	14		2	27		35	62
4	Raigad	23	25					48	6		54
5	New ferry wharf	1		2				3		35	38
6	Other areas	21	53		2	6	5	87	5	142	234
	Total	71	110	11	24	9	15	240	11	142	393

Ratnagiri

- ❖ Ice is being properly used while packing fishes.
- ❖ Improved hygienic conditions are now observed on sea shores
- ❖ Fishes are now properly washed using fresh water.
- ❖ Fishermen from Ratnagiri Karla area expressed interest in planting mangroves for the protection of the coast.

Harne

- ❖ Use of plastic crates has increased.
- ❖ Nets are being used in the dry fishing areas to avoid birds.

Raigad

- ❖ At Korlai landing centre cement platforms are used for drying the fish
- ❖ Plastic sheets are used for drying fish at Navagao.
- ❖ Plastic crates, floor and premises are properly cleaned at Thal landing centre

Mumbai-Sasson dock

- ❖ Some improvement in hygienic conditions in peeling sheds located at the fishing harbour has been achieved.

Thane

- ❖ Fishermen in Gungwada landing centre use plastic sheets to prevent contamination with sand.
- ❖ Fisher folk from Kore landing centre expressed interest in mangrove plantation in their area.

7.8 Gujarat

Gujarat with its long coastline plays a major role in the fish products export scenario of the country. Gujarat comprises of 25 districts including 13 maritime districts having a wide array of harbours and fish landing centers including 2 big harbours (Veraval and Porbandar), 12 intermediate harbours, six landing centers cum harbours and 217 fish landing centers. Fishermen of the state largely depend upon capture fisheries for their livelihood. Fish quality management standard of State is poor. Veraval and Porbandar, two big landing centers of the state are too much crowded. Lack of Infrastructure is the

main problem in Veraval, Porbandar, Mangrol, Okha, Vanakbara harbours and in other small landing centre such as Sutrapada , Navi Bandar, Chorwad, Umersadi. Lack of awareness about the importance of maintenance of fish quality and conservation of fishery resources is another main problem.

NETFISH Gujarat has taken more efforts to establish a healthy interaction with fishermen community, its leaders, President, Patel groups etc. During the year continuous effort was made to change the attitude of the fishermen and also succeeded in initiating a participatory approach particularly in Vanakbara, Veraval, Mangrol, Madhvad, Jakhau, Umersadi, and Nargol landing centers.

Challenges noticed in the state

- ❖ Unscientific transportation of fish mainly in Veraval port
- ❖ Dumping waste materials in Veraval, Porbandar and Mangrol landing centers
- ❖ Lack of sufficient facilities for crushing ice in these harbours
- ❖ Unhygienic condition of fishing harbours
- ❖ Local fishing without taking Ice
- ❖ Washing fish with harbour water
- ❖ Unclean fishing boats
- ❖ Lack of infrastructure facilities at fishing harbours
- ❖ Unavailability of clean water at fishing harbours
- ❖ Destruction of Mangrove habitat
- ❖ Violation of mesh size regulation
- ❖ Violation of monsoon ban
- ❖ Lack of effective participatory resource management system
- ❖ Juvenile fishing

Activities during 2009-10

NETFISH activities in Gujarat were well planned in accordance with the short falls identified. Keeping NETFISH objectives in mind, State coordinator and member NGOs of the state got along with fishermen community and continuous effort was made to change the attitude of fishermen. NETFISH succeeded in developing a strong relationship with fishermen community, particularly in fishing harbours like Veraval, Vanakbara, Mangrol, Madhvad, Jakhau, Umersadi, Nargol.

A total of 284 programmes were conducted in Gujarat during 2009-10. It includes 55 catch certificate programmes conducted for implementation of catch certificate.

7.8.1 Special effort by NETFISH to make Harbour Management Society

A harbour management committee was formed at Vankbara fishing harbour by the efforts of NETFISH. The resolution for approving the nominated names to the Harbour Management Committee was passed in the presence of 50 members of Gram Panchayat. One official each from NETFISH and MPEDA was also nominated as members of the committee. The first meeting of Vanakbara Fishing Harbour Management Committee was convened on 17.07.2009 to discuss about the formation of bylaw and other rules and regulations of the society.

7.8.2 Boat cleanup

A Mass boat cleanup programme was conducted at Chowad landing centre and more than 300 boats were cleaned during the programme.

7.8.3 School programmes

School children were also targeted for giving awareness on conservation of resource. Two programmes were conducted at Sutrapada landing center and Mangrol landing centers during 25-27th August 2009.

Outcomes noticed in the state

- ❖ Pre-processing worker's are maintaining proper personal hygiene
- ❖ Created awareness among fishermen at almost

all major landing centres in Gujarat on role of ice, proper handling of fishes, sanitation and personal hygiene.

- ❖ Successfully implemented Catch Certificate Scheme at Proposed harbours.
- ❖ Plastic sheet are being used by dry fish fisher women for maintaining good hygienic condition
- ❖ Plastic crates are being used instead of Bamboo baskets in the fishing harbours
- ❖ Sea food suppliers are maintaining their booths in hygienic condition at Mangrol fishing harbour
- ❖ Created awareness among school children of fishermen communities on conservation and sustainable fishing
- ❖ Complete fishing ban was observed during monsoon period at Vanakbara-DIU, South Gujarat region, Veraval, Mangrol, Okha and Dholai regions
- ❖ Covered transportation of fishes were started at Veraval, Mangrol & Porbandar Harbour.

Veraval

- ❖ Dumping of wastes in the fishing harbour has stopped
- ❖ Fishermen now carry enough ice onboard.
- ❖ Fish drying is done on raised platforms.

Mangrol

- ❖ Personal hygiene among fishermen has improved.

Vanakbara

- ❖ Fishermen carry sufficient quantity of ice onboard
- ❖ Fishermen stated keeping fishing boats in hygienic manner.

Table 14. Various programmes conducted in Gujarat during 2009-10

No.	Selected Harbours	LT	C&SFT	Ob.T	PPCT	DFT	FMT	Special	Total	CCC	Grand total
1	Veraval	31	20	2	10			2	65	25	90
2	Mangrol	16	15				2	2	35	10	45
3	Porbandar	16	14						30	10	40
4	Vanakbara	3	7	2	4	1			17	6	23
5	Jakhau	20	15						35	4	39
6	Dholai	16	6	2	1	4			29	—	29
7	Other areas	4	10	1		3			18	—	18
	Total	106	87	7	15	8	2	4	229	55	284

Jhakau Bandar

- ❖ Fishermen carry sufficient quantity of ice.
- ❖ Insulated ice box are being used onboard

Dholai

- ❖ Plastic sheet are used for keeping fish on floor
- ❖ Ice is handled hygienically

As a result of the continuous effort, NETFISH has become popular among fisherfolk of Gujarat particularly in areas such as Diu, Veraval, Mangrol, Umergam, Nargol, Magodh, Jakhua, etc.

8. Catch Certificate campaign by NETFISH

NETFISH organized catch certificate campaign at all selected 50 fishing harbours spread in all the maritime states from East coast to West coast of India. In the one month long campaign NETFISH used all its system and infrastructure to its maximum level to spread the message among fishermen.

Various effectual extension tools and methods such as mike announcement, poster pasting in various noticeable areas, notice distribution, awareness classes, meeting with leaders of stake holder groups, meeting with community leaders, setting up of help desk at harbours, person to person campaign, etc. were used for the effective communication of the message.

Mike announcement was an efficient method to make people understand the issue of catch certifi-

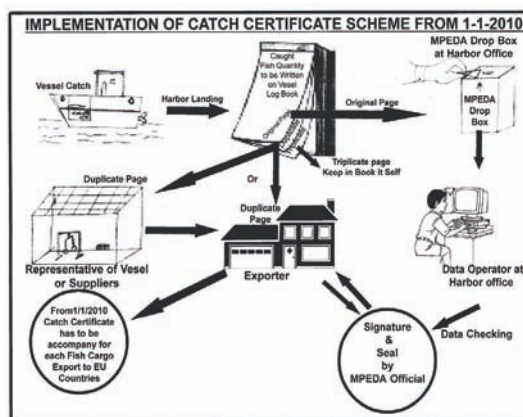
cate because the fishermen would generally be busy at harbours with their routine work and will be reluctant to attend any training classes. In this situation, mike announcement on various catch certificate related issues were very much helpful for them to listen even while working.

Posters and attractive charts on catch certificate were prepared and posted at harbours and other important places indicating the importance and method of implementation of catch certificate in India in a simplified form in the local language for the better and easy understanding of the stake holders. Notices were distributed in regional languages regarding catch certificate at all selected harbours.

Awareness classes were arranged for fishermen during their free times even at night to clarify doubts and questions raised by them. Several meetings were arranged with leaders of stake holder groups and community to explain the system of catch certificate as these groups were having greater influence over fishermen community. Help Desks were operated at harbours of Andrapradesh, Odisha and Karnataka to clarify the doubts and queries of fishermen regarding the catch certificate. Door to door campaign were also arranged to meet the maximum number of fishermen personally to explain the new system. The member NGOs of NETFISH were actively cooperated with the campaign at their maximum level.

Table 15 Catch certificate campaign by NETFISH in various states

No:	State	Number of programmes conducted
1	Kerala	157
2	Tamil Nadu	158
3	Karnataka	129
4	Andhra Pradesh	68
5	West Bengal	61
6	Odisha	105
7	Maharashtra & Goa	142
8	Gujarat	55
Total		875



Poster prepared for Catch certificate campaign

Income & Expenditure Statement For The Year ended 31.03.2010

Expenditure	(Rs.)	(Rs.)	Income	(Rs.)	(Rs.)
Extension Activities			Miscellaneous Income		
Training- Fishermen	3,953,862		Application fee	2,500	
Training- Pre- Processing	615,171		Membership fee	2,500	
Training- Onboard	1,444,065		Renewal fee	200	
Training-Tuna/Dry Fish/on shore	286,016		Others	135	5,335
Trainings-Conser. & Sustainability	784,580		Excess Provision Written back		1,000
Mass Awareness Programmes	48,650				
Street Play	1,147,415		Excess of expenditure over income for the year		16,378,370
Other Extension Programme	574,722				
Catch Certificate	635,852				
Animation	297,810				
Documentary	606,600	10,495,820			
Publicity & literature	101,077				
Employee Cost					
Salary- Chief Executive	480,000				
Salary- State Co-ordinators	3,203,202	4,453,648			
Salary- Staff	770,446				
Other Charges					
Advertisement for recruitment	118,791				
Audit Fees	4,412				
Bank charges	7,818				
Internet & Website	80,029				
Insurance & AMC	44,601				
Meetings	219,570				
Miscellaneous Expenses	64,605				
Telephone & Mobile Charges	76,698				
Postage & Telegram	20,897				
Taxation/other consultancy	3,309				
Printing & Stationery	48,859				
Traveling Expenditures	594,911	1,284,500			
Depreciation on fixed assets	150,737	150,737			
		16,384,705			16,384,705

Notes forming part of Accounts-attached as Schedule 1

As per our report of even date attached

Sd/
Chief Executive OfficerSd/-
TreasurerSd/-
SecretarySd/-
Auditor

Receipts & Payment Account For The Year ended 31.03.2010

Receipts	(Rs.)	(Rs.)	Payments	(Rs.)	(Rs.)
Opening balance			Payments for extension Activities		
Cash	73649		Training programmes		7,634,230
Bank	4804901		Publicity & literature		101,077
Funds received from MPEDA		4878550	Documentation		904,410
Other Income		13000000	Mass awareness		1,831,917
Salary,TA to Technical and Field		5335	Salary CEO,SCO's etc.		4,359,756
Staff paid (MPEDA a/c)		1741111	Salary,TA to Technical and Field Staff paid (MPEDA a/c)		1,738,189
			Advertisement-Recruitment		118,791
			Establishment & Other items		1,159,106
			Audi Fee (2008-09)		4,000
			Travelling & Other Advances		8,369
			Fixed assets purchased		66,954
			Closing balance		
			Cash in hand	0	
			Balance with banks	1,698,197	
		19624996			1,698,197
					19,624,996

Notes forming part of Accounts-attached as Schedule 1

As per our report of even date attached

Sd/-
Chief Executive Officer

Sd/-
Treasurer

Sd/-
Secretary

Sd/-
Auditor

NOTES FORMING PART OF ACCOUNTS FOR THE YEAR ENDED 31-03-2010

1. Significant Accounting Policies
 - a. Basis of Accounting-
Accounts are prepared on accrual basis of accounting.
 - b. Capital Fund-
Funds 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 as below:
Computer and accessories- 60% under WDV method.
Furniture & Fittings-10% under WDV method.
Depreciation has been provided on assets acquired during the year.50% of the normal Depreciation has been charged in case of assets acquired after 30th September of the year.
2. 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 orders of the Commissioner of Income Tax Kochi dtd 21.07.2008.
3. During the year 2009-10,an amount of Rs.1,30,00,000 has been received as fund transfer from MPEDA(author/founder of the Society) and the same has been credited to Capital fund.
4. An excess provision of Rs.1000 made in the accounts for 2008-09 under Audit Fees has written Back in the current year's Income and Expenditure Account.
5. Previous year's figures were regrouped wherever necessary.

Sd/-
Chief Executive

Sd/-
Treasurer

Sd/-
Secretary

Sd/-
Auditor



NETFISH catch certificate campaign in Karnataka



Notice and model log sheet distribution

OFFICE BEARERS



Ms. Leena Nair, I A S
President



Dr. Joice V. Thomas
Chief Executive Officer



Atanu Ray
SCo, West Bengal



S. Mohopatra
SCo, Odisha



Hanumantha Rao
SCo, Andhra Pradesh



K. Anandan
SCo, Chennai, TN



Dr. R. Balasubramanian
SCo, Tuticorin, TN



Dr. S. Shassi
SCo, Kollam



Aliamma Kuriachan
SCo, Cochin



K.A. Narayana
SCo, Karnataka



Santhosh Kadam
SCo, Maharashtra



Jignesh V.
SCo, Gujarat



Deepu A.V.
Research Assistant



Afsal V.V.
Research Assistant



Remya K.R.
Accountant

ANDHRA PRADESH



NETFISH initiated cleaning of Vizag harbour



Improved handling of fish at Kakinada



Plastic baskets and crates introduced at Kakinada fishing harbour

GUJARAT



Onboard training programme



Improved condition of Veraval fishing harbour



Fishing vessels carry enough ice



Crates are used for handling fish



Changes noticed in the transportation of fish

KARNATAKA



Training session



Street play



Replaced bamboo baskets with plastic baskets at Hannovar harbour



NETFISH initiated cleaning at Hannovar harbour

KERALA



Training sessions



Onboard training programme



Street-play



NETFISH ensure overall cleanliness of Munambam harbour

KERALA



Thopumpady harbour before NETFISH intervention



Thopumpady harbour after NETFISH intervention



Bamboo baskets are completely replaced with plastic baskets at Sakthikulangara fishing harbour

MAHARASHTRA



Training sessions



Training class for peeling workers



Improved fish drying due to NETFISH training



Washing PPC near Sassondock harbour



NETFISH in news

ODISHA



A training session



Street-play



80% of boats in Odisha are cleaning regularly



Cleaning at Balasore harbour



Carrying enough ice for fishing

TAMIL NADU



Mass Communication Programme



Training for Pre-processing workers



Bamboo baskets are replaced by plastic baskets



Street-play



National Biodiversity Day celebration

WEST BENGAL



Door to door awareness programme



Training session in PPC



Street-play



Covered transportation of ice



Use of plastic sheets for sorting fish

Hygienic Handling of Fishes
in Harbours

created by
monsoonproductions.info

CONSERVATION OF RESOURCES

Script & Direction

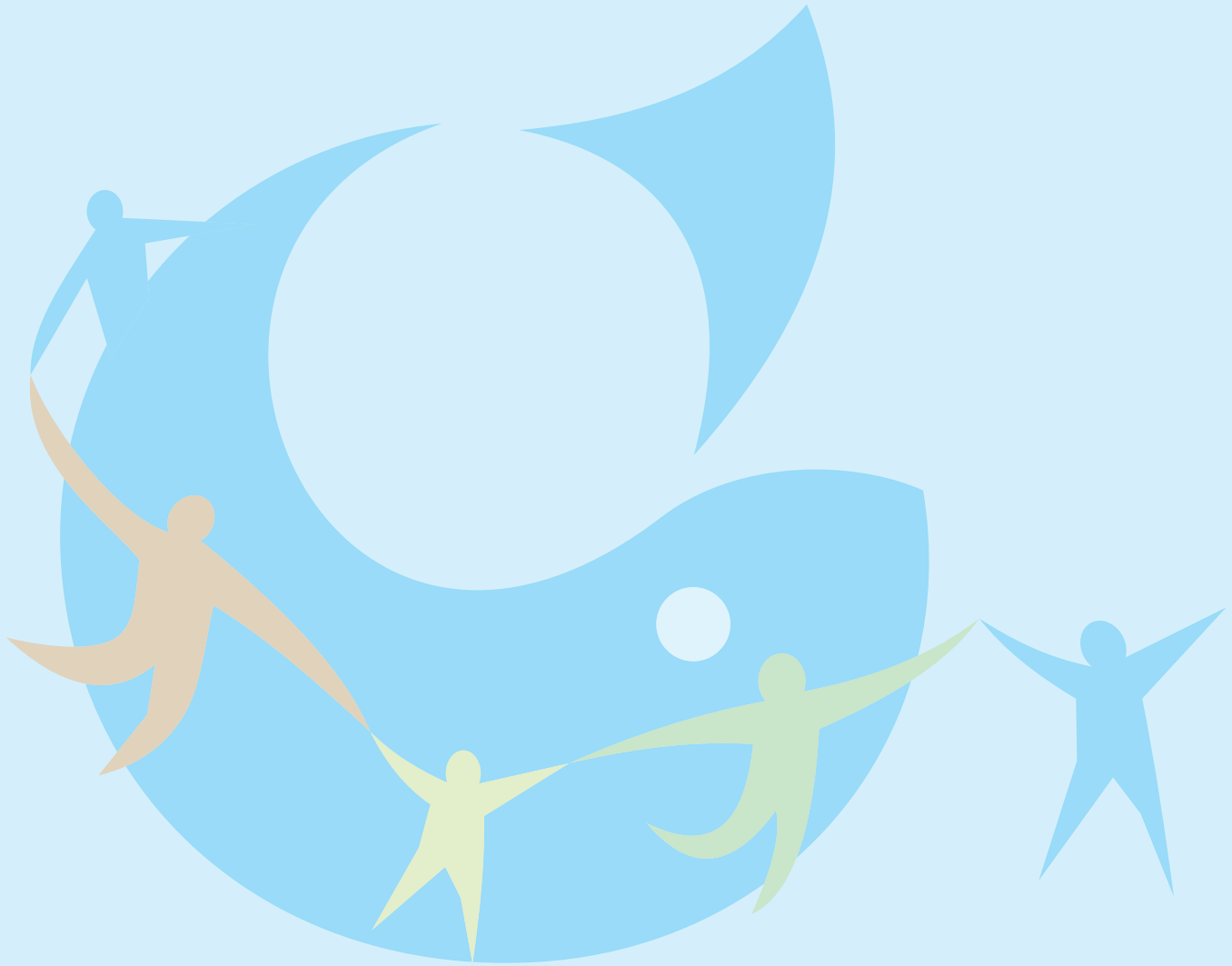
NETFISH - MPEDA

Hygienic Handling of
Shrimps in Aquaculture

Lang : Malayalam

NETFISH - MPEDA
Proudly Presents

Hygienic Handling of Fishes
Onboard



**Network for Fish Quality Management
and Sustainable Fishing (NETFISH)**
(A registered society under the MPEDA)

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