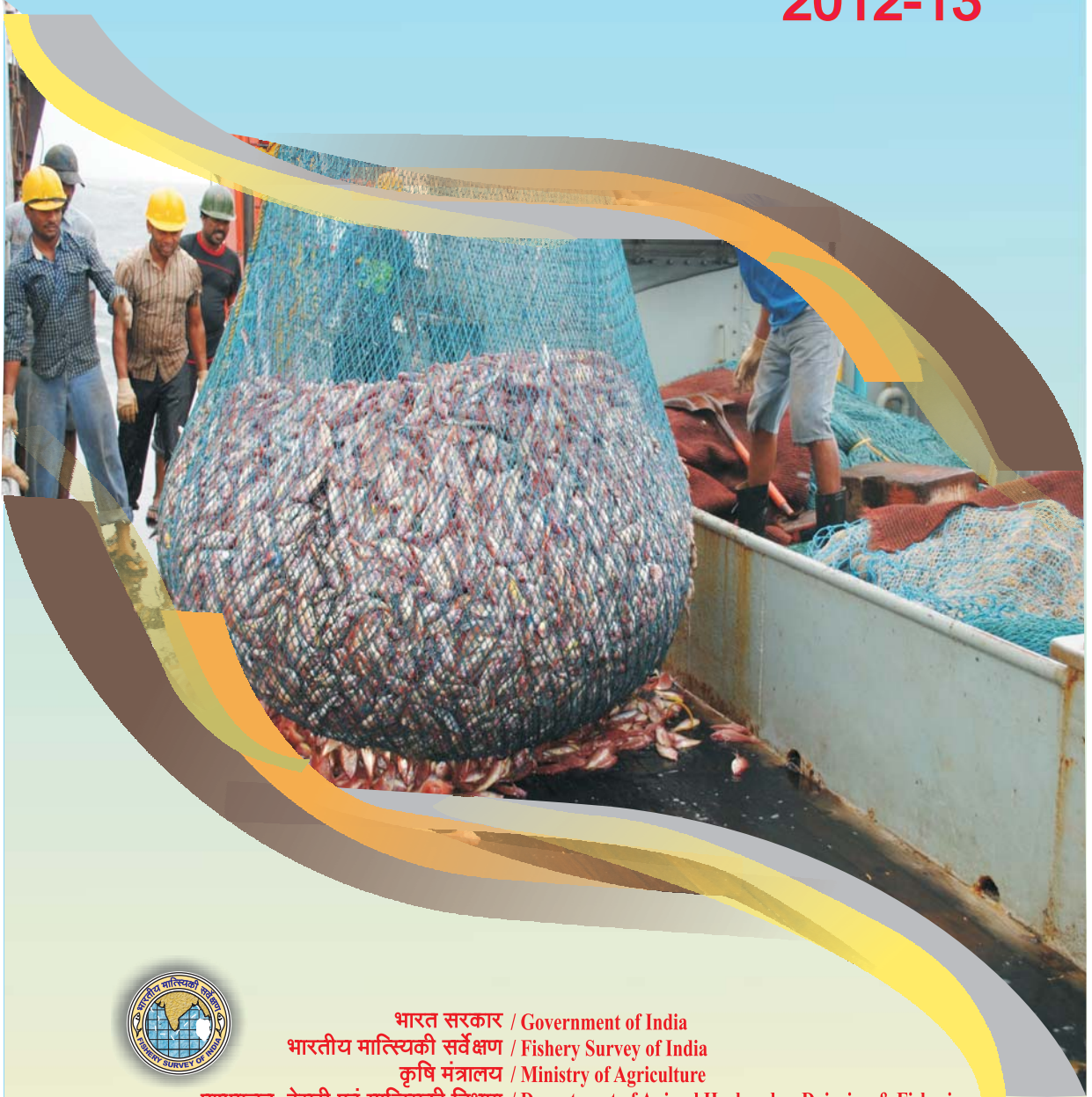


वार्षिक प्रतिवेदन Annual Report 2012-13



भारत सरकार / Government of India
भारतीय मात्स्यिकी सर्वेक्षण / Fishery Survey of India
कृषि मंत्रालय / Ministry of Agriculture
पशुपालन, डेयरी एवं मात्स्यिकी विभाग / Department of Animal Husbandry, Dairying & Fisheries
बोटावाला चैम्बर्स, सर पी एम रोड, मुम्बई - 400001 / Botawala Chambers, Sir P.M.Road, Fort Mumbai -400001

ANNUAL REPORT

2012-13



FISHERY SURVEY OF INDIA
Govt. Of India
Ministry of Agriculture
(Deptt. of Animal Husbandry, Dairying & Fisheries)
Mumbai

August 2013

Annual Report 2012-13

Compiled by	Shri Bapu. M. Raut
Edited by	Shri P. C. Rao and Dr. Ansuman Das
Hindi translation	Smt. Meera Vellan Rajiv
Secretarial assistance	Ms. Suchitra Naik and Shri Vishal Kharat

Published by

Shri Premchand, Director General (IC)

Fishery Survey of India

Botawala Chambers, Sir P. M. Road, Fort, Mumbai - 400 001

Phone: 022-22617144 / 22617145 Fax: 022-22702270

E-mail: dg-fsi-mah@nic.in / fsihq@eth.net

Website: <http://www.fsi.gov.in>

ANNUAL REPORT 2012-13

Contents	Page No.
1. Introduction	4
2. The Mandate of Fishery Survey of India	5
3. Operational Bases and Survey Vessels	6
4. Marine Fishery Resources, Assessment & Research Projects	
4.1 Demersal Resources Survey & Monitoring	
West coast	7
East coast	16
4.2 Oceanic tuna Resource Survey Projects	23
5. Physical Target & Achievements	30
6. Vessel-wise Catches & Values	31
7. Scientist Participation in Survey Cruises	32
8. Fleet Maintenance	34
9. Infrastructure Facilities	34
10. Training	35
11. Publications	39
12. Research Activities	41
13. Administration and Finance	47
14. Important Events at Bases and Headquarters	
14.1 Meetings	53
14.2 Scientist Participation in Conference/ Workshop /Seminar	54
14.3 Visitors/ Delegations	59
14.4 Participation in Conference / Trade fair / Exhibitions	61
14.5 Workshops/ Open houses	62
14.6 Official Language Hindi Activities	67
15. Co-operation & Association with National & International Organizations	73
16. Abbreviations	74

INTRODUCTION

Fishery Survey of India (FSI) is the nodal agency of the Govt. of India responsible for carrying out survey, assessment and monitoring of the fishery resources of the Indian EEZ and generating vital information for the sustainable exploitation of fishery resources. Besides implementation of the regular survey projects, the FSI has also carried out diversified fishing methods including experimental fishing on mesh selectivity and comparative studies to understand efficiency of gears. The FSI has also played a key role in popularization of modern fishing methods in the maritime states.

This Annual Report presents the highlights of the ongoing survey and allied activities accomplished during the year 2012-13. While accomplishing this task, the Institute also conducted regional workshops, open-houses, street plays and marine exhibitions etc. for the benefit of the fishermen, the fishing industry and the end-users as a part of the extension activities in all the maritime states. The Institute has also been acting as an interface between the Ministry of Agriculture and the State Fisheries Departments in collection of the marine fish landing data by the way of providing training to the state fishery officials and data enumerators under CSS programme.

During the year, 2012-13 FSI conducted training on latest technique monofilament & multifilament of the tuna longlining for fishermen with financial support from National Fisheries Development Board (NFDB), Hyderabad. The Institute continued to impart training to the students sponsored by the CIFNET, Kochi on board survey vessels on tenure basis as well as the pass out students of CIFNET on casual basis.

During the year under report, 11 vessels of the Institute collectively achieved 1131 days out at sea expending a sampling effort of 1845 hours and 211220 hooks. The incidental fish catch during the survey was 41.44 tonnes, realizing a revenue of ₹ 10.14 lakhs as the sale proceeds. The budget grant of the Institute for the year 2012-13 was ₹ 41.95 crore and the expenditure was ₹ 38.13 crores.

THE MANDATE OF FSI

The Fishery Survey of India, Mumbai, under the Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries is the nodal agency for carrying out the survey, assessment and monitoring of the marine fishery resources of the Indian EEZ within the framework of a well defined mandate. The mandate of the Institute is tuned from time to time to match with the developmental activities of the fisheries sector as well as to meet the national and global requirements.

The present mandate of the Institute as approved by the Evaluation Committee during 2007 is detailed below:

- † Exploratory surveys, charting of fishing grounds, assessment of fish stocks in the Indian EEZ and adjoining high seas and research thereof besides the specific surveys on request from the States and Union Territories.
- † Data collection and periodic re-validation of potential of fishery resources to provide advice on fishery management issues enshrined in the national, regional and global conventions and agreements and other associated activities.
- † Monitoring surveys of fishery resources in the exploited areas including coral reefs, application of Monitoring, Control and Surveillance (MCS) for regulating fishing activities and promoting Code of Conduct for Responsible Fisheries(CCRF) in the Indian EEZ.
- † Maintain Data Bank and disseminate information on fishery resources to the end - users and act as an interface between the State/UTs and the Ministry of Agriculture, Government of India for Marine and Inland fish production and related aspects.
- † Assessment of suitability of fishing gear, accessories and equipment with special reference to the preservation of environment and ecology of marine habitat.
- † Fish stock identification and biodiversity studies including application of genetic tools and techniques.
- † Marine Fisheries forecasting including application of remote sensing for the benefit of artisanal, mechanized and industrial sectors.
- † Human Resources Development through practical training of fishing operatives, fishermen, fisheries officials and students.

3. OPERATIONAL BASES AND SURVEY VESSELS

The survey fleet of the Institute comprised of 11 vessels. Placement of these survey vessels and their major specifications are furnished below:

Base	Vessels	Type of vessel	OAL (m)	GRT	BHP
Mumbai	Matsya Vrushti	Monofilament longliner	37.5	465	1215
	Matsya Nireekshani	Stern trawler	40.5	329	2030
Mormugao	Yellow Fin	Tuna longliner	35.7	310	800
	Sagarika	Stern trawler	28.8	189	650
Kochi	Matsya Varshini	Trawler -cum-purse-seiner	36.5	269	1160
	Lavanika	Stern trawler	24	151	500
Chennai	Matsya Drushti	Monofilament longliner	37.5	465	1215
	Samudrika	Stern trawler	28.8	189	650
Visakha- patnam	Matsya Shikari	Stern trawler	39.8	352	1740
	Matsya Darshini	Stern trawler	36.5	269	1160
Port Blair	Blue Marlin	Tuna longliner	35.7	310	800

4. MARINE FISHERY RESOURCES, ASSESSMENT & RESEARCH

4.1 DEMERSAL RESOURCES SURVEY AND MONITORING

WEST COAST

Project 1 **Demersal fishery resources survey, assessment and monitoring of fish stocks along North Maharashtra-Gujarat coast between latitude 18° and 23°N.**

Project components 1. Exploratory survey of demersal resources using fish trawl and shrimp trawl in 100-500 m depth.
2. Monitoring of demersal resources using fish trawl in 30-100 m depth.
3. Monitoring of demersal resources using shrimp trawl in 30-100 m depth
4. Experiments for assessment of fishing gear efficiency
5. Mesh selectivity study with cod-end cover

Gear > 34 m fish trawl (FT)
 > 45 m shrimp trawl (ST)

Vessel **Matsya Nireekshani**

Base Mumbai

Project Co-ordinator Shri P. Sivaraj, Zonal Director

Project Leader Shri A. K. Malik, Fisheries Scientist

Results

Vessel could not conduct survey due to Auxiliary engine repairs and prolonged Dry - docking repairs.

Fishery Survey of India

Project 2 **Demersal fishery resources survey, assessment and monitoring of fish stocks along South-Maharashtra, Goa, Karnataka and North Kerala coast between latitude 11°N and 18°N.**

Projects component 1. Exploratory survey of demersal resources in 100-300 m depth.
2. Monitoring of demersal resources using fish trawl in 30-100 m depth.

Gear > 27 m fish trawl
 > 30 m shrimp trawl

Vessel **Sagarika**

Base Mormugao

Project Co-ordinator Dr A. K. Bhargava, Zonal Director

Project Leader Dr. Vinod Kumar Mudumala, Sr. Fisheries Scientist

Results

A. Catch per unit effort (kg/h)

Gear		Fish trawl		
Depth Zone (m)		30 - 50	50 - 100	100 - 300
Latitude (°N)	11	24.29	21.00	-
	12	20.64	50.52	-
	13	19.54	65.71	128.66
	14	31.39	28.47	-
	15	33.86	38.17	-
	16	31.84	24.05	-
	17	31.26	25.40	-

B. Species composition(%)

Gear		Fish trawl		
Depth Zone (m)		30 - 50	50 - 100	100 -300
Species / Group	Elasmobranchs	0.53	1.87	-
	Clupeids	1.4	0.05	-
	<i>Priacanthus</i> spp.	-	0.85	-
	<i>Scomberomorus</i> spp.	1.2	0.61	-
	<i>Leiognathus</i> spp.	1.55	0.44	-
	<i>Sphyræna</i> spp.	1.39	1.36	-
	<i>Nemipterus</i> spp.	3.38	13.23	0.26
	<i>Megalaspis cordyla</i>	2.88	0.12	-
	<i>Decapterus</i> spp.	10.43	28.68	90.67
	<i>Trichiurus</i> spp.	10.71	4.24	-
	<i>Rastrelliger kanagurta</i>	9.48	4.47	0.26
	Scienids	0.66	0.19	-
	Cephalopods	8.87	9.24	1.3
	<i>Saurida</i> spp.	1.37	3.55	5.18
	Carangids	3.25	0.24	-
	Crustaceans	4.67	2.79	-
	Rockcods	11.67	5.03	-
	Others	26.56	23.04	2.33

C. Salient observations

- » Highest catch rate of 128.66 kg/h was recorded in 100-300 m depth zone in lat.13°N.
- » *Decapterus* spp. (10.43%, 28.68%), Rockcods (11.67%, 5.03%), *Trichiurus* spp. (10.71%, 4.24%), *Rastrelliger kanagurta* (9.48%, 4.47%), Cephalopods (8.87%, 9.24%) and *Nemipterus* spp. (3.38%, 13.23%) were the major component in 30-50 m and 50-100 m depth zone respectively.
- » *Decapterus* spp. (90.67%) and *Saurida* spp. (5.18%) were major resources in 100-300 m depth zone.

D. Biological studies

25 species were subjected to length frequency studies using 11231 specimens and 19 species with a sample size of 2468 specimens were carried out for biological studies.

E. Biomass Estimation

Area : Latitudes 11° N - 17° N

(in tonnes)

Depth Zone (m)		30 - 50	50 - 100	100 -300
S p e c i e s / G r o u p	Elasmobranchs	76	894	-
	Clupeids	202	26	-
	<i>Priacanthus</i> spp.	-	409	-
	<i>Scomberomorus</i> spp.	83	294	-
	<i>Leiognathus</i> spp.	223	211	-
	<i>Sphyraena</i> spp.	201	652	-
	<i>Nemipterus</i> spp.	488	6338	102
	<i>Megalaspis cordyla</i>	416	58	-
	<i>Decapterus</i> spp.	1503	13737	35867
	<i>Trichiurus</i> spp.	1544	2032	-
	<i>Rastrelliger kanagurta</i>	1367	2140	102
	Sciaenids	96	89	-
	Cephalopods	1279	4428	512
	<i>Saurida</i> spp.	198	1700	2050
	<i>Epinephalus</i> spp	1683	2409	-
	Crustaceans	810	1335	-
	<i>Caranx</i> spp.	469	115	-
	Others	3830	11034	922

Project 3 Demersal fishery resources survey, assessment and monitoring along South - West Coast, Wadge Bank and Gulf of Mannar.

- Project components
1. Demersal finfish resources survey in the South -West Coast, Quilon Bank, Wadge Bank and Gulf of Mannar between latitude 7° N and 10°N in 100-500 m depth
 2. Monitoring of demersal resources using fish trawl and shrimp trawl in 30-100 m depth
 3. Exploration of shellfish resources in 30-500 m depth
 4. Exploratory survey of cephalopod resources in 30-500 m depth

- Gear
- › Expo model fish trawl
 - › 47 m shrimp trawl
 - › Cephalopod trawl

Vessel Matsya Varshini

Base Kochi

Project co-ordinator Shri D. K.Gulati, Zonal Director

Project Leader Shri D. M. Ali, Sr. Fisheries Scientist

Results

A. Catch per unit effort (kg/h)

Gear		Expo model fish trawl				Shrimp trawl		
Depth Zone (m)		30-50	50-100	100-200	200-500	30-50	50-100	200-500
Latitude (°N)	8	50	102.00	-	240.5	82.17	72	-
	9	29.41	56.15	340	261.9	260.81	105.49	65.00
	10	-	-	-	-	58.44	64.55	-

B. Species composition (%)

Gear		Expo model fish trawl				Shrimp trawl		
Depth Zone (m)		30 -50	50 -100	100-200	200-500	30 -50	50 -100	200-500
Species / Group	Elasmobranchs	0.05	0.09	-	0.22	-	0.03	15.38
	<i>Saurida</i> spp.	13.94	29.26	-	-	2.55	4.47	-
	<i>Priacanthus</i> spp	-	0.57	-	-	0.01	0.31	-
	<i>Nemipterus</i> spp.	8.39	12.21	-	-	26.59	43.16	-
	Perches	0.05	-	-	0.44	0.06	1.01	-
	Sciaenids	0.06	-	-	-	0.01	-	-
	<i>Leiognathus</i> spp.	0.18	-	-	-	-	-	-
	<i>Sphyræna</i> spp.	0.71	-	-	-	0.12	1.25	-
	<i>Caranx</i> spp.	0.08	0.06	-	-	0.21	0.23	-
	<i>Megalaspis cordyla</i>	0.3	-	-	-	-	-	-
	<i>Decapterus</i> spp.	7.98	25.92	-	-	14.56	17.6	-
	<i>Trichiurus</i> spp.	0.01	0.02	1.96	0.11	0.1	0.08	-
	<i>Rastrelliger kanagurta</i>	5.46	1.91	-	-	0.42	0.31	-
	Deep-sea fishes	-	-	98.04	93.2	0.66	-	76.92
	<i>Penaeus</i> spp	0.06	0.02	-	4.58	-	-	7.69
	Snappers	0.53	0.28	-	-	0.98	1.07	-
	Jelly fish	0.3	0.14	-	-	45.16	3.4	-
	<i>Sardinella</i> spp.	0.05	-	-	-	-	-	-
	P. Stylifera	0.26	-	-	-	2.27	1.07	-
	Puffer fish	1.89	0.93	-	-	0.78	2.4	-
	Crabs	4.27	1.19	-	-	-	-	-
	Cephalopods	33.21	19.06	-	1.44	4.1	22.33	-
	Others	22.21	8.35	-	-	1.42	1.28	-

C. Salient observations

- » Better catch rates were recorded in deeper waters (> 100m) in comparison with shallow waters and maximum catch per unit effort (CPUE) was recorded in the 100-200 m depth contour of the lat. 9°N.
- » *Saurida* spp. (13.94%, 29.26%), Cephalopods (33.21%, 19.06%) and *Decapterus* spp.(7.98%, 25.92%) were dominated the catch recorded from the depth zone 30-50 m and 50-100 m by using bottom trawl while *Nemipterus* spp. (26.59, 43.16%) was the important varieties occurred in 30-50 and 50-100 m depth zone by using shrimp trawl.
- » Deepsea fishes and *Trichiurus auriga* was caught in considerable quantities in the depth 100-200 m.
- » In the continental slope of Kerala coast deep sea shrimps dominated by *Aristeus* spp and *Heterocarpus* spp (93.20%, 76.92%) was occurred by using shrimp trawl.

D. Biological studies

To study the stock status, reproductive success and trophic interactions among the important fish species, the length structure, maturity, fecundity and diet studies of these species were undertaken. Length frequencies of 25 species were studied from a sample size of 5651 during the period under report. Detailed biological studies were carried out for 25 species from a sample size of 1799.

E. Biomass Estimation

Area : Latitudes 8° N - 10° N

(in tonnes)

Depth zone(m)		30 -50	50 -100	100-200	200-500
S p e c i e s / G r o u p	Elasmobranchs	2	16	-	575
	<i>Saurida</i> spp.	450	4434	-	-
	<i>Priacanthus</i> spp	-	123	-	-
	<i>Nemipterus</i> spp.	275	8692	-	-
	Perches	2	168	-	127
	Sciaenids	2	-	-	-
	<i>Leiognathus</i> spp.	6	-	-	-
	<i>Sphyræna</i> spp.	23	207	-	-
	<i>Caranx</i> spp.	2	45	-	-
	<i>Megalaspis cordyla</i>	10	-	-	-
	<i>Decapterus</i> spp.	260	6186	-	-
	<i>Trichiurus</i> spp.	-	16	136	32
	<i>Rastrelliger kanagurta</i>	176	292		-
	Deepsea fishes	-	-	6789	29278
	<i>Penaeus</i> spp	2	2	-	1569
	Snappers	17	213	-	-
	Jelly fish	17	581	-	-
	<i>Sardinella</i> spp.	2	-	-	-
	P. Stylifera	9	177	-	-
	Puffer fish	61	515	-	-
	Crabs	138	150	-	-
	Cephalopods	1071	6104	-	413
	Others	716	1266	-	-

Fishery Survey of India

Project 4 Demersal fishery resources survey, assessment and monitoring along South - West coast (8°N and 11°N.)

Project components 1. Demersal finfish resources survey in 30-100 m depth
 2. Shellfish resources survey in 20-100 m depth

Gear > 700 m fish trawl
 > 28 m shrimp trawl

Vessel Lavanika

Base Kochi

Project co-ordinator Shri D. K. Gulati, Zonal Director

Project Leader Dr. Sijo P. Varghese, Sr. Fisheries Scientist

Results

A. Catch per unit effort (kg/h) in fish trawl

Depth Zone (m)		Fish Trawl		Shrimp Trawl	
		20-50	50-100	20-50	50-100
Latitude (°N)	8	-	12.67	23.2	45.24
	9	15.05	18.87	51.25	55.04
	10	7.56	-	27.50	11.11

B. Species composition(%) in fish trawl

Depth zone (m)		20 -50	50 -100
Species / Group	Elasmobranchs	-	0.05
	Sardinella spp.	0.38	0.13
	Deepsea fish	2.90	-
	<i>Saurida</i> spp.	6.14	19.10
	<i>Priacanthus</i> spp.	0.03	0.13
	<i>Nemipterus</i> spp.	45.22	48.16
	Sciaenids	1.73	0.43
	<i>Leiognathus</i> spp.	0.95	0.05
	<i>Sphyraena</i> spp.	0.09	0.99
	<i>Caranx</i> spp.	0.17	0.18
	<i>Decapterus</i> spp.	5.82	19.05
	<i>Trichiurus</i> spp.	0.44	0.05
	<i>Rastrelliger kanagurta</i>	4.31	1.42
	Crabs	2.53	4.20
	Jelly fish	22.59	0.38
	<i>Epinephelus</i> spp.	3.45	2.06
	<i>P. Stylifera</i>	0.25	0.06
	Cephalopods	1.59	2.47
	Others	1.86	1.14

C. Salient observations

- » Highest catch rate of 55.04 kg/h was recorded in 50-100 m depth zone of latitude 10°N.
- » *Nemipterus* spp. (45.22%, 48.16%), *Saurida* spp. (6.14%, 19.10%) and *Decapterus* spp. (5.82%, 19.05%) were the dominant species in the demersal resources of South-West coast.
- » Survey conducted in the lat. 9° N & 10°N could identify non-conventional fishery resources viz; jelly fish and hitherto not exploited in South-West coast.

EAST COAST**Project 5 Demersal fishery resources survey, assessment and monitoring along South-East coast between latitude 10°N and 16°N.**

Project components 1. Exploratory survey of demersal resources using fish trawl in 100-300 m depth.
2. Monitoring of demersal resources using fish trawl and shrimp trawl in 30-100 m depth.
3. Exploratory survey of demersal resources using shrimp trawl in 30-300 m depth.
4. Exploratory survey using cephalopod trawl in 30-300 m depth.

Gear > 27.5 m fish trawl
 > 30 m shrimp trawl
 > 36.2 m cephalopod trawl

Vessel Samudrika

Base Chennai

Project co-ordinator Dr A. Anrose, Zonal Director

Project leader Shri P. Tamilarasan, Fisheries Scientist

Results**A. Catch per unit effort (kg/h)**

Gear		Fish trawl				Cephalopod trawl	Shrimp trawl	
Depth Zone (m)		20-30	30-50	50-100	100-200	30-50	20-30	200-500
Latitude (°N)	10	22.53	9.58	13.02	18.03	7.17	2.11	8.63
	11	39.70	8.30	17.10	21.10	12.90	20.60	39.70
	12	23.70	26.80	16.10	30.10	9.20	4.60	19.80
	13	14.19	29.57	24.08	11.13	19.21	4.38	3.38
	14	32.40	6.60	30.80	10.80	8.20	158.10	32.40
	15	23.50	13.00	44.30	48.10	34.50	18.00	4.00

B. Species composition (%)

Gear		Fish trawl				Cephalopod trawl	Shrimp trawl	
Depth Zone (m)		20-30	30-50	50-100	100-200	30-50	20-30	200-300
Species / Group	Elasmobranchs	-	-	-	-	5.5	-	-
	<i>Arius</i> spp.	5.6	0.8	0.8	-	0.4	1.8	-
	Anchovies	3.7	1.3	0.3	-	0.6	5.3	-
	Lesser sardines	1.9	5.7	0.3	-	5.2	1.8	-
	<i>Saurida</i> spp.	-	0.4	-	-	0.1	-	-
	<i>Priacanthus</i> spp.	-	-	-	60.1	-	-	15.3
	<i>Nemipterus</i> spp.	1.9	0.3	-	-	0.2	0.4	-
	Perches	-	1.0	0.1	-	-	2.5	-
	Chorinemus	-	2.3	2.5	-	2.4	7.1	-
	Pomadasyds	-	1.9	1.8	-	1.2	-	-
	Polynemids	-	-	-	-	0.2	-	-
	Caranx	14.0	33.9	39.7	-	9.7	15.3	-
	<i>Leiognathus</i> spp.	38.3	28.1	14.2	-	19.2	54.5	-
	<i>Sphyræna</i> spp.	0.9	4.1	2.8	-	1.7	-	-
	Pomfrets	2.8	5.3	2.0	0.3	3.6	1.4	-
	<i>Megalaspis cordyla</i>	-	0.4	2.1	-	1.5	-	-
	<i>Decapterus</i> spp.	-	0.6	1.1	0.5	0.4	-	-
	<i>Upeneus</i> spp.	1.9	1.5	1.5	-	1.5	-	-
	<i>Trichiurus</i> spp.	-	0.3	0.4	-	-	-	-
	<i>Rastrelliger kanagurta</i>	2.8	2	4.5	-	17	-	-
	<i>Scomberomorus</i> spp.	0.9	2.8	1.5	0.1	1.1	-	-
	Deep-sea fishes	-	-	-	37.5	-	-	41.4
	<i>Chirocentrus</i> spp.	-	0.6	1.3	-	0.3	-	-
	Deepsea shrimps	-	-	-	0.1	-	-	27.9
	<i>Charybdis</i> spp.	1.9	0.4	0.4	-	0.2	0.4	3.6
	Cephalopods	23.4	6.1	22.6	1.5	24.5	9.6	2.7
	Others	-	0.3	-	-	3.8	-	9.0

C. Salient observations

- » Highest catch rate of 158.1 kg/h was recorded in 20-30 m depth zone from the lat. 14°N by using shrimp trawl.
- » *Leiognathus* spp. Cephalopods, Caranx were the dominant varieties in 20-30, 30-50 and 50-100 m depth zone by fish trawl as well as shrimp trawl. In 100-200 m depth zone *Priacanthus* (60.1%) was the dominant species followed by deep-sea fishes (37.5%) by using fish trawl.
- » Cephalopods (24.5%), *Leiognathus* spp. (19.2%) and *Rastrelliger kanagurta* (17.0%) were the main species occurred in 30-50 m depth zone by using cephalopod trawl where as Deep sea fishes (41.4%) were the dominant species followed by Deep sea shrimp (27.9%) in 200-300 m depth zone by using shrimp trawl.

D. Biological studies

Biological studies such as length frequency, length-weight, sex, maturity and gut contents analysis were made. A total of 8449 specimens were measured for length frequency analysis and 3043 specimens were studied for biological studies comprising 35 species.

E. Biomass estimation

Area: Latitude 10° N -15° N

(in tonnes)

Depth zone(m)		20 -50	50 -100	100-200	200-300
S p e c i e s / G r o u p	Elasmobranchs	70	-	-	-
	<i>Arius</i> spp.	27	8	-	-
	Anchovies	123	5	-	-
	Lesser sardines	197	5	-	-
	<i>Saurida</i> spp.	8	-	-	-
	<i>Priacanthus</i> spp.	-	-	240	33
	<i>Nemipterus</i> spp.	20	-	-	-
	Perches	53	3	-	-
	Caranx	65	45	-	-
	Chorinemus	37	38	-	-
	Polynemids	2	-	-	-
	<i>Pomadasys</i> spp.	2	1	-	-
	<i>Leiognathus</i> spp.	1671	258	-	-
	<i>Sphyræna</i> spp.	938	696	-	-
	Pomfrets	195	35	-	-
	<i>Megalaspis cordyla</i>	47	33	-	-
	<i>Decapterus</i> spp.	159	45	2	-
	<i>Upeneus</i> spp.	53	28	-	-
	<i>Trichiurus</i> spp.	4	8	-	-
	<i>Rastrelliger kanagurta</i>	262	81	-	-
	<i>Scomberomorus</i> spp.	66	28	5	-
	Deep-sea fishes	-	-	143	88
	<i>Chirocentrus</i> spp.	64	15	-	-
	Cephalopods	661	429	46	132
	Deep-sea shrimps	-	-	159	62
	<i>Charybdis</i> spp.	14	0.2	0.4	7.4
	Others	52	-	2	19

Project 6 Demersal fishery resources survey, assessment and monitoring along upper East Coast between latitude 16° and 21°N.

Project components	<ol style="list-style-type: none">1. Exploratory survey of demersal resources using fish trawl in 100-200 m depth.2. Monitoring of demersal resources using fish trawl in 30-100 m depth.3. Exploratory survey using shrimp trawl in 30-500 m depth.4. Experiments for assessment of fishing gear efficiency5. Mesh selectivity study with codend cover
Gear	<ul style="list-style-type: none">› 34 m fish trawl› 34 m shrimp trawl

Vessel Matsya Shikari

Base Visakhapatnam

Project co-ordinator and leader Dr S. K. Naik, Sr. Fisheries Scientist

Results

The vessel was idle during the period due to split winch repairs.

Fishery Survey of India

Project 7 Demersal fishery resources survey, assessment and monitoring along the upper East Coast between latitude 16° and 21°N.

Project component Survey of shrimp and demersal finfish resources using shrimp trawl and fish trawl along the upper East Coast between latitude 16°N and 21°N in 30-500 m depth

Gear
 › Expo model fish trawl
 › 34 m shrimp trawl

Vessel **Matsya Darshini**

Base Visakhapatnam

Project co-ordinator Dr S. K. Naik, Sr. Fisheries Scientist

Project leader Shri K. S. N. Reddy, Fishing Gear Technologist

Results

A. Catch per unit effort (kg/h)

Depth Zone (m)		Fish Trawl		Expo model bottom trawl	
		30-50	50-100	30-50	50-100
Latitude (°N)	17	40.7	125.3	48.3	20.0
	18	135.8	174.7	34.9	76.0

B. Species composition (%)

Gear		Fish Trawl		Expo model bottom trawl	
Depth zone(m)		30 -50	50 -100	30-50	50-100
Species	Elasmobranchs	-	-	-	6.3
	<i>Arius</i> spp.	0.1	4.4	12.6	8.5
	Clupeids	1.3	-	-	-
	<i>Saurida</i> spp.	7.2	5.3	3.1	1.3
	<i>Priacanthus</i> spp.	-	0.9	0.5	-
	<i>Nemipterus</i> spp.	9.0	8.4	3.2	1.6
	Perches	0.3	7.8	5.2	6.6
	<i>Upeneus</i> spp.	3.3	10.4	24.7	28.3

Gear		Fish Trawl		Expo model fish trawl	
Depth zone(m)		30 -50	50 -100	30-50	50-100
Species / Group	Sciaenids	0.7	0.7	3.6	0.6
	<i>Leiognathus</i> spp.	-	2.2	9.7	28.3
	Flat fish	0.1	-	1.8	-
	<i>Ariomma indica</i>	4.3	47.1	-	-
	<i>Sphyræna</i> spp.	2.5	3.3	5.0	1.9
	Pomfrets	1.9	0.4	2.3	6.9
	Caranx	1.3	4.0	7.2	6.6
	<i>Megalaspis cordyla</i>	2.9	1.3	7.9	0.6
	<i>Decapterus</i> spp.	2.3	-	-	-
	<i>Trichiurus</i> spp.	0.5	0.2	3.8	-
	<i>Rastrelliger kanagurta</i>	18.6	-	0.4	-
	<i>Scomberomorus</i> spp.	-	-	5.4	0.3
	<i>P. maculatum</i>	-	-	-	0.6
	<i>Gerres</i> spp.	1.1	-	0.4	0.6
	<i>Lesser sardine</i>	-	-	1.8	-
	<i>Anchovies</i>	-	-	0.2	-
	<i>Penaeus</i> spp.	0.1	-	-	-
	Chirocentrus	-	-	0.2	0.3
	Cephalopods	37.8	1.8	0.9	0.6
	Others	4.7	1.6	-	-

C. Salient observations

- » Highest catch rate of 174.7 kg/h was recorded from the lat. 18° N in the depth zone 50-100 m followed by 135.8 kg/h in 30-50 m depth zone with same latitude.
- » The *Rastrelliger kanagurta* caught in the area Lat.18°37.4'N / Long.84°30.5'E at the depth of 38-43m were juveniles and the size range was 8.1 - 14.5cm.
- » *Ariomma indica* (47.1%) was the major component occurred in 50-100 m depth zone followed by *Upeneus* spp. (28.3%) and *Leiognathus* spp. (28.3%).
- » In the area 17°57.8'N / 83°47.8'E at a depth of 38m, *Arius thalassinus* weighing about 40kg. were caught in a single haul. The size ranges was between 27.0 & 97.5 cm of total length and weight was 0.250 - 11.000 kg
- » *Lepidochelys olivacea* (Olive Ridley sea turtle) skeleton was observed in the cod end of the net in three different hauls in the depth range of 30-50 m.

D. Biological Studies

Length frequency and biological studies were carried out on 12 species with 1482 specimens for length frequency and 847 specimens for biological studies.

E. Biomass estimation

Area: Latitude 16° N -21° N

(in tonnes)

Gear		Fish Trawl		Expo model fish trawl	
Depth zone(m)		30 -50	50 -100	30-50	50-100
Species / Group	Elasmobranchs	-	-	-	136
	<i>Arius</i> spp.	7	684	137	184
	Clupeids	78	-	-	-
	<i>Saurida</i> spp.	447	821	33	27
	<i>Priacanthus</i> spp.	-	137	6	-
	<i>Nemipterus</i> spp.	561	1299	35	34
	Perches	21	1197	57	143
	<i>Upeneus</i> spp.	206	1607	268	612
	Sciaenids	43	103	39	14
	<i>Leiognathus</i> spp.	-	342	106	612
	Flat fish	7	-	20	-
	<i>Ariomma indica</i>	270	7248	-	-
	<i>Sphyraena</i> spp.	156	513	55	41
	Pomfrets	121	68	26	150
	Caranx	78	615	78	143
	<i>Megalaspis cordyla</i>	177	205	86	14
	<i>Decapterus</i> spp.	142	-	-	-
	<i>Trichiurus</i> spp.	28	34	41	-
	<i>Rastrelliger kanagurta</i>	1157	-	4	-
	<i>Scomberomorus</i> spp.	-	-	59	7
	<i>P. maculatum</i>	-	-	-	14
	<i>Gerres</i> spp.	71	-	4	14
	<i>Lesser sardine</i>	-	-	20	-
	<i>Anchovies</i>	-	-	2	-
	<i>Penaeus</i> spp.	7	-	-	-
	Chirocentrus	-	-	2	7
	Cephalopods	2349	274	10	14
	Others	291	239	-	-

4.2 OCEANIC TUNA RESOURCES SURVEY PROJECTS

Project 9 **Survey of oceanic tunas and allied resources using regular longline in Indian EEZ along South-West Coast between latitude 04° -16°N.**

Project component Survey of oceanic tunas and allied resources by longlining
in the Indian EEZ along South West Coast including Lakshadweep

Gear › Multifilament tuna long line with 5 hooks/ basket

Vessel **Yellow Fin**

Base Mormugao

Project Co-ordinator Dr A. K. Bhargava, Zonal Director

Project Leader Dr. Vinod Kumar Mudumala, Sr. Fisheries Scientist

Results

A. Hooking Rate (%)

Month	Hooks operated	YFT	SKJ	SWO	SHA	DOL	RAY	OTH	TOTAL
April 2012 - December 2012	Vessel was non-operational due to dry-docking repairs at CSL.								
January 2013	3600	0.08	0.03	0.03	0.16	0.08	0.06	-	0.44
February 2013	7000	0.01	-	-	0.07	0.03	-	0.17	0.39
March 2013	1800	0.5	-	-	0.56	0.11	-	-	0.17

B. Salient observations

- » Highest aggregate hooking rate of 1.17% was recorded during March 2013 followed by 0.44% in January 2013 and 0.39% in February 2013
- » Swordfish, Yellow fin tuna and Sharks were the main catch component.

C. Biological Studies

12 species were subject to length frequency studies using 62 specimens and biological studies using 51 specimens.

Project 10 Tuna resources survey in Indian EEZ around Andaman and Nicobar Island between latitude 5° and 15°N.

Project components 1. Survey of oceanic tunas and allied resources by using regular tuna longline in Andaman & Nicobar waters.
2. Survey of swordfish resources by using drift longline with light sticks in Andaman & Nicobar waters.
3. Survey of bigeye tuna resources by using modified deep longline in Andaman & Nicobar waters.
4. Survey of perch resources by using bottom set vertical longline in Andaman and Nicobar waters.
5. Satellite Telemetric Studies on Migration Pattern of Tunas in Andaman and Nicobar waters.

Gear > Regular tuna longline with five hooks per basket
> Drift longline with 5 hooks per basket with light stick for swordfish.
> Modified deep-set longline with 7/9 hooks per basket for bigeye tuna.
> Bottom set vertical longline with 30 hooks per basket for perch resources.

Vessel Blue Marlin

Base Port Blair

Project co-ordinator Dr L. Ramlingam, Zonal Director

Project Leader Shri. K. Govindaraj, Sr. Fisheries Scientist

A. 1 Regular tuna longlining

Months	Hooks operated	Hooking rate (%)				
		Total	Tuna	Billfish	Shark	Others
April' 12	8750	0.92	0.02	0.02	0.31	0.52
June' 12 to December' 12	The vessel was inoperative for want of the certificate of inspection of fishing boats (LSA/FFA) by MMD due to main engine overhauling					
January' 13	4375	0.27	0.11	-	0.16	-
February' 13	8525	0.46	0.14	0.05	0.27	-
March' 13	8750	0.64	0.17	0.02	0.1	0.35

A. 2 Modified deep longlining for Big eye tuna

Months	Hooks operated	Hooking rate (%)				
		Total	Tuna	Billfish	Shark	Others
May 2012	10080	0.3	0.04	0.02	0.13	0.11

B. Salient observations

- » An aggregate hooking rate of 0.92% was obtained for all fishes during the month of April 2012 by operating regular longline.
- » An aggregate hooking rate of 0.30% was obtained for all fishes during the month of May 2012 by operating modified deep longline for big eye tuna.
- » Among the commercial varieties the hooking rates of Yellow fin tuna, Sharks, Sail fish and Barracuda were found to be 0.2%, 0.31%, 0.02% and 0.01% respectively during the month of April 2012.
- » Commercial varieties like Yellow fin tuna, Sharks and Bill fishes were found in all months during the year under report.
- » During the month of March, 2013, the vessel M.F.V Blue Marlin has located a new rich fishing ground for Yellow fin tunas in eastern parts of Nicobar waters i.e. 23 and 29 miles east off Nancowry. The areas 09 miles east off great Nicobar, 10 miles east of Indira point, 20 miles east of Camorta were also found to be rich with Yellow fin tuna.

Fishery Survey of India

Project 11 Tuna resources survey using monofilament longline in the Arabian Sea including Lakshadweep between latitude 4° and 23°N.

Project component Survey of oceanic tuna and allied resources using monofilament longline in the Indian EEZ

Gear > Monofilament long line with 7 hooks/basket
> Bottom topography sampling, environmental parameter studies, plankton collection for one day/cruise

Vessel Matsya Vrushti

Base Mumbai

Project Co-ordinator Shri P. Sivaraj, Zonal Director

Project Leader Shri S. M. Patil, Sr. Fisheries Scientist

Results

A. Hooking Rate (%)

Month	Hooks operated	YFT	SKJ	SAI	DOL	SHA	RAY	MAR	OTH	TOTAL
April 12	6300	0.70	-	0.03	0.03	-	0.30	-	0.13	1.19
May 12	6930	0.10	-	-	0.03	-	0.23	0.03	0.27	0.66
June 12	5040	-	-	-	0.02	-	-	-	0.14	0.16
July 12	No target during the month									
Aug 12										
Sept 12	3150	0.03	-	0.03	0.03	0.06	-	-	0.09	0.25
Oct 12	2520	-	-	-	0.24	-	-	-	0.47	0.71
Nov 12	9450	-	0.01	0.10	0.04	0.21	0.01	0.01	0.13	0.51
Dec 12	8190	0.05	0.01	0.02	0.13	0.18	0.06	0.01	0.16	0.62
Jan 13	8820	0.24	-	0.01	0.03	0.05	-	0.01	0.05	0.39
Feb 13	9450	0.33	-	-	-	0.20	0.08	0.01	0.03	0.66
Mar 13	9450	-	-	0.02	-	-	-	-	0.11	0.13

B. Salient Observations

- » Aggregate hooking rate of 0.50% and yellowfin tuna hooking rate of 0.16% was obtained during the year.
- » Maximum aggregate hooking rate of 2.38% was recorded in the area of Lat 11°N / Long 71°E, followed by 1.51% in Lat 15°N / Long 72°E.

- » Highest hooking rate of 0.70% for Yellow fin tuna was recorded during the month of April 2012. YFT constituted about 58.67% of the catches of the month.
- » The catch was comprised of Shark (38.73%), Yellow fin tuna (33.02%), Sword fish (8.25%) and Dolphin fish & Sail fish (2.86%) each.

C. Biological Studies

A total of 286 specimens belonging to 18 species were examined for length frequency, length-weight, sex and maturity and food & feeding habits studies.

Fishery Survey of India

Project 12 **Tuna resources survey using monofilament longline in the Bay of Bengal, including international waters between latitude 10° and 20°N.**

Project components 1. Tuna resources survey using monofilament longlining in Bay of Bengal between lat.10° and 20°N.
2. Tuna resources survey using monofilament longline in International waters between lat.10° and 15°N. (bounded by longitude 83° and 85°E)

Gear > Monofilament longline with 7 hooks per basket

Vessel **Matsya Drushti**

Base Chennai

Project co-ordinator Dr A. Anrose, Zonal Director

Project leader Dr. S. Ramachandran, Sr. Fisheries Scientist

Results

A. Hooking Rate (%)

Month	Hooks operated	YFT	SKJ	MAR	SWO	SAI	SHA	OTH	TOTAL
April 12	9450	-	0.06	-	0.01	0.05	-	-	0.18
May 12	9450	0.18	0.02	-	-	0.01	0.01	0.01	0.23
June 12	8820	0.20	0.07	-	-	0.02	-	0.01	0.30
July 12	9450	0.10	0.02	-	-	-	0.01	0.02	0.15
Aug 12	9660	0.11	0.01	-	-	-	-	-	0.12
Sept 12	9450	1.03	0.72	0.01	-	-	-	0.01	1.77
Oct 12	8820	0.95	0.62	0.03	-	-	-	-	1.60
Nov 12	9450	0.16	0.07	0.02	-	-	0.04	-	0.29
Dec 12	The vessel was under drydocking and afloat repairs.								
Jan 13									
Feb 13	8820	0.33	0.17	0.02	0.01	-	0.04	0.02	0.59
Mar 13	8820	0.30	0.14	-	0.02	0.01	0.06	-	0.53

B. Salient observations

- » The highest aggregate hooking rate of 1.77% was registered during September 2012. Skipjack tuna occurred in all months during the year.
- » The highest hooking rate of Yellowfin tuna (1.03%) was observed during September 2012 followed by October 2012 during the year.
- » Yellow fin tuna was tagged with pop-up satellite tag in Lat. 13°N / 80° E under the SATTUNA project during the month of April, 2012.
- » During the month of September 2012 it was observed that off Kakinada coast in the area Lat. 15°N/82°E, 16° N / 84° E and 17° N / 83° E Yellowfin tuna (44 nos.) with a size range of 50-126 cm and weighing between 3 to 30 kg were caught. In this area two king fish (*Rachycentron canadum*) and two little tuna (*Euthunnus affinis*) were also caught.

C. Biological studies

Biological studies on all parameters such as length frequency, length-weight, sex, maturity and food and feeding habits were made for 271 specimen constituting 11 species viz, *Thunnus albacares*, *Katsuwonus pelamis*, *Istiophorus platypterus*, *Xiphias gladius*, *Alopias pelagicus*, *Coryphaena hippurus*, *Carcharhinus macrotis*, *Sphyrna lewini*, *A. Ferox*, *Dasyatis brachyura*, *Euthynnus affinis*, *Rachycentron canadum* were carried out during the year.

5. PHYSICAL TARGET AND ACHIEVEMENTS

Physical targets and achievements in terms of voyages (V), days out at sea (DS), fishing days (FD) and sampling effort (SE) of the survey vessels are furnished

Base	Vessels	Target				Achievements			
		V	SD	FD	SE	V	SD	FD	SE
Mumbai	M. Vrushti @	9	180	131	82530	10	188	105	66150
	M. Nireekshani *	9	180	144	675	-	-	-	-
Mormugao	Yellowfin @	10	200	140	87500	3	50	31	12400
	Sagarika *	10	200	160	750	11	177	120	469
Kochi	M. Varshini *	10	200	160	637.5	3	56	46	160
	#				112.5				-
	Lavanika *	20	200	160	750	11	105	74	284
Chennai	M. Drushti @	9	180	126	79380	10	203	147	92190
	Samudrika *	10	200	160	750	12	240	202	900
Visakhapatnam	M. Shikari *	10	200	160	750	-	-	-	-
	M. Darshini *	10	200	160	225	2	21	8	32
	**				294				259
Port Blair	Blue Marlin @ &	10	200	148	65000 27500	5	91	65	40480
Efforts	TOTAL	117	2140	1649		67	1131	798	
* : Bottom trawling (Hours)					4537.5				1845
** : Mid water trawling (Hours)					406.5				0
@ : Tuna longline (Hooks)					314410				2111220
& : Bottom-set vertical longline (Hooks)					27500				-

Note:

1. Matsya Nireekshani was under drydocking repairs.
2. Matsya Shikari was idle due to split winch repairs
3. Matsya Darshini was idle due to drydocking and Main Engine repairs

6. VESSEL-WISE CATCH AND VALUE

Catch and values registered by the FSI survey vessels during 2012-13

Base	Vessels	Catch (kg.)	Value (₹)
Mumbai	Matsya Vrushti	2207	173250
Mormugao	Yellow Fin	978	77557
	Sagarika	10720	57139
Kochi	Lavanika	9183	114748
	Varshini	5932	90021
Chennai	Matsya Drushti	1283	80923
	Samudrika	5337	257300
	Matsya Darshini	1842	29180
Port Blair	Blue Marlin	3960	134135
	Total	41442	1014253

7. SCIENTIST PARTICIPATION IN SURVEY CRUISES

For collection of fishery resources data, scientists of the Institute regularly participate in survey cruises of the vessels. Details of the scientist participation during the year is given below.

Vessels	Participant	No. of cruises	Days at sea
M. Vrushti	Shri A. K. Malik, Fisheries Scientist	1	20
	Shri S. G. Patwari, Jr. Fisheries Scientist	1	17
	Shri Jacob Thomas, Jr. Fisheries Scientist	3	53
	Shri D. E. Uikey, Sr. Scientific Assistant	2	40
	Shri A. V. Tamhane, Sr. Scientific Assistant	2	38
	Shri Pratyush Das, Jr. Research Fellow	1	20
	Shri K. C. Sahu, Jr. Research Fellow (HQ)	2	40
Yellow Fin	Shri Y. Tharumar, Sr. Scientific Assistant	1	17
	Shri Pratyush Das, Jr. Research Fellow	2	33
Sagarika	Dr. Vinod Kumar M., Sr. Fisheries Scientist	2	33
	Shri Y. Tharumar, Sr. Scientific Assistant	2	29
	Shri Raju S. Nagpure, Sr. Scientific Assistant	3	57
	Shri Puran Singh, Sr. Scientific Assistant	4	58
M. Varshini	Shri N. Unnikrishnan, Jr. Fisheries Scientist	1	16
	Shri Jacob Thomas, Sr. Scientific Assistat	1	20
	Shri Rahulkumar B. Tailor, Sr. Scientific Assistant	1	20
M. Drushti	Dr. S. Ramachandran, Sr. Fisheries Scientist	1	20
	Dr. M. K. Sinha, Jr. Fisheries Scientist	3	60
	Shri C.Babu, Sr. Scientific Assistant	1	15
	Shri Venkateswarlu Guvva, Jr. Research Fellow	4	82
	Shri Digambar Swain, Jr. Research Fellow	1	20

Vessels	Participant	No. of cruises	Days at sea
Samudrika	Dr. S. Ramachandran, Sr. Fisheries Scientist	3	60
	Shri P. Tamilarasan, Fisheries Scientist	2	29
	Dr. J. Jeyachandra Dhas, Jr. Fisheries Scientist	3	49
	Shri A. John Chembian, Jr. Fisheries Scientist	1	20
	Shri C.Babu, Sr. Scientific Assistant	3	60
M. Darshini	Shri K. S. N. Reddy, Fishing Gear Technologist	1	11
	Shri A. Siva, Sr. Scientific Assistant	1	9
Blue Marlin	Shri K. Govindaraj, Sr. Fisheries Scientist	2	31
	Shri G.V.A. Prasad, Sr. Scientific Assistant	2	40
	Shri Swapnil S. Shirke, Sr. Scientific Assistant	1	20

8. FLEET EXPANSION

Acquisition of Mid-water Trawlers

A fresh proposal in the prescribed EFC format has been forwarded to the Ministry, requesting the approval for acquisition of two mid-water trawlers on nomination basis from PSU Shipyard M/s Cochin Shipyard Ltd., Kochi, at an estimated cost of ₹. 92.85 crores during the XII Five Year Plan.

9. INFRASTRUCTURE FACILITIES

Construction of Facility Research Centre at Mumbai (HQ):

The construction work of the building is completed. Erection/installation of HV Substation is still pending for want of necessary approval from Chief Fire Officer, Mumbai. The total progressive expenditure of the project is ₹10.65 crores upto 31.03.2013 out of the total project cost of ₹ 13.13 crores. The CPWD is in the process of obtaining Occupancy Certificate from BMC.

Construction/remodeling of fishing jetties at MED of FSI & NIFPHATT, Kochi

A plan and preliminary report on construction of jetties at MED, Kochi, for berthing of FSI & CIFNET vessels was prepared by CICEF, Bangalore. The FSI has approached the Ministry, New Delhi, requesting for administrative approval of Comprehensive Development Plan (CDP) towards the construction of the Jetty at the estimated cost of ₹ 23.06 crores.

Marine Engineering Division (MED), Kochi.

A total No. of 22 vessels were hauled-up in the Slipway of the Marine Engineering Division for their under water repair works and an amount of ₹ 41,33,148/- was realized so far. Further, during the same period, 04 nos. of Life Rafts were serviced and an amount of ₹ 1,10,000/- was realized.

10. TRAINING

10.1 The following officers and staff attended various training programmes during the year 2012-13

Name	Designation	Subject / Institute / Place / Period
Shri. S.G. Patwari Dr. Ansuman Das Dr. A. B. Kar Dr. S. K. Dwivedi Shri Raju S. Nagpure Shri. A. Siva	Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fishing Gear Technologist Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant	Training on “Basic of Stock Assessment” under BOBLME-FAO project organised by Fishery Survey of India (HQ), Mumbai during 27 - 28 April 2012.
Dr. S. K. Dwivedi	Sr. Scientific Assistant	International training on “Stock Assessment of Hilsa” under BOBLME-FAO organised by Fishery Survey of India, Mumbai at CIFRI, Barackpore, Kolkata during 30 April - 1 May 2012’
Shri. K. Govindaraj Dr. S. Ramachandran Shri. N. Jagannadh Shri. S.G. Patwari Shri Ashok Kadam Shri N. Unnikrishnan Dr. Ansuman Das Shri Jacob Thomas Dr. A. B. Kar Shri D. E. Uikey Shri Raju S. Nagpure Shri. Y. Tharumar Dr. S. K. Dwivedi Shri C. Babu Shri Rahul B. Tailor Miss. Rajashree B.Sanadi	Sr. Fisheries Scientist Sr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fishing Gear Technologist Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant	Training on “Isotope Finger Printing of Waters of India (IWIN)” organised by Fishery Survey of India, Mumbai at NIO, Goa during 6 - 7 August 2012
Dr. Sijo P. Varghese Shri. N. Jagannadh	Sr. Fisheries Scientist Jr. Fisheries Scientist	World Trade Agreement and Indian Fisheries Paradigms - a Policy outlook at CMFRI, Kochi during 17-26 September 2012
Shri P. K. Santhoshkumar Shri V. Rajan Shri P. C. Girish Shri Shanilkumar Shri S. R. Satheesan Shri E. A. Mathew	Sr. Deckhand Sr. Deckhand Jr. Deckhand Jr. Deckhand Sr. Cook Greaser	Attended course on “Fire Prevention and Fire Fighting” organised by Cochin Shipyard Ltd. at Cochin during 17-19 October 2012.
Shri K. Govindaraj	Sr. Fisheries Scientist	14th IOTC Working Party on Tropical Tunas at Mauritius during 24-29 October 2012.
Dr. S. K. Dwivedi	Sr. Scientific Assistant	International training on “Leadership Training Course on Fishery Resource Management” organised by overseas Fisheries Co-operation Foundation (OFCO), Japan, TKC, Tokyo Japan, 16 Oct - 22 November 2012

Fishery Survey of India

Name	Designation	Subject/Institute/Place/Period
Shri A. Tiburtius Dr. Sijo P. Varghese Shri P. Tamilarasan Shri. S.G. Patwari Shri. N. Jagannadh Shri Ashok Kadam Dr. J. C. Dhas Dr. A. B. Kar Shri. G.V.A. Prasad Shri Jacob Thomas Shri Rahul B. Tailor Shri. A. Siva Shri. Y. Tharumar Shri Raju S. Nagpure Shri. D. E. Uikey Shri C. Babu	Sr. Fisheries Scientist Sr. Fisheries Scientist Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fishing Gear Technologist Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant	“Identification and Systematic of Marine Birds occurring in Indian EEZ” at SACON, Coimbatore during 5 - 7 November 2012
Shri Jacob Thomas	Sr. Scientific Assistant	Participated in ICAR Winter School programme on “Fish Harvesting Systems for Resources Conservation” at CIFT, Cochin during 20 November -10 December 2012
Shri. S.G. Patwari	Jr. Fisheries Scientist	Fifth Regional Training Course on the Code of Conduct for Responsible Fisheries (CCRF) conducted by BOBP-IGO at Chennai during 25 November - 9 December 2012
Dr. S.K.Naik Shri K.S.N.Reddy Shri Dharamvir Singh Shri. G. W. Thule Smt. Rajashree K. Mendon Shri G. P. Pawle Smt. M.K. Sreemathy Smt. K.K. Ambika Shri. B. H. Bhatt Smt. Sunita N. Motwani Shri Uday Kumar Shri. N. Varadhan Shri. D. K. Pandya Smt. Archana N. Pradhan Smt. Aruna Vinod Kumar Shri. P.P. Santosh Babu Shri. P.V. Latheesh Shri. R. Gopakumaran Nair Shri. S. Moni Shri Papa Rao Smt K. Bhavani	Zonal Director Fishing Gear Technologist Service Engineer (Mech.) Office Superintendent Office Superintendent Office Superintendent Office Superintendent Office Superintendent Office Superintendent Stenographer Gr. I Stenographer Gr. I Stenographer Gr. I Upper Division Clerk Upper Division Clerk Upper Division Clerk Upper Division Clerk Upper Division Clerk Upper Division Clerk Upper Division Clerk Upper Division Clerk Upper Division Clerk	In-house training on Administrative and Establishments Rules (File procedure, recruitment, promotion, Pay fixation, roster, preparation of pension papers, Accounts and Cardex inventory) Visakhapatnam Base of FSI, Visakhapatnam. 22-24 November 2012

Name	Designation	Subject / Institute / Place / Period
Shri K. N. Swamy Shri. P.K. Shukla Shri Sanathan Das Shri Sisir Kumar Das Shri. S. Poopathy Shri B. K. Singh Shri Dhananjay Shukla	Upper Division Clerk Sr. Accountant Sr. Accountant Sr. Accountant Sr. Accountant Jr. Hindi Typist Lower Division Clerk	
Shri B. Balanayak	Service Engineer (Mech.)	Training on Managerial skills for technical personnel at NITIE, Powai, Mumbai during 17-21 December 2012
Dr. K. Vijayakumaran Shri Premchand Dr. A. Anrose Shri A. Tiburtius Shri. K. Govindaraj Dr. S. Ramachandran Dr. Vinod Kumar M Dr. Sijo P. Vaghese Shri. P. Tamilarasan Dr. J. Jeyachandra Dhas Dr. M. K. Sinha Shri A. John Chembian Shri M. K. Sajeevan Shri Ashok Kadam Shri N. Unnikrishnan Shri Bapu M Raut Shri Rahul Tailor Miss Rajashree Sanadi Shri C. Babu Shri Puran Singh Shri D. E. Uikey Shri. A. Siva Shri G. V.A. Prasad Shri Digambar Swain Shri Kanhu Charan Sahu Shri V. G. Jenoy Shri Pratyush Das	Director General Dy. Director General (fy) Zonal Director Sr. Fisheries Scientist Sr. Fisheries Scientist Sr. Fisheries Scientist Sr. Fisheries Scientist Sr. Fisheries Scientist Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Jr. Fisheries Scientist Data Processing Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Scientific Assistant Sr. Research Fellow Sr. Research Fellow Sr. Research Fellow Jr. Research Fellow	Training on SYSTAT - 13 Software application at FSI Chennai during 7 - 9 January 2013
Shri A. V. Tamhane	Sr. Scientific Assistant	Attended training programme on 'Responsible Harvest and Quality Standards for Sea Food Exports' organised by CAFT at CIFE, Andheri, Mumbai on 9 - 29 January 2013
Shri. Edward Kerketta Shri. A.V.K. Jogi Raju Shri. Gopal Thule Smt. Rajashree K. Mendon Shri B.H. Bhatt Shri. J.G. Ohol Shri P.K. Pahuja	Office Superintendent Office Superintendent Office Superintendent Office Superintendent Office Superintendent Sr. Accountant Sr. Accountant	Training programme on (i) Cash, Accounts & Budget management (ii) Govt. Reservation policy for SCs, STs, OBCs & Physically handicapped with special emphasis on the Reservation for Minorities at Regional Training Centre, Mumbai, 20-21 February 2013

Fishery Survey of India

Name	Designation	Subject / Institute / Place / Period
Smt. Sunita N. Motwani	Stenographer, Gr. I	Training programme on (i) Cash, Accounts & Budget management (ii) Govt. Reservation policy for SCs, STs, OBCs & Physically handicapped with special emphasis on the Reservation for Minorities at Regional Training Centre, Mumbai, 20-21 February 2013
Shri B. Suresh Kumar	Stenographer, Gr. I	
Shri. Sanjeev Kumar Singh	Stenographer, Gr. II	
Shri. N.S. Madlani	Upper Division Clerk	
Smt. Aruna Vinod Kumar	Upper Division Clerk	
Shri. S.C. Bala	Upper Division Clerk	
Shri. K.S. Ranjith	Lower Division Clerk	
Shri. Vishal K. Kharat	Lower Division Clerk	
Shri Rakesh Kumar	Lower Division Clerk	
Shri Dhananjaya Shukla	Lower Division Clerk	



Dr K.Vijayakumaran, Director General, FSI, chairing in the technical session on “SYSTAT-13” software application training.

In house training on Administrative and Establishment Rules at Visakhapatnam Base of FSI during 22-24 November 2012



10.2 Training to CIFNET trainees

As per the mandate on Human Resources Development, the Institute continued to provide on-the-job-training to CIFNET trainees. The Base-wise details of onboard training imparted are given below:

Base	No. of Trainees			
	At the beginning of the year	Appointment during the year	Completed training during the year	At the end of the year
Mumbai	16	4	8	12
Mormugao	2	-	1	1
Cochin	1	2	1	2
Chennai	2	-	2	-
Visakhapatnam	-	-	-	-
Port Blair	1	-	1	-

11. PUBLICATIONS

The Institute has been effectively disseminating the resources survey findings to the industry and other end-users through various publications like annual report, magazines, charts, special publications, bulletins, Resources Information Series(RIS), scientific papers etc. Some of the FSI Publications were translated into regional languages for the benefit of the local fishermen and mechanized boat operators. During the year following publications were released.

Magazine

Matsya Dwani-2012-13 (Hindi) by Kochi Base.
Matsya Kiran - Vol. No. 4 (2012) (Hindi) by Mumbai (Hqs.)
Matsya Keerthi - 3rd issue(Hindi) by Mormugao Base

Meena News

Meena News (July-Sept. 2012)

Dictionary

Mainaka:Departmental Scientific and Technical dictionary (English-Hindi)

Survey Programme

Fishery Resources Survey, Assessment & Research Programme 2012-13

Reports

Annual Report 2011-12 (August 2012).

Resources Information Series - 16 issues

Four issues each from Chennai and Mormugao Bases, three issues from Mumbai & Kochi Bases and two issues from Port Blair Base were published in respective local languages for the benefit of fishermen.

Papers presented / published by scientists

Vijayakumaran, K. and Sijo P. Varghese, 2012. India's National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2012. IOTC-2012-SC15-NR09 (E).

Varghese, Sijo P, V. S. Somvanshi, M. E. John and R. S. Dalvi, 2013. *Diet and consumption rates of common dolphinfish, Coryphaena hippurus, in the eastern Arabian Sea*. Journal of Applied Ichthyology (2013), 1-8. Doi: 10.1111/jai/12166.

Sajeevan, M.K. and Rajshree B. Sanad 2012. *Diversity, distribution and abundance of oceanic resources around Andaman and Nicobar Islands*. *Indian J. Fish.*, 2012, **59(2)**: 6367.

Sajeevan, M.K. 2012. Paper presented on “*Sampling strategy for estimation of the landings of Hilsa, Tenulosa ilisha* (Fisher and Bianchi 1984) occurring in Bay of Bengal Large Marine Ecosystem in the BOBLME Hilsa fisheries assessment working group meeting during 29-31 August 2012 at Yangon, Myanmar.

Govindaraj, K 2012. “*Study of the Growth and Population Parameters of Yellow fin Tuna (Thunnus albacares) in the Andaman and Nicobar Waters based on the length frequency data.*” Paper presented in 14th IOTC Working Party on Tropical Tunas at Mauritius during 24-29th October 2012.

Kar, A. B., 2012. “*Diversified Fishing Methods and safety at sea*” paper presented at the regional workshop held at Hut Bay, Little Andaman.

Prasad, G. V. A., 2012. “*Marine fishery resources of Andaman and Nicobar islands and Code of Conduct for Responsible Fisheries*” *ibid*

Kar, A. B., 2012. “*Marine fishery resources of Andaman and Nicobar islands, Eco-friendly fishing methods and Code of Conduct for Responsible Fisheries*” at the Regional Workshop at Rampur, Mayabunder, North and Middle Andaman.

G.V.A. Prasad, 2012. “*Safety at Sea*” *ibid*.

Dwivedi, S. K., 2012. “*Exploratory Survey Methodology and Fishery Resources Management in India*”. Paper presented in the International training on *Leadership Training Course on Fishery Resource Management* during 16 October - 23 November 2012 organized by OFCF, Japan at Tokyo, Japan.

Dwivedi, S. K., Kiran S. Mali & Premchand, 2012. *Tuna Fisheries in India*. *ibid*

Dwivedi, S. K., 2012. *Marine Fishery Practices in India*. *Ibid*.

Anrose, A 2013. paper presented on “*Present strategy and prospects of offshore Tuna Fisheries in India including ABNJ*” in the regional Workshop on “*Fisheries in Areas Beyond National Jurisdiction*” during 4th and 5th March 2013 in Chennai, India organized by BOBP-IGO.

12. RESEARCH ACTIVITIES

12.1 Ph.D Degree Awards

Shri M.K Sajeevan, Jr. Fisheries Scientist, FSI, Mumbai (HQ) was awarded with the Ph.D degree in Marine Sciences on 19th October 2012 by the Cochin University of Science and Technology (CUSAT), Kochi for his thesis entitled *Systematics, life history traits, abundance and stock assessment of Cobia Rachycentron canadum (Linnaeus, 1766) occurring in Indian waters with special reference to the northwest coast of India*. He worked under the guidance of Dr. B. Madhusoodana Kurup, Vice Chancellor, Kerala University of Fisheries and Ocean Studies(KUFOS), Kochi.

12.2 Inter-institutional projects

Jointly with other national institutes, Fishery Survey of India participated in the implementation of the following Research projects relevant to Marine Fisheries during the year under report.

12.2.1 National Agriculture Innovation Project (NAIP)

1. A Value Chain on Oceanic Tuna Fisheries in Lakshadweep sea

Objectives:

- † To evolve effective fishing methods and policies for Lakshadweep sea to increase and sustain production of oceanic tunas and related resources by assessing the status and health of the stocks and ecosystems.
- † To develop technologies on hygienic and improved handling, processing, packaging and high value product, to develop market intelligence on domestic and overseas market.
- † To transfer the new fishing and processing technologies and marketing strategies to the stakeholders and empower their efficiency and socio-economic status.
- † To ensure seafood safety and health assurance to the consumers.

Consortium Team

CPI	-	Dr. E.V. Radhakrishnan, CMFRI, Kochi
CoPI	-	Dr. T. K. Srinivasagopal, CIFT, Kochi
CoPI	-	Dr. K. Vijayakumaran, FSI, Mumbai
CoPI	-	Shri C. G. Koya, Fisheries Department, Lakshadweep

Project Associates from Fishery Survey of India

Shri P. Sivaraj, Mumbai Base
Shri S. M. Patil, Mumbai Base
Shri Ashok Kadam, Mumbai (HQ)

Fishery Survey of India

Date of sanction 18th March 2008.

Duration of the project Four years.

Results:

Conducted survey for oceanic tuna and allied resources and collected data from area around Lakshadweep Island (latitude 6°-14°N/Longitude 69°-75°E) by deploying the vessel Matsya Vrushti during April 2012 to March 2013.

12.2.2 Utilization Strategy for Oceanic Squids in Arabian Sea: A Value Chain Approach

Objectives:

- † To establish a new commercial jigging fishery for oceanic squids in the Central Arabian Sea and to determine the resilience of the species to exploitation.
- † Initiate sustainability certification of oceanic squid jigging as an eco-labelled Fishery.
- † Develop protocols for onboard preservation and processing of oceanic squids and to enhance organoleptic characteristics of oceanic squids.
- † Develop value added products from oceanic squid such as squid surmi and balls and efficient utilization of squid processing waste by developing by-product such as fish meal and chitosan
- † Determine the techno-economic feasibility of commercial distant water squid jigging operations.
- † Formulate Model bankable project/scheme on distant-water squid jigging suitable for NABARD to accelerate the flow of credit from scheduled banks by Refinance.
- † Develop market intelligence on global oceanic squid markets and products. Develop export and domestic marketing channels through private partnership.

Consortium Team

CPI	-	Dr. Sunil Kumar Mohamed, CMFRI, Kochi
CoPI	-	Dr. K. Vijayakumaran, FSI, Mumbai
CoPI	-	Dr. S. Girija, NIFPHATT, Kochi
CoPI	-	Shri K. K. Asha, CIFT, Kochi

Project Associates from Fishery Survey of India

Shri D. M. Ali, Kochi Base
Shri N. Unnikrishnan, Kochi Base

Duration of the project : Three years and Four months.

Results

MFV Matsya Varshini, trawler cum purse seiner attached to Kochi base suitably modified for squid jigging operation and carried out one voyage for the project during the period under report. Fishery Survey of India provided escort service to the squid jigger identified for the project in carrying out her operations.

12.2.3 Locating Tuna Habitat through satellite remote sensing collaboration with Space Applications Centre (SAC), Ahmedabad**Objectives:**

- † To understand the spatial and temporal aggregation of tuna to elucidate the relationship between tuna forage, physiology, feeding behaviour environmental factors and catchability.

Principal Investigator : Dr. Beena Kumari, Scientist, MCED/MESG, SAC
Dr. K. Vijayakumaran, Director General, FSI

Duration of the project : 2008 - 13

Results:

During the period under report, tuna longline data was entered into the computer system and made contour maps for analysis of the chlorophyll and SST. Data analysis and preparation of the final report are in progress.

12.2.4 Isotope Fingerprinting of Waters of India (IWIN) in collaboration with National Institute of Oceanography, Goa**Objectives:**

- † To address important hydrological questions related to origin of water sources and the processes of redistribution by evapo-transpiration, stream flow generation, groundwater recharge and discharge from watershed to continental scale.
- † To give quantitative estimates of residence time of the water and vapour in each hydrological reservoir and the fluxes across them in temporally and spatially distributed manners

Role of Fishery Survey of India

Collection of surface water samples from Arabian Sea, for salinity and isotope analysis to cover all four seasons using the 6 vessels of FSI operating along the West Coast. All the equipment and data sheets supplied by the NIO. FSI scientists onboard the survey vessel collected required water samples from the area of operation.

Fishery Survey of India

Consortium Team

Principal Investigator Dr. S. K. Gupta, Sc-SG (Rtd), Physical Research Laboratory, Ahmedabad

CPI - Dr P. M. Muraleedharan, NIO, Goa
CPI - Dr K. Vijayakumaran, FSI, Mumbai(HQ)

Project Associates from Fishery Survey of India
Dr. A. K. Bhargava, Mormugao Base
Shri P. Sivaraj, Mumbai Base
Shri D. M. Ali, Kochi Base
Dr Sijo P. Varghese, Mumbai(HQ)

Results

Vessels attached to Mormugao and Kochi Base of FSI collected water samples from the area of operation and recorded necessary environmental parameters in the prescribed format.

12.2.5 Satellite telemetric studies on migration pattern of tunas in Indian seas (SATTUNA)

Objectives:

- † To develop the baseline database on the environment and biological parameters influencing the tuna migration and breeding.
- † To develop and improve the tuna fishery forecast system with better accuracy levels in predicting the probable fishing grounds.

Duration of the project February 2011-March 2016

Principal Investigator Dr. K. Vijayakumaran, Director General, FSI

Co Principal Investigator Shri. Premchand, Dy. Director General (Fy.)
Shri P. Sivaraj, Zonal Director, Mumbai base
Dr A. Anrose, Zonal Director, Chennai base
Dr L. Ramlingam, Zonal Director, Port Blair base
Dr. A. K. Bhargava, Zonal Director, Mormugao base

Results:



yellowfin tuna was tagged on board *M. Drushti*

Scientist attached to Chennai and Mumbai Base tagged eight yellowfin tunas on board the survey vessel Matsya Drushti and Matsys Vrushti during the period from January - February 2013.

Four Yellowfin tunas in the size range of 98 cm and 153 cm tagged and released in the area Lat.13°N/Long.81°E and Lat.13°N/Long. 82°E where as other four Yellowfin tunas were tagged and released deployed in the area Lat.9°N/Long.70°E and Lat.14°N/Long. 73°E.

12.2.6 Strengthening of Database and Geographical Information System for Fisheries Sector (CSS)

Objectives:

- † Interacting with Maritime States and Union Territories for improving marine landing data collection by providing necessary training on the data collection methodology, data processing and fish taxonomy, collaborating with CMFRI at different places.
- † Printing of Handbook on Taxonomy in regional languages for the benefit of data enumerators.
- † Participate in the Marine Fisheries Census data collection, analysis and publishing reports.

12.2.7 Onboard training programme for tuna longlining- NFDB funded programme

Objectives:

- † To train the fishermen on the latest technologies in tuna longlining onboard FSI survey vessels.

Duration of the project	April 2012 to March 2013
Chief Co ordinator	Shri Premchand, Deputy Director General (Fy.)
Coordinator	Shri P. Sivaraj, Zonal Director Dr A. Anrose, Zonal Director Dr L. Ramlingam, Zonal Director Shri A. Tiburtius, Sr. Fisheries Scientist

Results:

13 fishermen from Maharashtra participated onboard survey-cum-training voyages of tuna longline Vessels of FSI viz., Matsya Vrushti. They got hands-on training on various aspects of fishing operations including arrangement of various components of the gear during shooting and hauling, fabrication, rigging and repair of the longline gear. The trainees were also given practical guidance on locating the fishing ground, collection of oceanographic parameters, biology and movement pattern of the tunas, navigational requirements during shooting, hauling, scouting, handling and preservation of the catch and tips for monitoring the environmental parameters etc.

12.2.8 Vessel Monitoring System (VMS) application in fishing sector

Under the Centrally Sponsored Scheme of the Ministry of Agriculture, it was decided to have a Hub Station for MSS-RT as a fleet monitoring system for fishery organizations and fishing industry to monitor the position of the vessels/ships in the Indian EEZ. The Hub Station has been created and commissioned during the year 2010 with the help of Space Application Centre (SAC) in the campus of Western Coast Guard Headquarters, Porbandar by the Ministry of Agriculture and Fishery Survey of India has been declared as the controlling agency for the Hub Station. Most of the FSI vessels are fitted with reporting terminals onboard and has been tested successfully.

INSAT Mobile Satellite Service (MSS) Reporting System provides one way transmission, position and short messages from reporting terminals to a predefined central location (VMS Hub Station, Porbandar). The INSAT-MSS-RT is developed by ISRO for marine applications, viz., fishing vessel monitoring. A pilot study had been conducted to assess the suitability of INSAT-MSS-RT for VMS applications in fisheries sector. Necessary technical and scientific support on data collection, monitoring of the vessels, had been provided by the FSI.

13. ADMINISTRATION AND FINANCE

13.1 Sanctioned posts

The category-wise number of sanctioned posts are furnished below:

Group	Category	No.of Posts		
		Headquarters	Bases	Total
A	Scientific	7	26	33
	Technical	5	14	19
	Administrative	1	-	1
B	Scientific	6	28	34
	Technical	6	35	41
	Administrative	14	36	50
	Floating staff	-	95	95
C	Scientific	-	1	1
	Technical	4	159	163
	Administrative	33	98	131
	Floating staff	-	184	184
Total		76	676	752

13.2 . Officers in different stations

Dr. K. Vijayakumaran, Director General continued as Head of the institute during the year under report.

Name and designation of the officers of the Institutes as on 31/03/2013 are given below:

Headquarters, Mumbai

Director General	Dr K. Vijayakumaran
Deputy Director General (Fy.)	Shri Premchand
Director (Engineering)	Shri Mahesh Kumar Farejiya
System Analyst	Shri N. V. R. Murthy
Senior Fisheries Scientist	Shri A. Tiburtius
Senior Administrative Officer	Shri K. P. Raghunath
Programmer	Shri Chittajallu Bhaskar
Junior Fisheries Scientist	Shri Ashok S. Kadam
Junior Fisheries Scientist	Shri M. K. Sajeewan
Assistant Account Officer	Shri G. H. Paradkar

Mumbai Base

Zonal Director	Shri P. Sivaraj
Senior Fisheries Scientist	Shri S. M. Patil

Fishery Survey of India

Fisheries Scientist
Junior Fisheries Scientist
Junior Fisheries Scientist
Service Engineer (Mech.)

Shri A. K. Malik
Shri S. G. Patwari
Shri Jacob Thomas
Shri Balanayak Banavat

Mormugao Base

Zonal Director
Senior Fisheries Scientist
Service Engineer (Mech.)

Dr A. K. Bhargava
Shri M. Vinod Kumar Mudumala
Shri C. D. Rao

Kochi Base

Zonal Director
Senior Fisheries Scientist
Senior Fisheries Scientist
Junior Fisheries Scientist
Service Engineer (Mech.)

Shri D. K. Gulati
Shri D. M. Ali
Dr. Sijo P. Varghese
Shri N. Unnikrishnan
Shri O. T. Manoj Kumar

Chennai Base

Zonal Director
Senior Fisheries Scientist
Fisheries Scientist
Service Engineer (I & C)
Junior Fisheries Scientist
Junior Fisheries Scientist
Junior Fisheries Scientist

Dr A. Anrose
Dr S. Ramchandran
Shri P. Tamilarasan
Shri T. V. S. Prasad
Dr J. Jayachandra Dhas
Dr Manas Kumar Sinha
Shri A. John Chembian

Visakhapatnam Base

Zonal Director
Senior Fisheries Scientist
Fishing Gear Technologist
Fisheries Scientist
Mech. Marine Engineer
Junior Fisheries Scientist
Junior Fisheries Scientist

Dr S. K. Naik
Shri K. Govindaraj
Shri K. S. N. Reddy
Dr A. B. Kar
Shri D. Bhambi Reddy
Shri N. Jagannadh
Dr Ansuman Das

Port Blair Base

Zonal Director
Mech. Marine Engineer
Fisheries Scientist
Fisheries Scientist

Dr L. Ramlingam
Shri Dharmavir Singh
Shri H. D. Pradeep
Dr S. K. Dwivedi

13.3 Budget and Accounts

The details of the Budget Grant and Expenditure of the Institute during 2012-13

(₹ in Thousand)

Particulars	Budget Grant	Actual Expenditure
Plan		
Revenue	305101	284689
Capital	17400	2250
Sub-Total	322501	286939
Non-plan		
Revenue	97000	94401
Sub-Total	97000	94401
Grand Total	419501	381340

13.4 Appointments

The following staff were appointed during the year

Name	Designation	Base/HQs	Date
Shri Karthik A. Ramanujam	Mechanical Supervisor (Sr.)	Mormugao	02.05.2012
Shri R. Munusamy	Chief Engineer Gr. II	Port Blair	10.05.2012
Shri Sumanth Kumar Singh	Multi Tasking Staff (Watchman)	Mumbai	11.05.2012
Shri Vinod Paily	Chief Engineer Gr. II	Mumbai	21.07.2012
Shri. R. Eswara Rao	Jr. Deck hand	Visakhapatnam	10.08.2012
Shri Barri Ramudu	Sr. Deck hand	Visakhapatnam	27.08.2012
Shri. M. Anand Kumar	Jr. Deck hand	Visakhapatnam	27.08.2012
Shri. Ch. Uma Sankar Rao	Jr. Deck hand	Visakhapatnam	27.08.2012
Shri M. Durga Prasad	Sr. Deck hand	Visakhapatnam	27.08.2012
Shri. Olisetty Eswara Rao	Sr. Deck hand	Visakhapatnam	12.09.2012
Shri. Pankaj Kumar Jena	Sr. Deck hand	Visakhapatnam	13.09.2012
Shri. Rakesh P.R.	Sr. Deck hand	Visakhapatnam	13.09.2012
Shri Upendra Kumar	Jr. Deck hand	Visakhapatnam	13.09.2012
Dr. Annada Bhushan Kar	Fisheries Scientist	Port Blair	14.09.2012
Shri. Dhananjay Shukla	Lower Division Clerk	Visakhapatnam	22.11.2012
Shri Shahnawaz	Jr. Hindi Translator	Port Blair	23.11.2012
Shri Swapnil Shivdas Shirke	Sr. Scientific Assistant	Port Blair	21.01.2013
Shri H.D. Pradeep	Fisheries Scientist	Port Blair	13.02.2013
Shri. Pramod kumar V.	Welder	Cochin	18.02.2013
Dr. Shailendra Kumar Dwivedi	Fisheries Scientist	Port Blair	27.02.2013
Shri. Madanan Rajan K.	Crane Operator	Cochin	01.03.2013

13.5 Transfers

The following transfers were effected during the year

Name	Designation	Base/HQs	
		From	To
Shri Deepak Gulati	Sr. Fisheries Scientist	Mumbai HQ	Cochin
Shri K. Govindraj	Sr. Fisheries Scientist	Port Blair	Visakhapatnam
Dr. Annada Bhushan Kar	Jr. Fisheries Scientist	Port Blair	Visakhapatnam
Shri Jacob Thomas	Sr. Scientific Assistant	Cochin	Mumbai
Shri V.J. Joseph	Skipper	Mormugao	Cochin
Shri G. T. Pillai	Skipper	Visakhapatnam	Cochin
Shri A. K. Mahapatra	Mate Gr.I	Mumbai	Mormugao
Shri. K.P. Vinoji	Mate Gr.I	Cochin	Mumbai
Shri. K.S. Joseph Paul	Mate Gr.I	Port Blair	Chennai
Shri V.V.S. Murthy	Mate Gr.I	Visakhapatnam	Port Blair
Shri Joy Moothedan	Chief Engineer Gr. I	Chennai	Mumbai
Shri. V.J. Stanly	Chief Engineer Gr. II	Cochin	Mumbai
Shri K. I. Joseph	Chief Engineer Gr. II	Port Blair	Mormugao
Shri G. S. Wellington	Chief Engineer Gr. II	Port Blair	Visakhapatnam
Shri. K. Prathapan	Chief Engineer Gr. II	Mormugao	Chennai
Shri. Saji George	Chief Engineer Gr. II	Mumbai	Cochin
Dr. S. K. Dwivedi	Sr. Scientific Assistant	Mumbai HQ	Port Blair
Shri Rahulkumar B. Tailor	Sr. Scientific Assistant	Cochin	Mumbai HQ
Shri. G. P. Pawle	Office Superintendent	Mumbai HQ	Mumbai
Shri G. H. Paradkar	Sr. Accountant	Mumbai	Mumbai HQ
Shri A. Uday Kumar	Stenographer Gr. I	Mumbai HQ	Visakhapatnam
Miss V. C. Waghmare	Upper Divison Clerk	PAO, Mumbai (on deputation)	Mumbai
Shri. T.V. Chandra Sekhar	LDC/Hindi Typist	Port Blair	Chennai
Smt. R. Ramalaxmi	LDC	PAO, Chennai (on deputation)	Chennai
Shri. B. Boopathi	Bosun (c)	Cochin	Port Blair
Shri P. A. Arun Kumar	Bosun (c)	Port Blair	Cochin
Shri R. Girish Kumar	Bosun ©	Mormugao	Cochin
Shri Paritosh Biswas	Bosun (c)	Chennai	Visakhapatnam
Smt J. S. Mary	Net Mender	Port Blair	Chennai
Shri Sethuraman	Multitasking staff	Port Blair	Chennai
Shri K. J. Boban Josey	Multitasking staff (Watchman)	Kochi	Mormugao
Shri A. K. Shamdar	Multitasking staff (Peon)	Mumbai	Porbandar

13.6 Promotions

The following promotions were made during the year

Name	Designation		Base/HQs	Date
	From	To		
Dr. S.K. Naik	Sr. Fisheries Scientist	Zonal Director	Visakhapatnam	30.05.2012
Shri. Deepak Gulati	Sr. Fisheries Scientist	Zonal Director	Cochin	02.08.2012
Shri. K. I. Joseph	Chief Engineer (Gr. II)	Chief Engineer (Gr. I)	Mormugao	07.08.2012
Dr. M.K. Sajeevan	Sr. Scientific Assistant	Jr. Fisheries Scientist	Mumbai (HQ)	03.10.2012
Shri V.V.S. Murthy	Bosun (C)	Mate Gr. I	Port Blair	04.10.2012
Shri K. S. Joseph Paul	Mate Gr.I	Skipper	Chennai	10.10.2012
Shri D. Bhami Reddy	Service Engineer (Mech.)	Mechanical Marine Engineer	Visakhapatnam	04.12.2012
Shri Dharamvir Singh	Service Engineer (Mech.)	Mechanical Marine Engineer	Port Blair	05.12.2012
Shri. Jacob Thomas	Sr. Scientific Assistant	Jr. Fisheries Scientist	Mumbai base	06.12.2012
Shri. K.P. Vinoji	Mate Gr. I	Skipper	Mormugao	07.12.2013
Shri. A.K. Mohapatra	Mate Gr. I	Skipper	Mormugao	07.12.2014
Shri D. Mehalingam	Bosun (C)	Skipper	Mumbai base	07.12.2015
Shri. A. John Chembian	Sr. Scientific Assistant	Jr. Fisheries Scientist	Chennai	07.12.2012
Shri A. P. Udayappan	Mate Gr.I	Skipper	Visakhapatnam	07.12.2012
Shri Paritosh Biswas	Bosun (C)	Skipper	Visakhapatnam	14.12.2012
Shri A.V.K. Jogi Raju	Upper Division Clerk	Office Superintendent	Mumbai (HQ)	12.02.2013
Shri G. P. Pawale	Upper Division Clerk	Office Superintendent	Mumbai base	12.02.2013
Shri Gopal Thule	Upper Division Clerk	Office Superintendent	Mumbai (HQ)	12.02.2013
Smt Rajashree K Mendon	Upper Division Clerk	Office Superintendent	Mumbai (HQ)	12.02.2013

13.7 Retirements

The following officers/staff retired during the year

Name	Designation	Base/HQs	Superannuation/ Voluntary	Date
Shri. K. Muthukrishnan	Upper Division Clerk	Chennai	Superannuation	31.05.2012
Shri. S.N. Thapa	M.T.S. (Watchman)	HQ's	Superannuation	31.05.2012
Smt. P. Gouri	Office Superintendent	Cochin	Superannuation	30.06.2012
Shri. K.K. Salim Babu	Skipper	Cochin	Superannuation	30.06.2012
Shri. K.C. Hariharan	M.T.S. (Peon)	Mormugao	Superannuation	30.06.2012
Shri. P. Sugunan	Sr. Deckhand	Cochin	Superannuation	31.07.2012
Smt. T. Syamala	M.T.S. (Peon)	Visakhapatnam	Superannuation	31.07.2012
Shri. V.J. Joseph	Skipper	Cochin	Superannuation	31.08.2012
Shri. P.T. Sekharan	Driver	Cochin	Superannuation	31.08.2012
Shri. Chandran Louise K	Assistant Foreman	Cochin	Superannuation	31.08.2012
Shri. B. Babu Rao	M.T.S. (Chowkidar)	Visakhapatnam	Superannuation	31.08.2012
Shri. Ramakrishnan	Greaser	Chennai	Superannuation	31.08.2012
Shri. G.V. Pillai	Stenographer Gr-I	Cochin	Superannuation	30.09.2012

Fishery Survey of India

Name	Designation	Base/HQs	Superannuation/ Voluntary	Date
Shri. S.M. Patil	Sr. Fisheries Scientist	Mumbai	Superannuation	30.09.2012
Shri C. S. Sethu Madhavan	Skipper	Visakhapatnam	Superannuation	30.09.2012
Shri. T.K. Pavithran	Slipway Worker	Cochin	Superannuation	30.11.2012
Shri. C.K. Vaghela	M.T.S. (Daftly)	HQs	Superannuation	30.11.2012
Shri. L.K. Rao	Sr. Administrative Officer	HQs	Superannuation	31.12.2012
Smt. Tandra Bhattacharya	M.T.S. (Peon)	HQs	Superannuation	31.01.2013
Shri. K.N. Thankappan	Slipway Worker	Cochin	Superannuation	28.02.2013
Shri. P. Vijayan	Chief Engineer Gr.II	Cochin	Superannuation	31.03.201

13.8 Obituary

Name	Designation	Base/HQs	Date
Shri A. Maria Doss	Accountant	Visakhapatnam	21.05.2012
Shri P. R. Galgate	Jeep Driver	Mumbai	08.08.2012
Shri B. S. Pandey	Mechanical Marine Engineer	Cochin	15.08.2012
Shri S. Santosh	Multitasking staff	Cochin	18.11.2012
Smt. T. Shamala	Peon	Visakhapatnam	23.12.2012

14. IMPORTANT EVENTS AT BASES AND HEADQUARTERS

14.1 Meetings

Annual Review Meeting



Annual meeting for review of quantitative and qualitative performance of the survey vessels and scientific activities carried out by FSI(HQ) and its Bases was held at Mumbai (HQ) during 18-19 February 2013.

Consultative Committee Meetings

Mumbai (HQ)

The fourteenth meeting of the Consultative Committee of Fishery Survey of India was held on 11 March 2013 at the FSI (HQ) Mumbai. Dr K. Vijayakumaran, Director General, FSI chaired the meeting.

Chennai Base

Consultative Committee meeting of Chennai Base of FSI was held on 19 May 2012.

BOBLME Hilsa fisheries assessment working group meeting

Fishery Survey of India hosted the BOBLME Hilsa fisheries assessment working group meeting during 24-25 April 2012 in Myanmar. Delegates from BOBLME(HQ), Thailand, Bangladesh, Myanmar and India attended the working group meeting. Dr V. K. Suresh, Dr D. Panda, Dr M. Naskar (Central Inland Fisheries Research Institute, Barrackpore) Shri D. K. Gulati and Dr. M. K. Sajeevan from Fishery Survey of India represented the country in the meeting. The meeting reviewed the coordinated research activities on hilsa and updated the integrated model in the assessment.

14.2 Participation of Director General and Scientists in conference/ workshop / seminar etc.**14.2.1 The Director General participated in the following events:**

Sl. No.	Event	Venue/Date
1	Discussion on the development plan of MED	Kochi, 3-8 April 2012
2	Expert Consultation on MED Jetty expansion	
3	Meeting to discuss the BIS standards and specification on otter board and fishing hook at CIFT, Cochin	
4	Discussion on finalization of documents on ecosystem indicators for BOBLME project.	
5	Programme at ICM Pilot site Puducherry and discussion with Chief Minister, Chief Secretary, Lt. Governor and other officials of Puducherry Administration.	Puducherry, 13 April 2012
6	Meeting of the Coastal States and 9 th Session of the Compliance Committee of IOTC	Fremantle, Australia 16-17 April 2012
7	DPC meeting at UPSC, New Delhi	New Delhi, 1 May 2012
8	Visiting to National Fisheries Development Board office for discussion on some proposal	Hyderabad 10 May 2012
9	Participation in the INCOIS User Interaction Workshop 2012	
10	Investigation of the fire accident on 09-05-2012 onboard MFV Yellow Fin and to discuss about the safety arrangements with officials of Goa Shipyard Limited	Goa, 14 May 2012
11	Discussion with Director, NIO and Director, NCAOR, Goa about collaborative programmes & consultation on Mainstreaming Ocean Research	
12	Arranging BOBLME – India Site LeTUS Seminar	Puducherry, 8-21 May 2012
13	BOBLME – India ICM-Pilot-Site: Stakeholders meeting	
14	Discussion with Dr. V. N. Sajeevan, Director, CMLRE, Kochi on collaborative projects	Kochi, 30 May 2012
15	Discussion with Dr. P. A. Azees, Director, SACON, Coimbatore on capacity building programme	Coimbatore, 6 June 2012
16	Discussion with Shri. Tarun Shridhar, Joint Secretary (Fy.), Ministry of Agriculture, Shri. Hem Pande (JS) and Dr. J.R. Bhatt, Director, Ministry of Environment & Forest and discussion with Dr. Sailesh Naik, Ministry of Earth Science	New Delhi 12 June 2012
17	Vigilance Inspection of the Visakhapatnam Base of FSI for the years 2009-2010 and 2010-2011	Visakhapatnam, 15-17 June 2012

Sl. No.	Event	Venue/Date
18	Two short term courses for the capacity development of marine fisheries in the Indian Ocean countries conducted by University of Wollongong (UoW) in Wollongong, NSW	Australia, 25 June–6 July 2012
19	Discussion with the officers at Ministry of Agriculture, New Delhi	New Delhi, 18 July 2012
20	Participation in the Policy Dialogue on Hilsa Conservation New Delhi	Kolkata, 24-26 July 2012
21	Discussion on renovation and remodeling of fishery jetties at NIFPHATT & MED of FSI with Director, CICEF	Bangalore, 27 July 2012
22	Participation in the brain-storming session – setting National Bio-diversity Targets (2012-2020) organized by National Biodiversity Authority, Chennai	NASC, New Delhi, 31 July 2012
23	Participation in the brain – storming session to develop a perspective plan and strategies for the development of fisheries and aquaculture in the country	NASC, New Delhi, 3 August 2012
24	Vigilance Inspection of the Goa base of FSI for the years 2008-09, 2009-10 and 2010-11	Goa, 5-8 August 2012
25	Attending the inaugural function of IWIN training workshop held at NIO, Goa	
26	Discussion about the consultation on Mainstream Ocean Research with NIO scientists.	
27	Discussion about the Consultation on Mainstreaming Ocean Research of BOBLME project with NIOT Director/ Scientist	Chennai, 13 August 2012
28	Consultation on Mainstreaming Ocean Research of BOBLME project and discussion with Director/ Scientists of CMFRI / CMLRE	Kochi, 14-15 August 2012
29	Core-Committee meeting on National Plan of Action (NPOA) for Hilsa Fisheries	CIFRI, Barrackpore, 4 September 2012
30	Visit to the Ministry for discussion with Ministry officials	New Delhi, 5 September 2012
31	Participation in the National Consultation on “Alien Fish Species in Aquaculture and Aquarium Trade” held at National Bureau of Fish Genetic Resources	Lucknow, 6-7 September 2012
32	Expert consultation entitled Mainstreaming Ocean Research for Ocean and Resources Management (MORFORM)	Kochi, 12-14 September 2012
33	Vigilance Inspection of the Kochi base of FSI for the years 2009-10 and 2010-11	Kochi, 15 September 2012
34	17 th Meeting of Inter-Ministerial Empowered Committee on Marine Fisheries	New Delhi, 18 September 2012
35	DPC meeting at UPSC, New Delhi	New Delhi, 19 September 2012

Fishery Survey of India

Sl. No.	Event	Venue/Date
36	DPC meeting at UPSC, New Delhi	New Delhi, 21 September 2012
37	ROSA meeting of FSI (Half yearly review)	Port Blair, 24-25 September 2012
38	To convene a consultation at CARI on island sustainability and study of Andaman Sea	Port Blair, 26 September 2012
39	Discussion on the funding of SATUNA project and to finalise document on assessment of straddling stocks also discussion with Director, CIFNET on construction of vessels and discussion with CSL on dry docking repairs and contractual agreement	Kochi, 3 – 5 October 2012
40	Assessment interview at ASRB and meeting officials at Ministry of Agriculture	New Delhi, 8–11 October 2012
41	Vigilance Inspection of the Chennai Base of FSI for the years 2009-10 and 2010-11.	Chennai, 19 October 2012
42	Hearing as the 1 st Appellate Authority at the Central Information Commission	New Delhi, 1 November 2012
43	Organisation of training workshop on Identification and Systematics of Marine Birds occurring in Indian EEZ	Coimbatore, 4-6 November 2012
44	In house training programme and to deliver a talk on Law of the Sea	Visakhapatnam, 21 November 2012
45	Lecture on IUU fishing at the Winter School in CIFT	Kochi, 29 November 2012
46	To discuss about the capabilities of Cochin Base vessels in transport of Tuna from Lakshadweep to mainland	
47	Discussion about IOTC matters at CMFRI, Kochi	
48	Discussion about the requirement of vessel for transport of tuna from Lakshadweep with LD Administration	Agati, 1-3 December 2012
49	Meeting of the 15 th session of Scientific Committee of IOTC	Victoria, Seychelles, 10-15 December 2012
50	NTF meeting of BOBLME project	Visakhapatnam, 21 December 2012
51	To make arrangements for the PSC meeting of BOBLME project	Chennai, 23 December 2012
52	Meeting of Expert Committee for Revalidation of potential fishery resources in the Indian EEZ	New Delhi, 28 December 2012
53	Training programme on SYSTAT – 13 (Statistical Data Analysis Software)	Chennai, 8-9 January 2013
54	DPC meeting at UPSC, New Delhi	New Delhi 10 January 2013
55	Workshop on small scale fisheries	Chennai, 11 January 2013

Sl. No.	Event	Venue/Date
56	Inaugural function of BOBP-IGO CCRF training programme and deliver a lecture	Chennai, 20 January 2013
57	BOBLME – Project Pre-SAP Consultative meeting	Puducherry, 21 January 2013
58	10 th meeting of the Technical Monitoring Committee (TMC) for CSS “Strengthening of Database and GIS for fisheries sector	Bhubaneswar, 29 January 2013
59	Review meeting with Additional Secretary & Financial Advisor, Ministry of Agriculture, New Delhi at FSI, Goa Base	Goa, 1 February 2013
60	Discussion about the FSI-NIO collaborative with Director and Scientists of NIO	Goa, 1 February 2013
61	National Tripartite Workshop on Work in Fishing	Goa, 8-9 February 2013

Engagement of scientists

Sl. No.	Participant(s)	Event	Venue/Date
1	Dr. L. Ramalingam Shri Dharamvir Singh Dr. A. B. Kar	Discussion on the feasibility and transfer of pole and line fishing technology to the tribal fishermen of Nicobar /Nancowry	Port Blair 24 April 2012
2	Dr. S. K. Naik	Attended seminar on Marine Resources - The Future Scope	Visakhapatnam 27 April 2012
3	Dr. S. K. Naik	Experts Consultation meeting on Academic partnership for Excellence & Networks in Fisheries studies.	Visakhapatnam, 29 April 2012
4	Dr. A. Anrose Dr. M. K. Sajeevan	Participated in the Stake holder meeting of BOBLME project	Pondicherry 21 May 2012
5	Dr. S. Ramchandran	Working group meeting on Indian Mackerel Fisheries Assessment	Colombo, Sri Lanka 27 - 28 May 2012
6	Dr. A. Anrose	Second Bi-National Stakeholders Consultation on Sustaining the Gulf of Mannar Ecosystem and Resources	Jaffna, Sri Lanka 18 - 20 June 2012
7	Shri K. Govindaraj Shri G.V.A. Prasad	Inter Media Publicity Coordination Committee	Port Blair, 29 June 2012
8	Dr. L. Ramalingam Shri Dharamvir Singh Dr. A. B. Kar	Inter Media Publicity Coordination Committee (IMPCC) meeting at the conference hall of ZSI, Port Blair	Port Blair 27 July 2012
9	Shri K. Govindaraj Dr. A. B. Kar	Inter Media Publicity Coordination Committee (IMPCC) meeting	Port Blair, 17 August 2012
10	Dr. S. K. Naik	Attended FAO / INFOFISH / MPEDA National workshop on “Improving post harvest practices and sustainable market development for tuna”	Visakhapatnam 18 - 21 August 2012
11	Dr. A.K.Bhargava	Attended 7th meeting of the Technical Advisory Committee of the Bay of Bengal Programme Inter- Government Programme	Colombo,Shrilanka 27-28 August 2012
12	Shri D. K. Gulati Dr. M. K. Sajeevan	Participated in the BOBLME Hilsa Fisheries Assessment Working Group	Yangon, Myanmar 29-31 August 2012

Fishery Survey of India

Sl. No.	Participant(s)	Event	Venue/Date
13	Dr. L. Ramalingam Shri G. V. A. Prasad Dr. A. B. Kar	3rd Indian Landslides Congress on Natural Hazards and Coastal Environment: A Road Map for A & N Islands	Port Blair, 4 October 2012
14	Shri D. Bhami Reddy Dr. Ansuman Das	Meeting of the committee on the welfare of fishermen and allied workers of Kerala Legislative Assembly	Visakhapatnam 5 October 2012
15	Dr. A. Anrose	Attended the CoP Side event organised by NCSCM & SICOM Tunas , Ministry of EoF, New Delhi	Hyderabad, 15 October 2012
16	Shri K. Govindaraj Shri G. V. A. Prasad	1st Interface meet for Synergetic Harvest, Revitalizing the Island Fisheries	CARI, 16 October 2012
17	Dr. L. Ramalingam Shri Dharamvir Singh Dr. A. B. Kar	Discussion with the scientists of Zoological Survey of India on a documentary film on Island Eco System, proposed to be telecast in the event of “Conference of Parties- (Co-11)”	Port Blair 20 July 2012
18	Shri K. Govindaraj	Attended 14th IOTC Working Party on Tropical Tunas	Mauritius 24-29 October 2012
19	Dr. L. Ramalingam Dr. A. B. Kar Shri G. V. A. Prasad	Scientific Forum for mutual exchange of ideas for the benefit of Islands people	ICMR, Dollygunj 16 November 2012
20	Dr. A. Anrose	Attended the ‘National result sharing and supplying workshop on outcomes of the fisheries management for sustainable livelihoods project’	BOBP, IGO, Chennai 22-23 November 2012
21	Dr. A. B. Kar Shri G. V. A. Prasad	Attended the seminar of Ph.D synopsis at the Dept. of Ocean Science and Marine Biology at Pudducherry University, Port Blair Campus	Port Blair 23 November 2012
22	Dr. S. K. Naik	Meet on “Fisheries Education Resources and Development”	Mangalore, 3 December 2012
23	Dr. S. K. Naik	Symposium on “Aquatic Resources for Eradicating Hunger and Malnutrition- Opportunities and Challenges”	Mangalore, 4 December 2012
24	Dr. A. Anrose	Workshop on “Assessment of Elasmobranch resources in the Indian Seas”	CMFRI, Chennai 11-13 December 2012
25	Dr. A. B. Kar Shri G. V. A. Prasad	National Seminar on Innovative Technology for conservation & sustainable utilisation of island bio-diversity	Port Blair 21 December 2012
26	Dr. L. Ramalingam	Attended meeting Project Monitoring Committeeto Review the construction of Fish Landing Centre in A & N	Port Blair, 8 January 2013
27	Shri P. Tamilarasan	Administrative committee meeting on conversion of Mechanised fishing boats as tuna longliners	Chennai, 27 November 2012
28	Dr. L. Ramalingam	Inter Media Publicity Coordination Committee meeting	Port Blair, 28 February 2013
29	Dr. L. Ramalingam	Discussion on the Impact study of Fish Aggregation Device (FAD's) deployed in A & N waters by ANCOST	Port Blair, 13 March 2013

14.3 Visitors / delegations

Visitors	Position/Address	Date of Visit
Mumbai Base		
50 fishermen and one officer of Tamil Nadu State Fisheries Department		25 August 2012
Miss Ruby Ojha from Environmental Resources Management, Gurgaon		5 October 2012
35 students of M. Sc and one Professor from Royal College of Science, Commerce & Arts, Mira Road, Thane		8 January 2013
34 fishermen from Rajkot and Bhavnagar district of Gujarat accompanied by 4 officers of Gujarat State Fisheries Department		4 February 2013
Mormugao Base		
17 students with 2 staff members from P. M. Sayeed Calicut University Centre, P. O. Andrott, Lakshadweep		9 October 2012
7 students with 1 staff member from College of Arts and Science Farmagudi, Ponda, Goa		9 October 2012
42 students with 3 staff members from Y. C. Institutes of Science, Satara, Maharashtra and 9 students with 3 staffs Science, Telangkhedi, Nagpur, Maharashtra members from College of Fishery		6 February 2013
Cochin Base		
13 Students and 2 Professors from Diploma in Fisheries Engineering, Dr. Balasaheb Sawant Kokan Krishi Vidyapeeth, Ratnagiri, Maharashtra		6 January 2013
16 Executive staffs from the Department of Fisheries, Govt. of Kerala		6 March 2013
Chennai Base		
Dr. Charan Das Mahant	Hon'ble Minister of State for Agriculture & Food Processing Industries, Govt. of India	21 June 2012
Mr. Christion	An International participant from Tanzania	17-18 October 2012
Visakhapatnam Base		
Shri A. Venu	Teaching Assistant along with 27 students from Fisheries Polytechnic, Bhavadevarapalli, Krishna District, Andhra Pradesh	17 April 2012
Shri P. Laxmana Rao	SIFT, Kakinada along with 15 trainees (FMB - batch No.61)	2 May 2012
Miss V. Neha	Research Scholar, Univesity of Hyderabad	17 May 2012
4 teachers along with 65 students of 8th & 9th standard of Ameya World School, Bheemanipattnam, Visakhapatnam		4 August 2012
Dr. I. Karunasagar	FAO Consultant	18 August 2012
Shri Y. Sudheer	2 faculty of Indian Maritime University, Visakhapatnam	18 September 2012
Trainees of "Awareness Programmes on Fishing Technology for Traditional fishermen youth of Visakhapatnam District"		27 September 2012
Shri. K. Praveen Kumar	I.A.S., the Commissioner of Fisheries, Andhra Pradesh	18 December 2012

Fishery Survey of India

Dr. Bhusan Rao Miss Anita	Faculty of Dept. of Zoology, Degree College, Chodavaram along with 25 students of B.Sc.(Final)	22 December 2012
Dr. K. Thulsi Rao Shri K. Hari Prasad	UNDP - GOI, Hyderabad MPDO, Anandapuram, Andhra Pradesh	24 December 2012
Smt P. Usha Shri P. Sathiyaselvam	GOI-UNDP-GEF-GOAP Project, Kakinada	19 January 2013
Dr. Balasubramanian Sri Venkateshwara	Associate Professor, College of Fishery Science Veterinary University, Muthukur	28 February 2013
Shri A. Venu	Teaching Assistant along with 28 students of Fisheries Polytechnic, Bhavadevarapalli, S.V.V. University, Krishna District	20 March 2013
Port Blair Base		
Dr. G. Syda Rao	Director, Central Marine Fisheries Research Institute (CMFRI)	10 July 2012
Dr. T. Subramaniam	INSA Senior Scientist	17 July 2012
Dr. N. V. Vinith Kumar	Officer-in-charge, ANCOST	
Dr. N. Ramanujam Smt. G. Padmavati Dr. C. Raghunathan	Professor and Head, Dept. of Coastal Disaster Management, Pondicherry University Sr. Lecturer, Dept of Ocean Studies and Marine Biology, Pondicherry University, Port Blair Officer-in-charge, A & N Regional Centre of Zoological Survey of India	31 August 2012
Shri G. Sajan	Assistant Director, Doordarshan Kendra, Port Blair	6 September 2012
Dr. Beena Kumari Dr. V. V. Gopalkrishna	Scientist G, Space Application Center, Ahmedabad Scientist G, National Institute of Oceanography, Goa	25 September 2012
Dr. P. Krishnan Dr. N. Neethiselvam	Scientist, CARI Professor and Head of Deptt. of Fishing Technology and Fisheries Engineering, Fisheries College and Research Institute, Thoothukkudi	11 October 2012
Dr. P.M. Mohan	Prof. & Head of Department of Ocean Sciences and Marine Biology, Pondicherry University, Brookshabad Campus, Port Blair	19 December 2012

14.4 Participation in the conference/trade fair/exhibition

Fishery Survey of India participated in the following national and international exhibitions/trade fairs. During these exhibitions models of various type of fishing boat, gears, charts on survey activities, survey fleet, fishing methods and fishery resources. etc. were displayed. These exhibitions benefitted various stakeholders and general public.

Title	Organized by	Place/Period
Swasraya Bharat 2012	Swedeshi Science Movement	Kaloor Stadium, Cochin 30 November - 5 December 2012
Gyan Manthan	Royal College of Arts, Science and Commerce college, Thane	Mira Road, Thane, Mumbai 28 - 29 August 2012
Global Konkan Fish Festival - 2013	Kokan Bhumi Pratishthan, Dadar, Mumbai	NESCO Complex, Goregaon, Mumbai, 4 - 7 January 2013
56 th Kisan Mela	Acharya N. G. Ranga Agricultural University	Anakapalle, Visakhapatnam, Andhra Pradesh, 5-6 February 2013
National Conference on Recent Trends in Emerging Infections Disease and Environmental Pollution	Dayanand College of Arts & Science	Solapur, Maharashtra, 31 January - 1 February 2013

Fishermen Rally

Port Blair



To create awareness among the local fishermen of Hut Bay, Little Andaman fishing villages about the optimum utilization of fishery resources and diversified fishing methods to exploit the abundant oceanic resources and also to save the marine environment, a fishermen rally was organised at Netaji Nagar fishing Village of Hut Bay Gram Panchayat, Little Andaman on 4th

September 2012.

To creating the awareness among the local fishermen mainly the Tribal Caren community another fishermen rally was organized at Rampur Gram Panchayat, Mayabunder, North and Middle Andaman on 13th December 2012. About 240 fishermen took active part in the rally holding the placards of the slogan written in Hindi on conservation of marine wealth and code of conduct for responsible fisheries.

14.5 Workshop/open house conducted by the institute

As a part of the extension activities, the Mumbai (HQ) and Base office of Fishery Survey of India organized regional workshops/ open houses at major marine fish landing centres in the maritime States.

Mumbai (HQ)

Fishery Survey of India in collaboration with National Institute of Oceanography, Goa organized a workshop on “*Isotope finger printing of water in India (IWIN)*” field campaign. The workshop was held at NIO, Goa during 6th and 7th August 2012. NIO scientists delivered lectures on basics of isotope hydrology, sample collection methodology, hydrological issues of the nation, isotope hydrology and preliminary results of the study. IWIN project was a collaborative initiative of FSI and NIO to understand the spatial and temporal fingerprinting of water source of India. Thirteen scientists from FSI had participated in the workshop.

Mumbai Base

A one day regional workshop on ‘*Marine Fisheries Resources of Gujarat coast and Diversified fishing methods*’ was organised at Veraval, Gujarat on 26th June 2012 for the benefit of local fishermen. Dr. Abhay Y. Desai, Dean and Principal, College of Fisheries, Veraval was the chief guest and Shri P. Sivaraj, Zonal Director, Mumbai Base of FSI, Mumbai presided over the function. The workshop was well attended by about 110 fishermen.

A one day regional workshop on ‘*Tuna Resources of Maharashtra coast and Monofilament Long Lining*’ was organised at Mahim, Mumbai on 28th July 2012. Shri Dilip N. Pagdhare, Chairman, Mahim Machhimar Sahakari Society Ltd., Mahim, Mumbai was the chief guest and Dr. K. Vijayakumaran, Director General, FSI, Mumbai presided over the function. About 80 fishermen were attended the workshop. Also the second regional workshop on ‘*Tuna Resources of Maharashtra coast and Monofilament Tuna Long Lining*’ was organised at Devgad, Maharashtra on 12th September 2012 for the benefit of local fishermen. Shri Sanjay Prabhakar Bandekar, Chairman, Devgad fishermen Co-Op. Soc. Ltd., Devgad was the chief guest and Shri Chandrakant Shankar Palekar, Chairman, Devgad Machhimar Sahakari Sanstha Maryadit, Devgad had presided over the function. The workshop was well attended by nearly 110 fishermen.

A one day workshop on ‘*Marine Fisheries Resources of Gujarat and Diversified fishing methods*’ was organised at Bhavnagar, Gujarat on 26th February 2013. Dr. P. C. Malli, Dy. Director of fisheries, Govt. of Gujarat, Veraval was the Chief Guest. About 80 fishermen were attended the workshop.



Mormugao Base



A regional workshop conducted on “*Marine Fishery Resources of Karnataka: Sustainable Utilization for conservation, Management and Development*” at Ravita Society Hall, Bhatkal, Karnataka on 18th January, 2013. Workshop was inaugurated by Shri Gangadhara V. Meddikeri, Joint Director (Marine Fisheries), Director of Fisheries Govt. of Karnataka. Shri Suresh Kumar, Deputy Directorate of

Fisheries Govt of Karnataka presided over the function. Dr. A. K. Bhargava, Zonal Director in his keynote address highlighted the importance of sustainable utilization of marine fishery resources. A total of 120 fishermen from fishermen Co-operative Societies, Boat owner Associations, Marketing Federations from Bhatkal Taluka participated in the workshop.

Cochin Base

A one-day regional workshop on “*Sustainable Exploitation of Marine Fishery Resources of Kerala Coast*” was organised at Harbour Guest House, Puthiyappa, Kozhikkode, Kerala on 22th November 2012. Around 70 participants from Fishery folks, representatives from Fishing Industries and Fishermen Co-operative Societies



were present in the workshop. The Workshop was aimed to disseminate the information on marine fishery resources along the Kerala coast based on the survey conducted by FSI and to make awareness about the measures to be taken for preserving the fishery resources for generation to come and the steps to be taken by the fishermen for the safety at sea.

Chennai Base

A one day regional workshop on “*Marine Fishery Resources of Tamil Nadu*” for the benefit of local fishermen was organized with the support of Tamil Nadu Fisheries Department on 29th August 2012 at Dr. Seshaiya Hall, Annamalai University, Parngitettai. The workshop was inaugurated by Shri. C. Muniyathan,



IAS, Commissioner of Fisheries, Tamilnadu. Total 129 fishermen from Cuddalore

Fishery Survey of India

and Chidambaram districts, Fisheries officials and scholars of CAS in Marine Biology, Annamalai University participated in the workshop.

Another regional workshop on “*Marine Fishery Resources of Tamilnadu and Diversified Fishing Methods*” was held at Chinna Neelankarai on 23th March 2013. Around 123 fishermen, public, State Government official and FSI officials attended the workshop.

Visakhapatnam Base



A Regional Workshop was conducted on “*Fishery Resources of Andhra Pradesh Coast*” at Seminar Hall, College of Fishery Science, Muthukur, Nellore on 15th March' 2013. Prof. T.V. Ramana, Dean, College of Fishery Science, S.V.V. University, Tirupati was the Chief Guest. Shri S. Narayana Rao, Assistant Director of Fisheries, Govt. of Andhra Pradesh presided over the function. Dr. S.K. Naik, Zonal Director delivered the key note address.

About 100 persons from State Fisheries Dept. and Fishers actively participated in the programme. In the same day evening a Street Play on “CCRF” was conducted at Mypadu, Fishers Village, Nellore District by T.V. Artists, About 200 persons were benefited by watching the show.

Port Blair Base

One day regional workshop on “*Marine Fishery Resources of Andaman and Nicobar Islands and Diversified Fishing Methods*” was organised in association with Department of Fisheries, Andaman and Nicobar Administration at Hut Bay, Little Andaman on 4th September 2012. The workshop aimed to create awareness among the local fishermen on the optimum utilization of fishery resources, diversified fishing methods to exploit the rich oceanic as well as perch resources, on various safety measures to be taken while at sea and Code of Conduct for Responsible Fisheries. The workshop was inaugurated by Shri M. Joga Rao, Up-Pramukh, Little Andaman Panchayat Samiti. Shri Jangamaiah, Pradhan, Hut Bay Gram Panchayat was the Guest of Honour of the occasion. The function was presided over by Smt Namita Mistri, Pramukh, Little Andaman Panchayat Samiti. Dr. L.Ramalingam, Zonal Director, FSI delivered keynote address.



One day Regional workshop on “*Marine Fishery Resources of Andaman and Nicobar Islands and Eco-friendly Fishing Methods*” was organised in association with the Directorate of Fisheries, Andaman and Nicobar Administration at Mayabunder, North and Middle Andaman on 13th December 2012. The workshop was inaugurated by Shri Kartik Dhali, Up-Pramukh, Mayabunder, Panchayat Samiti North and Middle Andaman. Shri Saw Thomson, Rampur Gram Panchayat was the Guest of Honour of the occasion. The function was presided over by Shri Mohd. Tahir, Assistant Director of Fisheries, Mayabunder, North and Middle Andaman. Dr. L. Ramalingam, Zonal Director, FSI delivered the key note address. About 120 fishermen, 5 PRI members were attended the workshop.

Open house and Marine Exhibition

Mumbai Base

An open-house-cum-exhibition was organised at Seafood Exports Association Hall, Verval, Gujarat on 26th June 2012. Charts showing various fishing techniques and fishery resources were displayed in the exhibition. A large number of local fishermen and students from Veraval visited the exhibition.

An open-house-cum-exhibition was organised at St. Xavier’s Institute of Engineering Campus, Macchimar Nagar, Mahim (W), Mumbai on 28th July 2012. Charts depicting various fishing techniques and fishery resources along-with monofilament tuna long lining gear were displayed in the exhibition. An open-house-cum-exhibition was organised at Sat Payari, Sindhudurg, Maharashtra on 12th September 2012. A basket of monofilament tuna long line gear and charts showing various fishing techniques and fishery resources were displayed in the exhibition.

Another open-house-cum-exhibition was also organised at Bhavnagar, Gujarat on 26th February 2013. Monofilament longline gear and charts showing various fishing techniques and fishery resources were displayed in the exhibition.

Mormugao Base

An open house and Marine Fisheries Exhibition on “*Sustainable Marine Fisheries in India*” organised during 15-16th October 2012 in Mormugao Base office premises. A total of 14 colleges/schools/Institutions, Goa University and Karnataka University students were attended the events. The function was inaugurated by Ms.



Blanche Fernandes, Deep Vihar Higher Secondary School and opened by Mrs. B.S.Patil, ISBT. Dr. A. K. Bhargava, Zonal Director, FSI presented key note address wherein he emphasized on the Extension programmes of FSI. Digital charts on the activities, achievements, Fishery resources, futuristic vision of FSI and fishing

Fishery Survey of India

methods employed by FSI were displayed. Traditional and Mechanised boats, Gear Models, Charts of Marine fishery in the state of Goa, India and world were also displayed. Documentary films produced by FSI were screened to the visitors during the event.

Chennai Base

A one day open house in the office as well as onboard survey vessels namely *Matsya Drushti* and *M.F.V.Samudrika* berthed at the Fishing Harbour, Kasimedu was organised for the benefit of School, college students, fishermen on 7th September 2012. The Open House was inaugurated by Smt. S. Jayandhi, IAS, District Collector, Chennai.



Second open House was organized at the Community Hall, Chinna Neelankarai, Tamil Nadu on 23rd March 2013. Shri C. Munianathan IAS, Director of Fisheries, Government of Tamilnadu inaugurated the open House. Around 550 fishermen and public visited the Open House



Visakhapatnam Base

A one day Open House was conducted onboard *Matsya Darshini* and *Matsya Shikari* at Jetty No. 6 of fishing harbour on 20th December 2012. About 1400 persons from various Schools, Colleges, General public, Fishing industries and Tourists were visited.

14.6 Official Language Hindi Activities

14.6.1 Hindi workshop and seminar

Mumbai (HQ)

In order to increase the correspondence in Hindi, a one day Hindi workshop on "Hindi correspondence" was organized on 27th June 2012 at FSI(HQ), Mumbai in association with Hindi Teaching Scheme, Navi Mumbai. Dr. Sunita Yadav, Assistant Director delivered lecture on the above topic. She imparted practical training to prepare letters in Hindi. Eighteen officials participated in the workshop.

During 'Hindi Fortnight', a one day Hindi workshop was conducted on 18th September 2012 on "Standard Hindi spellings, noting and drafting." Smt. Reeta Chathurvedi, Hindi Pradhyapak, Hindi Teaching Scheme, Navi Mumbai delivered the lecture on the above topic. Twenty officials actively participated in the workshop and gainfully utilized the opportunity.

A one day Hindi workshop was organized on "Official Language Act, Official Language Policy of the Union and the methods to fill up the Quarterly Progress report and some guidelines to keep the records properly," at FSI (HQ) Mumbai on 11th December 2012. Smt. Sushmita Bhattacharya, Asst. Director, Regional Implementation Office, Navi Mumbai delivered lecture on the above topic. Twenty five Staff members actively participated in the workshop.

A one day computer training in Unicode was conducted on 19th March 2013 at Fishery Survey of India (HQ) Mumbai in order to increase the use of Hindi through computers by the employees. The training was arranged in association with Hindi Teaching Scheme, Navi Mumbai. Dr. Rakesh Kumar, Asstt. Director imparted the training. He enlightened the participants on basic knowledge of Unicode fonts and explained how to do typing on computer using Unicode fonts. Twenty officials actively participated in the workshop.

Mumbai Base

Two Hindi workshops were organised on 15th September 2012 and 15th March 2013. In the workshop on 15th September 2012, which were attended by all the officers and staff members, Shri. Karan Singh, Assistant Director, Hindi Teaching Scheme delivered the lecture on 'Hindi Lipi and Vartani' whereas in the workshop on 15th March 2013, Smt Meera Vellen Rajeev, Jr. Hindi Translator (HQ) gave a lecture on 'Notes / Notings in Hindi'.



Fishery Survey of India

Mormugao Base

A one day Hindi workshop was conducted on various aspects of implementation of official Language on 26th September 2012. Shri Devki Nandan Pathak, Hindi Pradhyapak, Hindi Teaching Scheme, Panjim, Goa was invited as the resource person on this occasion.

Hindi workshop was conducted on 8th March 2013 on “Income Tax, its calculation and savings” in Hindi. Smt Vidhya & Shri Yogesh Yadava, Income Tax Inspectors, Income Tax Office, Panjim, Goa were the resource persons.



Cochin Base

Hindi workshops were organized on 28th June 2011, 16th September 2012, 11th December 2012 and 06th March 2013. Altogether 25 employees took part in these workshops.

Visakhapatnam Base

A one day Hindi Workshop was conducted on 29th June 2012. Smt A. Aruna, Hindi Pradhyapak was the Chief Guest and delivered a lecture on “Hindi drafting and file Noting”.



A one day Hindi workshop was conducted on 31st December 2012 for the quarter October - December'2012. Smt. Sowbhagya Rani, Hindi Officer, All India Radio, Visakhapatnam was the Chief Guest. All the Officers and Staff actively participated in the programme.

Hindi workshop for the Quarter January'2013- March'2013 was organised on 22nd March 2013. Dr. Virottama Patar, Assistant Director, Hindi Teaching Scheme, Swarna Jayanthi Bhavan, Visakhapatnam was the Chief Guest. She elaborated on “Usage of Hindi in Office Matters”.



Port Blair Base

Hindi workshop for the Quarter April-June 2012 was conducted on 30th June 2012. Shri Mohan Das, Hindi translator of Forest Department, Port Blair was the resource person. He gave lecture on the importance of implementation of official language in day to day official works.



A one day Hindi workshop was conducted on 29th September 2012 during second quarter. Shri Ajay Kumar, Hindi cell, Andaman & Nicobar Administration was the resource person. He taught on skill of writing the noting for official communications in Hindi.

Third Hindi workshop was conducted on 31st December 2012 during third quarter. Shri Daharam Veer Singh, Mechanical Marine Engineer was the resources person.

Fourth Hindi Workshop was held on 19 March 2013. Dr. S.K. Dwivedi, Fisheries Scientist was the resource person.

14.6.2 Hindi Day and Hindi Fortnight Celebration

Mumbai (HQ)

The Fishery Survey of India (Hqrs.) observed Hindi Day on 14th September 2012 and Hindi Fortnight from 14 -29th September 2012. Shri Premchand, Deputy Director General (Fy.) inaugurated the function by lighting the lamp and read out the 'Appeal' on the occasion of 'Hindi Day' received from the Hon'ble Agriculture Minister, Shri Sharad Pawar. In the 'Appeal' the Honourable Minister requested all the Officers and the employees to do more and more work in Hindi throughout the year. Shri L. K. Rao, Sr. Administrative Officer, in the inaugural function, gave a brief description about the programme to be organized during 'Hindi fortnight'.



During the Hindi Fortnight, competitions were conducted on I) Hindi essay writing II) Dictation III) Antakshari on Hindi Film songs IV) Quiz-General knowledge V) Translation and terminology VI) Poem recitation. Staff members participated in various competitions with fervour and enthusiasm. The Valedictory function of the 'Hindi Fortnight' was held on 28th September 2012 presided over by Dr. K. Vijayakumaran, Director General & Chairman of the Official Language Implementation Committee.

Fishery Survey of India

The function commenced with the welcome address by Shri L. K. Rao, Sr. Administrative Officer. In his address, he spoke about the efforts made for the progressive use of Hindi.



Shri Naresh Kumar, Assistant Director, Central Translation Bureau, Navi Mumbai was the Chief Guest on this occasion. The Chief Guest in his address enlightened the gathering about the importance of Official Language Hindi. The programme concluded with the vote of thanks proposed by Meera Vellan Rajiv, Jr. Hindi Translator.

Mumbai Base

During the Hindi day and Hindi Week various activities were organised from 7th - 14th September 2012. The closing ceremony of Hindi Week was organised on 14th September 2012. Shri P. Sivaraj, Zonal Director, Fishery Survey of India, Mumbai Base was the Chief Guest of the function and distributed the prize to the winners of various competitions.

Mormugao Base

Hindi Fortnight was celebrated during 14th to 28th September 2012. Smt Anita V. Vaiti, Branch Manager, State Bank of India, Mormugao inaugurated the function. Dr. A. K. Bhargava, Zonal Director presided over the function. Various Hindi competitions were held during the Fortnight. Valedictory function was held on 29th September 2012 wherein Shri Pramod Mohan Johari, Director General, Goa Shipyard Limited, Vasco, Goa was the chief guest who distributed prize to the winners of the various Hindi competitions conducted during the fortnight.



Cochin Base

Hindi Fortnight was celebrated from 14th - 28th September 2012. Competitions in Hindi Essay writing, Hindi terminology, Hindi light music, Hindi Handwriting and Hindi letter writing were organized for the officers and staff.

Chennai Base

Hindi fortnight was celebrated from 1st - 15th September 2012.

Visakhapatnam Base

Hindi fortnight was observed from 1st September 2012 to 14th September 2012. Dr. V. S. N Murthy, NIO, Visakhapatnam was the Chief Guest for the valedictory function.



Port Blair Base

As a part of the Official Language Implementation programme, the Hindi Fortnight was celebrated during 14th - 28th September 2012. The function was inaugurated by Dr. (Mrs) A. J. Bara, Principal, Kendriya Vidyalay, Port Blair. During the Fortnight various competitions like speech, noting and drafting, translation and questionnaires and extempore speech were conducted. The Valedictory function of the Hindi Fortnight was conducted on 28th September 2012. Dr. Subrtho Saha, Medical Officer, CHC, Bamboo flat was the Chief Guest on this occasion. During the function prizes were distributed to the winners of various competitions conducted during the Fortnight celebration.

14.6.3 Participation in TOLIC Meetings/Workshops/Seminar

Sl No.	Participant(s)	Event	Venue and Date
1	Shri. Premchand Smt. Meera Vellan Rajiv	Meeting of Town Official Language Implementation Committee (TOLIC)	Churchgate, Mumbai 1 June 2012
2	Smt. Meera Vellan Rajiv	Participated in the Hindi Sammelan organised by Town Official Language Implementation Committee (undertaking)	ONGC Office, Bnadra, Mumbai 24 August 2012
3	Dr. Ansuman Das Shri Govinda Rao	Attended the TOLIC general body meeting	Divisional Railway Manager office, Visakhapatnam 17 October 2012
4	Dr. Ansuman Das Shri M Govinda Rao	Workshop on "Answering the Parliamentary Committee of official language on inspection questionnaire"	Visakhapatnam Hrd Bbuilding, Visakhapatnam Steel Plant Ukunogram 29 November 2012
5	Dr. K. Vijayakumaran Smt. Meera Vellan Rajiv	Meeting of Town Official Language Implementation Committee (TOLIC)	Churchgate, Mumbai 6 December 2012
6	Shri D. K. Gulati Smt Leena T. P.	Attended the meeting organised by the Cochin TOLIC	office of the chief commissioner of Income Tax Office, Cochin 29 December 2012
7	Shri Dharamvir Singh Shri Shahnawaz	Attended the meeting of TOLIC	Central Agricultural Research Institute (CARI), Port Blair 28 December 2012
8	Dr L. Ramalingam Shri Dharamvir Singh	Attended the Inaugural function of Joint Hindi Workshop organised by TOLIC	Central Agricultural Research Institute (CARI), Port Blair 1 February 2013
9	Smt. Meera Vellan Rajiv	Hindi Seminar in "Managing organisational change" organised by Shipping Corporation of India	SCI Maritime Training Institute, Powai, Mumbai 15 February 2013

14.6.4 Awards

Prashasthi Patra and Aashirwad Smriti Chihn

Shri L. K. Rao, Sr. Administrative Officer, FSI (HQ) was honoured with Prashasthi Patra and Aashirwad Smriti Chihn for his contribution to Hindi Implementation in official work. The prize was presented in the Aashirwad 21st Rajbhasha Sammelan held on 9th November 2012 at NFDC, Preview theatre, Nehru Planatorium, Worli, Mumbai.

Aashirwad Rajbhasha Puraskar for Mumbai (HQ)

The Fishery Survey of India (HQ) won the Ashirwad Rajbhasha Smriti Chihn as IInd Prize for doing work in Hindi among the small Central Govt. Offices located at Mumbai. The Puraskar was received by Dr. K. Vijayakumaran, Director General on 9th November 2012 in the 21st Aashirwad Rajbhasha Prize Distribution function held at NFDC Preview Theatre, Nehru Planatorium, Worli, Mumbai.

Incentive Scheme in Hindi

Under the Incentive Scheme for doing work in Hindi, six employees were awarded prizes during the financial year 2011-12. These officials bagged 2 first prizes worth Rs. 800/- each, 3 second prizes worth Rs. 400/- each and 1 third prize worth Rs. 300/-. Shri Naresh Kumar, Assistant Director, Chief Guest for valedictory function of Hindi Fortnight gave away the prizes to the winners of the above scheme as well as the winners of the various competitions.

Training in Hindi shorthand and typewriting

Shri Subrajith Das, Stenographer Gr.II and Shri Chandragupt Kumar, Lower Division Clerk passed the Hindi stenography and Hindi typewriting examination respectively under Hindi Teaching Scheme during the year 2012-13. Both of them received a cash award of Rs. 800/- and Rs. 1600/- respectively.

15. CO-OPERATION AND ASSOCIATION WITH NATIONAL AND INTERNATIONAL ACTIVITIES

The Director General /his representatives served in the following committees :

1. Research Advisory Committee (RAC) for Central Institute of Fisheries Education, Mumbai
2. Committee to consider the proposal for introduction of Vessel Monitoring System (VMS)
3. National Co-ordinator of Bay of Bengal Large Marine Ecosystem (BOBLME) Project.
4. Committee to decide on the Optimum Number of Fishing Vessels
5. Committee on Empowerment of Women
6. Inter-Ministerial Empowered Committee on Marine Fisheries
7. Expert Committee on Fisheries-Natural Calamities-Damages to Fishing Crafts and Implements-Assessment of Damages to Mechanized Fishing Boats
8. The NNRMS Standing Committee on Ocean Resources and Meteorology
9. Working Group constituted for monitoring and review of implementation of Indian Ocean Tuna Commission resolutions.
10. Working Group for review and revision of data on tuna for submission to the Indian Ocean Tuna Commission.
11. Committee to assess the impact of the fishing ban and to review its duration
12. Working Group of Experts committee for revalidation of potential fishery resources in the Indian EEZ.
13. Scientific Advisory Committee of Centre for Marine Living Resources and Ecology(CMLRE), MoES, Kochi.
14. Technical Advisory Committee of BOBP-IGO, Chennai

16. ABBREVIATIONS

BOBLME	: Bay of Bengal Large Marine Ecosystem
BOBP-IGO	: Bay of Bengal Programme Inter Governmental Organisation
CCRF	: Code of Conduct for Responsible Fisheries
CIFNET	: Central Institute of Fisheries Nautical Engineering & Training
CIFRI	: Central Inland Fisheries Research Institute
CIFT	: Central Institute of Fisheries Technology
CMFRI	: Cental Marine Fisheries Research Institute
CMLRE	: Centre for Marine Living Resources and Ecology
EEZ	: Exclusive Economic Zone
FSI	: Fishery Survey of India
GIS	: Geographical Information System
GoI	: Government of India
IFCO	: International Foster Care Organisation
IITF	: India International Trade Fair
IMS	: Indian Meteorological Society
INCOIS	: Indian National Centre for Ocean Information Science
IOTC	: Indian Ocean Tuna Commission
IOTCSC	: Indian Ocean Tuna Commission Scientific Committee
ITPO	: India Trade Promotion Organisation
MCS	: Monitoring Control and Surveillance
NASC	: National Aeronautics and Space Council
NFDB	: National Fisheries Development Board
NIC	: National Informatics Centre
NIOT	: National Institute of Ocean Technology
PSC	: Project Steering Committee
RAC	: Research Advisory Committee
RALBAM	: Recent Advances in Lobster Biology, Aquaculture and Management
SAC	: Space Applications Centre
SAC-MLRP	: Scientific Advisory Committee on Marine Living Resources Programme
SIFT	: State Institute of Fisheries Technology
TOLIC	: Town Official Language Implementation Committee
VMS	: Vessel Monitoring System

Species:

YFT	: Yellowfin tuna
SKJ	: Skipjack tuna
MAR	: Marlin
SWO	: Sword fish
SAI	: Sail fish
SHA	: Shark
OTH	: Others
DOL	: Dolphin

