



# MATSYA DRISHTI

मत्स्य विभाग / DEPARTMENT OF FISHERIES  
अंडमान तथा निकोबार प्रशासन / ANDAMAN AND NICOBAR ADMINISTRATION

Website: [www.anifisheries.andaman.gov.in](http://www.anifisheries.andaman.gov.in)

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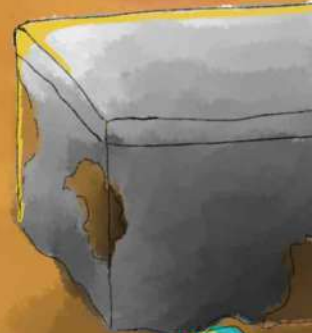
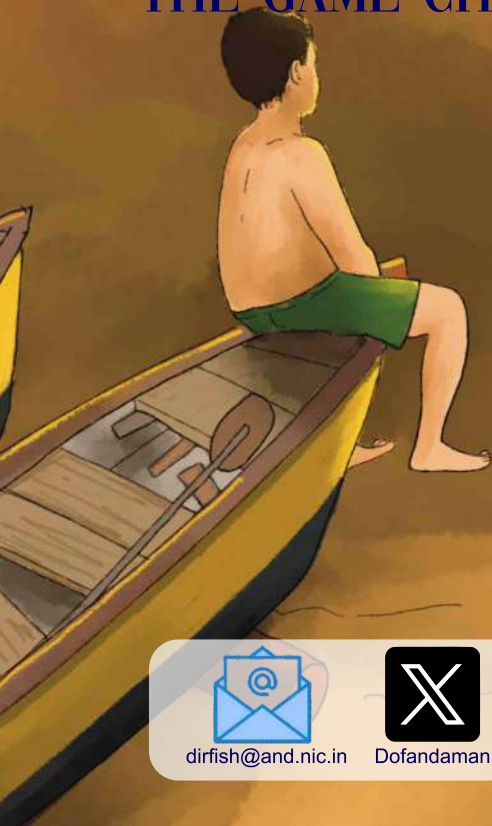
**TUNA** CLUSTER  
DEVELOPMENT

**FISH**  
VALUE ADDITION

**SEAWEEDS**  
IN A & N ISLANDS

**PMMSY**  
THE GAME CHANGER

NEW HORIZON OF  
**SEAFOOD**  
EXPORT



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## FOREWORD



We are thrilled to announce the launch of the second edition of Matsya Drishti dedicated to the vibrant and ever-evolving fisheries sector of the A&N Islands. Building on the enthusiasm and readers' overwhelming response to our first edition, this issue takes a comprehensive and dynamic approach to the exciting and recent developments in the fisheries domain, showcasing the growth and potential of this vital sector in A&N Islands.

The department has been working tirelessly to strengthen the fisheries sector, and we are proud to share the successes we've achieved in recent times. One of the major highlights is the recent investors' meet, which brought together key stakeholders, including the esteemed Union Ministers from the Ministry of Fisheries, Animal Husbandry and Dairying, Government of India. This event served as a platform to explore investment opportunities, and it was a resounding success in terms of fostering partnerships that will propel the sector forward.

Furthermore, the Fisheries Department's commitment to economic growth is evident through the successful implementation of flagship schemes like PMMSY and PM-KSSY which have played a vital role in enhancing the sector's potential. These schemes have not only boosted the local economy but have also empowered fishers and entrepreneurs, enabling them to expand their businesses and increase their income.

One of the most exciting developments this year is the department's focus on the commercialization of seaweed cultivation. This initiative holds immense promise for the islands, providing new employment opportunities, especially for the youth & women SHGs. It is an area that will revolutionize the fisheries sector, adding an innovative dimension to the industry while addressing the growing demand for sustainable marine products.

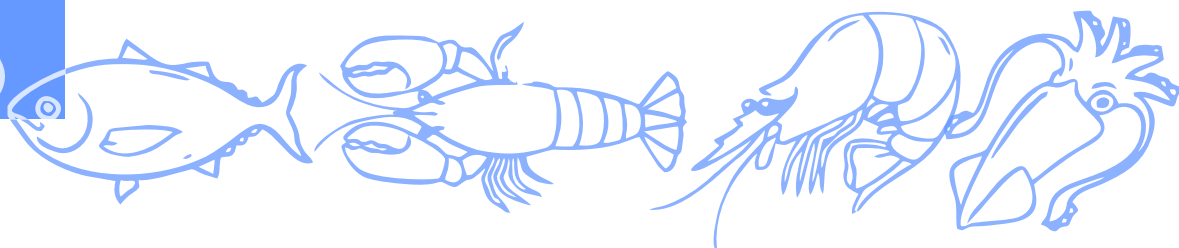
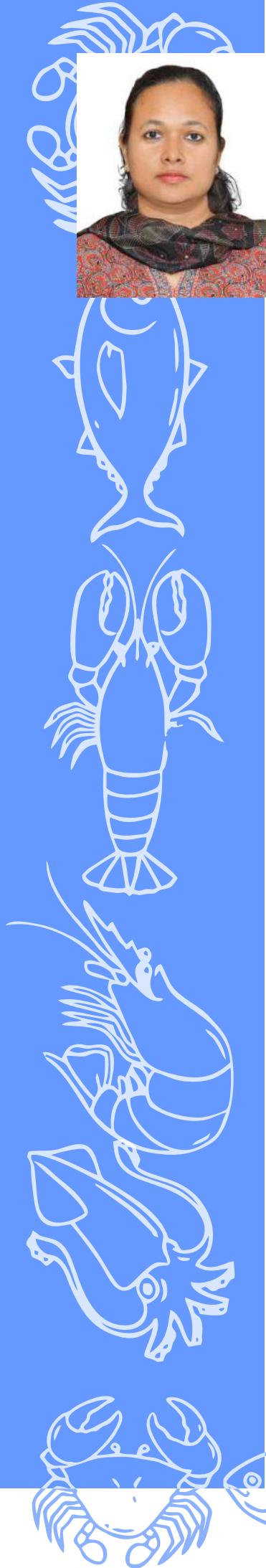
Additionally, trainings and workshops dedicated to various Fisheries and Aquaculture areas have garnered significant attention. These initiatives are empowering local communities, especially women and youth, to explore self-employment opportunities and aqua-preunership.

I would like to take this opportunity to extend my wishes to the entire editorial team for unwavering dedication in bringing to light the Department's recent achievements and events in the form of a beautiful magazine.

Happy reading, and I hope this edition continues to inspire and inform our readers about the incredible potential of the fisheries sector in the Islands.

A handwritten signature in blue ink, reading 'Jyoti Kumari'.

Ms. Jyoti Kumari, IAS  
Secretary (Fisheries)  
Andaman and Nicobar Administration





## Chronicle *of the* Editor

Welcome aboard to the second edition of Matsya Drishti.

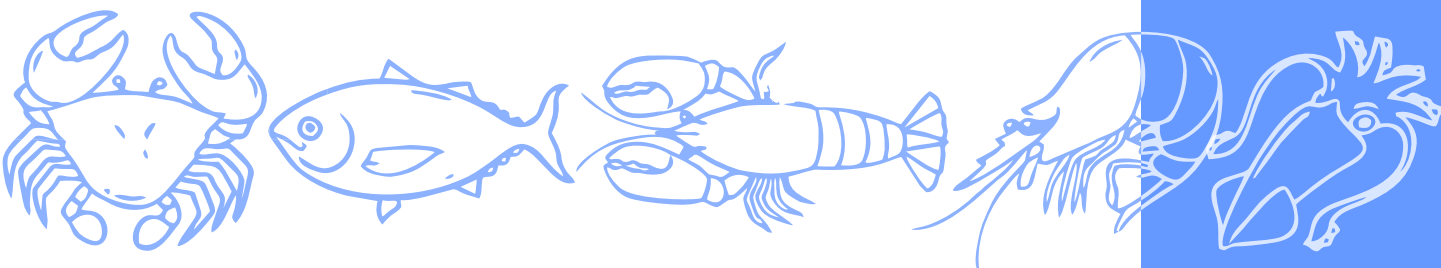
We welcome you to the journey of Department of Fisheries, A&N Administration through the world of Fisheries and Aquaculture of Andaman and Nicobar Islands. This edition promises to be a ready reckoner of Department and its growth in various sectors like Marine Capture Fisheries, Seaweed Farming, Post Harvest technology management, achievements under PMMSY and capacity building initiatives of recent times.

The announcement of Tuna Cluster by Govt. of India is a breakthrough to the Island Fisheries sector for utilizing the unexplored Tuna potential of the sector. Also the recent budgetary announcement of Govt. of India for the fisheries sector giving special focus on A&N Islands will definitely contribute to the Capture Fisheries and Seafood trade of the Islands. The team of Department of Fisheries is working in tandem to achieve these goals by exploring the potential of Marine Fisheries and aquaculture sector of the islands and thereby making the Islands as a corridor of Seafood trade of India to Southeast Asian Countries.

By publishing this comprehensive Magazine, our goal is to provide outlook of the recent activities of Department of Fisheries to the General Public and other stakeholders so that they can also join hands together with the Department in overall growth of the sector as a participatory approach. As we move forward on this path of development and innovation, I hope this will be a memorable reading experience for all. Thanks for the continued support and look out for the next Issue.

So dive in and enjoy the read!

Ms. Jagtap Kalyani Rajendra , DANICS  
Director of Fisheries  
Andaman and Nicobar Administration







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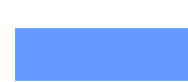
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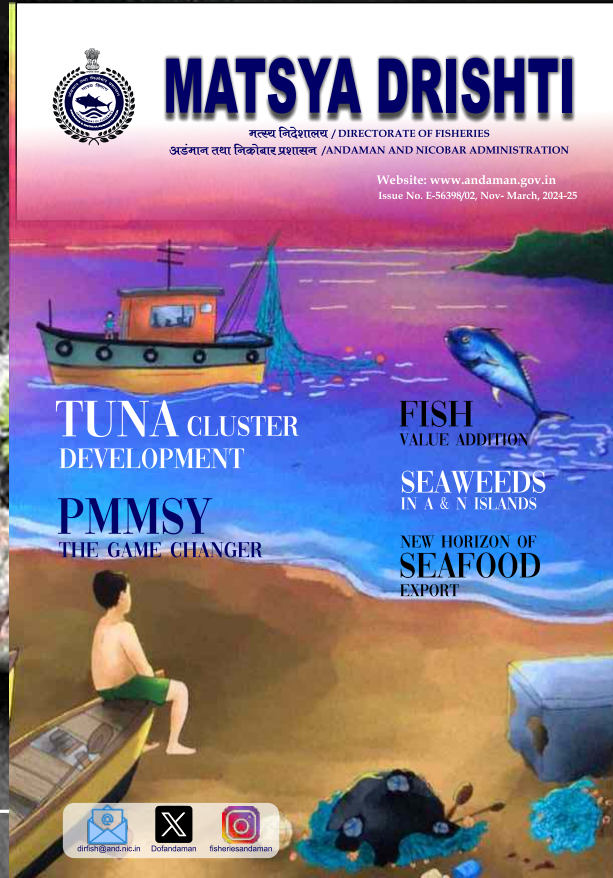
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# PMMSY

## The Game Changer for Fisheries and Aquaculture of A&N Islands

The Pradhan Mantri Matsya Sampada Yojana (PMMSY) in the Andaman and Nicobar Islands is a comprehensive initiative by the Government of India designed to boost the fisheries sector, enhance fish production, and

improve the livelihoods of coastal communities. Given the region's rich marine biodiversity and dependence on fisheries for economic sustenance.





PMMSY plays a pivotal role in promoting sustainable development. The scheme emphasizes marine fisheries development by supporting sustainable fishing practices, improving fishing infrastructure like harbours, Modern Fish markets and modern fish processing units. It also focuses on aquaculture activities, such as seaweed farming, ornamental fish cultivation, and the establishment of eco-friendly aquaculture farms, despite the challenges posed by the island's unique geography.

The Department of Fisheries, A&N Administration is implementing the Centrally Sponsored Scheme since 2020-21. The Department of Fisheries, Andaman & Nicobar





Administration could create 213 assets in the categories of Ice Plants, Cold Storages, Fish Kiosks, Fish Vale Addition Units, Aquaculture facilities etc. under beneficiary oriented activities of PMMSY. Among the latest initiatives, a proposal for the development of a Modern Fish Market at Bathubasti, South Andaman, has been sanctioned and is set to be executed soon. This modern fish market is expected to bring significant benefits to fish vendors and individuals engaged in fishing-related activities in the islands. It will provide better infrastructure, improved storage facilities, and enhanced market access, allowing fishermen to sell their catch directly to consumers, thereby increasing their income. Additionally, the market will promote better sanitation and quality control standards, reducing post-harvest losses and ensuring the freshness of seafood. This development is anticipated to boost the local economy, create employment opportunities, and contribute to the overall growth and sustainability of the fishing industry in the region.

Under PMMSY, Sagar Mitras play a vital role in the fisheries sector by serving as a bridge between the government and the fishing community. They promote awareness of government schemes, sustainable fishing practices, and modern technologies, while also facilitating capacity building and training for fishermen. Acting as liaisons, they help address community issues,







support alternative livelihoods, and ensure effective implementation of fisheries policies. Additionally, they play a crucial role in crisis response, resource monitoring, and promoting marine conservation, thereby enhancing the overall sustainability and livelihoods within the fishing community.

Under the PMMSY scheme, financial assistance has been extended to 213 beneficiaries in A&N Islands who have grounded their assets, which include ice plants, cold storages, fish kiosks, value-added fish processing units, two- and three-wheelers with ice boxes, as well as freshwater and brackish water aquaculture facilities such as hatcheries and grow-out ponds. Significant investments are made in infrastructure development, including cold chain facilities and fish markets to strengthen the supply chain and reduce post-harvest losses. Additionally, the scheme provides financial assistance, skill development programs, and training for fishers, entrepreneurs, and local communities to enhance their capacities and promote self-reliance.

Under PMMSY the Department A key component of PMMSY is the promotion of sustainability measures, ensuring the conservation of marine ecosystems and the adoption of eco-friendly practices to protect the



region's fragile environment. Through these multifaceted efforts, PMMSY aims to transform the fisheries sector in the Andaman and Nicobar Islands into a more productive, resilient, and sustainable industry while contributing to the overall economic growth of the region.

Content Contribution: Sitangshu Ghosh, AFDO





# FISHERIES INVESTORS' MEET

## Opportunities Unlimited, Potential Unexplored





# Fisheries Investors' Meet

**The** Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India in association with Department of Fisheries, A&N Administration organized an Investors' Meet on 14th November, 2024 at Swaraj Dweep to offer opportunities investment in the field of Fisheries and Aquaculture Sector of the Andaman and Nicobar Islands. The meet was attended by Shri. Rajiv Ranjan Singh, Union Minister, MoFAH&D as Chairperson, Prof. S.P Baghel, Minister of State, MoFAH&D and Ministry of Panchayati Raj, Shri. George Kurian, Minister of State, MoFAH&D and Ministry of Minority Affairs, Admiral D K Joshi, Lt. Governor, A&N Islands, Shri. Abhilaksh Likhi, Secretary, Department of Fisheries, MoFAH&D, Shri. Keshav Chandra, Chief Secretary, A&N Administration and other dignitaries.

The event drew investors from across the country, including local stakeholders with interests spanning various areas of fisheries and aquaculture. Prominent participants included investors and entrepreneurs representing aquaculture industries, seafood exports (including tuna fishing and processing), mariculture (such as cage culture, seaweed farming, and pearl culture), bio-marine extraction, fishing equipment industries, local fish trading, seafood marketing companies, fish feed industries, sport fishing firms, fishing boat owners, marine ornamental fish breeding/trading companies, and fish processing and value addition companies.

The highlight of the event was the launch of the "Development of Tuna Cluster in A&N Islands" initiative by Shri Rajiv Ranjan Singh, Hon'ble Minister of Fisheries, Animal Husbandry & Dairying, Govt. of India which aims to for boosting tuna production, creating value-





A video presentation was also showcased, emphasizing the marine biodiversity and untapped fisheries potential of the Bay of Bengal, highlighting the significance of A&N Islands as a major fishing zone and a source of significant economic opportunities.

During the session, 19 prominent investors representing various sectors of the fisheries and aquaculture industries were given the opportunity

to present their ideas and investment proposals for the A&N Islands. Investors shared their requirements for starting ventures in fisheries and aquaculture in

the region. The Hon'ble Minister of Fisheries, Animal Husbandry & Dairying, Govt. of India after completion of the session, briefed about the initiatives of Govt. of India for promotion of Fisheries and Aquaculture in India and ensured all the support in creation of infrastructure facilities for Seafood export from A&N Islands.

Following the investors' presentations, a technical session was conducted, starting with a presentation by the Secretary (Fisheries), A&N Administration, on "Investment Opportunities in A&N Islands." The Director of MPEDA, Cochin, presented on "Export Promotion from A&N Islands," and the Deputy Director General (Fisheries) of ICAR, New Delhi, discussed mariculture opportunities in the region. The session concluded with a presentation by the Director of BoBP-IGO on the development of tuna fisheries and the value chain in A&N Islands.

In his concluding remarks, the Chief Secretary of A&N Administration highlighted the recent

## Highlighted areas Tuna Fishing Mariculture Seafood Exports

achievements of the administration, including the comprehensive fisheries policy and initiatives in mariculture and brackishwater aquaculture. He expressed sincere gratitude on behalf of the A&N

Administration to all participants, particularly the investors, whose contributions made the event a success.

Overall, the Investors' Meet was a pivotal event in unlocking the potential of the fisheries and aquaculture sectors in the Andaman







and Nicobar Islands. With participation from over 45 firms, including both mainland and local investors, the event underscored the growing interest in the region and its promising future as a hub for sustainable fisheries and aquaculture industries.

Content Contribution : Team Fisheries Training Centre





## Govt. of India Notification

-  Tuna utilization initiative
-  Introduction of specialized vessel
-  Establishment of Integrated Fishing Harbour
-  Tuna Value addition & Export

# Tuna Cluster

## Andaman & Nicobar Islands

The Andaman Sea is rich in tuna species, such as little tuna, frigate tuna, longtail tuna, yellowfin, and skipjack. While the coastal tuna fisheries are nearing their maximum capacity, the oceanic tuna fisheries, particularly yellowfin and skipjack tuna, remain largely underexploited.

The Andaman and Nicobar Islands (A&N) have a potential fishery resource of 148,000 MT, including 56,000 MT pelagic, 32,000 MT demersal, and 60,000 MT oceanic resources. However, current production is just 49,138 MT, with oceanic fish production at a mere 4,420 MT (7% of its potential). The primary tuna species in





## Govt. of India Notification

# Tuna Cluster

## Andaman & Nicobar Islands

the region include Yellowfin, Bigeye, Skipjack, and others like albacore and Bluefin. Despite its potential, tuna fishing remains underexploited in A&N, with only 151.9 MT of tuna transported to mainland India.

Tuna fishing in the A&N islands mainly uses longlining and gillnetting, with some pole-and-line fishing. Despite the region's large potential, the methods in use are limited in scale and efficiency.

The Ministry of Fisheries, Animal Husbandry and Dairying, Government of India launched the Tuna Cluster initiative on November 14, 2024, to establish the Andaman and Nicobar Islands (A&N Islands) as a prominent tuna hub. With rich marine biodiversity and a strategic location at the intersection of key ocean currents, the region offers abundant tuna resources, enhancing both commercial and recreational fishing opportunities. This initiative aims to promote sustainable fishing practices, improve infrastructure, and drive economic growth by boosting tuna exports. It also provides valuable livelihood opportunities for local communities, fostering job creation in fishing, processing, transportation, and marketing.

Key initiatives under the Tuna Cluster include upgrading 66 mechanized vessels, introducing 50 tuna longliners, expanding fish landing centers, and providing training programs for local fishermen. Emphasis will be given on sustainable fishing practices, including selective gear, bycatch reduction, and cold chain management. The tuna sector will benefit from infrastructure upgrades such as integrated fishing harbors and mother vessels with on-board processing and export trans-shipment facilities.

For promoting export related activities, the focus is on upgrading processing and cargo facilities for chilled seafood exports, establishing chilled fish handling units, and encouraging private investment in seafood clusters and fisheries parks. The modernization of fishing harbors, vessels, and post-harvest techniques such as freezing, canning, and waste management is prioritized. The promotion of value-added fish products, including canned tuna and fish by-products, will support the Tuna Cluster Initiative.

Content Contribution: Shri Sitangshu Ghosh, AFDO



# UNLOCKING POTENTIAL TUNA VALUE ADDITION WORKSHOP

## Paving the Way for the Tuna Cluster's Future



The Department of Fisheries, in collaboration with the National Institute of Fisheries Post Harvest Technology and Training (NIFPHATT), Cochin, organized a comprehensive workshop on 'Tuna Value Addition' at the Department of Industries' conference hall which was sponsored by the National Fisheries Development Board (NFDB), Hyderabad. This workshop is a significant step in advancing the Government of India's initiative for 'Tuna Cluster Development' in the Andaman and Nicobar Islands. The primary goal of the workshop was to enhance the skills and knowledge of stakeholders involved in tuna fishing and post-harvest activities, contributing to the region's economic growth.







The inaugural session was graced by Ms. Jyoti Kumari, IAS, Secretary (Fisheries), who served as the chief guest. In her speech, Secretary (Fisheries) lauded the Department of Fisheries for bringing NIFPHATT, Cochin—a leading institute in fish post-harvest technology—to the islands. She expressed her confidence that the workshop's outcomes would play a crucial role in the development of the Tuna Cluster in the region. She also motivated the participants to actively engage in the sessions and adopt the newly acquired skills in their future fishing and post-harvest activities. Additionally, she released a booklet titled 'Potential and Possibilities of Tuna Value Addition in A&N

Islands,' which highlights the tremendous growth potential for the tuna sector in the region. The event attracted around 75 stakeholders, including fishermen, fisheries cooperatives, SHG group members, and PMMSY beneficiaries.

Ms. Jagtap Kalyani Rajendra, Director of Fisheries, Andaman and Nicobar Administration, shared insights into the department's training and extension activities and emphasized the importance of skill development in tuna fishing and post-harvest utilization. Shri B. Balanayak, Mechanical Marine Engineer at the Fishery Survey of India also spoke at the event. Dr. K. Gopal, Joint Director of Fisheries, delivered the vote of thanks, acknowledging the







contributions of the speakers and participants.

The workshop offered a series of technical and practical sessions led by industry experts. Shri Chittaranjan Raul, Scientist at ICAR-CIARI, Dr. C. Babu, Fisheries Scientist at FSI, Shri K. Kamalraj, Processing Technologist, Dr. Nithin C. T, PQAS at NIFPHATT, and Shri Praphul Dev D., Assistant Manager at NABARD, conducted various sessions on topics such as tuna fishing post-harvest management, value addition, marketing strategies, and export opportunities. The workshop also included an interactive session with local entrepreneurs and SHG members to understand their challenges and requirements for improving the tuna fishing and value addition sector. Additionally, an exhibition stall showcased various value-added fish products developed by NIFPHATT, giving participants the chance to explore innovative seafood products.

This workshop marks a significant milestone in realizing the Government of India's vision of





harnessing the tuna resource potential of the Andaman and Nicobar Islands. Through enhancing the competitiveness of the fisheries sector, the initiative aims to boost local stakeholders' incomes and foster sustainable growth in the region's fisheries industry.

The workshop coincided with the Government of India's formal notification designating the Tuna Cluster in the Andaman and Nicobar Islands, announced on 29 October 2024. This strategic recognition is expected to fuel the growth of tuna fisheries in the region, unlocking vast economic potential. Various technical sessions, including a focus on the status of tuna fisheries, the role of NIFPHATT in value addition, NABARD's financial support programs, and product development from tuna, were scheduled as part of the event. A practical session on onboard handling of tuna by the NIFPHATT team from Cochin was also organized, further equipping stakeholders with essential skills for tuna value addition.

Content Contribution: Team Fisheries Training Center





Mastering in Fish Value Addition

# Fish Biz

Three Days Training  
with the support  
of DBRAIT  
Dollygunj

A three-day training program on "Fish Value Addition" was organized by the Department of Fisheries in collaboration with Dr. B R Ambedkar Institute of Technology (DBRAIT), Dollygunj, and was inaugurated by Ms. Jyoti Kumari, IAS, Secretary (Fisheries) at the AV Hall, DBRAIT, Dollygunj. This program was conducted under the Skill Development Scheme of the Pradhan Mantri Matsya Sampada Yojana (PMMSY) with financial





support from the National Fisheries Development Board (NFDB), Hyderabad. During the inaugural session, the Secretary (Fisheries) emphasized the significance of adding value to fresh fish catch by utilizing advanced preservation techniques. She also discussed the economic benefits under PMMSY, which could be generated through the produce from fisheries and allied sectors.

Ms. Jagtap Kalyani Rajendra, Director of Fisheries, encouraged the trainees to make the most of the training and focus on the practical aspects of product development. She urged the participants to apply these skills when establishing their own units, and motivated them to become independent businesswomen by

creating mobile seafood vans, seafood kiosks, and value-added units with the financial assistance available under PMMSY. The Department of Fisheries provides subsidy assistance at 60% for women applicants and 40% for general category applicants for initiating these activities.

During the inaugural session, a training manual on 'Fish Value Addition' in Hindi was also released by the Secretary (Fisheries) and Dr. Utpal Sharma, Principal of DBRAIT. The three-day training program aimed to offer both theoretical and hands-on training in various aspects of fish value addition. This included hygienic handling of fish and fishery products, fish preservation techniques, fish dry salting and smoking, pickling, development of minced products, and coated fish products. A total of 25 selected beneficiaries, including members of Self-Help Groups (SHGs), tribal communities, and unemployed youth from the Andaman and Nicobar Islands, participated in the program.

In addition to the practical training on preparing fish value-added products, a special session was conducted with participation from officials of the Industries







Department, Food Safety Department, and Cooperative Department. This session aimed to raise awareness about food processing schemes, food service establishment registration, and the importance of forming cooperative societies. Dr. V. Alagusundaram, HoD of the Computer Science and Engineering Department at DBRAIT, Dr. K. Gopal, Joint Director (Fisheries) also addressed the participants during the program.

The trainees shared their experiences and feedback during the program, expressing their gratitude for the comprehensive theoretical and practical training they received. They were encouraged to establish their own enterprises,

such as dry fish units, fish pickling units, coated fish product units, and frozen/chilled fish units. Certificates of Participation were distributed to the trainees by the Secretary (Fisheries) during the valedictory session.

Content contribution :

Ms. Robina Kedar, FI & Shri. Subhash, AFG





# A Gentle Fish touch to Tribals Life

**Fishing** plays a crucial role in the livelihood and sustenance of the tribal communities of the A&N Islands particularly the Primitive Vulnerable Tribal Groups (PVTGs) like the Great Andamanese, Jarawas, Onges, and Shompens who traditionally engage in subsistence fishing using methods like spears, traps, and hand-lining, focusing on near-shore waters for their food and livelihood. The Department of Fisheries, Andaman and Nicobar Administration has been actively working towards the upliftment and sustainable development of the primitive tribes residing in the Islands. As part of its commitment to enhancing the livelihood of these indigenous communities, the Department has been implementing various welfare schemes under UT Plan.

One such remarkable initiative of the Department is the "Supply of Fishing Inputs to Primitive Vulnerable Tribal Groups (PVTGs)", a project that provides 100% subsidy support under the UT Plan. As part of this program, the Department of Fisheries has recently delivered two motorized fishing boats to the Andaman and Nicobar Islands Adim Janjati Vikas Samiti, an organization working towards the welfare and development of the indigenous tribal communities in the Andaman and Nicobar Islands.

## Key Features of the Fishing Boats:

- ❖ Boat Specifications: 10.50m Overall Length with a 10 HP engine.
- ❖ Safety Equipment &: Distress Alert Transmitters, life jackets, Ring buoys.
- ❖ Accessories: wooden oars, anchor, and monofilament anchor rope.

This initiative serves as a pivotal moment in integrating these traditional communities into the broader economy, without compromising their rich cultural heritage and practices. By preserving their ancient fishing techniques and providing modern tools for safety and efficiency, the Department of Fisheries continues to play a vital role in supporting these communities' progress.

The Department remains steadfast in its commitment to the upliftment of these tribes, with plans for similar welfare programs in the future. Through continued innovation and support, we aim to create a sustainable future for the people of Andaman & Nicobar Islands.

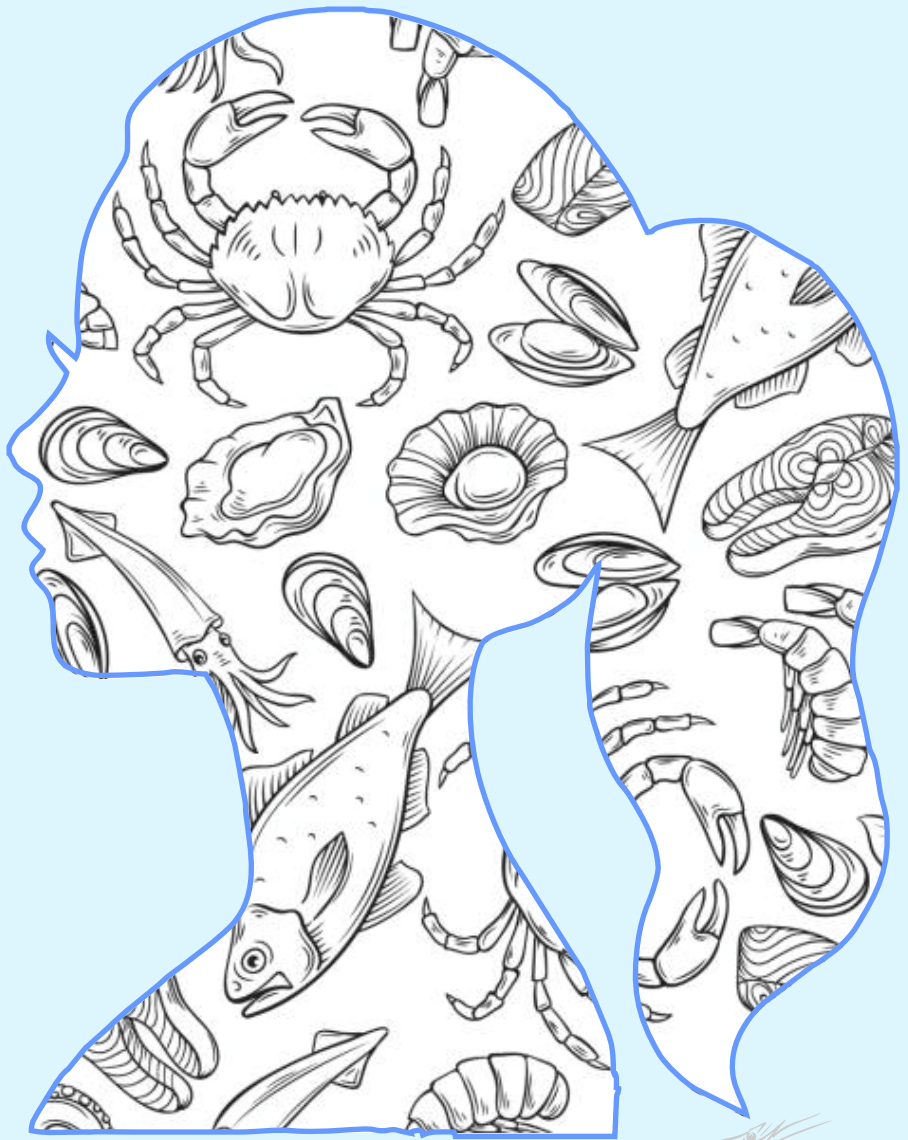
Content Contribution:  
Shri. P. Iswar Rao, AFDO (HQ-I)





# WOMEN'S DAY MORE THAN A CELEBRATION

Department  
of Fisheries  
Felicitated &  
Acknowledged  
the strong  
women and  
inspiring  
fisherwomen  
of the Islands.





The Department of Fisheries, Andaman and Nicobar Administration, celebrated International Women's Day 2025 in a meaningful and impactful manner at the Fish Landing Centre, Junglighat, with the theme, "She Builds BHARAT." The event was graced by the presence of Ms. Jagtap Kalyani Rajendra, DANICS, Director of Fisheries, Andaman and Nicobar Administration, who served as the Chief Guest, and Smt. E Lolaxmi, a Senior Fisherwoman, as the Guest of Honour. Distinguished attendees included Dr. K. Gopal, Joint Director (Fisheries), Smti. V Sheeja, Deputy Director (Fisheries), Dr. Lina from ANIIMS, Smti. Sampa Banerjee, President of Dayitvabodh



NGO, and various fishermen representatives. The event witnessed a strong participation of fisherwomen from different fishing villages, showcasing the unity and strength of women in the fishing community.

During the programme, the dignitaries honored the fisherwomen for their significant contributions to society, presenting them with Dietary Kits as a token of appreciation. The Director of Fisheries praised the efforts of fisherwomen, Self-Help Groups (SHGs), and Cooperatives for their role in promoting nutritional diets by selling fish and fishery products. She also acknowledged the male fishermen for their support



WOMEN'S DAY







in raising community issues, which allows the Department to address challenges promptly and efficiently.

One of the highlights of the occasion was the launch of a Women Cooperative-led Pickle Unit, "Andaman Fish Pickle," manufactured by Shivesh Sea Food in collaboration with the Dhanalaxmi Women Fisheries Cooperative Society Ltd. This initiative further exemplified the empowerment of women in the fisheries sector.

Dr. K. Gopal, Joint Director (Fisheries), emphasized the often-overlooked role of fisherwomen, who manage household chores and childcare while their spouses are at sea, ensuring their families' well-being. He highlighted the importance of recognizing their contributions to both their families and society. Similarly, Smt. V. Sheeja, Deputy Director (Fisheries), acknowledged that fisherwomen not only work tirelessly for the livelihood of their families but also contribute to the development of society and the nation. Dr. Lina from ANIIMS stressed the importance of prioritizing the health and well-being of fisherwomen, encouraging them to undergo regular health check-ups to prevent diseases like diabetes and

hypertension.

As part of the celebrations, the NGO Dayitva Bodh, Junglighat, collaborated with the Department of Fisheries and ANIIMS to conduct a Free Medical Camp focusing on health check-ups for fisherwomen, chronic disease screenings, and maternal and child health. Smt. Sampa Banerjee, President of Dayitvabodh NGO, emphasized that fisherwomen often neglect their own health and the nutritional needs of their children due to their demanding daily routines. She encouraged them to take advantage of the free medical camp and appreciated the Department of Fisheries for its efforts in providing training to women on fish value addition and seafood processing.

The celebrations culminated in a simple yet heartfelt function held at the Directorate of Fisheries, where women employees of the Department were also felicitated. The event served as a powerful reminder of the invaluable contributions of women in the fishing sector and their essential role in building a stronger and more prosperous Bharat.

Content Contribution:  
Team Fisheries Training Centre





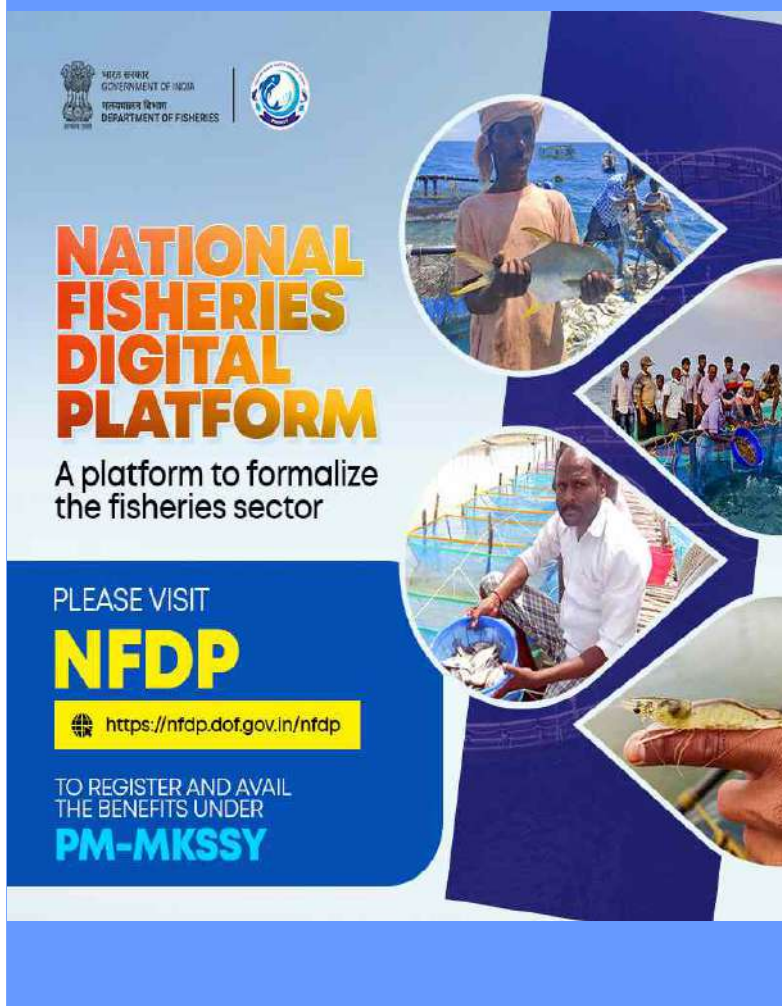
The Department of Fisheries, Ministry of Fisheries Animal Husbandry and Dairying is implementing a Central Sector Sub-scheme namely the Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY) under the ongoing Pradhan Mantri Matsya Sampada Yojana (PMMSY) for a period of four years from FY 2023-24 to FY 2026-27.

The Sub-scheme has four components namely, Component 1-A: Formalization of fisheries sector and facilitating access of fisheries microenterprises to Government of India programs for working capital financing, Component 1-B: Facilitating adoption of aquaculture insurance, Component 2: Supporting microenterprises to improve fisheries sector value chain efficiencies, Component 3: Adoption and expansion of fish and fishery product safety and quality assurance systems, and Component 4: Project management, monitoring and reporting.

The scheme provides benefits to Fisheries producers, Fish processors, Aquaculture and Marine Cultivation, Logistic and storage, Tech and Equipment providers, sales and marketing professionals, Advisory and Support Services and Workforce.

The NFDP aims at formalization of the Indian fisheries and aquaculture sector through creation of work-based digital identity and the database for all stakeholders in fisheries sector. It also serves as 'one-stop' solution for access to institutional credit, strengthening of fisheries co-operatives, incentivizing aquaculture insurance, performance-based incentives, fisheries' traceability systems and training and capacity building.

Pradhan Mantri Matsya Kisan Samridhi-Sah Yojana (PM-MKSSY) offers provisions under Component 1A for enhancing financial inclusion by facilitating access to institutional



**NATIONAL FISHERIES DIGITAL PLATFORM**

A platform to formalize the fisheries sector

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TO REGISTER AND AVAIL THE BENEFITS UNDER **PM-MKSSY**



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**REGISTER ON THE NFDP PORTAL NOW!  
& AVAIL BENEFITS OF AQUACULTURE INSURANCE!**

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credit for fish workers/enterprises. Under the NFDP, the Credit facilitation module has been developed and made live. The beneficiary can login to the NFDP portal and avail the benefit. In Andaman & Nicobar Islands a total of 3833 fishers were registered in the portal which will enable them to get subsidies and credit under PM-MKSSY, participate in online auctions and explore e-commerce opportunities and can access aquaculture insurance and other support.

Content Contribution:  
Shri Sitangshu Ghosh, AFDO





## Andaman and Nicobar Islands Unlock New Horizon of Direct Seafood Export for boosting Global trade of India

the matter was also taken up with the Export Inspection Agency (EIA) in Kolkata for the reactivation of the EIA Desk Office, which will facilitate regular coordination among the island's stakeholders.

A joint visit was conducted by the Assistant



**The** Department of Fisheries, on commencement of direct flight service to Malaysia is in the process of coordinating with various stakeholders such as Airport Authority of India, Air Asia, MPEDA, Cochin, EIA, Kolkata, Customs etc. for an early commencement of chilled fish export to Malaysia and its transit to various countries.

A stakeholders' meeting was convened under the chairmanship of the Secretary (Fisheries), A&N Administration, to discuss the creation of common handling facilities for packaging chilled/live marine products and a single window clearance system for the construction of the handling facility. Topics also included the establishment of an EIA office, the setting up of thermocole box companies, and other critical issues. The meeting was attended by representatives from MPEDA, EIA, Customs, Airport Authority, Air Asia, and local exporters.

The department has also approached the Airport Authority of India, Veer Savarkar International Airport for setting up of an international cargo handling unit for seafood cargo, direct seafood export facility. Additionally,

### PROPOSAL FOR COMMON CHILLED FISH HANDLING UNIT

Director of MPEDA, along with officials from the Fisheries Department, to identify suitable locations for the proposed "Common Chilled Fish Handling Facility." The Fish Landing Centre in Junglighat was proposed as a potential site for the handling unit, and a feasibility study and Detailed Project Report (DPR) will be prepared.

Further, the Department of Fisheries, Andaman & Nicobar Administration, in collaboration with the Marine Products Export Development Authority (MPEDA), Ministry of Commerce and Industry, Govt. of India, conducted an awareness programme for local fish exporters and traders of South Andaman District. The session focused on the procedures for certification and registration required for direct seafood exports from the Islands to international markets. It witnessed active participation from key seafood exporters and traders of the Andaman & Nicobar Islands.

The Assistant Director of MPEDA shared valuable insights into promoting direct seafood





exports, covering export procedures, quality standards, and MPEDA's support programs. He also explained about the concept of a Common Chilled Fish Handling Unit, which would enable the processing of fish catch for export in live, chilled, or dry forms to foreign destinations with less capital investment as compared to a conventional Processing Plant. The Stakeholders present raised few queries regarding the export licensing process, laboratory testing, and the establishment of chilled fish export units, cost involved etc which were duly clarified by the Official of MPEDA. The exporters expressed their willingness to embark on direct seafood exports under the technical guidance of MPEDA and the Department of Fisheries.

Dr. K. Gopal, Joint Director (Fisheries), informed the participants that the Andaman & Nicobar Administration is taking active steps in collaboration with various authorities, including the Ministry of Fisheries, Govt. of India, Airport Authority of India, Customs Department, MPEDA, and EIA to facilitate the commencement of direct seafood exports. The fisherman representative briefed on the various schemes of Govt. of India such as PMMSY which can be availed by the local

fish traders and exporters to improve the value chain of the fish and fishery products. The session concluded with a Vote

of Thanks by Shri G. Amalatheeban, Assistant Director of Fisheries, South Andaman.

Content Contribution : Team Fisheries Training Centre

## Chilled Fish Export to SEA





# Expanding Horizons: Seaweed Cultivation in Andaman & Nicobar Islands



The Andaman & Nicobar Islands (A&NI) are witnessing a transformative shift towards sustainable marine resource utilization through the promotion of seaweed cultivation. Initiated under the Pradhan Mantri Matsya Sampada Yojana (PMMSY), this venture aims to harness the ecological and economic potential of seaweed farming, paving the way for livelihoods, environmental sustainability, and scientific advancements.

## The Journey Begins: Pilot Project and Initial Success

The journey commenced in 2021 with a pilot-scale project along the Andaman and Nicobar Islands coast, executed in collaboration with the CSIR-Central Salt and Marine Chemicals Research Institute (CSIR-CSMCRI). With a budget allocation of Rs. 82.74 lakhs under the central sector component of PMMSY, the project focused on identifying suitable sea areas and species for commercial cultivation.





After two years of diligent research and field trials, CSIR-CSMCRI recommended 2.5 hectares at Diglipur and Mayabunder as suitable sea areas for seaweed farming. The species identified for commercial cultivation was *Gracilaria edulis*, known for its high economic value and adaptability to local marine conditions. Over 220 islanders received hands-on training, with four enthusiastic individuals deputed for an exposure visit to Mandappam, Tamil Nadu, to gain practical insights into advanced seaweed farming techniques.

### Expanding Potential: The UT Level Joint Committee

Recognizing the vast potential of seaweed cultivation, the Andaman & Nicobar Administration constituted a UT Level Joint Committee in February 2024. This committee comprises experts from the Forest Department, Port Management, ICAR-CMFRI, ICAR-CIARI, NIOT, and CSIR-CSMCRI.

The role of committee is identification of areas suitable for commercial seaweed cultivation and it has conducted extensive inspection across five potential sites covering 49.63 hectares including Shoal Bay, North Bay, South Point, Kodyaghat, and Chidiyatapu, identified areas with significant commercial cultivation potential. The findings, along with GPS coordinates, have been shared with relevant departments for technical vetting, with no objections received from key stakeholders, including the Port Management Board and scientific institutions.

### Demonstration Project at Chidiyatapu: A Milestone Achievement

A landmark event unfolded on 23rd October 2024, when the Department of Fisheries, A&N Administration signed a Memorandum of Understanding (MoU) with ACOSTI-NIOT to launch a Seaweed Cultivation Demonstration Project at Chidiyatapu. This project, focusing on *Gracilaria edulis*, aims to demonstrate the viability of seaweed farming in a 5-hectare area, starting with an initial pilot plot of 1,000 sq. m.

### Empowering Coastal Communities: Expansion Plans

Building on the demonstration project's success,



the Department of Fisheries, in collaboration with NIOT and the Rural Development Department, plans to expand commercial seaweed cultivation in Chidiyatapu. The expansion will cover 1 hectare and engage Self-Help Group (SHG) members, fostering community participation and empowering coastal livelihoods.

This initiative seeks to explore the feasibility of large-scale seaweed farming, unlocking economic, educational, and environmental benefits for the region. It aligns with the broader vision of sustainable development, integrating traditional knowledge with scientific innovation.

### Capacity Building: Workshops and Exposure Visits

Andaman & Nicobar  
prioritized *Gracilaria*  
for commercial  
farming







The department of Fisheries, A&N Administration organized a one day training cum orientation program to the local SHGs with technical collaboration with NIOT-ACOSTI & Department of Rural development on 13.03.2025. More than 25 SHG members participated in the program. Topics like cultivation methods/techniques, products of seaweed were covered during the training. The participants were also taken for a practical session on raft fabrication and seed inoculation at the Seaweed demonstration project site at Chidiyatapu.

To strengthen the seaweed farming ecosystem, the Department of Fisheries is planning to organize a Seaweed Workshop in April 2025. This event will bring together SHG members, entrepreneurs, and fishers, alongside experts from ICAR-CMFRI, ICAR-CIARI, NIOT-ACOSTI, Pondicherry University, and relevant departments from Tamil Nadu and Lakshadweep. The workshop aims to provide insights, technical know-how, and capacity-building opportunities

to coastal communities.

Additionally, an exposure visit to ICAR-CMFRI in Mandappam, Tamil Nadu, is planned for SHG members. This visit will offer first-hand experience of the seaweed value chain, from cultivation to processing and marketing, fostering a deeper understanding of the industry.

### A Greener Future with Seaweed Cultivation

The seaweed cultivation initiative in the Andaman & Nicobar Islands represents a powerful convergence of science, sustainability, and community empowerment. By leveraging the region's rich marine biodiversity, the A&N Administration is not just cultivating seaweed but also nurturing a future where coastal communities thrive in harmony with nature.

Content Contribution:  
Shri. Soumyadip Paul, AFDO





**Imagine** casting your line into crystal-clear waters surrounded by lush greenery, vibrant coral reefs, and the endless blue horizon—this is what sports fishing in the Andaman and Nicobar Islands promises. With its diverse marine life, pristine waters, and breathtaking landscapes, the Andaman and Nicobar Islands are quickly becoming one of India's top destinations for anglers seeking both adventure and serenity. Whether you're a seasoned fisherman or a beginner looking to reel in your first big catch, the Andaman and Nicobar Islands offer a thrilling experience that will leave you hooked.

#### **Abundant Marine Life**

The waters surrounding the Andaman and Nicobar Islands are home to an array of fish species, making it a perfect location for sports fishing. The region is known for several sought-after catches, including:

- ❖ **Giant Trevally:** A powerful fish, famous for its strength and challenge in battle.
- ❖ **Yellowfin Tuna:** A fast and strong fish, prized by deep-sea anglers.
- ❖ **Snapper:** A popular species found in abundance, offering anglers a rewarding catch.
- ❖ **Barracuda:** Known for its speed and agility, this fish offers an exciting chase.
- ❖ **Marlin and Sailfish:** These large game fish are the ultimate target for experienced anglers seeking a big challenge.

These species, along with many others, thrive in the region's warm, nutrient-rich waters, making the

## **SPORT FISHING IN ANDAMAN AND NICOBAR ISLANDS: A THRILLING ADVENTURE**

Courtesy : Freepik







Andaman and Nicobar Islands an ideal location for sports fishing.

### Top Fishing Spots

The Andaman and Nicobar Islands boast several renowned fishing spots, each offering a unique experience for anglers:

- ❖ **Swaraj Dweep:** Known for its vibrant marine life and clear waters, Swaraj Dweep is perfect for targeting Giant Trevally and Barracuda. It's one of the most popular fishing destinations in the archipelago.
- ❖ **Shaheed Dweep:** Just a short boat ride from Swaraj Dweep, Shaheed Dweep offers excellent fishing opportunities, particularly for Snapper and Tuna.
- ❖ **Ritchie's Archipelago:** This remote group of islands is famous for its deep-sea fishing, with chances to catch Marlin, Sailfish, and Trevally.

- ❖ **Sri Vijaya Puram:** As the capital of the Andaman and Nicobar Islands, Sri Vijaya Puram serves as a gateway to nearby fishing spots and is a convenient starting point for fishing trips.

### Fishing Techniques

Sports fishing in the Andaman and Nicobar Islands are conducted using various techniques, depending on the species targeted and the fishing environment:

- ❖ **Deep Sea Fishing:** This method involves venturing into the open ocean to catch larger game fish, such as Marlin and Tuna.
- ❖ **Fly Fishing:** Popular in the shallow waters and lagoons, fly fishing targets species like Giant Trevally.
- ❖ **Trolling:** This technique is used for species like







## Sport Fishing Integration of Tourism with Fisheries Sector.

Barracuda and Sailfish, where lures are dragged behind the boat.

❖ Bottom Fishing: Anglers drop baited lines to the ocean floor to catch species such as Snapper and Grouper.

### Fishing with a Conscience

As sports fishing continues to thrive, sustainability remains a priority. Local authorities in the Andaman and Nicobar Islands are committed to preserving the islands' fragile marine ecosystems. With protected fishing zones, regulations promoting catch-and-release practices, and a focus on responsible fishing, anglers can enjoy their passion while helping to conserve the

region's rich biodiversity for future generations.

### Your Next Adventure Awaits

The Andaman and Nicobar Islands offer an unforgettable sports fishing experience, with their diverse marine life, breathtaking surroundings, and variety of fishing techniques. Whether you're reeling in a Giant Trevally or enjoying a peaceful day fishing for Snapper, the islands provide something for everyone. As sustainable practices continue to grow in importance, the future of sports fishing in the Andaman and Nicobar Islands looks bright, offering an exciting and responsible adventure for generations to come.

During the financial year 2024-25, the Department of Fisheries issued 1724 permits to undertake sport fishing by 5652 tourists including foreigners.

Content Contribution:

Shri. G. Amalatheeban, ADF & Ms. Neha Kerketta, FFA





# REACHING TO TRADITIONAL FISHERMEN LIFE BY SKILLING IN MODERN FISHING TECHNOLOGIES



Three separate Training programmes were jointly organized by Department of Fisheries, A&N Administration and the Central Institute of Fisheries Nautical and Engineering Training (CIFNET), Chennai, for fishermen of Andaman & Nicobar Islands under PMMSY. The programme aimed to address the day to day challenges faced by fishermen on the islands when it comes to the minor repairs of boat engines which are often hindered by a lack of technical expertise in these Islands. The Training programme was conducted at various location of South

Andaman District such as Fish Landing Centre Junglighat, Fisheries Training Centre, Marine Hill and Fish Landing Centre, Panighat.

As it is commonly known, fishermen on these islands face significant challenges in performing basic repairs due to the unavailability of skilled professionals in this specialized field. To resolve this issue, the training programme was designed to equip local fishermen with the essential skills to resolve minor boat engine issues on their own, thereby enhancing their operational efficiency and safety. Additionally, the programme aimed to promote sustainable fishing practices that would directly contribute to the welfare of the community and the preservation of marine resources.

A one day training programme was held at FLC, Junglighat including 50 fishermen from various area of South Andaman District on 17th March, 2025. The session focused on Training on Defects and Troubleshooting of boat engines. The fishermen participated with great enthusiasm and showed a keen interest in learning the troubleshooting techniques demonstrated by the CIFNET team. The practical nature of the training, along with detailed guidance from the experts, ensured that the fishermen gained valuable hands-on experience.

Following the success of one day training, a three-day Training Programme was organized focusing on "Maintenance of Boat Engines & Fishing Practices" at the Fisheries Training Centre, Marine Hill. A total of 25 fishermen, identified by the three Zonal offices across the islands, attended the programme. The programme was inaugurated by Ms.Jyoti Kumari, IAS, Secretary (Fisheries) .In her inaugural speech explained the need of modernization of techniques in the fishing sector for sustainable







Targeted traditional fishermen for equipping them in real time repair of fishing boat engine & gears

utilization of marine resources. She stressed the importance of proper training in fishing gear and craft sector for ensuring both safety and economic sustainability. The programme consisted of both technical and practical sessions, with exposure visit to the Fishery Survey of India vessel MFV, Blue Marlin where participants gained insights into advanced fishing techniques. Upon completion, a certificate of participation was also distributed to the participants.

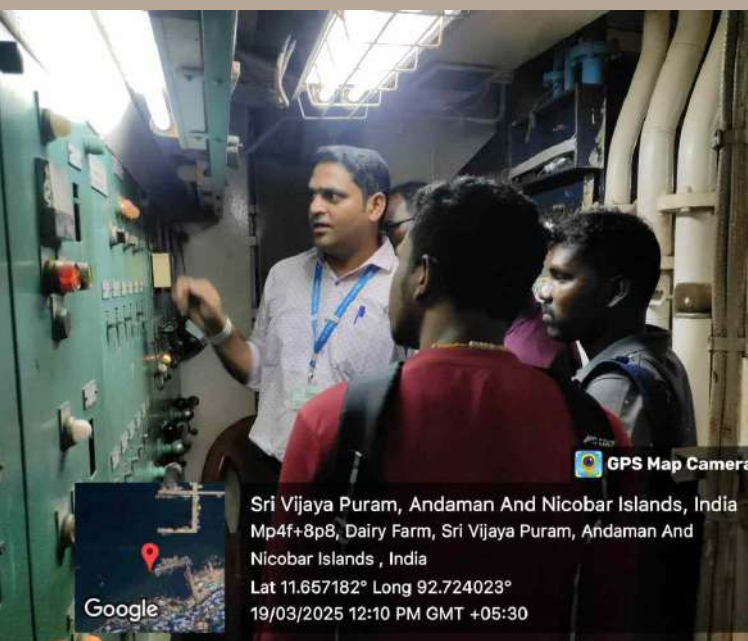






In an effort to further enhance the safety of local fishermen, a one day training programme was organized at FLC, Panighat involving 50 fishermen of that area .The training was subjected on Communication and navigation equipment onboard fishing vessel. Given the high importance of safety during fishing expeditions, especially in emergency situations, it is crucial that fishermen are equipped with the basic knowledge of communication and navigation tools. The CIFNET experts provided a comprehensive training session, focusing on the use of essential equipment that can significantly improve the safety and efficiency of fishing operations.

Content Contribution:  
Team Fisheries Training Centre





On Republic Day 2025, the Department of Fisheries, A&N Administration, presented a captivating tableau reflecting the Vision 2047 for Andaman Fisheries, focusing on the Tuna Cluster Development in the Andaman and Nicobar Islands. The tableau depicted the various stages of the tuna fisheries industry, from modern deep-sea fishing vessels and sustainable fishing techniques to the landing, transportation, and domestic marketing of tuna. It also highlighted the crucial role of fish processing, particularly through the involvement of women in primary processing and packaging. The display illustrated the export of fishery products through a cargo ship model, symbolizing the



international trade aspect, while the final scene showcased an airport terminal linking the islands to Southeast Asia.

The tableau displayed a series of models representing various stages of the fishing industry. It began with a seashore scene featuring a deep-sea fishing vessel, with fishermen operating gill nets and long lines. Next, a Fish Landing Centre model illustrated fish landing, transportation, and auctioning etc., with a large tuna symbolizing the "Tuna Cluster" initiatives. A street vending section showed domestic fish marketing, traditional fishermen selling fish, with ice boxes, fish heaps, and cutting

# REPUBLIC DAY TABLEAUX-VISION - 2047

## ANDAMAN & NICOBAR FISHERIES





areas. The fish processing hall model featured women processing workers handling fish, packaging, and transportation. Following this, a container terminal with a cargo ship at sea model depicted the loading of fishery products from the Islands for export. The final section showcased an airport linking the region to Southeast Asia.

The tableau emphasized the recently launched Tuna Cluster Initiative under the Pradhan Mantri Matsya Sampada Yojana (PMMSY), aiming to develop the tuna fisheries sector through cluster-based management, sustainable practices, and better market access. It offered a comprehensive view of the government's vision for the future, highlighting the growth potential of the fisheries sector and its impact on the region's economy.

Content Contribution: Team Fisheries Training Centre



## Installation of Seafood Value chain





# Potential of Marine Ornamental Fishes In Andaman and Nicobar Islands

The Andaman and Nicobar group of islands comprises 836 islands with a total coastline of 1,962 km. Geographically, Andaman Islands are situated on the submerged extension of Myanmar's Arakan Yoma Range, while the Nicobar Islands form part of the Sunda Islands. These islands host a rich assemblage of fish species originating from Andaman Sea, Western Pacific, and Indian Ocean. Owing to the diverse marine habitats, the ichthyofaunal diversity of these islands is regarded as one of the most extensive in global scale. A total of 1,434 fish species, representing 576 genera, 33 orders, and 165 families, has been documented from these islands, with around 400 species of commercial importance and 250 species as ornamental value (Rao, 2003; Roy & George, 2010; Rajan et al., 2021; ICAR-NBFGR, 2022).



## Marine ornamental resources of Andaman and Nicobar Islands

Marine ornamentals have become an essential component of the global fishery and aquarium sectors, due to its commercial value and aesthetic appeal. Many marine ornamental fish species found in these islands possess very high export value. This makes the region strategically important for the ornamental fish resource centre and positions it as a potential leader in the international market. The high demand for these species in global markets such as USA, Europe, and UK highlight the economic potential of ornamental fishes. In Andaman and Nicobar Islands, marine ornamental fisheries are primarily relying on wild collections.

Among the marine ornamental fishes, Pomacentrids, specifically the *Amphiprion percula* and *A. clarkii* are the most popular species found in Andaman Islands (Fig.1). The vibrant colours, unique patterns, and symbiotic relationships with sea anemones make them highly sought after in the international market. The recognition and popularity of these species are further elevated due to media exposure, such as "Finding Nemo," which has significantly boosted their appeal among aquarium enthusiasts worldwide. Thirteen species under the genus *Amphiprion* and one species of *Premnas*, *P. biaculeatus* (Spine cheek anemonefish or maroon clown) are distributed in Andaman waters along with their respective symbiotic anemone hosts (Madhu and Madhu, 2007). The other damsel fishes in the genera such as *Abudefduf*, *Amblyglyphidodon*, *Chromis*, *Dascyllus*, *Stegastus*, and *Pomacentrus* also have high demand in the trade found in these islands. Some of the other most popular ornamental reef fishes include: Butterflyfishes (Chaetodontidae), Angelfishes (Pomacanthidae), Surgeon fishes (Acanthuridae), Wrasses (Labridae), Squirrelfishes (Holocentridae), Triggerfishes (Balistidae), Rabbit fishes (Siganidae), Gobies (Gobiidae), Dart fishes (Microdesmidae), Dragon fishes (Callionymidae), Snappers (Lutjanidae), Rock snapper (Blennidae) and Boxfishes (Ostraciidae) are also reported from Andaman waters (Fig. 2). These species are characterized by their vivid colours, unique shapes, and adaptability to captive environments, making them highly suitable for aquarium.



Figure 1. Clownfishes  
(a) *Amphiprion clarkii* and



(b) *A. ocellaris*, found in A & N islands

The symbiotic  
life  
under water  
with  
sea anemone





## Export of Marine ornamental fishes to SEA

### Economic Potential

The economic potential of marine ornamental fishes from Andaman and Nicobar Islands is substantial, yet underutilized. However, the estimated fishery potential of the Exclusive Economic Zone (EEZ) of the islands stands at approximately 1.48 lakh tonnes, which is 3.8% of our country's total fishery potential (Roy and George 2010), whereas, the annual fish landing is estimated at only about 18,381 tonnes (CMFRI, 2024.). The unique marine ecosystem offers immense opportunities for growth in the ornamental fish trade, holding potential comparable to traditional fisheries and agriculture. The ornamental fish trade offers substantial economic returns as a low-volume, high-value trade, differentiating it from other forms of aquaculture. This economic potential positions the Andaman and Nicobar Islands as critical player in the fisheries industry, with opportunities for both domestic and international market growth.

The development of eco-tourism focused on ornamental fish areas is another avenue for economic growth, enhancing the region's appeal to tourists and researchers alike. The breeding and rearing of marine ornamentals align with the islands' tourism-based economy. Marine ornamental aquaculture can enhance ecotourism experiences by attracting visitors interested in marine biodiversity and sustainable utilization practices. This synergy can increase tourist engagement and impart educational benefits about marine ecosystems.

### Breeding and Culture

Despite innate advantage of having high diversity, breeding and rearing of ornamental fishes in Andaman and Nicobar are still at a nascent stage. The islands' pristine waters and favourable tropical ecosystems offer a perfect environment for nurturing various marine

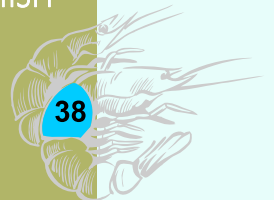
ornamental fish species. The economic return from marine ornamental fish is high, which is highlighting the potential of this sector for boosting local economies.

Successful breeding and further standardization of the technology of different Pomocentrids show that sustainable and profitable production of marine ornamental fishes can be taken up as an entrepreneurial venture in Andaman and Nicobar Islands with limited infrastructure facilities. Clownfishes, especially species like *A. percula*, fetch high prices in the global marine aquarium trade owing to their vibrant colours and aesthetic appeal. The increase in demand for ornamental fish in the aquarium industry is driving growth, which presents a lucrative business opportunity. Rearing clownfishes in Andaman and Nicobar Islands presents a significant economic advantage, due to the potential for generating income from a limited area. This income potential makes it an attractive option for local entrepreneurs and fishers with constrained land or aquatic resources. The high global demand for ornamental fishes, combined with the ease of breeding clownfishes and the rich marine biodiversity of the region, positions the Andaman and Nicobar Islands as an ideal hub for marine ornamental fish culture. With adequate support from research institutions and government programs, the sustainable production and trade of clownfishes can thrive, benefitting both the local economy and the marine environment. The rich biodiversity and favourable environmental conditions of the region further support the potential for sustainable and profitable ornamental fish culture.

### Conservation and Sustainable Practices

Illegal collection and poaching are critical issues threatening the marine biodiversity of Andaman and Nicobar Islands. Poaching activities, particularly from neighbouring countries have

Ornamental fish  
breeding in  
A&N Islands





increased considerably, leading to the over-extraction of marine resources like sea cucumbers and ornamental fish (Kumar 1997). Coral reefs in the area are severely impacted by both overexploitation and illegal collection practices. Collection of corals for construction and sale as curios is causing physical damage and destructive fishing techniques, negatively affect coral health. Additionally, coral mining contributes to the destruction of these delicate ecosystems. The decline in coral health has a cascading effect on the marine ornamentals as reefs serve as critical habitats and breeding grounds for many ornamental fish species. Besides, rising sea temperature, which led to coral bleaching events, which severely impact the reefs' ability to function as habitats for marine species. The combined effects of overexploitation, illegal collection practices, and invasive species pose severe threats to the marine ornamental fisheries and biodiversity of the Andaman and Nicobar Islands. To ensure the sustainability of these critical ecosystems, there is an urgent need for robust conservation and management strategies.

To ensure the sustainability of these critical ecosystems, there is an urgent need for robust conservation and management strategies. Sustainable collection practices are paramount to maintaining the ecological balance and ensuring long-term viability of marine ornamental fisheries. Andaman and Nicobar Islands have made strides in promoting sustainable methods, aligning with broader environmental and conservation goals. Local fishermen can adopt eco-friendly techniques, and also there is a significant push towards ornamental fish breeding as an alternative livelihood. These efforts not only preserve the delicate marine ecosystems, but also support the socio-economic well-being of the fishing communities. Enhancing enforcement against illegal activities, and addressing the impacts of climate change through mitigation and adaptation strategies are crucial steps toward preserving the rich marine biodiversity of these islands.

Figure 2. Few ornamental fishes of A&N Islands



(a) *Pomacanthus imperator*



(b) *Dascyllus trimaculatus*



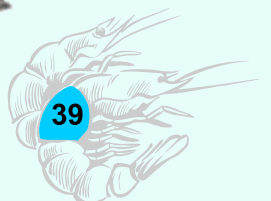
(c) *Dascyllus aruanus*



(d) *Halichoeres argus*



(e) *Abudefduf vaigiensis*





## Livelihood Opportunities

Ornamental fish breeding and production have evolved into sustainable livelihood alternatives, comparable to agriculture. This transformation provides local communities with viable income opportunities that do not rely on the depletion of natural stocks. The promotion of eco-friendly and sustainable breeding practices ensures long-term viability for this sector. Efforts to establish marine ornamental fish breeding units by beneficiaries are supported by government initiatives to set up facilities and provide financial assistance.

As a part of fortifying the culture of marine ornamental invertebrates, the ICAR-National Bureau of Fish Genetic Resources has established a germplasm resource centre for marine ornamental invertebrates at Agatti Island, Lakshadweep. The centre carries out the captive production of marine ornamentals (fishes and shrimps), which helps to alleviate pressure on wild stocks. This sustainable approach ensures that the natural populations of these species remain unharmed while, meeting market demand. As a part of this initiative, Community aquaculture units have been established with people participation. In these units, marine ornamental fishes and shrimps are being reared by women islanders, providing a source of income as they market their produce for profit (Jose et al. 2023). A similar model on harmonizing conservation and livelihoods through marine ornamental aquaculture, which is also known as 'indigenous resources for the inherent people', can be adopted at Andaman and Nicobar Islands. This approach could effectively balance the environmental conservation with economic development for local communities.

## Government Policies and Schemes

The Pradhan Mantri Matsya Sampada Yojana (PMMSY) offers financial assistance for setting up ornamental fish units, integrating ornamental fish breeding units, and establishing ornamental fish brood banks and kiosks. These initiatives are aimed at boosting the local economy, creating employment, and promoting



(f) *Cheatodon trifasciatus*



(g) *Zebrasoma scopas*



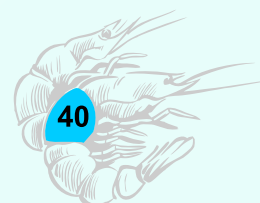
(h) *Cheilinus trilobatus*

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# FISHERIES IN NEWS

*Special Outreach Programme at Mohanpur Village, Diglipur*

**to organize workshop**

### Training-cum-Orientation Prog. on ...

...three days  
...ning programme

of NIOT to the participants and assured technical assistance in Seaweed cultivation.

NTDB SPONSORED

ath B. Chakurkar, Director, ICAR-CIARI, Sri Vijaya Puram during  
ensured all the support of Fisheries Science Division of ICAR-  
reparation of comprehensive plan for development of Tuna cluster  
ands.

be guiding the

## Cluster Based Approach to transform coastal economies: rising

It concluded with  
Ms. Gloria B.



### Training-cum-Orientation Prog. on Seaweed Cultivation conducted at NIOT Campus

Interactive sessions will highlight best practices, address private sector challenges, and foster South-East Asian networking to explore new business opportunities and trade synergies in the sector. In addition, the event will also mark the launch of a Tuna Cluster in Andaman & Nicobar Islands.

**Ba Kapsanong**

The Fisheries sector recognized as the "Sunrise Sector" is a key growth driver in India's economy and plays an essential role in enhancing national income, exports and food security particularly benefiting rural areas. Over the past decade, the Government of India has led the sector's transformation through flagship initiatives like PMMSY, SIFED, and the Blue Revolution, with unprecedented investments worth US\$872 crore since 2015.

India exported 17.81 million tonnes of seafood worth Rs. 60,523.98 crore during 2024. The seaboard states of India have more than doubled share FY 2015-

**Hrishi Mishra of Fisheries, Animal Husbandry and Dairy**  
2nd Rank, Indian School, Asia-Latin, South

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Challenges in global markets, Indian seafood export to 129 countries with largest export market being USA. This has resulted in tremendous progress in seafood exports, which has increased with an average annual growth of 10% over last five years.

ayabunder, Nov. 28  
A training  
programme was  
organized by the  
Department of  
Fisheries, A & N  
Administration in the  
conference hall of  
District Office, N&MA  
under national rollout of

for organizing the programme.

The Senior Manager, Tejas Networks, Shri Shrikant Rao conducted the Training Programme. During the session, he explained the importance of transponders and benefits to various stakeholders i.e. fishermen in high sea with the advisories to immediately move to safe place. The important features of the transponders are two - way communication, SOS, PFZ data, weather alerts, etc. A small video on installation of transponders was also shown to the

**Secretary (Fisheries) highlights recent developments undertaken in Mariculture, Brackish Water Aquaculture and Cold Chain sectors in Isles**

Sri Vijaya Puram, Nov. 21  
The Department of  
Fisheries, A&N



# SEAFOOD OF THE MONTH

## SEAWEED KHEER

Seaweed Kheer, is a rich and creamy, delicious dessert, enhanced with the health benefits of seaweeds. This all natural Kheer is sweetened with Jaggery and no refined sugar has been used. The rich creamy texture is due to natural coconut milk and is suitable for lactose intolerant individuals. Finely cured and processed using a traditional recipe which will entice your taste buds. This mesmerizing dessert will add sweetness to all your happy occasions. Enjoy this perfect combination of taste & health.

### Benefits of Seaweed

- ❖ Contains iodine and tyrosine, which support thyroid function
- ❖ Good source of vitamins and minerals
- ❖ Contains a variety of protective antioxidants
- ❖ Provides fiber and polysaccharides that can support your gut health
- ❖ May help you lose weight by delaying hunger and reducing weight
- ❖ May reduce heart disease risk
- ❖ May help reduce your risk of type 2 diabetes by improving blood sugar management

NIFPHATT BRINGS TO YOU A HEALTHY DESSERT

# SEAWEED KHEER

TASTE OF  
TRADITION



**LACTOSE FREE**  
Made with Coconut Milk



**Goodness of  
SEAWEED**



**Sweetened with  
JAGGERY**



Content Courtesy:  
NIFPHATT, Cochin





# An Eye to recent Breakthrough





# An Eye to recent Breakthrough



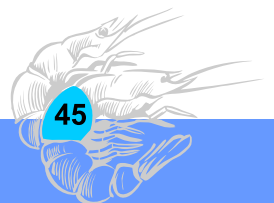
## How Seaweed Could Soon Let You Eat your Packaging?

**Imagine** a world where you can enjoy your favourite condiments without contributing to plastic waste. Seaweed-based packaging is making this possible by offering an edible, biodegradable alternative to plastic sachets. With over 430 million tons of plastic produced annually, traditional plastic sachets contribute significantly to pollution and harm marine ecosystems. Seaweed, a fast-growing, renewable resource, is a promising solution. Companies like Notpla, Evoware, and Sway are developing seaweed-based packaging that decomposes naturally, reducing environmental impact. India, with its vast coastline and seaweed species, is emerging as a key player in this industry, with startups like Zerocircle and Sea6 Energy leading the way. Despite challenges, such as overharvesting, seaweed-based packaging offers a sustainable shift towards reducing plastic waste and

supporting environmental conservation.  
Source: Your story

## CMFRI develops breeding of Marine Ornamental Fishes

**Tech** for high-value marine ornamental fishes is a major development for India's aquarium industry. The Central Marine Fisheries Research Institute (CMFRI) has created technology for the captive breeding of two high-demand marine ornamental fishes: Azure Damsel and Ornate Goby. The Vizhinjam Regional Centre of CMFRI successfully developed seed production technologies for these species, known for their vibrant colours and fascinating aquarium behaviour. The Azure Damsel, with its striking blue and yellow hues, is over-exploited and now





# An Eye to recent Breakthrough

considered vulnerable, while the Ornate Goby is prized for its unique patterns and peaceful nature. This breakthrough will aid sustainable production, reduce pressure on wild populations, and support conservation efforts. A medium-scale seed production unit could potentially generate an annual income of around 12 lakh.

Source: The New Indian Express

## CMFRI decodes genetic blueprint of Indian squid

The ICAR-Central Marine Fisheries Research Institute (CMFRI) has successfully decoded the gene expression pattern of the Indian squid (*Uroteuthis duvaucelii*), revealing significant genetic similarities with humans and higher vertebrates. This breakthrough, led by Principal Scientist Sandhya Sukumaran, provides insights into the squid's advanced nervous system, intelligence, and brain development, with implications for neuroscience, environmental science, and neurobiology. The research underscores the squid's evolutionary connections to humans, offering potential advancements in understanding complex nervous systems, learning, memory, and neurological diseases. Additionally, the findings could aid in sustainable marine resource management and understanding marine life adaptation to environmental changes.



Source: The Hindu News

## India's first shrimp shell biorefinery by ICAR-CIFT sets new benchmark

India's first shrimp shell biorefinery plant, launched by Longshore Technologies in Maharashtra with support from ICAR-CIFT, transforms shrimp shell waste into valuable products like chitin, chitosan, and shrimp protein hydrolysate. These by products serve industries such as agriculture, pharmaceuticals, and cosmetics. The project promotes sustainability by addressing waste management in the shrimp processing industry and exemplifies a circular economy approach. With a daily capacity of processing two tonnes of shrimp shells, the plant generates a turnover of Rs.25 lakhs annually and provides employment. This initiative





# An Eye to recent Breakthrough

enhances India's role in sustainable fisheries technology and waste management.  
Source: Food Spectrum

## India: Drone Technology and Innovation in Aquaculture

The Department of Fisheries and the National Fisheries Development Board (NFDB) hosted a workshop on the use of drone technology in fisheries and aquaculture at ICAR-CMFRI in Kochi, Kerala. A live demonstration highlighted the practical applications of drones in enhancing operational efficiency and safety. Additionally, a workshop on the registration and certification of fishing vessels will address technical fitness assessments, aligning with the objectives of the Pradhan Mantri Matsya Sampada Yojana (PMMSY) to promote sustainable growth in the sector was also organised.

The event also mark the official launch of the Marine Biological Association of India (MBAI) National Symposium, an important initiative aimed at fostering collaboration and knowledge-sharing among marine science professionals across the nation.

The event is an invaluable opportunity for participants to witness first hand how drone technology can enhance the sustainability and productivity of the fisheries sector.

Source: Open Gov Asia





## CIARI Scientists Redescribe a Taxonomically Cryptic Freshwater Fish Species from the Andaman Islands

A team of scientists led by ICAR-Central Island Agricultural Research Institute (CIARI), Sri Vijaya Puram under the technical guidance of Dr. Eaknath B. Chakurkar, Director, ICAR-CIARI has redescribed a new species *Sicyopterus garra* from the Andaman Islands.

The species was first described in late 1925 by an imminent ichthyologist Dr. Sundar Lal Hora from the type locality Brichgunj. Due to the taxonomically cryptic nature, the species was merged with *Sicyopterus microcephalus*, a species known from South-East Asia. For more than 90 years, the name *Sicyopterus garra* remained invalid and was not used by researchers.

This discovery is remarkable, as this is the third endemic freshwater fish species to be described

from the Andaman Islands. The study was published in the Journal of Fish Biology (Wiley-Blackwell), a reputed journal from The Fisheries Society of the British Isles.

Source - Andaman Chronicles



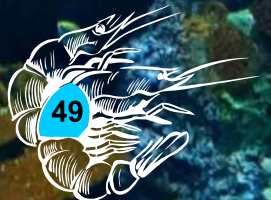


# Amazing Fish Facts

- ❖ The barreleye fish has a transparent head, allowing it to see through its skull.
- ❖ The coelacanth, a fish thought to have gone extinct 66 million years ago, was rediscovered in 1938, proving that living fossils still exist.
- ❖ The cleaner wrasse can recognize itself in a mirror, a sign of self-awareness seen in various animals.



Courtesy : Pixabay





- ❖ The black marlin is one of the fastest fish, capable of swimming at speeds exceeding 80mph.
- ❖ The walking catfish can use their fins to “walk” on land for short distances.
- ❖ The *Turritopsis dohrnii* jellyfish is biologically immortal! When stressed or aging, it reverts to juvenile polyp stage, essentially restarting its life cycle.
- ❖ The opah (or moonfish) is the only known fully warm - blooded fish, using its flapping pectoral fins to generate body heat, helping it hunt in deep, cold waters.
- ❖ The Greenland shark can live for over 400 years, making it the longest- living vertebrate on Earth!
- ❖ The humpback chub swims upstream so powerfully that it can scale waterfalls by wriggling up rocks.



- ❖ The African lungfish can “sneeze” to expel air from its lungs when out of water!
- ❖ In 2012, Zebrafish embryos were exposed to space conditions- and some hatched normally upon returning to Earth!
- ❖ The longfish damselfish tends algae gardens, aggressively weeding out unwanted species- just like human farmers!

Content Contribution:  
Robina Kader, FI





# PROMOTIONS, POSTINGS AND SUPERANNUATION

## PROMOTIONS



SHRI. GOPAL CHANDRA DAS  
Fisheries Inspector



SHRI. P. THIRUPATHI RAO  
Fisheries Inspector

## POSTINGS



SMT. V. SHEEJA  
Deputy Director (Fisheries)  
Nicobar



SHRI. BHARGAV CHAKRAVARTY  
Assistant Director of Fisheries  
Head Quarter-I



MISS. GLORY RAO  
Assistant Director of Fisheries  
Head Quarter-II

## SUPERANNUATION



SHRI. CHITTARAJAN ROY  
Chainman



SMT. YASHODA  
Multi Tasking Staff





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