

INDIAN OIL SARDINE (GOA & MAHARSHTRA) FISHERY IMPROVEMENT PROJECT

(UNDER THE MARINTRUST IMPROVER PROGRAMME)

WORKSHOP ON THE PROPOSED FISHERY ACTION PLAN FOR SMALL PELAGIC SPECIES
ALONG THE COASTS OF MAHARASHTRA AND GOA - 27th NOVEMBER 2024

A one-day workshop to consult with stakeholders on the proposed Fishery Action Plan for Maharashtra and Goa was jointly organized by Omega Fishmeal And Oil Private Limited, and TJ Marine Products Pvt Ltd on 27th November 2024 at Vivanta Goa, Panaji, Goa. The workshop also covered the status of the lesser sardines group along the coast of these two states.

The workshop was attended by representatives of various stakeholders & marine ingredient related organizations, including:

- **Fishermen societies –**

- Ratnadurga Macchimar Sahakari Sanstha Limited, Ratnagiri;
- Adarsh Macchimar Sahakari Sanstha Limited, Ratnagiri;
- Chandika Macchimar Society Sahakari Sanstha Limited, Ratnagiri;
- Bhagavati Macchimar Sahakari Sanstha Limited, Ratnagiri;
- Vasco Fishing Boat Owners Marketing Co-operative Society Ltd., Goa;
- Zuari Fishermen Marketing Co-operative Society Ltd., Goa.

- **Fish feed manufacturing companies -**

- Biomar Pty Ltd., Australia;
- Avanti Feeds Ltd., Hyderabad;
- Cargill India Pvt. Ltd., Karnataka;

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- Devi Aqua Feeds Pvt. Ltd., Andhra Pradesh;
- Fedora Sea Foods Pvt.Ltd., Andhra Pradesh;
- Growel Feeds Pvt.Ltd., Andhra Pradesh;
- Sandhya Marines Ltd., Andhra Pradesh;
- **Marine Ingredient companies –**
 - Agrispurt Biotech P Ltd., Maharashtra;
 - Sonia Marine Exports (P) Ltd. Maharashtra;
 - Yashaswi Fish Meal & Oil Company, Karnataka;
 - Janatha Fish Meal & Oil Products., Karnataka;
- **Government agencies supporting this project - represented by officers/scientists from**
 - Directorate of Fisheries, Goa;
 - Department of Fisheries, Maharashtra;
 - College of Fisheries, Ratnagiri;
 - Central Institute of Fisheries Technology (CIFT), Mumbai;
 - Central Marine Fisheries Research Institute (CMFRI), Mumbai and Mangalore;
 - The Marine Products Export Development Authority (MPEDA), Mumbai;
 - Central Institute of Fisheries Education (CIFE), Mumbai;

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- Krishi Vigyan Kendra, Goa;
- ICAR Central Coastal Agricultural Research;
- FIP team members of Omega Fishmeal And Oil Private Limited and TJ Marine Products Pvt Ltd.

List of participants is attached at **Appendix 1**.

The agenda of the workshop is attached as **Appendix 2**.

Welcome address:

Mr. Amol Patil, Director, Omega Fishmeal And Oil Private Limited, welcomed the participants. In his introductory and welcome address, he outlined the progress of the FIP since its inception in 2017, including the major activities undertaken from 2017 to 2024. He mentioned that three workshops had been conducted on different themes: "Stock Assessment of Indian Oil Sardine & Indian Mackerel along the Coast of Maharashtra & Goa," an International Workshop on "Reference Points and Harvest Strategy for the Sardine Stocks," and a third workshop on "Management Plan for the Marine Fisheries of Maharashtra & Goa." Additionally, research projects on the "Stock Assessment of Indian Oil Sardine & Indian Mackerel" in collaboration with the College of Fisheries, Ratnagiri, and the project on "An Ecopath Model of the North Eastern Arabian Sea (Maharashtra & Gujarat coasts) with emphasis on Small Pelagic Herbivores" by Dr. K. Sunil Mohamed, Retired

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Principal Scientist, CMFRI, were undertaken. He encouraged the active participation of all participants in the workshop and the discussions on the new Fishery Action Plan (FAP)



Mr. Amol Patil welcoming the participants

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The workshop session commenced after the inaugural ceremony.



Shri. E. Vallavan, IAS inaugurating workshop

Presidential address:

Shri E. Vallavan, IAS, Secretary (Social Welfare, AHVS, and Fisheries) Government of Goa, delivered the presidential address. He welcomed all the participants to Panjim on behalf of the Government of Goa for attending the workshop organized by Omega Fishmeal And Oil Private Limited and TJ Marine Products Pvt Ltd. He emphasized that the fishing community in Goa is very

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knowledgeable about marine resources but that value addition to marine products is not taking place as desired. Fishermen co-operative societies such as Vasco Fishing Boat Owners Marketing Co-operative Society Ltd. and Zuari Fishermen Marketing Co-operative Society Ltd. can play a significant role in this regard by tapping into additional marine resources and advising their members accordingly. He mentioned that several prestigious ICAR institutes are operating in the state to support the seafood industry, and the Government of Goa has decided to open a new Fisheries College in the state, which will begin operations in the next academic year (2025-26).



Shri. E. Vallavan, IAS giving Presidential Speech

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Omega Fishmeal And Oil Private Limited initiated this FIP in 2017 and has made significant contributions toward the judicious exploitation of fish resources in the state. He also noted that over the last 30-40 years, customer attitudes have changed, and there is now a stronger focus on quality. Therefore, attention should be given to traceable, resilient, sustainable, and environmentally friendly exploitation of marine resources, without over-exploitation. Goa has a 105 km coastline with rich marine potential, and he expressed hope that the workshop would be participatory and interactive, leading to constructive ideas and positive outcomes. India ranks second globally in fishmeal exports, and he urged all participants to work tirelessly to elevate India to the top position in global fishmeal exports.

Key- note address:

Dr. Sujitha Thomas, Principal Scientist and Scientist-in-Charge, CMFRI, Mangalore, delivered the keynote address on behalf of Dr. Grinson George, Director, CMFRI, Kochi. She stated that CMFRI is preparing the marine fisheries management plan for Goa and revising the plan for Karnataka. CMFRI believes that sustainability is the cornerstone of all fishing activities, and promoting sustainable fishing practices is essential to avoid the overexploitation of resources while maintaining biodiversity. Stock assessment is a critical tool for assessing the sustainability of resources, and the future of the fishing sector depends on the health of fish stocks. Therefore, the workshop on stock assessment is vital and is expected to yield positive results.

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Dr. Sujitha Thomas giving Key note address

CMFRI has substantial expertise in this field and conducted a nationwide Marine Stock Assessment a few years ago, including assessments of small pelagic species. Stock assessment of small pelagic species requires a minimum of three years of reliable data. CMFRI is committed to the sustainability of marine resources in India, and factors like data credibility, harvest limits, and accuracy of stock assessment methods are crucial. CMFRI is eager to collaborate with stakeholders, including exporters and the fishing community, to improve the fisheries sector and welcomes

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cooperation in research, training, and policy-making. CMFRI Kochi is planning a brainstorming session on the sustainable utilization of fish resources for fishmeal in January 2025, where stakeholders from the fishmeal sector, government officials, and policymakers will be invited. This session aims to ensure the sustainability of resources and accelerate the economic growth of fishermen, ultimately leading to their prosperity.

Felicitatation Speech:

Shri Mahesh Deore, Regional Joint Commissioner of Fisheries, Mumbai, delivered the felicitation address. He described the workshop as an important event organized by Omega Fishmeal And Oil Private Limited and TJ Marine Products Pvt Ltd. on the stock assessment of lesser sardines along the coast of Maharashtra and Goa. He expressed happiness about the collaborative gathering of fishermen representatives, fishmeal manufactures / exporters, scientists from ICAR institutes, teachers from fisheries colleges, and officers from MPEDA and fisheries departments of both states. He praised the exporters for their involvement in the FIP and noted that Omega Fishmeal And Oil Private Limited has been a pioneer in producing high-quality fishmeal and fish oil for many years, while TJ Marine Products Pvt Ltd. has significantly enhanced the fishing value chain.

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Shri Mahesh Deore giving felicitation speech

The fisheries sector is critical for the economic growth of fishermen, food security, and export production. However, challenges such as climate change, stock depletion, and overfishing must be addressed. He highlighted that the Government of Maharashtra has been committed to protecting the Indian oil sardine and Indian mackerel stocks from over-exploitation. With this purpose, during 2012 a committee was formed under the leadership of Dr. Somvanshi, former Director General of the Fishery Survey of India. The government accepted the committee report, and fishing fleets in Maharashtra's coastal waters were suitably regulated. He hoped that the

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workshop would generate valuable suggestions and promised full support from the Government of Maharashtra for its implementation.

Presentations:

Mr. Duncan Leadbitter, Director, Fish Matter Ltd., Australia, and manager of the FIP, led two sessions in the workshop. First, he reviewed the current status of the FIP in detail and provided an update on the progress. He explained that at the launch of the FIP in 2017, a Fishery Assessment was conducted, and a draft Fishery Action Plan was prepared. This plan was discussed in a workshop in 2019, and the FIP was approved by Marin Trust in 2019. However, the COVID-19 pandemic caused delays in implementing the fishery action plan as originally envisioned. Research work on the stock assessment of Indian oil sardine and Indian mackerel along the Maharashtra and Goa coasts was conducted by the College of Fisheries, Ratnagiri, as a follow-up to the workshop on "Stock Assessment of Indian Oil Sardine & Indian Mackerel along the Coast of Maharashtra & Goa". Other workshops on "Reference Points and Harvest Strategy for the Sardine Stocks" and "Management Plan for the Marine Fisheries of Maharashtra & Goa" have already led the Governments of Goa and Maharashtra to request CMFRI to prepare management plans for the states, expected to be completed by the end of 2025.

All the documents are reported on the FIP website (<https://indiasardinefip.in>) and on the Marin Trust website (www.marin-trust.com)

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Mr. Duncan Leadbitter giving presentation

In the second session, Mr. Leadbitter emphasized the purpose of the workshop: to ensure that all participants have a clear understanding of the FIP process and to gather their valuable input on the proposed new Fishery Action Plan (FAP). He discussed the growing demand for certified fishmeal and fish oil in both domestic and international markets, driven by standards from the Best Aquaculture Practices (BAP) and Aquaculture Stewardship Council (ASC), which require certified ingredients with transparent traceability in the supply chain.

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He further explained the Marin Trust Global Standard for Responsible Supply of Marine Ingredients, which begins with the responsible sourcing of marine ingredients from approved FIPs, approved fisheries, or approved by-products. Other components of the certification process include social accountability, traceability, GMP, environmental accountability, and quality management systems. He also detailed the criteria under Marin Trust's Version 3 standards, which include compliance with government regulations and monitoring, control, and enforcement to ensure the sustainability of fisheries. He mentioned that a revised Fishery Action Plan (draft FAP) had been prepared to meet these updated standards, and once approved, the new FIP would be initiated.

The result of the fishery assessment was discussed with participants, focusing on the stock assessment of lesser sardines along the coast of Maharashtra and Goa, as well as the new FAP. A detailed presentation was given, and the results were debated with stakeholders. Participants discussed and made suggestions on how to improve the stock assessment methodologies, ensuring their relevance to the FIP goals.

After brainstorming deliberations on the topics, a new Memorandum of Understanding (MoU) regarding the collaboration has been signed by the stakeholders at the end of the workshop.

Copy of Memorandum of Understanding (MoU) is attached as Appendix 3.

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Dr. Ajay Nakhawa, Scientist CMFRI Mumbai Centre presented the topic “Stock assessment of lesser sardines along the coastal waters of Maharashtra”.



Dr. Ajay Nakhawa giving presentation

The lesser sardines are typically schooling pelagic species and mainly occur within 50 km from the shore, become available to shore-based fishery. The four common species of lesser sardines namely, *Sardinella fimbriata*, *S. gibbosa*, *S. albella* and *S. dayi* have more or less similar growth rate. The fish attaining 12-14 cm total length by the end of first year of life, and 17-19 cm total length by the end of second year. *S. sirm*, however, grows to about 16 cm length by the end of first year and to 21-22 cm length by the end of second year. The first four species are sexually mature by about 12 cm length and *S. sirm* is sexually mature by 19-21 cm length. For all these

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five species, fish with mature and ripe gonads form only in a small fraction of the commercial landings as the bulk of which is formed by 0 year class fish.

The inshore fishery is constituted mostly of juveniles, while the majority of the adult stocks remain offshore. Better catches of lesser sardines are often obtained in depths between 30 and 55 meters. Nearly 86% of the catch is obtained from the purse seine fishery, 7% from gill net, 3% from trawl fisheries and the rest by other gears. In Maharashtra the contribution of lesser sardines varies from 1 to 7% of total marine fish landings. An average catch of 5,400 ton of lesser sardine landing is reported in the state. The highest historic landing recorded was 17,857 tons during 2015.

Purse seine was first introduced in Maharashtra (Ratnagiri) in 1990 and later on to other districts and it contributes 94% of the landings in the pelagic fishery. The average landing of Indian mackerel and oil sardines increased from 9% to 23% of total fishery landings after Maharashtra introduced purse seines introduction and this gear remains a significant contributor to the total marine fish and pelagic fish landing in the state. It may be noted that an exclusive single species fishery for lesser sardines does not occur in any region. Two or more species with a dominance of one of them are landed by various gears operating along the coast. The fluctuations and the steep decline in the catches of oil sardine during the recent years have resulted in increased demand for lesser sardines.

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Dr. K. K. Asha, Principal Scientist & Scientist-In-Charge, CIFT, Mumbai presented the topic “Interaction of ETP species in Purse seine fisheries”.



Dr. K. K. Asha giving presentation

She started the presentation by briefing the advent of surround net fishing in the country. Major surrounding nets are beach/shore seines, lampara nets, purse seines, and ring seines. Purse seines are used in the open sea to target dense schools of single-species pelagic fish like tuna and mackerel. Purse seining is one of the most efficient and advanced commercial fishing methods allowing fishermen to venture deeper and farther into waters well beyond the Indian coast. It has no contact with

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the seabed and hence less ecological/ environmental impact. Other potential negative impacts to the marine ecosystem may include

1. Interactions with ETP species: Interactions may include dolphins, marine turtles, sharks and other protected species. These can be reduced by improvement in the net design appropriate for target fishes, mesh size optimization, use of dolphin wall net on the outer side of the purse seine to reduce the depredation of the net by marine mammals and damage of net by puffer fish, use of high tensile fishing gear materials resistant to fish bites like UHMWPE. Purse seining has no impact on bottom habitat except in shallow water operations, when the lower edge of gear may contact the sea bed.
2. Impact on large marine animals: It is reported that worldwide, 6 of 7 sea turtle species are classified as threatened or in the Red List of Threatened Species by IUCN.

The following 5 species of turtles are protected under the Wild Life (Protection) Act 1972 of India.

1. Olive Ridley turtle (*Lepidochelys olivacea*),
2. Loggerhead turtle (*Caretta caretta*),
3. Leather back turtle (*Dermochelys coriacea*),
4. Hawksbill turtle (*Eretmochelys imbricate*) and
5. Green turtle (*Chelonia mydas*)

Marine mammals are an integral part of the marine ecosystems and act as indicators of ocean health. As per the Wild Life (Protection) Act 1972 of India, Schedules I

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and II provide absolute protection to these animals. Capture, use and trade of animals under this schedule prescribes the highest penalties. The important dolphin species that may be encountered in purse seine fisheries are the Spinner dolphin (*Stenella longirostris*), Pacific Bottlenose Dolphin (*Tursiops aduncus*), long beaked common dolphin (*Delphinus capensis*) and humpback dolphin (*Sousa sp*).

Ms. Chieko Sasaki, Purchase Manager, Biomar Pty Ltd Australia presented the topic “Sustainability certifications for aquaculture feeds”. She said, Biomar is one of the world’s largest manufacturers of high performance sustainable feed for global aquaculture farming industry. They operate 17 feed production units in Norway, Chile, Denmark, Scotland, Spain, France, Vietnam, Greece, Turkey, China, Ecuador, Australia, and Costa Rica servicing over 90 countries in the world.

Best Aquaculture Practices (BAP) is the only aquaculture certification programme in the world that certifies every step of the production chain. The BAP feed standard requires that fishmeal and fish oil derived from either reduction process or from processing by products, must comprise 50% shall come from sources that are certified to GSSI recognized standards (and 75% for salmon feed). The Marin Trust standard or derived from farmed or invasive species. By products may also include material sourced from non-threatened and non IUU fisheries. Alternatively where GSSI recognized or Marin Trust certified fishmeal and fish oil are not produced nationally, the above minimum percentage can comprise material from active fishery improver programs (FIPs) as verified by Marin Trust, Fish source, or the In

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Transition to MSC (ITM) program. FIPs should incorporate social components that prioritize the prevention of bonded or trafficked labor and aqua feed producers should become supporting stakeholders in new or existing FIPs that are relevant to their supply chains. The Marin Trust approved standards (ISEAL and ISO 17065 compliant) certification process covers responsible fishery management, chain of custody and Good manufacturing practices for the fishmeal factory. FIP traceability can be demonstrated by producing a chain of custody certificate corresponding to all FIP products accounting towards the minimum percentage.



Ms. Chieko Sasaki giving presentation

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On conclusion of presentation serious deliberations took place on the topics and queries were answered by the subject experts



Members of fishermen societies taking part in discussion

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Officers from Fisheries Department, Maharashtra & Goa taking part in discussion



Scientist from Government Research Institute taking part in discussion

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Scientist from Government Research Institute taking part in discussion

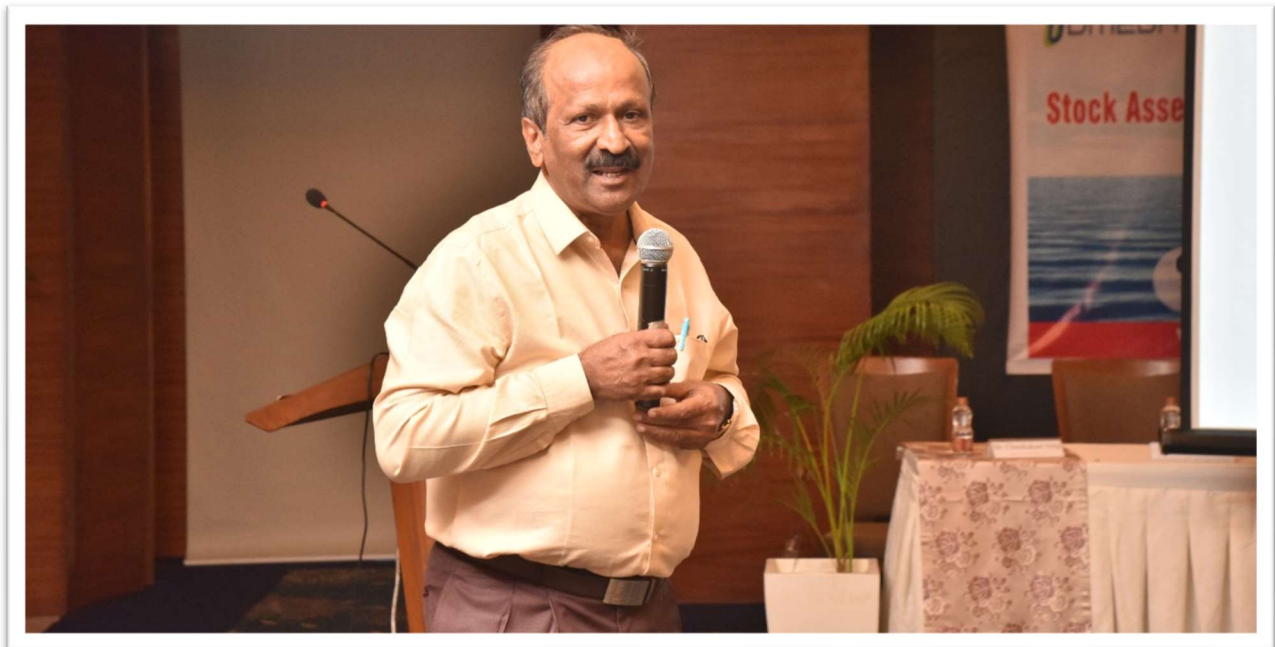
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Mr. Duncan Leadbitter answering question



Mr. K. J. Antony, FIP Co-ordinator answering question

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Participants from feed ingredient company taking part in discussion

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Mr. Manoj Kushe answering question

All stakeholders including the Government officials commented on the new Fishery Action Plan and said that various action points envisioned in the new FAP might take 4-5 years for implementation.

Mr. Manoj Kushe, Director, Omega Fishmeal And Oil Private Limited and Mr. N A Badruddin, Managing Director, TJ Marine products Pvt Ltd. graced the occasion with their esteemed presence throughout ensuring their commitment and involvement in the project.

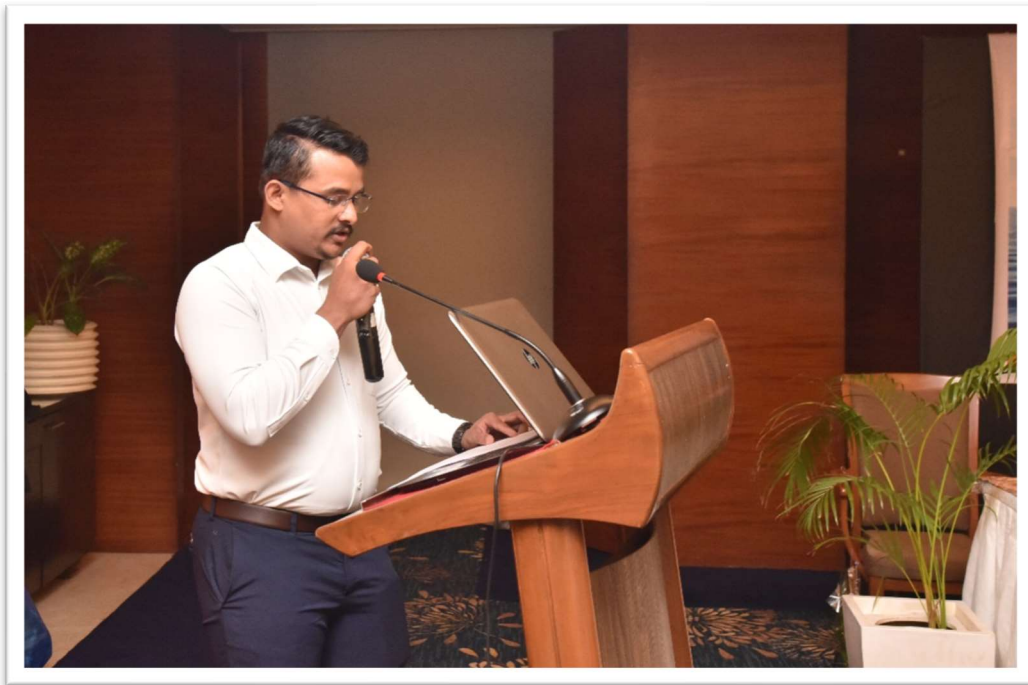
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Vote of Thanks:

The workshop concluded with a vote of thanks by Mr. Akshay Joshi, TJ Marine Products Pvt Ltd who thanked all stakeholders, experts, and participants for their valuable contributions to the successful conclusion of the workshop.



Mr. Akshay Joshi expressing vote of thanks

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Group photo of participants

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APPENDIX 1

LIST OF PARTICIPANTS

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Sr. No.	Name of The Participant	Organisation Name
1.	Mr.E.Vallavan IAS	Hon.Secretary, (Social Welfare, AHVS, Fisheries, Provedoria, DEPwD)
2.	Mr. Chandrakant Velip	Dy. Director, Directorate of Fisheries, Goa
3.	Mrs.Meghav Kerkar	Supt. Director, Directorate of Fisheries, Goa
4.	Mr.Gibin Kumar	Dy. Director, MPEDA, Maharashtra
5.	Mr. Mahesh Deore	Joint commissioner of Fisheries, (Marine), Mumbai, Maharashtra
6.	Mr. N.V. Bhadule	Regional Deputy Commissioner, Department of Fisheries, Maharashtra
7.	Dr. K.K. Asha	Principal Scientist, CIFT, Mumbai
8.	Dr.Ajay Nakhawa	Scientist, CMFRI, MUMBAI
9.	Dr.Sujitha Thomas	Principal Scientist, CMFRI, Mangalore
10.	Dr.Karankumar Ramteke	Scientist, ICAR-Central Institute of Fisheries Education
11.	Dr. Christabelle Fernandes	Directorate of Fisheries, Goa
12.	Mrs.Jigyasa Murkar	Directorate of Fisheries, Goa
13.	Dr.Santosh B	Scientist, CMFRI, Mumbai.
14.	Dr.Abuthagir	Scientist, Central Institute of Fisheries Education
15.	Mr.Sushil K	Collage of Fisheries
16.	Mr.Hrushikesh Pawar	Krishi Vigyan Kendra, Goa
17.	Dr.Laxman Sawant	Krishi Vigyan Kendra, Goa
18.	Mr.Trivesh Mayekar	Scientist, ICAR, Central Coastal Agricultural Research
19.	Dr.M.V.Chandra	Janatha Fish Meal & Oil Products
20.	Mrs.Chieko Sasaki	Biomar PTY.LTD
21.	Mr.K.V.Raju	Avanti Feeds.Ltd.

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Sr. No.	Name of The Participant	Organization Name
22.	Mr.M.R.S.H Prasad	Avanti Feeds.Ltd.
23.	Mr.Krishna Prasad	Avanti Feeds.Ltd..
24.	Mr.Madan	Sandhya Marines Ltd.
25.	Mrs.Sarbani Sengupta	Growel Feeds Pvt.Ltd.
26.	Mr.Hariharan P.V.	Vice President, QA Head, Growel Feeds Pvt.Ltd.
31.	Mr.Shrinivas Rao	Fedora Sea Foods Pvt.Ltd.
32.	Mr.Shabaaz Ahmed Shekh	Devi Aqua Feeds Pvt. Ltd.
34.	Mr.Nandkumar	Cargill India Pvt. Ltd.
35.	Mr. Uday Kumar Salian	Director, Yashaswi Fish Meal & Oil Company
36.	Mr.Pradeep Moger	Sr. Executive, Manager Yashaswi Fish Meal & Oil Company
37.	Mr. Duncan Leadbitter	Director, Fish Matter, Australia
38.	Mr. K. J. Antony	Omega Fishmeal And Oil Private Limited
39.	Mr.N.A.Badruddin	T.J.Marine Products Pvt.Ltd.
40.	Mr.Manoj Kushe	Omega Fishmeal And Oil Private Limited
41.	Mr.Amol Patil	Omega Fishmeal And Oil Private Limited
42.	Mr.Vijay Nakhawa	Omega Fishmeal And Oil Private Limited
43.	Mr.Imran Mukadam	Adarsh Macchimar Sahakari Sanstha Limited, Ratnagiri.
44.	Mr.Arif Hodekar	Adarsh Macchimar Sahakari Sanstha Limited, Ratnagiri.
45.	Mr.Sudhakar Mondkar	Bhagavati Macchimar Sahakari Sanstha Limited, Ratnagiri.
46.	Mr.Dilawar Godad	Bhagavati Macchimar Sahakari Sanstha Limited, Ratnagiri.
49.	Mr.Siddharth	Vasco Fishing Boat Owners Marketing Co-operative Society Ltd.,Goa

INDIAN OIL SARDINE (GOA & MAHARSHTRA) FISHERY IMPROVEMENT PROJECT

(UNDER THE MARINTRUST IMPROVER PROGRAMME)

WORKSHOP ON THE PROPOSED FISHERY ACTION PLAN FOR SMALL PELAGIC SPECIES
ALONG THE COASTS OF MAHARASHTRA AND GOA - 27th NOVEMBER 2024

Sr. No.	Name of The Participant	Organization Name
50.	Mr.Rohit Sankolkar	Zuari Fishermen Marketing Co-operative Society Ltd., Goa
51.	Mr.Mohmmad	T.J.Marine Products Pvt.Ltd.
52.	Mr.Arun	T.J.Marine Products Pvt.Ltd.
53.	Mr.Kamlesh	Omega Fishmeal And Oil Private Limited
54.	Mr.Ashish	Omega Fishmeal And Oil Private Limited
55.	Mr.Akshay	T.J.Marine Products Pvt.Ltd.
56.	Mr.Sushant	T.J.Marine Products Pvt.Ltd.
57.	Mr.Dattatray	T.J.Marine Products Pvt.Ltd.
58.	Mr.Liladhar	Omega Fishmeal And Oil Private Limited
60.	Miss.Harshada	T.J.Marine Products Pvt.Ltd.
61.	Miss.Shruti	T.J.Marine Products Pvt.Ltd.
62.	Miss.Siddhi	T.J.Marine Products Pvt.Ltd.
63.	Tushar B Kubal	Bhagavati Macchimar Sahakari Sanstha Limited, Ratnagiri.
64.	Tushar S Kubal	Bhagavati Macchimar Sahakari Sanstha Limited, Ratnagiri.
65.	Bhalchandra Malusare	Bhagavati Macchimar Sahakari Sanstha Limited, Ratnagiri.
66.	Shrirang Kumak	Bhagavati Macchimar Sahakari Sanstha Limited, Ratnagiri.
67.	Dickson Pieres	Vasco Fishing Boat Owners Marketing Co-operative Society Ltd.,Goa
68.	Janinto Gurjao	Vasco Fishing Boat Owners Marketing Co-operative Society Ltd.,Goa
69.	Anthony D	Vasco Fishing Boat Owners Marketing Co-operative Society Ltd.,Goa

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APPENDIX 2

THE WORKSHOP AGENDA

INDIAN OIL SARDINE (GOA & MAHARSHTRA) FISHERY IMPROVEMENT PROJECT

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9:45 To 10:00	:	Registration
10.00 To 10.10	:	Introduction & Welcome Speech. Mr. Amol Patil, Director, Omega Fishmeal And Oil Private Limited
10:10 To 10:20	:	Inauguration
10:20 To 10:40	:	Presidential address by Chief Guest Shri E. Vallavan, IAS, Secretary, (Social Welfare, AHVS, Fisheries, Provedoria, DEPwD)
10:40 To 11:00	:	Key- note address Dr. Sujitha Thomas. Head & Principal Scientist, Mangalore Regional Centre of CMFRI.
11:00 To 11:20	:	Felicitiation Speech Mr. Mahesh Deore. Joint Commissioner of Fisheries, Maharashtra.
11:20 To 11.40	:	FIP Status Review Mr. Duncan Leadbitter, FIP Manager & Director, Fish Matter, Australia
11:40 To 12:10	:	Presentation on Stock Assessment of Lesser Sardines Dr. Ajay Nakhawa, Scientist, CMFRI, Mumbai
12.10 To 12:40	:	Presentation on Interaction of ETP Species in Purse Siene Fisheries Dr. K K Asha Principal Scientist & S/C, CIFT, Mumbai.
12:40 To 1:10	:	Presentation on Bycatches in Purse Seine Fisheries Mr. Sushil Kamble, Asst. Professor, College of Fisheries, Ratnagiri.
01:10 To 2:00	:	Lunch
02:00 To 02:30	:	Presentation on BAP & ASC Standard in Feed mill and requirements of sustainability and traceability certification in Feed & Marin Ingredient Manufacturing Ms. Chieko Sasaki, Purchase Manager Biomar Pty Ltd, Australia.
02:30 To 4:30	:	Discussion on Revised Fishery Action Plan. Mr. Duncan Leadbitter, FIP Manager & Director, Fish Matter, Australia
4:30 To 5:30	:	Open Discussion
5:30	:	Vote of Thanks Mr. Akshay Joshi, TJ Marine Products Pvt Ltd

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APPENDIX 3

Memorandum of Understanding (MoU)

INDIAN OIL SARDINE (GOA & MAHARSHTRA) FISHERY IMPROVEMENT PROJECT

(UNDER THE MARINTRUST IMPROVER PROGRAMME)

WORKSHOP ON THE PROPOSED FISHERY ACTION PLAN FOR SMALL PELAGIC SPECIES
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Memorandum of Understanding

Regarding the collaboration to Indian Oil Sardine (Goa & Maharashtra) Fishery Improvement Project

Ratnadurga Macchimar Sahakari Sanstha Limited, Adarsh Macchimar Sahakari Sanstha Limited, Vasco Fishing Boat Owners Marketing Co-Op Society, Zuari Fishermen Co-Operative Society, Bhagvati Macchimar Sahakari Sanstha Limited, Chandika Macchimar Sahakari Sanstha Limited, Omega Fishmeal and Oil Private Limited, TJ Marine Products Pvt Ltd, Sonia Marine Exports Pvt Ltd, Agrisport Biotech Private Limited, Blomar Pty Ltd, Australia, Avanti Feeds Limited, Skretting Global jointly commit to "Indian Oil Sardine (Goa & Maharashtra) Fishery Improvement Project".

- All parties agree to put a concerted effort on:
- Improving efficiency of fisheries management & governance
 - Fostering food safety, environmental responsibility, and transparent traceability of fisheries products throughout the supply chain
 - Promoting sustainability in the fisheries products supply chain, to meet with international standards



(Mr. Sandesh Surve)

Chairman, Ratnadurga Macchimar Sahakari Sanstha Limited



(Mr. Jerry Fernandes)

Chairman, Zuari Fishermen Marketing Co-Operative Society



(Mr. Manoj Kushe)

Director, Omega Fishmeal and Oil Private Limited



(Mr. Imran Mukadam)

Chairman, Adarsh Macchimar Sahakari Sanstha Limited



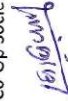
(Mr. Sudhakar Mondkar)

Chairman, Bhagvati Macchimar Sahakari Sanstha Limited



(Mr. Dickson Pires)

Chairman, Vasco Fishing Boat Owners Marketing Co-Op Society



(Mr. Vishnu Pawar)

Chairman, Chandika Macchimar Sahakari Sanstha Limited



(Mr. Amol Patil)

Director, Sonia Marine Exports Pvt Ltd

27 November 2024

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Memorandum of Understanding

Regarding the collaboration to Indian Oil Sardine (Goa & Maharashtra) Fishery Improvement Project

Khatija

(Khatija)

Director, Agrisourc Biotech Private Limited

Chieko Sasaki

(Chieko Sasaki)

Purchasing Manager, Blomar Pty Ltd, Australia

M.R.S.H. Prasad

(Mr. M.R.S.H. Prasad)

AGM Purchase, Avanti Feeds Limited

Jorge Diaz

(Mr. Jorge Diaz)

Skretting Global

N.V. Bhaduric

(Mr. N.V. Bhaduric)

Regional Deputy Commissioner, Department of
Fisheries, Maharashtra (Witness)

Chandrakant Velip

(Mr. Chandrakant Velip)

Dy. Director, Directorate of Fisheries, Goa
(Witness)

K.K. Asha

(Dr. K.K. Asha)

Principal Scientist, Central Institute of Fisheries
Technology, Mumbai (Witness)

Sujitha Thomas

(Dr. Sujitha Thomas)

Principal Scientist, Central Marine Fisheries Research
Institute, Mangalore (Witness)

27 November 2024

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