भारत सरकार
GOVERNMENT OF INDIA
मत्स्यपालन विभाग
Department of Fisheries

Fisheries Startup and Aquapreneurship Stakeholders Meet

Collaborate. Connect. Catalyze

&

National Policy Workshop on Startups and Entrepreneurship in Fisheries

16-17 March 2026

Published by

MANAGE Fisheries Innovation and Startup Hub (MANAGE-FISHub)
(A National Fisheries Incubation Centre supported by the Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India)

National Institute of Agricultural Extension Management (MANAGE)
(An Autonomous Organization of Ministry of Agriculture and Farmers Welfare, Govt. of India)
Rajendranagar, Hyderabad – 500 030, Telangana State, India

ISBN Number: 978-81-19663-93-4

About the Publication

This publication is a compilation of deliberations and insights from the two-day programme titled "Fisheries Startup and Aquapreneurship Stakeholders Meet" and "National Policy Workshop on Startups and Entrepreneurship in Fisheries", held on March 16–17, 2026 at MANAGE, Hyderabad.

The publication captures key discussions on emerging opportunities in the Blue Economy, technology-driven aquaculture, value addition, and startup innovations. It captures key insights from startups, aquapreneurs, and institutional stakeholders, while highlighting ecosystem challenges, fostering collaboration, and generating actionable policy recommendations to strengthen fisheries entrepreneurship.

Disclaimer

The views and opinions expressed in this publication are those of the speakers, participants, and contributors and do not necessarily reflect the official views of MANAGE or MANAGE-FISHub.

The content is intended for knowledge dissemination and academic purposes. Reproduction and use of this publication are permitted for non-commercial purposes with due acknowledgment to MANAGE-FISHub as the source.

Citation

Saravanan, R. and Archana, R. 2026. Proceedings on Fisheries Startup and Aquapreneurship Stakeholders Meet & National Policy Workshop on Startups and Entrepreneurship in Fisheries, National Institute of Agricultural Extension Management (MANAGE), Hyderabad, India.

भारत सरकार
GOVERNMENT OF INDIA
मत्स्यपालन विभाग
Department of Fisheries

Fisheries Startup and Aquapreneurship Stakeholders Meet

Collaborate. Connect. Catalyze

&

National Policy Workshop on Startups and Entrepreneurship in Fisheries

16-17 March 2026

MANAGE Fisheries Innovation and Startup Hub (MANAGE - FISHub)

National Institute of Agricultural Extension Management (MANAGE)

Rajendranagar, Hyderabad – 500 030, Telangana, India

Contents

Fisheries Startups: Scaling the Blue Frontier

The Current Landscape

India's fisheries sector has emerged as a transformative pillar of the national economy, now standing as the world's second-largest fish producer. This growth is marked by a decisive structural shift from traditional marine capture toward scientifically managed freshwater systems, which now account for nearly 76% of total production.

While the sector has realized record-breaking export earnings reaching USD 7.45 billion in FY 2024-25, the growth remains geographically concentrated. To ensure equitable distribution and long-term sustainability, the sector now requires a new generation of innovation-driven actors, entrepreneurs and startups capable of addressing persistent challenges in value chain efficiency and digital integration.

Evolving ecosystems

- **Shift to Innovation:** Transitioning from basic production toward a robust innovation driven blue economy, including seaweed-based biomaterials and functional foods.
- **Smart Farming Integration:** Gradual entry of IoT water quality monitoring and Recirculating Aquaculture Systems (RAS) into mainstream production.
- **Entrepreneurial Focus:** Promoting aquapreneurship through specialized enterprises in supply chain management and digital traceability.
- **Climate Resilience:** Developing solutions to environmental challenges, such as carbon sequestration through expanded seaweed cultivation.

Challenges of scale

- **Financial Scarcity:** Limited access to specialized venture capital and credit facilities tailored for high-risk fisheries ventures.
- **Technology Gap:** Low grassroots adoption of smart farming tools and slow commercialization of lab-to-field technologies.
- **Infrastructural Hurdles:** Critical gaps in cold chain logistics and post-harvest management that hinder global competitiveness.
- **Knowledge Silos:** Lack of proper documentation for field-level innovations, preventing successful models from being scaled up nationally.

Stakeholders Meet & National Policy Workshop on Startups and Entrepreneurship in Fisheries

Focus: *Connect. Collaborate. Catalyze.*

This integrated program was conceived as a convergent, catalytic platform to bridge the gap between national policy and field-level practice. By gathering a diverse spectrum of stakeholders including Government officials, development practitioners, research institutions, NGOs like MSSRF and Dakshin Foundation, startups and the aquapreneurs , the initiative focused on revamping existing support structures to forge actionable partnerships. The ultimate goal was to foster strategic partnerships, inform policy development, and catalyze future programmes that transform regional fisheries potential into globally competitive, technology-led enterprises.

To achieve this vision, the programme focused on the following specific objectives:

- To examine policy and institutional frameworks supporting startups and entrepreneurship in the fisheries sector.
- To identify key ecosystem challenges affecting fisheries enterprises.
- To promote collaboration among stakeholders for strengthening innovation adoption and enterprise development.
- To generate policy recommendations for strengthening India's fisheries startup and entrepreneurship ecosystem.

Setting the context

The program commenced with a welcome address by Ms. Jaini Jeshwanthi, Business Executive, MANAGE-FISHub, who underlined the role of such platforms in connecting startups with stakeholders.

Director's Address: The Role of MANAGE

Dr. Saravanan Raj, Director, (Agricultural Extension) and CEO, MANAGE-FISHub, delivered the inaugural address, detailing the mandate of MANAGE as a premier capacity-building & management institution and a think-tank for the Ministry of Agriculture & Farmers Welfare. He highlighted several key initiatives:

Overview of international capacity-building initiatives such as Hi-Tech training programs, along with national initiatives including ACABC (Agri-Clinics and Agri-Business Centres), STRY (Skill Training for Rural Youth), DAESI (Diploma in Agricultural Extension Services for Input Dealers), the PGDABM (Post Graduate Diploma in Agri-Business Management) and PGDAEM (Post Graduate Diploma in Agricultural Extension Management) programs.

PM-RKVY (Pradhan Mantri Rashtriya Krishi Vikas Yojana): Noted that while 630 startups have been supported under PM-RKVY (formally known as RKVY-RAFTAAR) since 2018, only about 30 are from the fisheries sector.

The Inception of MANAGE-FISHub: To address the underrepresentation of fisheries startups and the lack of sector-specific incubation, technical mentoring, and market linkage support for aquapreneurs, the Department of Fisheries established MANAGE-FISHub as a specialized incubation center for the fisheries sector.

He also emphasized that unlike traditional approach, **"the idea is to make the platform vibrant through stakeholders meets"** to ensure the ecosystem is driven by collective dialogue rather than isolated research and development. By utilizing the real-world findings from the initial Stakeholder Meet, the program aims to directly inform the subsequent National Policy Workshop, ensuring that resulting frameworks are grounded in field-level realities. Furthermore, the initiative prioritizes the creation of actionable guidelines to support aquapreneurs in achieving nutritional security

Dr. Saravanan Raj
Director, (Agricultural Extension) and
CEO, MANAGE-FISHub

Capacity building must go beyond training- it should create a dynamic ecosystem where stakeholders come together, share ground realities, and co-develop actionable pathways for enhancing nutritional security, livelihoods and fisheries entrepreneurship through collaboration and partnerships.

Inaugural Remarks: Vision for the Blue Economy

Dr. Sagar Hanuman Singh, Director General, MANAGE, highlighted that the fisheries sector has become a high-performance pillar of India's agricultural exports. However, he cautioned that this growth faces critical systemic threats, particularly regarding environmental unsustainability and the escalating impacts of climate change.

He noted that the national priority for this sector is reflected in recent budgetary emphasis and the robust implementation of flagship schemes such as PMMSY (Pradhan Mantri Matsya Sampada Yojana) and PMMKSY (Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana). Dr. Singh emphasized that this Stakeholders Meet serves as a vital opportunity for networking to explore untapped avenues in processing and value chain optimization. Furthermore, he pointed toward the expanding role of fisheries in the health sector specifically regarding the high-value production of Omega-3 fatty acids as a significant frontier for new-age aquapreneurs.

The inaugural session concluded with a vote of thanks delivered by Ms. Archana R, Intern at MANAGE-FISHub, who expressed gratitude to the dignitaries, stakeholders, and participants for their presence and commitment to advancing the fisheries startup ecosystem and aquapreneurship.

Dr. Sagar Hanuman Singh
Director General
MANAGE

> **Fisheries must balance high performance with environmental sustainability to remain resilient.**

Startup Exhibition

A diverse group of aquapreneurs and industry stakeholders actively exhibited their innovations and enterprises across key domains such as fish processing and value addition, seaweed farming, aquaculture inputs, and emerging culture systems. Exhibitors including Mr. G. Ramprasad (Mahadeva Enterprises), Mr. Shaik Karimulla (Kareem Agro Farms), Mr. Donkina Santhosh (Puakai AgriAqua), Mr. Gnanesh Rao (Biogavya Innovations Pvt. Ltd.), Ms. Thasiya (Aquapreneur, Lakshadweep), Dr. Naveen Nivas (Noxmara Pvt. Ltd.), Mr. Rohan Patil (Aquadore Ventures Pvt. Ltd.), Mr. Ashok Malwani (Indian Pearl Culture), and Dr. Bula Choudhury (BICFA- Business Incubation Centre for Fisheries and Aquaculture) showcased their products, technologies, and business models, highlighting practical innovations and entrepreneurial opportunities within the fisheries sector.

Blue Economy Entrepreneurial Opportunities

Seaweed Farming

India, with a coastline of 11,098 km across nine states and four Union Territories, contributes less than 1% to global seaweed production, while countries like China and Indonesia dominate nearly 87% of the market. This highlights a significant untapped opportunity to scale seaweed cultivation. Seaweed farming is emerging as a climate-resilient enterprise, requiring no freshwater or arable land, with a short crop cycle of 45 days and strong potential for income generation among coastal communities. Expanding into value-added segments such as nutraceuticals, bio-stimulants, and sustainable packaging can further enhance profitability and market reach.

Key Insights:

1. Establish location-specific seed banks to ensure better adaptation and reduce translocation stress
2. Promote R&D and commercialization of indigenous seaweed species for long-term ecological sustainability
3. Develop aggregation platforms to streamline supply chains and ensure fair price realization for farmers

Mr. Akshay Jadhav
Founder & CEO
Raftech Solutions Pvt. Ltd.

A balanced approach integrating localized seed production, species diversification, and strengthened community-based, grassroots-level systems is essential for scaling sustainable seaweed enterprises.

Technology-Driven Aquaculture (RAS)

Recirculating Aquaculture Systems (RAS) enable high-density fish production (up to 400 tons/acre/year) with ~99% water recycling, compared to ~2 tons in traditional systems. The technology supports farming of cold-water species like *Oncorhynchus mykiss* in tropical regions by maintaining optimal temperatures (~15°C).

India can produce trout at an operational cost of ~$3.30/kg with a market selling price of ~ $10/kg, indicating strong profit potential. Domestic demand remains unmet, as trout is not imported and is substituted by other species. Locating RAS units near urban markets ensures consistent supply and reduces transport risks, while Himalayan regions offer natural temperature advantages.

Key Insights:

1. Establish RAS units near urban markets to ensure year-round supply, reduce transport risks, and tap unmet domestic demand before scaling exports
2. Optimize operations through efficient temperature management supported by reliable energy systems
3. Ensure access to quality inputs (imported ova, local feed) and build technical expertise to manage high-precision RAS systems

Mr. Vatsal Agarwal
Co-founder
Blue Wave Aquaculture

Scaling RAS aquaculture requires not just advanced technology, but precision in operations, cost efficiency, and strong market alignment.

Crab Farming

Mud crab *(Scylla spp.)* farming is a high-value alternative to shrimp culture. Mud crabs have strong export demand and fetch significantly higher market prices, making them a profitable option for aquapreneurs.

A key constraint in the sector is the limited availability of quality crab seed, which restricts large-scale expansion. To overcome this, the session focused on short-cycle farming models such as soft-shell crab production (15–20 days) and crab fattening (~30 days), which enable faster returns and better income flow.

Key Insights:

1. Promote hatchery-based seed production (e.g., RGCA technology) to reduce dependence on wild collection and bridge the seed gap
2. Adopt low-cost, environment-controlled systems (₹30,000 scale units) to minimize mortality and improve survival rates
3. Promote value addition through processing and branding

Dr. Naveen Nivas
Guest Faculty
Department of Aquaculture
Kerala University of Fisheries and Ocean Studies (KUFOS)

Scaling crab farming requires a shift towards scientific management, reliable seed supply, and short-cycle production systems to ensure consistent income and sustainability.

Ornamental Fisheries

Aquarium adoption is currently 1.75% in India, with a target to increase to 5% under PMMSY, moving closer to levels in developed countries (10%). The sector, which was earlier limited by export-oriented policies and regional restrictions, has now expanded into a pan-India opportunity, with a current market size of ₹1,000 crore and a projected potential of ₹3,000 crore.

While high-value species such as Discus, Arowana, and Koi offer significant export potential, they require specialized skills and longer culture periods. Importantly, fish production contributes only 20–30% of the total value, whereas aquarium accessories account for nearly 63%, most of which are imported.

Key Insights:

1. Promote domestic manufacturing of aquarium accessories to reduce import dependence and capture higher value
2. Strengthen skill development for breeding high-value ornamental species

Dr. Atul Kumar Jain
Director
Ornamental Fisheries Training and Research Institute

With over 60% of the sector's value driven by aquarium accessories, reducing import dependence through domestic manufacturing presents the greatest opportunity for growth.

Innovations in Pearl Culture

Pearl culture is a high-value, skill-based aquaculture activity offering diversification opportunities. The practice is evolving from traditional round pearls to customized and designer pearls, improving market demand. The use of simplified surgical tools has reduced the complexity of implantation, making the activity more accessible. It can be integrated into existing aquaculture systems, allowing additional income generation with minimal resource use. Value addition through downstream products further enhances income potential.

Key Insights:

1. Scale training and capacity-building initiatives for wider adoption
2. Strengthen market linkages for pearl-based products to improve commercialization
3. Promote cluster-based adoption models to support small-scale aquapreneurs

Mr. Ashok Manwani
Founder
Indian Pearl Culture

Simplifying techniques and integrating pearl culture into existing systems can transform it into a scalable, high-value livelihood opportunity for aquapreneurs.

Fisheries Extension and Digital Advisory Services

Traditional extension systems face challenges in providing timely and location-specific advisory services. The Matsya Mitra, WhatsApp-based AI chatbot addresses this gap by offering real-time, multilingual guidance on over 30 fisheries topics, including seaweed farming, crab culture, and government schemes. The platform enables instant access to technical support, reducing delays in decision-making and helping farmers respond quickly to field-level issues. With rapid user adoption, the model demonstrates the potential of digital tools in strengthening extension delivery.

Key Insights

1. Leverage farmer-generated data to develop targeted services such as IoT-based monitoring and customized inputs
2. Scale digital platforms to improve reach and accessibility of extension services and integrate scheme awareness for better uptake

Mr. Padmakar Bojja
Project Lead
Jaljeevika Pvt. Ltd.

When farmers get the right advice at the right time, it directly improves their decisions and reduces losses digital tools are making that possible at scale.

Value Addition and Seafood Processing

Value addition in fisheries offers a significant opportunity to improve profitability, with margins increasing from 5–8% in raw fish sales to 18–25% in processed products. With India as the world's 2rd largest fish producer, there is growing demand for ready-to-cook and ready-to-eat products such as fish fingers, sausages, and retort-based curries, which provide longer shelf life and price stability.

The model requires consistent raw material sourcing (e.g., Tilapia, Pangasius), efficient cold chain systems, and adherence to food safety standards such as Hazard Analysis and Critical Control Points (HACCP) and Food Safety and Standards Authority of India (FSSAI). Expanding into processing and traceability enables better market access and reduces risks associated with price fluctuations, particularly in the Hotels, Restaurants, and Catering (HoReCa) sector and export markets.

Key Insights:

1. Strengthen processing infrastructure and cold chain systems to support value-added production
2. Promote product diversification aligned with urban consumption trends

Dr. Abhay Thakur
Seafood Processing and Aquaculture Expert
Samrajya Fisheries

The future of fisheries profitability isn't in the catch, but in the brand; by shifting from raw commodities to value-added processing, we move from 5% margins to 25% stability while building a climate-resilient, waste-free supply chain.

A Session by Startups and Aquapreneurs

Seaweed-Based Sustainable Innovations

Seaweed is a high-potential resource that requires no freshwater or fertilizers and supports climate-resilient production. The startup Puakai AgriAqua (Nachu) has developed seaweed-based food products (cookies), nutraceuticals (B12 supplements), and personal care products, targeting both domestic and global markets.

The enterprise follows a B2B and D2C model, with distribution support from women's Self-Help Groups (SHGs), creating livelihood opportunities. With strong profit margins and plans for wellness centers, the model demonstrates the commercial viability of seaweed-based product diversification.

Key Insights:

1. Seaweed can accumulate heavy metals; regular testing and strict quality standards are required for safe consumption
2. High cellulose content in some species reduces digestibility; processing methods are needed to improve nutrient absorption
3. Standard guidelines are required for safe use of seaweed in food and nutraceutical products

Mr. Donkina Santhosh
Founder
Puakai AgriAqua (Nachu)

We are turning 100% sustainable seaweed into a diverse product ecosystem that scales both economic profit and social empowerment by bridging the gap between ocean conservation and consumer wellness.

Insect-Based Feed Innovations for Sustainable Aquaculture

The pitch addressed the high cost of aquaculture feed, which constitutes 60–70% of total production expenses. The proposed model utilizes insect larvae to convert organic kitchen and food waste into protein-rich feed (40–55%), providing a viable alternative to fishmeal and soybean-based inputs.

The approach promotes decentralized feed production, reducing input costs for farmers while simultaneously addressing organic waste management. With support from research institutions, the model demonstrates potential for scaling circular bioeconomy solutions, improving farm profitability, and generating rural employment with minimal land and water requirements.

Key Insights:

1. Feed cost remains the major constraint (60–70%) in aquaculture
2. Insect-based bioconversion offers a sustainable alternative to conventional feed ingredients
3. Supports waste management + low-cost feed production at the local level
4. Enables circular bio economy and rural livelihood opportunities

Mr. Sachidananda Dash
Founder
Tensift Farmers Fertilizer Pvt. Ltd.

We are solving the 70% feed cost bottleneck and building a circular bioeconomy that makes sustainable fish farming accessible to every small-scale producer by transforming environmental waste into high-protein aquatic nutrition.

Integrated Contract Farming for Export Markets

Kareem Agro Farms, based in Nellore, Andhra Pradesh, operates an end-to-end value chain for Barramundi *(Lates calcarifer)*, focusing on quality production and export markets. The system follows a structured 5-step approach, including disease-free seed selection, regular water quality monitoring, and maintenance of a cold chain below 4°C to ensure product quality.

The enterprise adopts a contract farming model, providing farmers with a 30% share in returns, thereby promoting inclusive participation and stable income. With strong market linkages to domestic hotel networks and export destinations in the Middle East and EU, the model demonstrates effective integration of production, cold chain logistics, and market access. The initiative also functions as a regional training hub, supporting local capacity building and livelihood generation.

Key Insights:

1. Strengthen contract farming frameworks to ensure risk-sharing and stable farmer income
2. Maintain continuous cold chain systems (<4°C) for export-quality standards
3. Develop direct market linkages to domestic and international buyers

Mr. Shaik Karimulla
Proprietor
Kareem Agro Farms

We have been able to scale the enterprise to a turnover of ₹80 crore, demonstrating the potential of Barramundi as an export-oriented aquaculture commodity by integrating structured production practices with a contract farming approach.

Seafood-Based Ready-to-Eat Snack Innovations

Farmlynk aims to disrupt the ultra-processed food market by introducing a range of nutrient-dense, ready-to-eat marine alternatives. Currently an incubatee of ICAR-Central Institute of Fisheries Technology, Kochi and MANAGE-FISHub the startup utilizes smart-dry technology to produce high-protein snacks like Fried Tuna Chunks and Dried Shrimp Omelette Mix without the high oil content of traditional frying. The business model is built on a decentralized, women-led network of coastal Self-Help Groups (SHGs), ensuring fair-price sourcing and complete QR-based batch traceability.

Key Insights:

Scaling requires investment in advanced packaging and shelf-life validation to ensure product stability and market readiness

Ms. CH. Sowmya
Founder
Farmlynk Agri Symbiosis Pvt. Ltd.

We are creating healthier seafood-based snack options while strengthening coastal livelihoods by combining smart processing technology with traceable sourcing.

Tuna Processing and Value Addition

Limited processing and cold chain infrastructure in island regions like Lakshadweep leads to high-value tuna being sold as low-priced raw fish. Establishing localized mini-processing units enables conversion into value-added products such as masmin powder, pickles, vacuum-packed steaks, and fillets.

The approach focuses on setting up on-island facilities with equipment like blast freezers and filleting units, improving price realization and enabling access to mainland markets. Developing a regional seafood brand further supports value retention within the island community and reduces reliance on intermediaries.

Key Insights:

1. Invest in decentralized processing infrastructure in island regions
2. Strengthen cold chain systems for market access and quality maintenance
3. Promote region-specific seafood branding to enhance value realization

Ms. Thahira
Aquapreneur
Kalpeni, Lakshadweep

Establishing local processing and cold chain systems can help island communities move from raw fish sales to higher-value seafood products.

Women-Led FPO Model in Fisheries and Value Addition

A 100% women-led Farmer Producer Organization (FPO) in Bodinayackanur, Tamil Nadu supports 1,550 shareholders and over 5,600 customers, demonstrating a strong grassroots enterprise model. Since its establishment in 2022, the FPO has diversified into value-added fish products such as dry fish (karuvadu), pickles, and ready-to-eat items sourced from local water bodies like the Vaigai Dam.

In addition to fisheries, the FPO engages in bulk trading of banana and coconut, achieving a turnover of ₹78.5 lakhs (FY 2025–26) with profit margins up to 24%. Institutional support, including ₹29 lakhs in subsidies, has enabled expansion plans such as solar-powered production units and an integrated fish farm, strengthening income opportunities for women members.

Key Insights:

1. Need for standardization and hygienic processing of traditional products like dry fish to access premium markets
2. Adoption of cluster-based models to improve raw material sourcing and streamline value-added production

Mr. Pavunuchamy
CEO
Bodi SMS FFPO Fisheries and Animal Husbandry Producer Company Limited.

We are proving that a 100% women-led FPO can scale from local ponds to a ₹78 Lakh revenue enterprise; by diversifying into value-added fish products and solar-powered infrastructure, we are securing the economic future of 1,550 shareholders.

Fish Waste-Based Bioplastics

MarinX addresses a significant gap in the circular economy by transforming undervalued fish waste typically relegated to low-value compost into high-performance, toxin-free bioplastics and biostimulants. Unlike starch-based alternatives, MarinX's bioplastic supports a superior carrying capacity of 5kg and is produced through a rigorous extraction process that recovers Chitosan and amino acid salts from scales and shells. The startup's competitive edge lies in its pricing: at ₹250 per kg, it is significantly more affordable than traditional starch-based packaging (₹350) while matching the cost of paper. Currently incubated by MANAGE-FISHub and supported by Startup Odisha, MarinX is proving that "waste becomes worth" by delivering a sustainable, aesthetically refined, and chemically safe alternative to synthetic plastics.

Key Insights:

Due to performance and cost constraints (1.5× higher than conventional plastics), focus on niche applications (e.g., interleaf sheets) where material usage is lower and price sensitivity is reduced

Mr. Sandipan Chakrabarty
Founder
MarinX

We are redefining the value of fisheries waste; by converting chitin and protein into high-strength, toxin-free bioplastics, MarinX is providing a sustainable packaging solution that outperforms starch-based alternatives

Seabass Farming for Sustainable Mariculture

Asian Seabass *(Lates calcarifer)* farming is being improved using a technology-supported cage culture system. This includes real-time water quality monitoring using sensors, AI-based surveillance to prevent poaching, and automated feeding systems to ensure regular and controlled feeding. These interventions help manage issues such as cannibalism and inconsistent feeding, which are common in seabass farming.

As a result, farms have achieved around 40% higher survival rates and up to 75% reduction in feed costs. The system combines nursery rearing, cage farming, and fingerling production, along with provision of technical services, making it a more efficient and scalable model to meet domestic demand.

Key Insights:

1. Promote technology adoption (IoT, AI, automation) for improved farm management
2. Strengthen seed production systems to support scaling of seabass farming
3. Encourage integrated business models combining production and technology services

Mr. Ezhilvalavan. S
Founder
Marine Biotech

We are moving from high-risk 'hunting' to precision farming; by integrating AI and IoT into coastal cage management, we are achieving 40% higher survival rates and turning Asian Seabass into a predictable, high-margin global commodity.

Bioavailable Feed Additives

Conventional mineral supplements used in aquaculture often have low absorption efficiency, resulting in nutrient loss and release of excess nitrogen and phosphorus into water bodies. To address this, the startup, Biogavya Innovations Pvt. Ltd. is developing a chelated hydrolysed protein-based feed additive, which improves mineral absorption and digestion in fish.

This approach helps in better nutrient utilization, reduces waste discharge into the culture system, and supports improved feed conversion efficiency and fish health. The innovation is currently under development, focusing on improving both productivity and environmental sustainability in aquaculture.

Key Insights:

1. Improve nutrient absorption efficiency to reduce environmental discharge
2. Promote functional feed additives for better fish health and performance
3. Support R&D in sustainable feed solutions for long-term aquaculture growth

Mr. Gnanesh Rao
Founder and Director
Biogavya Innovations Pvt. Ltd.

We are bridging the gap between high-performance nutrition and ecological health; by utilizing chelated hydrolysed proteins, we ensure that minerals are absorbed by the fish rather than wasted in the water, creating a cleaner and more profitable aquaculture ecosystem.

Seafood-Based Snack Innovations

Small-sized fish and prawns are often sold at low prices due to limited value addition. The startup addresses this by developing shelf-stable, ready-to-cook seafood snacks under the brand "Coasties," including products such as fried baby shrimp, Bombay duck sticks, and seaweed-based items.

The approach focuses on tapping the growing demand for convenient, high-protein snack options in urban markets. With support from incubation and institutional linkages, the model strengthens farmer supply chains while converting low-value raw materials into branded, market-ready products.

Key Insights:

1. Consumer acceptance remains a major challenge in India, as seafood-based snacks differ from existing taste preferences; unlike international markets with diverse flavours, adoption requires careful positioning (e.g., as appetizers)
2. Align products with urban consumption trends (ready-to-cook/snack formats)

Mr. Rohan Patil
Director
Aquadore Ventures Pvt. Ltd.

We are turning undervalued raw commodities into a world-class snacking category; by bridging the gap between traditional coastal recipes and modern shelf-stable processing, 'Coasties' is ensuring higher income for fish farmers and a protein-rich future for consumers.

Post-Harvest Infrastructure Solutions

Uruvar Labs addresses significant post-harvest losses (₹1.53 trillion annually) that limit farmer income despite high production levels. The startup integrates AI-based advisory (soil and pest management), village-level storage systems, and digital marketplaces to improve efficiency across the value chain.

A key feature is commodity-backed credit, where farmers can store produce and use it as collateral instead of relying on land-based loans. By combining storage, market access, and financial services within a single system, Uruvar Labs aims to improve price realization and reduce distress sales, particularly for smallholders.

Key Insights:

1. Strengthen village-level storage infrastructure to reduce post-harvest losses
2. Enable commodity-backed financing to reduce dependence on land collateral
3. Integrate market linkages and digital platforms for better price realization

Mr. Saurabh Kashyap
CEO
Uruvar labs LLP

We are moving beyond the 'farming problem' to solve the infrastructure crisis; by integrating AI advisory, village-level storage, and crop-backed finance into a single flywheel, Uruvar Labs is ensuring that the value of the harvest stays in the hands of the farmer.

Concluding Expert Remarks

"First learn, then earn." —

Dr. Debtanu Barman, emphasizing the necessity of technical mastery before commercial scaling.

"Prioritize energy-efficient processing to reduce the overall investment burden in fisheries." —

Shri. Ashok Pillai, highlighting the need for lean operational costs.

"There is an urgent need to deepen the focus on technical rigor."

— Dr. Radhika Rajasree, calling for scientifically validated innovation.

Practitioners Dialogue "Policy Perspectives on Strengthening Fisheries Entrepreneurship Ecosystem"

Making Small-Scale Fisheries Competitive, Resilient, and Inclusive through Cooperatives

Small-scale fishers often face challenges like low bargaining power, limited access to credit, and weak market linkages, which make it hard to earn sustainable incomes. Cooperatives can change the game. When local fishers form primary societies linked to apex federations and operate as Cluster-Based Business Organizations (CBBOs), they gain access to technology, training, and financial support to improve productivity and expand markets. The Kerala Matsyafed model provides a successful example, where collective action not only raises incomes but also empowers women fish vendors through microfinance and interest-free loans. By bringing together grassroots communities, institutional frameworks, and policy support, cooperatives create an ecosystem where fisheries entrepreneurship is both competitive and inclusive, enabling fishers to scale their businesses while sharing risks and benefits.

Mr. Ashok B. Pillai
Former Executive Director
National Cooperative Development Corporation
(NCDC)

If you want to go fast, go alone. If you want to go far, go together. By adopting a 'Start Small, Think Big' philosophy through the cooperative model, we can ensure that fisheries entrepreneurship remains both competitive and inclusive for the long term.

Coastal Communities as Drivers of a Resilient and Inclusive Blue Economy

Small-scale fishers, who make up 80% of the sector, face growing challenges from climate threats, extended multi-day fishing trips, and operational risks, compounded by middlemen-dominated systems and weak cold-chain infrastructure that drive high post-harvest losses. Community-led innovations offer a pathway forward, initiatives like the Samudhra product line enable women to add value to dry fish during lean periods, while circular economy approaches upcycle ghost gear into eco-friendly products. Decentralizing incubation hubs and providing continuous, coastal-based mentoring allows communities to adopt new technologies while building trust-based local systems. Tools like the Fisher Friendly Mobile App further support this process by connecting fishers to information, training, and market linkages. This approach positions small-scale fishers and women as co-creators and innovators, ensuring that ecological and livelihood security go hand-in-hand with sustainable fisheries entrepreneurship.

Dr. Velvizhi S
Marine Scientist
M. S. Swaminathan Research Foundation (MSSRF)

Interventions must move beyond one-time training toward continuous handholding; by integrating digital tools like the Fisher Friendly Mobile App with trust-based community systems, we can ensure that small-scale fishers and women are recognized as the primary co-innovators of the Blue Economy.

Institutional Support as a Catalyst for Scaling Fisheries Startups Globally

Small-scale and emerging fisheries entrepreneurs face high investment risks, limited technology access, and a global market that increasingly demands traceability and sustainability. The Marine Products Export Development Authority (MPEDA) provides a comprehensive support framework to address these challenges. Through targeted financial subsidies, MPEDA enables hatchery development, infrastructure automation, and the conversion of vessels into specialized Tuna long-liners. Its constituent societies play specialized roles: Rajiv Gandhi Centre for Aquaculture (RGCA) supports technology adoption and species diversification, National Centre for Sustainable Aquaculture (NaCSA) promotes cluster-based sustainable farming, and Network for Fish Quality Management and Sustainable Fishing (NETFISH) ensures quality management. To reduce over-reliance on *Litopenaeus vannamei*, MPEDA promotes SHAPHARI certification for antibiotic-free aquaculture, the creation of specialized Marine Development Hubs, and adoption of international standards such as Turtle Excluder Devices (TEDs), ensuring long-term market access. By combining institutional guidance, technological support, and sustainability-driven policies, fisheries startups can move from raw commodity exports to high-value, traceable products on the global stage.

Mr. Rajakumar S. Naik
Deputy Director
MPEDA Sub-Regional Office
Kakinada

Entrepreneurship in fisheries must be grounded in rigorous quality and sustainability; by diversifying our species basket and leveraging institutional support through clusters and technology catalysts, we can move from raw commodity exports to high-value, traceable global leadership.

Integrating Traditional Knowledge and Policy for Fisheries Development

India's 28 million fishers face complex challenges, from environmental risks to weak post-harvest systems and limited market access. Inclusive fisheries entrepreneurship requires moving beyond production-focused policies toward strengthening the entire value chain. Context-specific, nature-based solutions derived from participatory research address local challenges effectively, avoiding one-size-fits-all approaches. Digital tools, such as blockchain-enabled traceability for Fish amino acids, show how community-produced goods can secure premium market value while protecting local livelihoods. By embedding inclusivity into policy and governance, fisheries frameworks can bridge the gap between traditional knowledge and modern systems, ensuring that coastal communities are resilient and recognized as key stakeholders in the Blue Economy.

Mr. Tanmay Wagh
Senior Programme Officer
Dakshin Foundation

Inclusivity is not an add-on; it must be ingrained into the foundational governance of the sector. By moving beyond quantitative production targets to a value-chain approach that treats fishers as primary partners, we bridge the gap between traditional wisdom and modern policy.

Extension for Technology Adoption in Fisheries

India's fisheries sector have experienced remarkable growth, with production rising 106% to 197.75 lakh tonnes in FY 2024-25. To sustain this momentum, empowering 3 crore fishers through knowledge-driven extension services is key. Krishi Vigyan Kendras (KVKs), as frontline agricultural and fisheries extension institutions, play a critical role in translating complex technologies like Biofloc and Recirculating Aquaculture Systems (RAS) into practical, grassroots applications. By focusing on community-led seed production, standardized value addition, and climate-resilient pond management, the approach moves beyond traditional harvest methods. Integrating traditional knowledge with institutional support from programs like the Pradhan Mantri Matsya Sampada Yojana (PMMSY) and the Fisheries and Aquaculture Infrastructure Development Fund (FIDF) helps transform small-scale family units into profitable, technology-driven enterprises led by empowered youth and women.

Dr. Shah M. Hussain
Senior Scientist and Head
KVK East Garo Hills
Central Agricultural University

Extension is the vital bridge between the laboratory and the fish pond; by empowering fishers with localized technology and collective bargaining power, we are turning grassroots labor into a sustainable engine of national nutritional security.

Panel Discussion Highlights

The concluding panel provided a practical roadmap for emerging aquapreneurs, emphasizing market-ready, field-tested solutions. Experts stressed the need to bridge technology with real-world application.

Key takeaways included:

- Innovations should be tested on the ground to ensure practicality.
- Solutions must be cost-effective and competitive.
- Strengthening cold-chain systems and value addition improves marketability.
- Engaging communities ensures solutions address real challenges.
- Women should be included with accessible and user-friendly tools.
- Start small and plan strategically for scalability.
- Adapt proven global ideas to local contexts.
- Partnerships with institutions support sustainable growth.

Voices From the Ground
"Scaling Fisheries Startups – Challenges, Opportunities and Market Pathways"

Smart Aquaculture through Digital Tools

Indian aquaculture faces persistent productivity gaps due to disease outbreaks, poor water quality, and high feed costs. Digital tools like Real-Time Advisory and Precision Management are modernizing traditional practices. AI-driven image recognition and digital surveillance help detect pathogens early, preventing mass mortality. Integrating these tools with Software-as-a-Service (SaaS) advisory platforms and blockchain-enabled traceability allows startups to scale smart farming solutions. Leveraging Pradhan Mantri Matsya Sampada Yojana (PMMSY) grants can further support climate-smart, resilient systems, ensuring sustainable growth in the Blue Economy.

Dr. Debtanu Barman
Founder & CEO
Aqua Doctor Solutions Pvt. Ltd.

The future of Indian fisheries lies in transforming aquaculture from a risky business into a more sustainable and resilient sector; by moving from reactive treatments to proactive, AI-driven health management, startups are turning traditional ponds into high-tech, precision-managed assets.

Data-Driven Shrimp Aquaculture

Shrimp farmers face high risks due to volatile market prices and operational costs. Digital solutions are transforming traditional pond culture into precision, data-driven operations. Tools like ShrimpTalk use acoustic-based feeding to monitor appetite in real time, while PondMother automates feed dispensing. These technologies have reduced production costs by 20% and improved Feed Conversion Ratios (FCR) by 12–20%. Optical dissolved oxygen monitoring optimizes aeration, cutting diesel use by 30%. Moving toward solar-powered, sonic-feeding systems reduces the carbon footprint by 10–30%, making shrimp farming more resilient and predictable.

Mr. Kunal Choudhary
CEO
Eruvaka Technologies

Technology is the only viable path to sustainability when farm-gate prices are low; by moving from manual guesswork to sonic-based precision feeding, we are reducing the cost of production and turning high-risk shrimp farming into a predictable, data-centric enterprise.

Risk-Aware Scaling in Aquaculture

Sustainability in aquaculture requires balancing environmental, biological, and business metrics. A major challenge is the lack of understanding among banks and policymakers, which limits robust financial planning. Scaling without systems is risky, so enterprises should adopt Vertical Integration and Standard Operating Procedures (SOPs) early. Practical solutions like precise pellet-size management and hands-on training for Recirculating Aquaculture Systems (RAS) solve real-world problems. Cluster-based development and Public-Private Partnerships (PPP) can create resilient, system-driven ecosystems for scalable aquaculture.

Mr. Aditya Rithvik Narra
CEO
SmartGreen Aquaculture Pvt. Ltd.

Sustainability and scaling don't happen automatically; they are the result of deliberate systems. By investing early in SOPs and vertical integration, we move from risky, manual guesswork to a predictable, climate-resilient aquaculture business model.

AI and Automation for Risk Reduction in Aquaculture

Manual operations in aquaculture lead to high costs and risks, including crop losses and physical exhaustion for workers, a problem termed the "Midnight Crisis." Data-driven solutions, like AI Pods with closed-loop feedback, replace human guesswork. smart checktray vision monitors shrimp feeding behavior, and automated, solar-powered systems act on real-time environmental data. These innovations have reduced mortality from 25% to 5%, cut labor costs by 60%, and increased profit margins from 15% to 45%, transforming farms into high-efficiency, predictable operations.

Mr. Mrithunjay Sahu
Founder & CEO
Bariflo Cybernetics Pvt. Ltd.

We are moving from human-driven machines to data-driven cybernetics; by replacing manual guesswork with autonomous, AI-powered corrective control, we are turning aquaculture into a predictable, high-margin intelligence layer for the Blue Economy.

Panel Discussion highlights

The panel offered actionable insights for startups in fisheries technology, highlighting practical strategies to integrate AI and IoT solutions with aquaculture operations. Experts emphasized the importance of data-driven decision-making and community engagement to ensure innovations are effective and scalable.

Key takeaways included:

1. Start with ground-level engagement to capture real-world conditions.
2. Use data from National Fisheries Development Board (NFDB), Central Institute of Brackishwater Aquaculture (CIBA), and Central Marine Fisheries Research Institute (CMFRI) to supplement field insights.
3. Apply design thinking to identify gaps before collecting targeted data.
4. Test early prototypes with fishers and refine iteratively.
5. Evaluate whether a sensor or technology is truly needed for local conditions.
6. Many components are procured from the US and UK, not just China.
7. Navigate regulatory protocols for smooth adoption.
8. Government initiatives are creating a domestic hardware ecosystem for sustainable integration.

Aquapreneur Voices "Entrepreneurial Journeys, Challenges and Lessons from the Field"

Training & Advisory in Aquaculture

Fish farmers face high operational risks, technical challenges, and market uncertainties. Service-based models, like Navaratna Matsya Sevana Kendram (NRMSK), provide comprehensive training and advisory services through the Ponnoos Aqua Clinic for health diagnostics and the Navaratna Aqua Lab, which has processed over 3,000 water tests. Diversified species production, cage culture technology, buy-back guarantees, and integrated organic farming across 18 acres offer a low-risk, guided ecosystem. By combining technical training, operational support, and market linkages, small-scale farmers can transform high-risk aquaculture into a resilient, professionalized enterprise.

Dr. Akhilamole M.A
Founder & Managing Director
Navaratna Matsya Sevana Kendram (NRMSK)
Kerala

Service-based entrepreneurship is the backbone of a resilient aquaculture sector; by moving from just selling inputs to providing an 'Aqua Clinic' for diagnostics and a guaranteed market, we turn high-risk farming into a stable and professionalized industry.

Transforming High-Risk Aquaculture through Extension and Digital Advisory

Traditional aquaculture suffers from high mortality due to reactive, intuition-based practices. IIFSA addresses this through extension and digital advisory, combining Pond Clinics for soil/water mapping and pathogen identification with a Pond Pharmacy offering field-tested biological solutions. A "Digital Glue" ecosystem of seven applications delivers real-time expert guidance across 30,000 acres. This approach has cut disease by 70% and mortality by 80%, making aquaculture a bankable, scientifically managed venture for thousands of farmers.

Mr. Akbar Ali
Founder and Operational Architect
IIFSA (Information and Inputs For Sustainable Aquaculture)

Aquaculture becomes bankable only when we replace intuition with evidence; by integrating localized 'Pond Clinics' with a digital core, we are turning 30,000 acres of high-risk farming into a scientifically managed, sustainable asset for 10,000 farmers.

Unlocking Aquaculture Opportunities with Digital Advisory

India's aquaculture offers opportunities across hatchery management, feed production, health management, value-added processing, and allied industries like cold chain logistics and pharmaceuticals. Startups and fishers can leverage digital advisory services such as ICT-enabled diagnostics and e-traceability through Aqua One Centers (AOC) supported by National Fisheries Development Board and MANAGE to make informed decisions, reduce risks, and optimize productivity. Innovations like fortified feeds, herbal remedies, and nanotech-based disinfectants further enhance efficiency. By integrating technology with end-to-end farming operations, entrepreneurs can create bankable, sustainable ventures, expand market access, and generate higher incomes for India's 25 million fishers.

Dr. Mahidhar Bolem
Founder & Director
Marsco Nutraceuticals Private Limited

The growth of aquaculture depends on strong fundamentals quality, team, infrastructure, and value rather than innovation alone; by developing products tailored to the nutritional requirements of fish, the sector can achieve both sustainability and long-term economic strength.

Panel Discussion Highlights

The panel highlighted practical strategies for building resilient and scalable aquaculture enterprises, focusing on service models, digital advisory, and technology-driven innovation.

Key takeaways included:

1. Service-based models de-risk farming by providing diagnostics, market linkages, and buy-back guarantees.
2. Pond Clinics and Pond Pharmacies offer evidence-based solutions, replacing intuition and harmful chemicals.
3. Digital ecosystems enable real-time advisory and monitoring across large farm areas.
4. End-to-end support from hatchery to markets strengthens rural livelihoods.
5. Testing innovations on the ground ensures practical, cost-effective solutions.
6. Community engagement and early-stage prototype trials improve adoption of new technologies.
7. ICT-enabled advisory and e-traceability enhance transparency and professionalism.
8. Focus on fundamentals quality, infrastructure, and trained teams ensures sustainable growth.
9. Policies should support decentralized diagnostics and integrate private clinics into national frameworks.

Incubating Fisheries Innovation "Dialogue between CEOs of Fisheries Business Incubators"

Regional Innovation Driving Aquaculture Entrepreneurship

BICFA (Business Incubation Centre for Fisheries and Aquaculture), a PMMSY-supported initiative in Northeast India, bridges the gap between laboratory research and commercial markets. The centre provides high-end analytical infrastructure, modular laboratories, and fermentation facilities, enabling entrepreneurs to develop and scale fisheries innovations.

The Talent Search Contest (TSC) has supported seed grants for diverse innovations such as seaweed-insect-based feed and automated photo-bioreactors. BICFA has also trained over 320 participants in specialized modules, including pearl culture and aquarium setup, fostering a collaborative ecosystem where science meets business.

Dr. Bula Choudhury
Senior Scientist & PI
BICFA
Guwahati Biotech Park

Strengthening regional aquaculture depends on the seamless integration of scientific research with business support; by providing a platform where innovation meets infrastructure, we are empowering the Northeast to lead the next wave of knowledge-based fisheries enterprises.

University-Led Innovation Ecosystems for Fisheries Startups

KUFOS (Kerala University of Fisheries and Ocean Studies) has established India's first fisheries ATAL incubator, funded by NITI Aayog, to transform student and researcher ideas into viable businesses. The university acts as a one-stop support hub, providing mentoring, seed funding, and legal assistance to students, researchers, and local fishers. It focuses on modernizing aquaculture through circular economy projects, such as converting eel skin into collagen for medicine and transforming fish waste into marshmallows and Fish Caviar. With specialized facilities including a full-scale bakery unit and a seaweed processing lab, KUFOS has produced award-winning products like seaweed pasta and biodegradable packaging. Beyond laboratory innovations, the Soil to Sale framework supports communities by setting up fish drying units in adopted villages and training over 1,000 students in ornamental fish farming, enabling them to earn while they learn.

Dr. Radhika Rajasree S.R
Dean
Faculty of Ocean Science & Tech, and
Director
AIC KUFOS Kochi

We are building a bridge from the laboratory to the local market; by taking things that were once seen as waste like fish scales and turning them into high-value food and medicine, we are proving that a university can be the starting point for a profitable and sustainable Blue Economy.

MANAGE-FISHub: Strengthening the Fisheries Innovation Ecosystem

Established in 2025 at MANAGE (National Institute of Agricultural Extension Management), supported by the Department of Fisheries under the Ministry of Fisheries, Animal Husbandry and Dairying (MoFAHD).

Mission: Promote fisheries entrepreneurship, innovation, and technology adoption across the value chain.

MANAGE-FISHub Incubation Program (Cohort-1)

It serves as a key initiative to bridge the gap between fisheries innovation and commercialization. Launched on August 15, 2025, the program provides a structured pathway for aquapreneurs through physical mentoring, online training, technical validation and funding. He noted that the first cohort selected 22 startups from 11 states. The program culminated in a February 2026 evaluation, where 11 startups across seed, pre-seed, and student categories received funding support to scale their solutions within the fisheries value chain.

MANAGE Aqua-Eureka Program is a national-level innovation challenge for idea-stage participants, featuring a call for applications, a five-day mentoring phase (Dec 15–19, 2025), and a final pitch event.

Fisheries Startup and Aquapreneurship Stakeholders Meets

These meets facilitate direct dialogue between startups, researchers, industry experts, and policymakers to strengthen the innovation ecosystem.

Location	Date	Key Highlights
Chennai, Tamil Nadu	Dec 19, 2025	146 stakeholders, 9 expert sessions
Mangalore, Karnataka	Jan 9, 2026	214 participants, 8 expert sessions
Muthukur, Andhra Pradesh	Jan 21, 2026	210 stakeholders, 6 expert sessions
Kochi, Kerala	Jan 23, 2026	314 registrations, 10 expert sessions
Hisar, Haryana	Feb 16, 2026	327 stakeholders, 12 expert sessions

Aqua Reach, a district-level acceleration initiative, was conducted on January 13, 2026, in Thrissur, where Dr. Akhilamole M. A., Managing Director of Navaratna Matsya Sevana Kendram, provided hands-on training to 45 participants on pond preparation, seed production, cage culture, and integrated farming.

Aqua Yuva (Fisheries Entrepreneurship Development Programme): Conducted from February 17–18, 2026, at Hisar, this program provided 60 undergraduate and postgraduate fisheries students with essential exposure to business planning, digital marketing, and branding. The objective was to inspire the next generation of aquapreneurs by showcasing the potential of the startup ecosystem.

Aqua Udyami (Fisheries Entrepreneurship Development Programme): Held on February 19, 2026, this program trained 50 fish farmers and rural youth on the core pillars of enterprise management.

Fisheries Fortnightly Friday (F3) webinars, conducted twice a month, serve as a platform to share innovations, emerging technologies, startup success stories, and business opportunities, reaching over 2,000 participants through 17 sessions with 34 expert speakers.

FISHTech webinar series is a flagship platform that showcases scalable technologies from ICAR institutes and fisheries universities, helping bridge the gap between research and real-world adoption. The series, conducted in collaboration with the Kerala University of Fisheries and Ocean Studies (KUFOS), was held from January 21–30, 2026, featuring domain experts from the university.

The **Pre-Incubation Mentoring Program (Dec 1–24, 2025)** is an online initiative designed for idea and pre-idea stage fisheries startups, providing structured guidance through expert sessions, experience sharing, and one-on-one mentorship for selected participants.

The hub's digital outreach is driven by professional social media engagement, complemented by the **Aqua Talks Podcast** series which features expert conversations with industry leaders and successful entrepreneurs to inspire the next generation of aquapreneurs.

Dr. Saravanan Raj
Director, (Agricultural Extension) and
CEO, MANAGE-FISHub

Innovation only matters if it reaches the hands of our fishers. By sharing success stories and translating helpful guides into our own languages, we are making sure every fisher has the tools they need to succeed.

Panel Discussion Highlights

The discussion highlighted strategies to strengthen fisheries entrepreneurship through incubation, training, and digital advisory, emphasizing practical pathways for startups, students, and farmers.

Key takeaways included:

1. Connect with Extension Divisions of fisheries universities and ICAR institutes to access ready-to-transfer technologies; incubation centers like KUFOS Atal Incubation Center or MANAGE-FISHub help turn ideas into commercial ventures.
2. Hands-on training programs empower entrepreneurs, students, and fishers in pond preparation, seed production, cage culture, and integrated farming.
3. University-led incubators commercialize lab innovations and circular economy projects.
4. Extension and advisory services bridge research with field-level adoption.
5. Collaboration between startups, institutes, and policymakers strengthens the innovation ecosystem.

National Policy Workshop on Startups and Entrepreneurship in Fisheries- Action Points

Vision

Inclusive Growth & Grassroots Empowerment

- Shifting focus from large-scale players to small-scale fishers to ensure PMMSY benefits reach the underserved.
- Integrating women-friendly infrastructure in post-harvest and value-addition clusters.

Technology with Purpose

- Moving from guesswork to data-driven precision (AI, IoT, and Cybernetics).
- Prioritizing low-cost, energy-efficient, and location-specific solutions (e.g., region-specific RAS and Trout farming).

Market-Linked Sustainability

- Reducing middleman dominance through direct digital marketplaces and collective bargaining (FFPOs).
- Balancing environmental health with business profitability through Waste-to-Wealth and circular economy models.

Activities

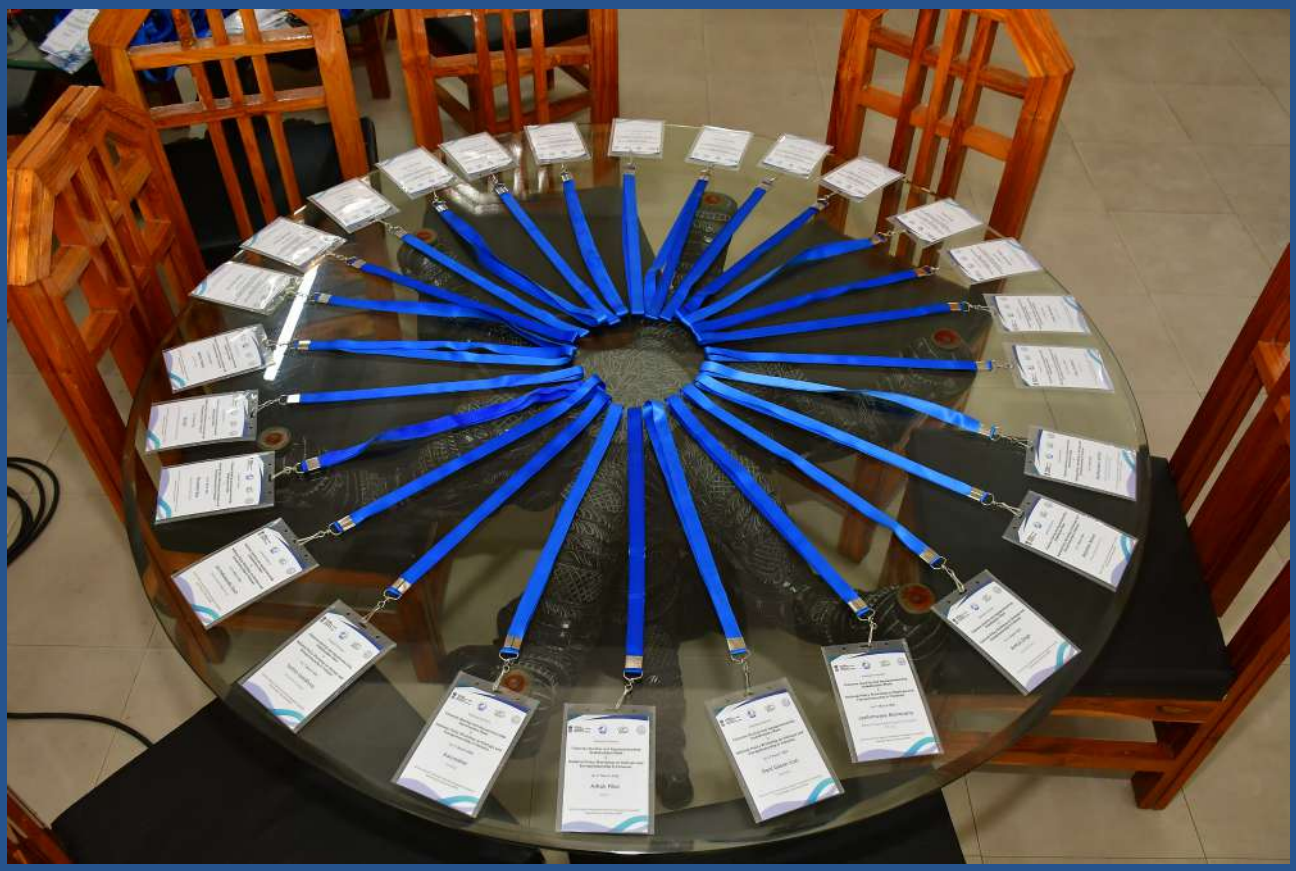
1. Strengthening Infrastructure & Ecosystems

- **Decentralized Incubation:** Setting up Pond Clinics and mini-incubation centers closer to coastal and rural fishing clusters for immediate diagnostic support.
- **Cold Chain & Post-Harvest:** Establishing hygienic dry-fish processing units and solar-powered cold storage in coastal communities to enhance shelf-life and export readiness.
- **Seaweed Diversification:** Promoting R&D into indigenous species beyond *Kappaphycus alvarezii* to mitigate heavy metal risks and biological overdependence.

- **Energy-Efficient Solutions:** Supporting R&D into solar-powered aerators and low-energy water filtration to make high-tech farming like RAS affordable for smallholders.

2. Marketing & Social Inclusion

- **Direct Market Linkages:** Creating cluster-based selling points where farmers can bypass middlemen and sell directly to cold storage or export-ready systems to ensure better prices.
- **Women-Friendly Infrastructure:** Designing and installing hygienic processing units specifically for women-led collectives in the post-harvest and dry-fish sectors.
- **Waste-to-Wealth Training:** Launching specialized workshops for fishing families to turn waste (fish scales, seaweed, or shells) into fertilizers and other value added products.



Participants List

Sl. No	Names and Address
1	Dr. Naveen Nivas Guest Faculty Department of Aquaculture, KUFOS, Kerala
2	Mr. Vatsal Agarwal Co-founder Blue Wave Aquaculture
3	Mr. Akshay Sampat Jadhav Founder & CEO Raftech Solutions Pvt. Ltd
4	Dr. Atul Kumar Jain Director Ornamental Fisheries Training and Research Institute
5	Mr. Ashok Manwani Founder Indian Pearl Culture
6	Mr. Padmakar Bojja Project Lead Jaljeevika Pvt. Ltd.
7	Dr. Abhay Thakur Seafood Processing & Aquaculture Expert, Samrajya Fisheries
8	Mr. Ashok Pillai Former Executive Director NCDC
9	Dr. Velvizhi S. Marine Scientist, Area Director M.S. Swaminathan Research Foundation
10	Mr. Tanmay Wagh Senior Programme Officer Dakshin Foundation
11	Dr. Shah M Hussain Senior Scientist and Head KVK East Garo Hills Central Agricultural University

12	Dr. Debtanu Barman Founder & CEO Aqua Doctor Solutions Pvt. Ltd.
13	Mr. Aditya Rithvik Narra CEO SmartGreen Aquaculture Pvt. Ltd
14	Mr. Mrithunjay Sahu Founder & CEO Bariflo Cybernetics Pvt. Ltd.
15	Dr. Akhilamol M. A Founder Navaratna Matsya Sevana Kendram (NRMSK) Kerala
16	Mr. Shaik Akbar Ali Founder and Operational Architect IIFSA
17	Dr. Mahidhar Bolem Founder and Managing Director Marsco Nutraceuticals Pvt. Ltd.
18	Dr. Radhika Rajasree Dean, Faculty of Ocean Science and Technology PI & Director AIC-KUFOS Kochi Foundation, KUFOS
19	Dr. Bula Choudhury Senior Scientist, Project Investigator BICFA
20	Mr. Rajakumar S. Naik Deputy Director Sub-Regional Division, Kakinada, MPEDA
21	Mr. Kunal Choudhary CEO Eruvaka Technologies
22	Ms. Sowmya Founder Farmlynk Agri Symbiosis Pvt. Ltd.
23	Mr. Sachidananda Dash Founder Tensift Farmers Fertilizer Pvt. Ltd.

24	Ms. Thasiya Aquapreneur Kalpeni, Lakshadweep
25	Ms. Thahira Aquapreneur Kalpeni, Lakshadweep
26	Mr. Pavunuchamy CEO Bodi SMS FFPO
27	Mr. Sandipan Chakrabarty Ceo and Founder MarinX
28	Mr. Donkina Santhosh Founder PuakaiAgriAqua (Nachu)
29	Mr. Ezhilvalavan. S Founder Marine Biotech
30	Mr. Gnanesh Rao Founder and Director Biogavya Innovations Pvt.Ltd.
31	Ms. Sonali Saini Co-founder and Director Biogavya Innovations Pvt. Ltd.
32	Mr. Rohan Patil Director Aquadore Ventures Pvt. Ltd.
33	Mr. Shaik Karimulla Proprietor Kareem Agro Farms
34	Mr. G. Ramprasad Managing Partner Mahadeva Enterprises
35	Ms. Twisha Upadhyay Head – Marketing Eruvaka Technologies

36	Dr. Rajiv Chandra Dev Goswami Research Associate, GBP Co- Project Investigator, BICFA
37	Mr. Nabajyoti Das Project Fellow BICFA, GBP
38	Ms. Puja Mitra Partnerships and Policy Lead Dakshin Foundation
39	Mr. Kothapata vishwanand Assistant Director ASSOCHAM
40	Mr. Udaykiran Akkapalli Managing partner Arjun Aqua
41	Ms. Takkasila Vaishnavi Student College of Fisheries Science, Pebbair
42	Ms. Etikala Sowmya CEO Kondamallepally Rythu Fed FPCL
43	Mr. Santosh kumar Potadar Young Professional-II ICAR – CRIDA
44	Mr. Muhammed Husain Project Assistant Own Elite house Cantonment South kollam
45	Mr. Mohammad Irfan Ali Manager Japfa Comfeed India Pvt. Ltd.
46	Mr. Saurabh Kashyap CEO Uruvar labs LLP
47	Mr. Jogiparthi Venkata Sai Research Scholar
48	Mr. H. Jebaraj Student KUFOS, Kerala

49	Mr. Gajanan S. H. Managing Director Siddivinayaka industries
50	Ms. Geethu Vimal Student KUFOS, Kerala
51	Ms. Roobi Shaban C. P. Student KUFOS, Kerala
52	Mr. Vadela Akhil Student College of Fishery science, Muthukur
53	Ms. Pidigam Vaishnavi Student College of Fishery science, Pebbair
54	Ms. Katravath Mamatha Student College of Fishery Science, Pebbair
55	Mr. Venkata Praveen Co-Founder Farmlynk Agri Symbiosis Pvt. Ltd.
56	Mr. D. Balaji Research Scholar
57	T. Shiva Krishna Young Professional-II

MANAGE - FISHub Team

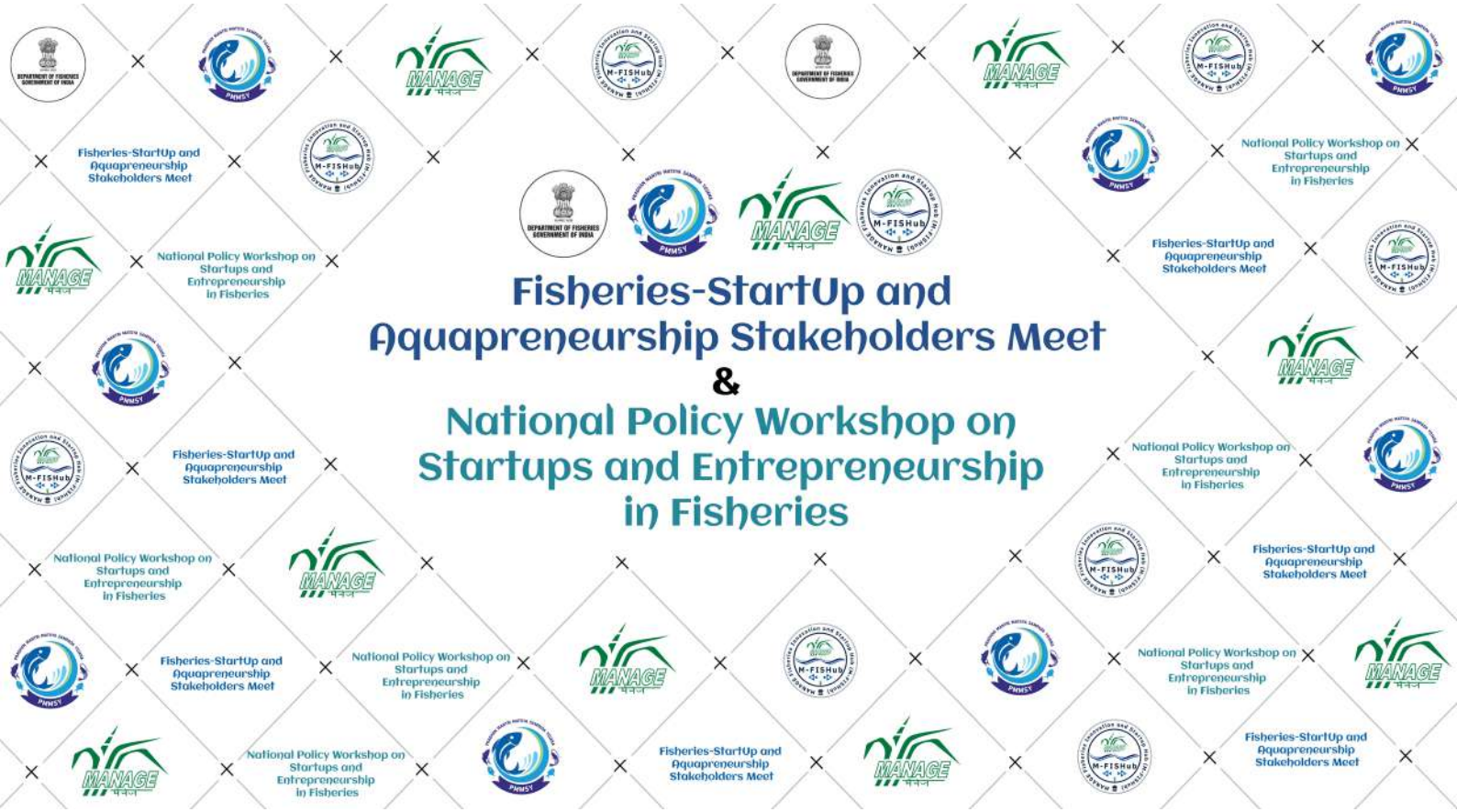
58	Dr. S. Raahalya Innovation Scaling Specialist MANAGE-FISHub Rajenranagar, Hyderabad
59	Mr. Santhosh Kumar Intern MANAGE-FISHub Rajendranagar, Hyderabad

60	Ms. Jaini Jeshwanthi Business Executive MANAGE-FISHub Rajendranagar, Hyderabad
61	Dr. Nivetha C K Innovation Research Fellow MANAGE-FISHub Rajendranagar, Hyderabad
62	Ms. Archana R. Intern MANAGE-FISHub Rajendranagar, Hyderabad
63	Mr. Dani Glenn Irish V Intern MANAGE-FISHub Rajendranagar, Hyderabad
64	Ms. Neha Rani Intern MANAGE-FISHub Rajendranagar, Hyderabad
65	Ms. Bhoyar Amruta P Intern MANAGE-CIA Rajendranagar, Hyderabad
66	Dr. B. Vetri Selvi MANAGE Fellow Rajendranagar, Hyderabad

MANAGE - Fisheries Innovation and Startup Hub (MANAGE-FISHub)

MANAGE-Fisheries Innovation and Startup Hub (MANAGE-FISHub) is a national-level incubation platform hosted at the National Institute of Agricultural Extension Management (MANAGE). Established in 2025 with the support of the Department of Fisheries (DoF), Ministry of Fisheries, Animal Husbandry and Dairying (MoFAHD), Government of India, to strengthen the fisheries and aquaculture sector through entrepreneurship, technology adoption, and ecosystem development. The core objective of MANAGE-FISHub is to support aspiring aquapreneurs and startups by providing incubation, capacity building, mentoring, and facilitating access to technology, finance, and market linkages across the fisheries value chain. The initiative promotes technology-driven enterprises, strengthens the startup ecosystem, and enables sustainable and scalable aquaculture ventures. These efforts contribute to employment generation, value addition, and the overall growth of the fisheries startup ecosystem, while supporting the vision of the Blue Economy in the country.

https://www.manage.gov.in/managefishub/



MANAGE FISHub | MANAGE-FISHub | managefishub | MANAGE FISHub | MANAGE-FISHub

MANAGE-Fisheries Innovation and Startup Hub (MANAGE - FISHub)

National Institute of Agricultural Extension Management (MANAGE)

Rajendranagar, Hyderabad - 500 030, India

https://www.manage.gov.in/managefishub/