

Arabian Sea Fisheries Management Coordination Committee (Sea=MC²) The Quarterly News Letter

Message from the 'Director General'

Health Camps: A Small Beginning Towards a Healthier Fishing Community

When SeaMC² was established with the vision of serving the fishing community, we had a clear objective but no predetermined roadmap on where to begin. We believed that any meaningful intervention should first emerge from understanding the real needs of fishers rather than imposing externally conceived programmes. Accordingly, we visited several fishing villages along the Karnataka coast and interacted closely with fishers, fisherwomen, youth, and community leaders. These interactions revealed that **health and education** were the two most pressing concerns affecting the quality of life of coastal communities.



While education undoubtedly remains the cornerstone for long-term socio-economic

transformation, it requires sustained interventions from government departments, educational institutions, and policy makers. As a newly established society with limited resources, we felt that making a meaningful contribution in the education sector would require larger institutional support. On the other hand, healthcare presented an opportunity where immediate and visible impact could be created through partnerships with hospitals, medical colleges, corporate social responsibility (CSR) initiatives, philanthropic organizations, and individual sponsors. This realization prompted SeaMC² to adopt community health outreach as one of its flagship social initiatives.

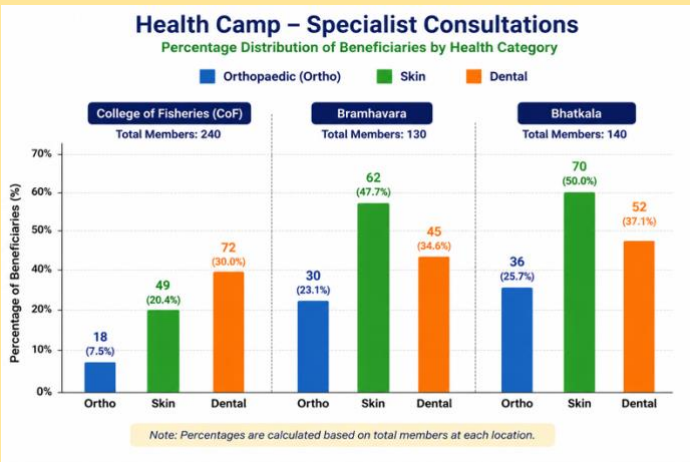
To understand the logistics and effectiveness of organizing such programmes, we first conducted a pilot health camp within the College of Fisheries campus involving our staff members, students, and supporting personnel. The programme received an overwhelming response and demonstrated that multidisciplinary medical camps could successfully address several neglected health issues in a single platform. We are grateful to Srinivasa Medical College, Mangalore, whose team of specialist doctors and healthcare professionals extended wholehearted support in making the initiative a success.

The pilot camp recorded a total participation of more than 240 beneficiaries. Among them, 72 individuals underwent dental examination, 36 consulted orthopaedic specialists, 49 received dermatological consultation, while 23 participants sought treatment for general and other medical conditions. These encouraging results strengthened our confidence that such outreach programmes could significantly benefit

coastal communities, where access to specialist healthcare is often limited.

Encouraged by the success of the pilot programme, SeaMC² expanded its activities to fishing villages. The second health camp, organized at Kodi-Kanyana, Brahmavara, witnessed the participation of more than 120 fishers and their family members. The pattern of health issues observed during this camp was particularly revealing. A total of 62 beneficiaries consulted dermatologists, indicating the high prevalence of skin disorders among fishers who are continuously exposed to seawater, sunlight, humidity, fish handling, and occupational hazards. Thirty participants sought orthopaedic consultation, primarily for musculoskeletal problems arising from strenuous fishing activities, while more than 45 individuals received general medical consultations for various health concerns.

The third health camp further reinforced these observations. Out of approximately 130 beneficiaries, 70 registered for dermatological consultation, 52 underwent dental examination, and 36 received orthopaedic consultation. The consistently high demand for dermatology, dental care, and orthopaedic services across all three camps clearly highlighted the major occupational health challenges faced by fishing communities.



These health camps have provided SeaMC² with invaluable insights into the healthcare needs of fishers.

In an education institute, the ortho issue is only 7.5%, skin is 20.4% and dental issue is 30% and these numbers increased significantly among fishers. The findings indicate that occupational skin diseases, dental disorders, musculoskeletal ailments, and general health issues constitute the major health burden among coastal populations. Such evidence enables us to design future programmes that are more focused, need-based, and impactful.



Beyond providing medical consultations, the health camps have also become platforms for creating awareness on personal hygiene, occupational safety, nutrition, preventive healthcare, early disease diagnosis, and healthy lifestyle practices. They have strengthened the relationship between medical institutions and fishing communities while fostering confidence among fishers that their health and well-being are receiving due attention. In addition to the health camps, the Society successfully organized blood donation camps at Mangalore and Malpe, resulting in 92 voluntary blood donations. The same platforms were used to promote the schemes and initiatives of Government of India.

Recognizing the positive impact of these initiatives, SeaMC² is committed to organizing similar health camps in other fishing villages across the west coast of India. With continued support from medical institutions, CSR partners, philanthropic organizations, government agencies, and corporate sponsors, the Society aims to establish a sustainable

community healthcare outreach programme that complements its broader mission of improving the livelihoods and quality of life of fishing communities.

An age-old Kannada proverb, "ಘಟ ಇದ್ದರೆ ಮಠ" (**Ghata Iddare Mata**), reminds us that health is the greatest wealth. As long as we are alive and healthy, we have the opportunity to build our dreams, support our families, and serve society. Our journey has reaffirmed a simple yet powerful lesson: healthy fishers are the foundation of a healthy fisheries sector. Investing in the health of fishing communities is not merely a welfare activity—it is an investment in the sustainability, productivity, and resilience of India's blue economy.



Dr Shivakumar Magada
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The Chairman's Voice

Going deep into the sea to see what can be done...

Despite India's remarkable achievements in fisheries production, the sector is currently facing several structural challenges. Though some of the fisheries research institute's claim that 93-94% of the fish stock is healthy, the marine capture fisheries have shown signs of stagnation due to declining fish stocks, increasing fishing pressure, rising fuel costs, and longer fishing operations. At the same time, coastal aquaculture is constrained by limited availability of suitable land, increasing competition for coastal resources, environmental concerns, and the rising cost of construction and farm inputs. Small-scale fishers, in particular, often lack sufficient capital to establish conventional aquaculture enterprises. These challenges highlight the need for innovative production systems that can utilize India's vast marine resources while

requiring relatively low land and capital investment.

Against this backdrop, offshore marine cage culture has emerged as one of the most promising opportunities for expanding marine fish production and diversifying the livelihoods of coastal fishing communities. India possesses an extensive coastline, numerous sheltered bays, coastal waters, and offshore marine areas that can support cage-based fish farming. Species such as Asian seabass (*Lates calcarifer*), pompano (*Trachinotus* spp.), cobia (*Rachycentron canadum*), snapper, grouper, and other high-value marine fishes are suitable for cage culture. Fish are stocked in floating cages and reared using formulated feeds until they reach marketable size, enabling farmers to produce high-value fish without requiring large areas of land.

ICAR institutes and other Government agencies have successfully demonstrated the technical and commercial potential of offshore marine cage culture in different parts of India. These demonstrations have established that suitable marine species can be cultured successfully in floating cages and that cage-based farming can provide an additional source of income for coastal fishing communities. However, despite the encouraging results, the large-scale adoption of offshore cage culture remains limited. One of the major constraints is the high initial capital investment required for cage systems, mooring and anchoring arrangements, boats, nets, feeding equipment, fish seed, feed, insurance, and other supporting infrastructure. For small-scale fishers and rural entrepreneurs, mobilizing such a large amount of capital is often difficult without continued financial and institutional support.

Another important concern is the sustainability of demonstration-based projects after government funding or institutional support is withdrawn. In several cases, cage culture demonstrations have shown promising production and economic results during the project period, but some units have

become non-operational once external financial and technical assistance ended. This indicates that successful demonstration alone is not sufficient; projects must be designed around realistic business models, adequate working capital, assured seed and feed supply, technical support, risk management, and reliable market linkages. Developing commercially viable models that can operate independently after the initial support period is therefore essential.

A further challenge is the absence of comprehensive marine fisheries and marine aquaculture policies in several coastal states. Clear policies are required to identify and allocate suitable marine areas for cage farming, establish leasing and licensing procedures, define responsibilities among different departments, regulate navigation and fishing activities, address environmental concerns, and provide long-term security of tenure to investors. In the absence of such a regulatory framework, investors often face uncertainty regarding site ownership or leasing, permissions, environmental clearances, insurance, and the long-term continuity of their operations.

This policy uncertainty significantly increases the perceived risk of investment. Unlike land-based aquaculture, offshore cage culture involves substantial investment in infrastructure that is exposed to storms, cyclones, strong waves, biofouling, theft, accidental damage, and other marine risks. Investors are therefore reluctant to commit large amounts of capital when there is uncertainty about access to suitable sites and the regulatory environment. Establishing state-level marine aquaculture policies, clearly demarcated cage culture zones, simplified single-window approval systems, appropriate insurance mechanisms, and long-term leasing arrangements would substantially improve investor confidence.

There is, therefore, a need to move from short-term demonstration projects to commercially sustainable cage culture enterprises. Government support should focus not only on providing capital

subsidies but also on creating an enabling ecosystem involving technology, finance, insurance, seed production, feed supply, technical services, market linkages, and policy support. Particular attention should be given to low-cost cage designs and community-based cage farming models, which can reduce the entry barrier for small-scale fishers and entrepreneurs. A combination of government facilitation, private investment, institutional support, and farmer-led enterprises can help transform offshore cage culture from a demonstration activity into a sustainable and commercially viable component of India's blue economy.

An important advantage of marine cage culture is that it does not require agricultural land or large quantities of freshwater. Floating cages utilize the surrounding marine environment for water exchange, while fish remain confined within the culture unit. Properly designed cages can be installed in suitable coastal and offshore locations where water quality, depth, currents, and wave conditions are favourable. Offshore cage systems can also reduce competition with agriculture and other land-based activities and provide opportunities for utilizing marine spaces that are otherwise not directly used for food production.

Alongside large and commercial offshore cages, low-cost cage culture offers an especially attractive opportunity for small-scale fishers, women self-help groups (SHGs), youth entrepreneurs, and coastal cooperatives. Low-cost cages can be fabricated using locally available materials and appropriately designed for sheltered waters, reservoirs, estuaries, backwaters, and nearshore areas. Such systems substantially reduce the initial investment compared with large commercial cages and allow farmers to enter marine or brackishwater aquaculture with manageable financial risk. Demonstration of simple, affordable cage designs can therefore play a major role in promoting aquaculture among economically weaker coastal households.

Several fish farmers and fishing communities along the coasts of Karnataka, Kerala, Goa, Maharashtra, Tamil Nadu, and Andhra Pradesh have already demonstrated the potential of cage-based fish farming. By utilizing locally suitable sites, quality fish seed, floating cages, and appropriate feed management, farmers can achieve substantial production from relatively small culture areas. The use of locally available materials for cage fabrication and community-based management can further reduce investment costs. Since high-value marine fishes generally command better market prices than many conventional cultured species, cage farming can provide attractive returns when production, feed, survival, and marketing are properly managed.

One of the greatest strengths of cage culture lies in its ability to complement rather than replace traditional fishing activities. Fishers can gradually diversify their income by allocating a portion of their time and resources to cage farming while continuing their conventional fishing operations. Cage culture also generates employment in seed production, cage fabrication, installation, net cleaning, feed supply, harvesting, transportation, fish handling, cold-chain management, processing, and marketing. Development of clusters of cage farms can therefore create a broader local enterprise ecosystem and strengthen the coastal fisheries value chain.

From an economic perspective, cage culture offers significant opportunities for value addition and income enhancement. Farmers can select species according to local environmental conditions and market demand and harvest fish when prices are favourable. Harvesting can also be carried out in batches, allowing farmers to maintain a more regular supply to markets. Establishment of local collection centres, ice and cold-storage facilities, transport systems, and organized marketing networks can further improve profitability by reducing post-harvest losses and strengthening the bargaining position of farmers. Direct marketing to restaurants, hotels, seafood retailers, and

institutional buyers can provide additional value realization.

Environmentally, cage culture can be a relatively efficient form of aquaculture because it makes productive use of the existing water column without requiring extensive land modification. However, responsible development is essential. Appropriate stocking densities, efficient feed management, regular monitoring of water quality, proper site selection, cage maintenance, disease prevention, and effective waste management are necessary to minimize environmental impacts. Offshore sites should be selected based on carrying capacity, currents, depth, navigation requirements, and ecological sensitivity. Sustainable cage farming must therefore be developed within a scientifically managed framework.

Looking ahead, India has immense potential to become a major producer of high-value marine fish through offshore and low-cost cage culture, provided greater emphasis is placed on quality seed production, low-cost cage fabrication, feed technologies, farmer training, site identification, insurance, credit support, cold-chain infrastructure, and organized marketing. Government programmes such as the Pradhan Mantri Matsya Kisan Sampada Saha Yojana (PM-MKSSY) provide opportunities to support infrastructure development, entrepreneurship, technology adoption, and fisheries-based livelihoods. College of Fisheries, Mangalore is one of the centres facilitating PM-MKSSY in the states of Karnataka and Goa. I am the nodal officer for the said programme. I request entrepreneurs, fishers, and farmers to make use of the available schemes and technical support for establishing viable cage culture enterprises.

Offshore and low-cost cage culture represent far more than an alternative method of fish production—they offer a high-value, land-efficient, scalable, and potentially climate-resilient livelihood option for India's coastal communities. By combining modern aquaculture technology

with the experience and traditional knowledge of fishers, cage culture can diversify household incomes, create employment, empower rural entrepreneurs, improve domestic seafood availability, strengthen exports, and contribute significantly to the sustainable growth of India's blue economy.



Warm regards,

Ramesh M.R

Chairman, Arabian Sea Fisheries
Management Coordination
Committee (SEA=MC²)

General Information by the “Secretary General”

I am happy to inform you that I have assumed charge as the Director of Extension at Karnataka Veterinary, Animal, and Fisheries Sciences University (KVAFSU), Bidar. I consider this responsibility both a privilege and an important opportunity to strengthen the connection between the University and the farming and fishing communities of Karnataka.

The position of Director of Extension provides me with a greater opportunity to take up need-based extension activities, capacity-building programmes, demonstrations, skill development initiatives, and technology-transfer programmes, particularly for fishers, fish farmers, rural youth, women, and fisheries entrepreneurs. My primary objective will be to ensure that the knowledge, technologies, and innovations developed by our scientists and institutions reach the people who need them most.

I strongly believe that fisheries development should go beyond research and academic activities. Technologies become truly meaningful only when they are successfully adopted by fishers and farmers and contribute to better productivity,

higher income, value addition, employment generation, and improved livelihoods. In my new role, I look forward to working closely with fishers, fish farmers, self-help groups, entrepreneurs, cooperatives, government departments, industry, and other stakeholders to identify their field-level problems and facilitate practical solutions.

The vast diversity of fisheries resources and livelihood systems across Karnataka offers tremendous scope for extension interventions. From marine and inland fisheries to aquaculture, cage culture, fish processing, value addition, entrepreneurship, and post-harvest management, there are several opportunities to develop location-specific and economically viable technologies. Greater emphasis will also be placed on encouraging youth and women to take up fisheries-based enterprises and creating opportunities for livelihood diversification.

I am particularly keen to strengthen the research-extension-farmer/fisher linkage, so that field problems can inform research priorities and research outcomes can be rapidly transferred to the field. Through demonstrations, training programmes, exposure visits, entrepreneurship development programmes, digital extension, and stronger institutional partnerships, I hope to contribute to making fisheries technologies more accessible and practical for the fishing and farming communities.

I look forward to using this responsibility to work more closely with our fishers and farmers and to contribute to the sustainable development of fisheries, creation of rural employment, enhancement of fisher incomes, and strengthening of Karnataka's blue economy. I sincerely seek the cooperation and support of all stakeholders in this endeavour.

In fact, to introduce our society to the community, we started organizing 'Health Camps'. Now, there is a huge demand for the same. In collaboration with some of the stakeholders, we are organizing

HOW TO REGISTER ON NFDP?

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series of health camps. Though, the information is available in plenty, many of the fishers have not insured. We are trying to educate the community to go for government health insurance schemes. All the members who attend any of our programs must register NFDP and Pradhan Mantri Suraksha Bima Yojana (PMSBY), and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) where only Rs. 20 and Rs.436 will be deducted from the account holder.



Dr S R Somashekar
Secretary General, SeaMC², India

Community Health, Environmental Stewardship and Outreach Activities

The Arabian Sea Fisheries Management Coordination Committee (SeaMC²) continues to strengthen its commitment towards the welfare of fishing communities by organizing community outreach programmes that integrate health, livelihood, and environmental conservation. Recognizing that the well-being of fishers is fundamental to a sustainable fisheries sector, the Society has been regularly conducting health camps in coastal villages with the support of its partners and stakeholders.

Health and Blood Donation Camp Held at Kabala Padavu, Pajeer

SeaMC², in collaboration with Blueline India Foods Pvt. Ltd., Mangaluru, and Father Muller's Charitable Trust, organised a Health and Blood Donation Camp at Kabala Padavu, Pajeer, Mangaluru, on 1 September 2026. The camp was organised with the objective of bringing essential healthcare services closer to the rural community and creating awareness about the importance of regular health check-ups and voluntary blood



donation.

The programme was formally inaugurated by Dr. H. R. Thimmaiah, District Medical Officer,

Pradhan Mantri Jeevan Jyoti Bima Yojana

प्रधानमंत्री सुरक्षा बीमा योजना (PMSBY)

Dakshina Kannada. Dr. Shivakumar Magada, Director General, SeaMC2, and Mr. Ramesh M. R., Chairman, SeaMC2, graced the occasion as guests. Mr. Shawkath Showry, Managing Director, Blueline India Foods Pvt. Ltd., presided over the programme. The presence of medical professionals, community representatives and organisers reflected the collective commitment towards improving the health and well-being of the local population.

A team of more than 36 doctors and healthcare professionals participated in the camp, offering specialised consultations across several disciplines, including dermatology, orthopaedics, gynaecology, speech and hearing, dentistry, general medicine and ophthalmology. The multidisciplinary nature of the camp enabled beneficiaries to access a wide range of medical services under one roof, particularly benefiting those who may otherwise face difficulties in reaching specialised healthcare facilities.

In addition to medical consultations, free medicines and spectacles were distributed to eligible beneficiaries. The camp witnessed an encouraging response from the community, with more than 350 beneficiaries availing themselves of the various healthcare services. The event also included a voluntary blood donation drive, through which 42 individuals donated blood, contributing to the availability of this vital resource for patients in need.

The successful conduct of the camp demonstrated the importance of collaboration between industry, NGO, healthcare institutions and the community in addressing local healthcare needs. The initiative not only provided immediate medical assistance to hundreds of people but also promoted a culture of preventive healthcare and voluntary blood donation. It was a meaningful example of how coordinated community-oriented initiatives can make healthcare more accessible

while strengthening the spirit of social responsibility and service to society.

International Coastal Clean-Up Day

Environmental conservation remains another important focus area of the Society. We are pleased to inform that the beach cleaning program was organized at Ullal Beach, Mangalore on 19.09.2026 in collaboration with College of Fisheries, Mangalore and Blueline Foods (India) Pvt. Ltd., Mangalore. About 860+ kg of plastic and garbage



was collected, sorted and disposed safely.

However, the environmental challenges confronting our oceans and coastal ecosystems are both vast and complex. Climate change, marine pollution, habitat degradation, plastic waste, overexploitation of fisheries resources, and the destruction of coastal ecosystems cannot be addressed by any single institution, organization, or government acting in isolation. These issues demand a collective movement, built upon



scientific knowledge, policy support, industry participation, community ownership, and sustained public engagement.

SeaMC² firmly believes that environmental conservation is a shared responsibility. Through continuous awareness programmes, capacity building, stakeholder partnerships, and community participation, the Society aims to foster a culture of environmental stewardship among fishers, industries, students, and the general public. Only through long-term collaboration and collective action can we ensure healthy oceans,



resilient coastal ecosystems, sustainable fisheries, and secure livelihoods for future generations.

We invite all like-minded organizations, industries, academic institutions, and individuals to join hands with SeaMC² in this mission to build a cleaner environment, healthier oceans, and a more sustainable blue economy for India.

Interested stakeholders may join the society and work with us. Please visit the website at

[www.http://seamc2.com](http://seamc2.com) and be a part of the noble cause of serving the community and the environment. Write to us...

Future Plan of Work

1. The society is planning to organise two workshops. One on **"Small Scale Fisheries"** and another is **"BYGFISH 3.0"**. We are in talk with stakeholders. Soon, we will announce the dates and venue.
2. The professionals from Goa have come forward to establish the society's chapter at Goa.

Achievements

Dr Manjulesh, Dr Sheethal, Dr Nayana and Dr S R Somashekar and others have got the patent for their innovative gadget "Trickle-Down Biofilter Enabled Biofloc Recirculating Aquaculture System." Many more patents from the same team is expected get approved soon.

Dr Manjulesh Pai, Organising Secretary, SeaMC², College of Fisheries, Mangalore 575002, India/seamc2india@gmail.com

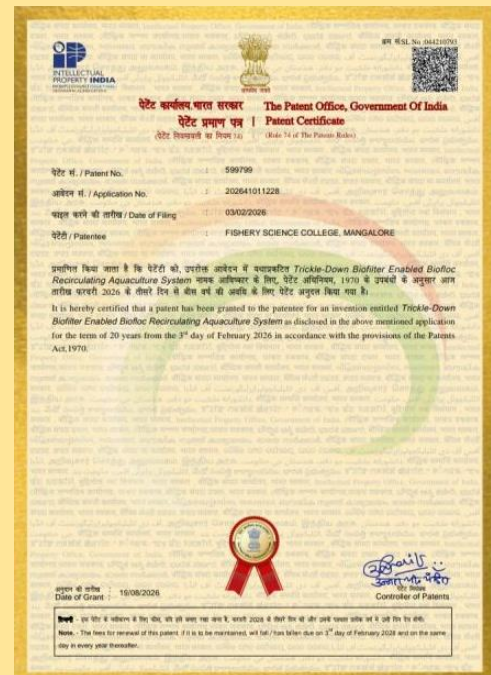


Photo Gallery



Meeting with EIA officials, Mangalore



Met the Hon'ble Vice Chancellor of Mangalore University on 14.08.26



Dr Magada participated in the MSMS conclave held on 21.08.26 and moderated the fisheries technical session



Orientation program on PMMKSSY



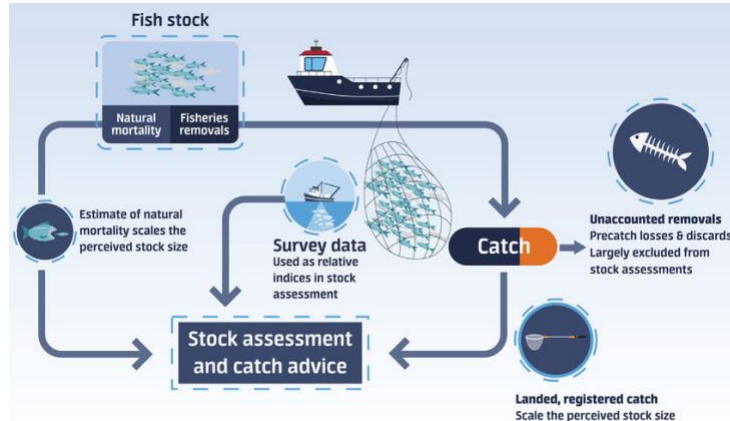
Spectacular photo of 36 doctors from Father Muller's Served at Health Camp



Leading by example-Dr Magada and Mr Ramesh donating the blood at Health Camp

The advantages of working with Sea=MC² are

Stock Assessment



Supply Chain



Branding



Institutional Network



Micro Financing



ERP Solutions



Digitization



Community Service



Blue Bank: for Inclusive Economic Growth



Knowledge Support



Boat Certification

