



KERALA CALLING

**Vision
Resilience
Rebuild**

**Kerala's New
Disaster Management
Initiatives**



**Kerala's
Blue Economy**

സ്മാർട്ടായി കെ.എസ്.ആർ.ടി.സി.



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An Emulative DM Plan



Kerala has proven successful in the capacity building in disaster management. Thanks to the lessons we have learnt from the devastating flood in 2018 where the Government effectively administered and converted the spontaneous response of the civil society into an organised system of volunteers. With this experiment of success the Government has left no stone unturned to initiate and implement a grassroots policy of Local Disaster Management Plans in 2019-20 under the guidance of the Kerala State Disaster Management Authority chaired by Chief Minister Pinarayi Vijayan.

Efforts of the Government to formulate the Civil Defence Force by training 6,450 hang in there volunteers at the grassroots as first respondents and another 3.5-lakh registered volunteers under *Samoochika Sannadhasena* have given good volunteering outcomes. Pettimudi landslide in 2020, the Brahmapuram waste plant fire accident in 2023, landslides in Chooralmala in 2024 and cleaning the shore in the aftermath of capsizing of MSC Elsa 3 off the coast of the State very recently reflect the results. This issue navigates through the disaster management policy implementations and effected changes since 2019 in the State.

We lead the country with the emulative ongoing welfare and development projects in the fisheries sector. While being at the peak of the monsoon season and with the tragic sinking of MSC Elsa 3 off the coast of the State, the fisheries sector allures a special disaster management focus to keep the fishing community away from collective fears. In the wake of fear and anxiety of potential impact of maritime disasters in which the fishing community might have borne the brunt, the Government was the first respondent.

Kerala Government stands with the fishermen.

T.V. SUBHASH IAS
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Citizen's Responsibility in Disaster Management

Pinarayi Vijayan
Chief Minister

Once again we are at the peak of the monsoon season. The government has completed all preparatory works for disaster management (DM) before the onset of monsoon. The lessons learnt from past disasters and subsequent evacuation processes have shaped our disaster management strategies. Devastating floods we experienced in 2018 and 2019; relief camps we operated and health safeguards we observed across 14 districts have enhanced our ability to manage disasters. The unfortunate Meppadi Landslide in 2024 in Wayanad district where we lost 298 precious lives made us reinforcing stricter slope regulations and hyper-local early warnings.

We have moved far beyond reactive relief to prevention, preparedness and resilience, guided by national mandates and global best practices. We have implemented Susceptibility-Linked Relocation Scheme since 2018 to mitigate disaster risks, targeting families living in high-hazard zones vulnerable to floods, landslides and coastal erosion. Under this scheme each eligible family residing in

a hazard-prone area receives ₹10 lakhs to relocate to safer locations.

Our other initiatives include Disability-Inclusive Disaster Risk Reduction, advanced multi-channel Early Warning Systems, and Location-specific SMS alerts. We have collaborated with the India Meteorological Department and connected with more than 100 Automatic Weather Stations (AWS). We have installed South India's first X-band radar in Wayanad. Moreover, we have established 17 specialised shelters and more than 20,000 mapped buildings capable of housing more than 800,000 people. We have amended Municipal Rules & Kerala Model Building Rules to ban construction obstructing drains and integrate risk into LSG master plans. We have invested ₹2,500-crore Post-2018 in climate-smart housing, livelihoods and infrastructure as part of Rebuild Kerala Initiative. The state has also invested in Tech-Driven Solutions in river flood management, satellite-enabled monitoring etc and ensured maximum community participation in all of our DM initiatives.

We have international alliances with Netherlands (coastal resilience), World Bank (Resilient Kerala), Norwegian Geotechnical Institute (slope stabilisation), Asian Disaster Preparedness Centre (risk assessment). At the frontline, the State Emergency Operations Centre (SEOC) coordinates real-time alerts and responses. Disaster management teams are trained and empowered at district, local self-government (LSG), and ward levels, with all 1,034 local governments now equipped with approved DM plans.

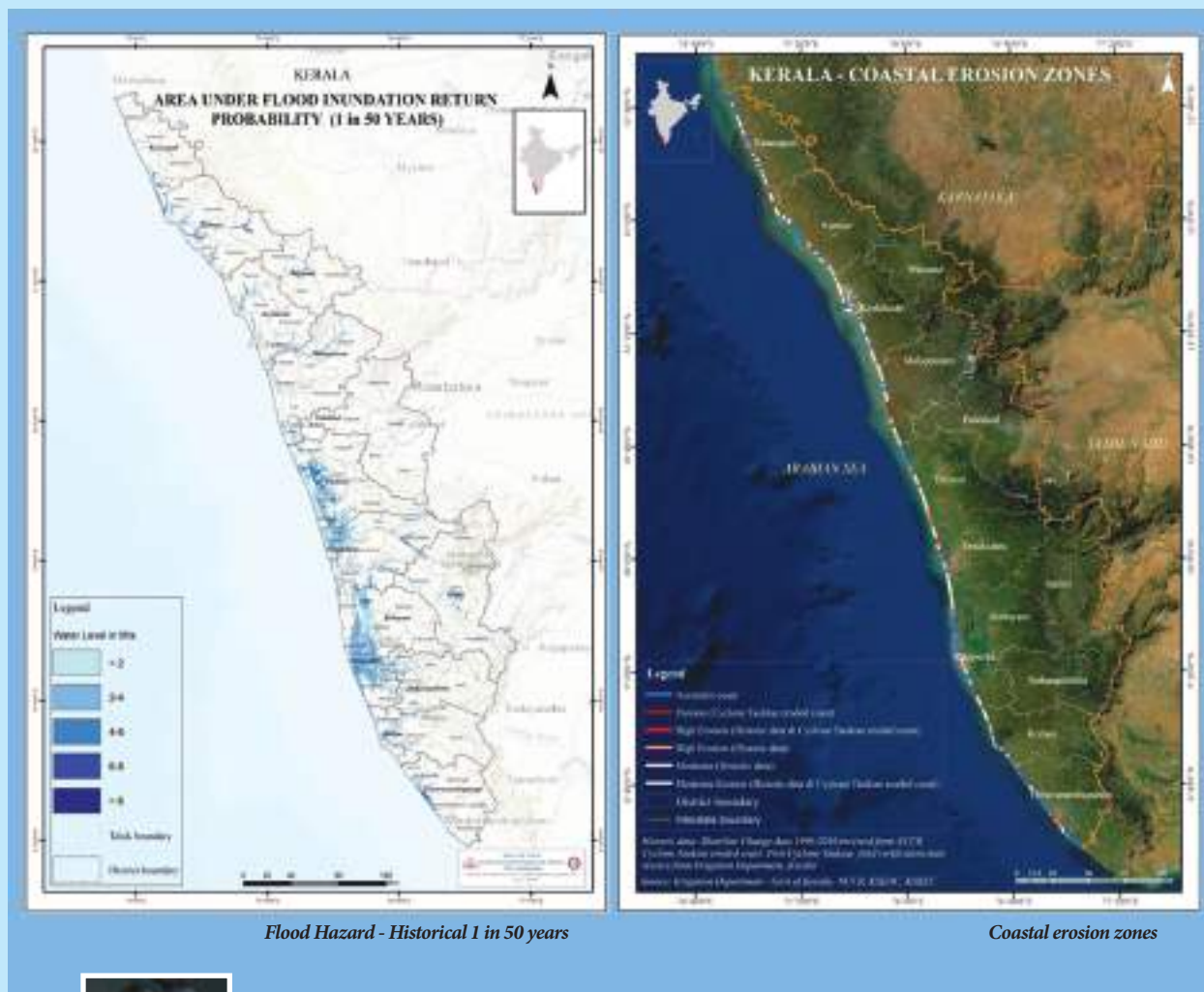
However, disaster resilience is the duty of every citizen. We must enhance disaster literacy in schools and villages and support LSGs with data, tools and funding. We should be zero tolerant to risk-compliant constructions and encroachments and support schools, hospitals and persons with disabilities to strengthen inclusive response systems. We should help the LSGD and DDMA to expand early-warning networks—sirens, radio, mobile and satellite alerts, and foster community trust by volunteering in *Samoochika Sannadha Sena*, Civil Defence and *Aapda Mitra*. Let's stay together and face all hard times.

Our State Disaster Management Plan, continuously refined through the annually updated Orange Book, serves as our strategic preparedness and response compass.



Kerala Rising Strong

A comprehensive disaster management framework in Kerala blends technology, community action, and policy reforms, aligning with global resilience standards.



Dr. Sekhar L. Kuriakose

Kerala, a state often praised for its social development indicators, has also emerged as a front-runner in disaster preparedness and risk reduction. Guided by the *Disaster Management Act of 2005*, the state has built an integrated, inclusive, and forward-thinking disaster governance architecture. From institutionalising grassroots participation to harnessing state-of-the-art technology, Kerala's disaster management

system is a model of resilience, community empowerment, and technological evolution. Efforts made since a decade have been successful in terms of framing legislation, policy planning, community engagement, and pioneering technological innovations that enables Kerala to anticipate, mitigate, and respond effectively to disasters in recent past. The Kerala State Disaster Management Authority (SDMA), chaired by the Chief Minister ensures centralised planning and decentralised execution through District Disaster Management Authority and Local Self Governments across the State.

Transformative Initiatives: From Policy to Grassroots

Kerala's approach flips the conventional top-down model into a people-centric, preparedness-first model. Some landmark initiatives are:

Domain	Main Achievement
Disability Inclusive Disaster Risk Reduction	<ul style="list-style-type: none"> India's first formal disability inclusive DRR programme with citation as best practice in the National Guidelines for Disaster Management on Disability Inclusive DRR Training on disability friendly evacuation, alerts and warnings in sign language, audio warnings in DAISY format and IEC materials in Braille NDMA has acknowledged the project of KSDMA as praise worthy for replication in other states and have circulated the toolkits developed by KSDMA to other states. Ltr. No. 05/239/2021/NDMA/CBT dated 27-7-2021
Inter-Agency Groups	<ul style="list-style-type: none"> Formal NGO Collaboration platforms in all 14 districts notified and functional under Section 22 (2) (f), Section 24 (j), Section 30 (xiii) and Section 30 (xxvii) of the Disaster Management Act, 2005 Sector specific trainings provided to NGOs in IAG
Civil Defence	<ul style="list-style-type: none"> Facilitated the creation of Civil Defence in all 14 districts of the State Provided ₹230 lakhs for capacity building of Civil Defence Provided support in developing and conducting trainings for Civil Defence Volunteers Partially handed over the Civil Defence Institute to Civil Defence
Samoochika Sannadha Sena	<ul style="list-style-type: none"> Facilitated the creation of India's first Government level directorate for voluntarism Conducts regular training for Samoochika Sannadha Sena volunteers Created, hosted and conducted several trainings and developed training modules for Samoochika Sannadha Sena
Aapda Mitra	<ul style="list-style-type: none"> Funded by NDMA, created and trained community response volunteers Equipped with responders kits
Emergency Response Teams of Local Governments	<ul style="list-style-type: none"> Four teams in each LSG viz. First Aid, Shelter management, Search-Rescue-Evacuation, Early Warning Dissemination Training support provided to KILA Co-developed training modules
Beach Safety	<ul style="list-style-type: none"> Supported District Tourism Promotion Councils (DTPCs) of 17 recognised beaches with hand mics, binoculars, rescue surf boards, life jackets, life buoys, goggles, snorkelling masks and beach umbrellas



Technological Leap: KaWaCHaM

The Kerala Warnings Crisis and Hazard Management System (KaWaCHaM), inaugurated in January 2025, represents a paradigm shift. Key features include:

- Real-time integration of hydro-meteorological and geological sensors.
- A geodatabase with 280 hazard and risk layers.
- A multi-channel alert system with sirens, strobes, and location-based SMS.
- Coordination through 93 Emergency Operation Centres and 1,034 local government units.

Funded by NDMA and The World Bank, *KaWaCHaM* exemplifies how technology can enhance early warning and decision-making systems.

Collaborative Projects: UNICEF and SPHERE India

In partnership with UNICEF (since 2019), the Mainstreaming Disaster Risk Resilience project focuses on child-centric risk planning, school safety, and strengthening IAG activities. Concurrently, a collaboration with SPHERE India (a coalition of NGOs) led to the updating of disaster plans and the institutionalization of NGO partnerships across all districts.

Prathyudhanam: Financial Aid for the Vulnerable

Breaking new ground, *Prathyudhanam* provides additional financial assistance to disaster-affected families facing compounded vulnerabilities. So far, 4,563 families have benefited under this inclusive, equity-focused scheme.

Shelter Hubs and Sustainable Construction

With support from the UNDP Shelter



Project, ten Shelter Hubs were set up across Pathanamthitta, Idukki, and Wayanad between 2018–2019. These hubs provided:

- Technical support to 3,597 house owners.
- Training to 934 masons (including 369 Kudumbashree women), 203 house owners, 60 contractors, and 373 civil engineering students.

Partnered with Habitat Technology Group, the hubs promoted disaster-resilient construction practices.

Key publications include *Surakshitha Bhavana Nirmanam*, Flood Resilient Construction Practices, and Landslides in Kerala, among others. Round tables and capacity-building workshops were also held, targeting architects, engineers, and LIFE Mission staff.

Risk Transfer Mechanism: Building Financial Resilience

Recognizing the economic risks of climate-related disasters, Kerala's government

constituted a committee to explore risk transfer mechanisms, including climate risk insurance. Recommendations include:

- Establishing a regulatory body for disaster financing.
- Developing insurance frameworks.
- Enhancing administrative and technological infrastructure.

These proposals aim to reduce fiscal stress, protect communities, and align with sustainable development goals.

Blueprint for Resilience

Kerala's disaster management model offers a compelling narrative of integration — of policy, people, and technology. Through its inclusive vision, strategic planning, and community-driven approach, Kerala is not merely reacting to disasters but preparing for a resilient future. ■

The writer is Member Secretary at KSDMA



Managing Disasters: Vocal for Local



Dr. Joy Elamon

Whom do the people trust during disaster was a question practically unanswered until the devastating floods hit the state in 2018. The local governments jumped into action, which became a coordinated network under District Collectors who head District Disaster Management Authority (DDMA). Co-chaired by the District Panchayat President, DDMA answered the WHO questions about the first respondent and the first authority to understand the local community. In 2018 flood,

the local community engaged to provide early warning, evacuation, rescue, initial relief, camp management and coordinated rehabilitation activities in the preliminary stages itself. This spontaneous response by the grass root level network coordinated by District Collectors monitored directly by the Chief Minister and Ministers in charge of districts became effective models of Disaster Management (DM). The success of this model led the Government of Kerala to initiate a policy in 2019 by setting up working group for planning in every Local Self Government.

Named the Working Group on Biodiversity, Climate

change, Environment and Disaster management, first of its kind in the country, the policy initiative led to the preparation of Local Disaster Management Plans in 2019-20 by all local governments in the state. As a result, *The Nammal Namukkayi* (by Us for Us) campaign was launched as part of the Rebuild Kerala Initiative (RKI). In this joint venture, the Department of Local Self Governments (LSGs) provided framework, templates and guidelines, Kerala State Disaster Management Authority (KSDMA) technical support, while, Kerala Institute of Local Administration (KILA) played the role of capacity building and coordination. Working groups of all other sectors, and around 2.5 lakh people from CBOs, NGOs, residents' associations, Kudumbashree and other agencies of such sort were converged to action mode at the local level. Cascading trainings up to Grama Panchayat level were organised phase by phase. The process at the local level included data and map analysis, preparation of DM plan suggestions, discussions in the Grama Sabha, Development Seminars on DM and finalisation. 31 layers of maps were provided by KSDMA to every Local Self Government.

The Local DM plan is structured into eight chapters - general information (profile) pertaining to the Local Government, hazard and vulnerability profile, capacity and resources, response plan, preparedness, mitigation, and community resilience plan. Efforts are being made for rolling out the plan to all over India. As part of the Rebuild Kerala Initiative (RKI), these Local Disaster Management Plans have been reviewed and redeveloped in all the 266 Local Self Governments in four districts - Idukki, Pathanamthitta, Alappuzha and Kottayam - with the support of KILA and KSDMA. It will be eventually rolled out in other districts.

Emergency Response Team (ERT)

Thus, duly trained Emergency Response Teams were formed at the local level to engage a trained community with indigenous knowledge and relevant skills responding to the nature of terrain and circumstances during disaster in four domains-- first aid, camp management, search-rescue-evacuation and early warning dissemination. These ERTs have been restructured and revitalised this year with around 40,000 trained members.

Sushaktham

The program to provide comprehensive training on

risk assessment, disaster response and management aims initially to train the officers of Departments of Health, Local Self-Governments, Agriculture, Women and Child Department and Revenue this year to equip them to actively participate in a structured manner in emergency situations.

Sannadham

The program recognises the critical need to equip women to lead Disaster Risk Reduction (DRR) while empowering them to participate in community building in disaster management and risk assessment. This program will become the first of this kind in the country.

Teachers' Brigade

This project initiated by the Directorate of General Education with the support of KSDMA imparts skill training on various aspects of Disaster management to teachers. It aims to create a more organised platform to ensure school safety during emergency conditions.

School Safety Plans

KSDMA has developed the methodology and tools for the School Safety Plans to ensure school

safety across the state in the context of increasing disasters. The programme which includes the hazard map, evacuation plan as well as mitigation activities will be rolled this year in all the schools in the state.

Bhadram

This soon to be launched project by the Health department in collaboration with KSDMA aims to enhance hospital safety and disaster resilience in Kerala's 1280 health facilities in the public sector. A comprehensive Hospital Disaster Management plan will be prepared in each of these institutions ensuring all hospitals in Kerala are equipped to respond to disasters.

Tribal Hamlet Based Disaster Management Plan

Launched this year, the programme envisages the formulation of Tribal Hamlet DM plans in more than 6000 tribal hamlets across the state by scientifically enhancing indigenous knowledge and making it the core components of disaster resilience.

For Kerala, known for development indicators and accelerating towards its new dimensions, planning for disaster through trickle down methods is the need of the hour. Onset of monsoon with all extremities and potential disasters need timely interventions by strengthening entire disaster management system and spreading its wings down to the grass root level. Widening the scope of trained first respondents with infrastructure at local level will strengthen the local community and local self government to accelerate to new dimensions of development.

The writer is Member at Kerala State Disaster Management Authority



Volunteers of Common Good



Sreedhanya Suresh IAS

The catastrophic floods of 2018 and overwhelming community involvement to it made the Government to envisage the vast potential of this by institutionalising *Samoothika Sannadhasena* or Community Volunteer Corps in the State. This well-organized, ever-ready task force comprising 3.5 lakh registered volunteers as of now is an integral part of the State's functioning today with their commitment to equip communities to face adversities with confidence and compassion, foster a culture of resilience and interdependence with a primary focus on disaster preparedness. Volunteers receive hands-on training in first aid, evacuation protocols, rescue operations, and shelter management guided by professionals in order to prepare common public to respond efficiently during disaster emergencies.

Samoothika Sannadhasena plays a pivotal role in Kerala's anti-drug campaigns. Volunteers conduct outreach programs and awareness drives, especially among the youth, emphasizing the dangers of substance abuse. Their community presence and trust-building capacities enable effective messaging and behavioural change, promoting healthier, drug-free lifestyles across the state. Another initiative is *Azhakerum Keralam*, a Clean Kerala Campaign through which volunteers participate in cleaning drives across tourist spots and public areas, instilling civic responsibility and pride to emphasis environmental sustainability and hygiene.

Another sphere of service is 'Vaathilpadi Sevanam' (Services at the Doorstep) through which, the volunteers deliver essential government services including pension assistance and supply of



medications and food to the elderly, differently-abled, and homebound citizens. This human-centric model ensures no one is left behind, particularly those unable to access basic services independently. In collaboration with the Health and Local Self-Government Departments, these volunteers extend palliative support under Kerala Care project to terminally ill and bedridden patients. Offering both clinical and emotional care, this program underlines the Sannadhasena's role in humanizing healthcare and providing dignity in end-of-life support.

The mission is clear: equip communities to face adversities with confidence and compassion, fostering a culture of resilience and interdependence.

The THRIVE initiative is another involvement of volunteers to support tribal students in Model Residential Schools by providing mentorship and exposure to educational and career opportunities. Simultaneously, it cultivates a new generation of

socially committed volunteers, nurturing leadership and purpose among the youth. In collaboration with UNICEF and Kerala Youth Leadership Academy, the Sannadhatheeram program trains youth in coastal districts for climate resilience. These “coastal champions” work with local bodies to disseminate knowledge and drive community-led climate adaptation efforts, vital in a state vulnerable to climate change.

What distinguishes Kerala's *Sannadhasena* is its institutional backing, vast volunteer network, and diverse engagement. A dedicated portal and mobile app facilitate seamless coordination, registration, and training, making it both scalable and sustainable. As Kerala continues its path towards equitable development, this empowered volunteer force remains a linchpin—bridging policy and people, responding to crisis, and shaping a more inclusive and humane future while engaging citizens as a living model of what communities can achieve when united. ■

This empowered volunteer force remains a linchpin—bridging policy and people

The writer is Director at Samoohika Sandhha Sena



Empowering Communities

In the wake of the catastrophic floods that ravaged Kerala in 2018, the state witnessed an inspiring wave of community participation in rescue and evacuation operations. The Government of Kerala institutionalised this spirit through the formation the Civil Defence system, a structured volunteer force officially launched in December 2019 under the Kerala Fire & Rescue Services Department.



V. Sidhakumar

A systematic collective response attracted media attention globally during the devastating floods in Kerala in 2018. BBC reported how the civil society responded through social media to locate people and extended support. According to 'The Guardian' "residents of the State used social media to post desperate appeals for help, sometimes, including their GPS coordinates to help guide rescuers". The role of collective action and citizen led volunteering activities in responding to the great deluge in Kerala, as a research paper published in Jstore states, is

"yet another example of how community resilience is a life saving example". Thus, the government of Kerala got it done by volunteering the involuntary task force with the formation of the Civil Defence system, for better utilising the potential of the best human development indices in India. Being one of the most effective community-led disaster preparedness and response, the Civil Defence volunteers are now the trained citizens to become first responders to disasters. The results; the Civil Defence volunteers actively responded to disasters in Pettimudi landslide in 2020, the Brahmapuram waste plant fire accident in 2023 and landslides in Chooralmala in 2024.

In the first phase, the state recruited 6,450 Civil Defence Volunteers, including 970 women, from



diverse backgrounds. These volunteers included Ham Radio operators, IT professionals, paramedical staff, JCB operators, and other skilled workers. In the second phase, an additional 3,300 volunteers were added

In the first phase, Kerala recruited 6,450 Civil Defence Volunteers, including 970 women.

and currently they are undergoing training.

All volunteers receive 15 days of structured training, which includes flood rescue techniques, basic fire-fighting, first aid, casualty care and

other critical rescue operations. Practical sessions held at the Civil Defence Academy in Viyyur teach skills in building improvised floating devices, rowing and constructing Burma and Commando bridges for rope-based rescues. The volunteers are provided with uniforms, PPE kits, ID cards and other essential equipments.

The Civil Defence Volunteers have played a vital role during several emergencies:

- **COVID-19 Response:** Volunteers disinfected public spaces, delivered food and medicine to vulnerable populations, and assisted in transporting COVID-19 patients.
- **Communication Support:** Trained Ham Radio operators among the volunteers were instrumental during landslides and the Sabarimala pilgrimage season, providing reliable communication support.

In addition to emergency response, volunteers are involved in risk assessment activities. They work alongside Fire & Rescue personnel to inspect flood-prone and accident-prone areas and conduct awareness programmes to educate the public on disaster preparedness. With Civil Defence Volunteers the State is building a more responsive society—ready to face emergencies with strength and solidarity.

Practical sessions teach skills such as building improvised floating devices, rowing and constructing Burma and Commando bridges for rope-based rescues.

The writer is Regional Fire Officer at Civil Defence

Responding to Maritime Fears

Government of Kerala's swift response to MSC Elsa 3 disaster: relief efforts and strategic plans to restore fishing communities' livelihoods

Sini K. Thomas

The tragic sinking of the MSC Elsa 3 off the coast of Kerala could have cast shadow over at least one million people who derive their livelihood directly or indirectly from fisheries. While, anxiety over tribulations tremoring, another ship, the Singapore-flagged merchant vessel MV Wan Hai 503, caught fire, off the Beypore coast on June 9.

The government of Kerala *quick* started action plan of its disaster management by

declaring 'the wreckage of ship MSC Elsa 3 in the Arabian Sea 14.6 nautical miles off the Kerala coast as a State-Specific disaster' as a GO issued on May 29, 2025 reads. The ship carrying more than 643 containers was reported to have capsized on 24th May 2025 off the Kerala Coast near *Thottappalli* in Alappuzha District. This raised serious environmental concerns including the potential threat of oil spill and drifting of debris along Kerala's coastline causing a



potential serious environmental, social, and economic impact. The sinking of MSC Elsa 3 created a severe disruption in the livelihood of thousands of fishermen in the four coastal districts: Thiruvananthapuram, Kollam, Alappuzha and Ernakulam.

Widespread panic over the catastrophe whether it affects the marine life and fishermen community who are otherwise struggling to keep the pot boiling during the toughness of June with the onset of monsoon need to be addressed. “A 52-day long trawling ban to promote marine conservation also was declared soon after the shipwreck, which otherwise also is a practice during breeding season. A possible contamination fear in the society also can affect the market irrationally. While, DM plans were implemented, we have decided to work in tandem to ease the tension of people at local level,” says Jagadambika Devi, a Fisheries Extension Officer who was assigned impounding duty at Vizhinjam coastal belt that include sea patrolling as well.

In the state, approximately 10.65 lakh fisher folk (comprising 3.17% of the state’s population) —directly or indirectly— derive their livelihood from fisheries using 3,777 mechanised boats, 31,612 motorised vessels, and 3,609 traditional crafts, spread across 222 marine and 113 inland fishing villages. More than 2.4 lakh workers are formally registered with the Kerala Fishermen Welfare Fund Board, with an additional 85,094 engaged in allied sectors such as fish marketing, net repair, and processing.

The remarkable feature in the DM plan was the emergency response to supply of essential aid. “This is certainly a difficult time for traditional fishermen. But a speedy response from the Government gave much confidence to them. The list was prepared and sent to the Civil Supplies Department for rations and financial aid was distributed within days,” explains Sheeja Mary, Deputy Director of Fisheries. “Go to sea is an ultimate feeling to all of us. But we must admit that



Photo: PRO, NAVY, KOCHI

things are quite different now. During crisis situations we are heard and taken care of,” says Peter, a fisherman from Vizhinjam. “We get aid and support from the government. Each family received Rs. 1,000 immediately and an additional 6 kilograms of rice per family to mitigate the loss of livelihood. For each family this may not be a big amount. But we are heard collectively and the government responded immediately. This is great relief,” he added.

The Chief Minister of Kerala convened a meeting with key officials On June 3, 2025, where a decision was made to provide interim relief to the affected 1,05,518 fishing families, which included 78,498 traditional fishermen and 27,020 ancillary workers. The financial aid of Rs. 1000 per family was released through the State Disaster Relief Fund (SDRF). A total of 54.93 crores was earmarked for compensation to those who lost income during the period from May 25 to June 1, 2025, while 45 lakh was allocated for the study of the water and seafood samples. The government also swiftly mobilised a

An amount of 1,000 per family was released to the affected 1,05,518 fishing families.

multi-agency response to assess the damage, prevent further environmental harm and support the affected fishing communities. By May 27, 2025, a crucial meeting chaired by the Minister for Fisheries was convened with key stakeholders such as the Minister for Health, the Secretary of Health, Fisheries Special Secretary and experts

from government agencies like the Pollution Control Board, Food Safety Commission and various central institutions. This collaboration aimed at addressing the urgent risks posed by the sinking of the ship, particularly the threat of contaminated marine resources reaching the shores. The Government constituted a two-tier institutional mechanism at the State and District levels to address and suggest measures to mitigate the impact of the potential coastal pollution with Secretary, the Department of Science & Technology as Chairperson, Director, Environment Department as Convenor and Commissioner, Disaster Management, Special Secretary, Environment Department, Chairperson,

All fish samples are found to be fit for consumption.

None of the fish samples exhibited any unpleasant odor or taste.

The pH, salinity and conductivity levels of the samples are in accordance with the normal conditions of seawater.

No presence of oil-related organic compounds in any of the water samples.

Kerala State Pollution Control Board, Representative of the Indian Coast Guard, Representative of National Centre for Earth Science Studies, Member Secretary, KSDMA as members at the state level. At the district level, the committee was constituted with District Collector as Chairperson, District Hazard Analyst as Convenor and Joint Director, Local Self Government Department, Deputy Director of Fisheries Department, Port Officer, District Agriculture Officer as members. The district level committee will “undertake on-the-spot activities suo moto and on the direction and advice of State Level Pollution Control Committee and all other activities to remove the debris from the drifting containers and cargo on the coast immediately from the sites, where containers are landed and undertake measures to protect the impact of contaminated water with or without oil,” the Government Order reads.

Scientific Analysis and Public Assurance

On June 28, 2025, a roundtable brought together leaders from various fishermen's unions, representatives from central government agencies and local district officials. The government stressed the urgency of testing and ensuring public safety through rigorous scientific sampling and analysis. The Fisheries Department ensured that samples from the coastal regions were collected and sent for analysis to the Central Institute of Fisheries Technology (CIFT).

A total of 54.93 crores was earmarked for compensation to those who lost income during the period from May 25 to June 1, 2025

The results of these tests were encouraging. All seafood samples were found to be safe for consumption, with no signs of contamination or off-putting odours. Followed by this, a fish feast was successfully organised to quash the unwarranted suspicions about the edibility of fish. Minister for Fisheries and all authorities

publicly endorsed that fish is safe for consumption. Subsequently, sales picked up. “The initiatives taken by the government has helped our industry immensely. It has built a lot of confidence in us”, says Charles, a fisherman from Vizhinjam. “Micro plastics accumulated on shore was an issue to be addressed. A joint venture of Aapdamitra, Civil Defence,

Haritha Karma Sena, and Kudumbashree was engaged in this mission,” Jagadambika Devi points out.

As recovery efforts continue, the focus remains on rebuilding the livelihoods of the affected fishermen while ensuring that the region's ecological integrity is preserved. As the Kerala coast heals from this unprecedented event, it serves as a testament to the power of collaboration, the resilience of its communities and the unwavering determination to safeguard its natural resources for generations to come. Through the haze of uncertainty, the horizon has slowly become clearer and what lingers is a strong sense of contentment. And it was indeed the efforts taken by the government to quickly address the concerns of the fishing community and stand with them during an unprecedented crisis that helped them sail through. ■



Real Time Disaster Mangement



Arun M.

The Spice Garden of Kerala Idukki has much to boast of whether it's historic arch dam that tops within world's 10 largest arch dams and India's third, Periyar Tiger Reserve (PTR), first of its kind in the country with an emulative model of registered Tiger Conservation Foundation among others. One of the most favourite attractions of tourists across the world, Idukki, nestled in the Western Ghats, which is one of the eight hottest of hotspots of biological diversity on the globe as marked in UNESCO's website, this land of adventures, scenic experiences, tranquilising misty mountains and sprawling plantations is often vulnerable to monsoon furies too. The district has faced over 600 landslides since 2000. Increasing incidents of man-animal conflicts, fragile hilltop roads and forest fires are common phenomenon here.

Recognising the urgent need to mitigate the impact of recurring natural disasters such as landslides, flash floods and road washouts,

the Idukki District Administration has launched a real-time, district-wide, data-driven platform called the Idukki Disaster Resilience and Information System (IDRIS). The new multi-tiered technological initiative combines cutting-edge sensor technology, GIS-based risk mapping, machine learning models and robust grassroots governance to place the mountain district at the forefront of disaster preparedness in the country by assessing, monitoring and communicating risks in real-time.

Spearheaded by the District Disaster Management Authority (DDMA), the project will be piloted in Adimali and Rajakkad during this monsoon season. Software development and system installation are set to begin shortly, with a focus on tailoring the platform to the district's specific geographic and climatic challenges. "IDRIS is the first of its kind in Kerala that combines hazard intelligence with development planning tools, thereby enabling proactive governance," said Idukki District Collector V. Vigneshwari. "Preliminary



groundwork has already been completed. Sensor deployment sites have been identified, GIS base layers have been prepared and coordination with local panchayats is in place, laying the foundation for real-time testing and data integration during the critical months ahead,” she added. Hence, IDRIS is expected to position Idukki as a national model for predictive, tech-enabled disaster resilience, where data and community readiness go hand in hand to safeguard lives and livelihoods.

Real-Time Monitoring Infrastructure

The system relies on a network of 46 landslide monitoring sensors, including inclinometers, piezometers, rain gauges and soil moisture sensors. Additionally, 48 river level gauges are strategically placed along major tributaries such as the Periyar, Thodupuzhayar and Pamba rivers. Data from these instruments are continuously streamed to a GIS-based platform, which is updated live at the District Emergency Operations Centre (DEOC).

GIS-Based Risk Layering

The platform features advanced, multi-layered maps with landslide zones, floodplains, human-wildlife corridors, dam buffers, fault lines and climate-risk projections. These maps are overlaid with panchayat boundaries, locations of critical infrastructure and population density data, enabling precise and informed decision-making.

Smart Alert Protocols

IDRIS employs automated alert mechanisms based on predefined thresholds. These alerts are disseminated to relevant departments and the general public via SMS, IVRS (interactive voice response system), sirens and radio broadcasts. To ensure accessibility, the system

supports a multilingual interface, offering alerts in Malayalam, English, Tamil and tribal dialects, thereby reaching even the most vulnerable and remote communities effectively. By embedding disaster risk reduction into the planning of key departments like PWD, Forest, Revenue and Agriculture, IDRIS promotes resilience in development. Finally, IDRIS builds institutional capacity by training officials, volunteers, school clubs and District Emergency Operations Centre (DEOC) staff in modern disaster response and planning tools.

IDRIS is more than an early warning system — it serves as a planning backbone for sustainable development in Idukki, according to the District Administration. Future road and infrastructure projects will be approved only after cross-checking with slope failure and soil saturation maps, and public buildings like schools and hospitals will be restricted in high-risk landslide zones. River gauge data and flash flood maps will guide the placement of check dams and weirs to prevent surges and enhance groundwater recharge. Reservoir operations at Idukki and Mullaperiyar, will be better coordinated using real-time rainfall and inflow data, allowing for timely, preventive discharges.

At the local level, IDRIS will support water security by helping identify sites for tanks, ponds and rainwater harvesting structures, especially in drought-prone tribal areas. In forests, GIS and runoff data will be used to revive waterholes and salt licks, reducing wildlife intrusion into farmlands. Agricultural resilience will be boosted by sharing soil moisture and rainfall data with Krishi Bhavans to guide irrigation, crop choices and pest control.

The system is people-centric and transparent — Panchayats will be trained to use ward-level data, citizens can access alerts and report issues via a mobile app, and all decisions and data logs will be open and auditable. For Idukki, this means no more poorly placed roads, safer livelihoods, reduced conflict in buffer zones, and the emergence of a resilient, investment-ready district focused on clean and green growth. IDRIS is Idukki’s commitment to a safer, smarter and stronger future.

The writer is Assistant Information Officer at I&PRD, Idukki.

Reservoir operations, including at Idukki and Mullaperiyar, will be better coordinated using real-time rainfall and inflow data.

Despite their contributions to the state economy and food security measures the life of fishermen in Kerala continued to be at risk with a marginalised status. Connecting the marginalised fishermen community to the main stream society the Government has taken step by step measures in educating their children, insuring lives, providing houses and many more. Minister for Fisheries Saji Cherian shares his views and dreams on the welfare of the fisheries sector with Kerala Calling Assistant Editor Arathy K.R. Here's the excerpt:



Caring for Sons of the Sea

KC: Fishing community is one of the most vulnerable communities in the state despite their contributions to the state economy and food security. What are the measures the government has taken so far to instil confidence and pride in them?

Saji Cherian: Welfare of fishing community is the prime concern of this Government. We have paid special attention to the economic and social development of the coastal areas and allocated more than Rs. 12000 crores since 2016. These schemes, mainly aimed at improving their standard of living and ensuring safety have given them a feeling that they are taken care of. A safe home has always been a big dream for fishermen. We have introduced and implemented the *Punargeham* scheme through which we have relocated those people who live within 50 meters of the high tide line under the threat of sea erosion to a safer area. Under this scheme, which has an outlay of Rs. 2450-crore financial assistance, Rs. 10-lakh is provided to each beneficiary. This has provided great comfort and security to the lives of fishermen. 10 state-of-the-art deep sea vessels costing Rs. 1.5-crore each have been provided to 10 groups to improve their working status. In the next phase, 10 more will be distributed to ensure more income potential. As part of the process of shifting traditional fishermen to more powerful FRP vessels 520 FRP fishing units have already been distributed; 100 more fishing units are being distributed this year.

12,000 crores for coastal region in the last 9 years

KC: As you said more sophisticated vessels and facilities will definitely help fishermen to improve their income. But this alone will not support them to achieve this goal. What are the steps taken to infrastructure developments in the coastal region?

Saji Cherian: The main goal is to upgrade the 25 harbours to international standards. The project reports of the new harbours at Pozhiyur and Ajanur have been submitted. The construction of modern fish markets is a major step in the fish marketing sector. With the financial assistance of Rs. 100-crore from the Central and State Governments, modern fish markets of international standards are being constructed in Aluva and Kozhikode. Another aspect is to build coastal roads. Rs. 1000-crore has been expended on the renovation of coastal roads. More than 2000 coastal roads and 850 roads and bridges have been completed.

KC: Kerala is a fish consuming society. We export many fish items too. What are the steps taken to increase fish stocks and ensure sustainable development in the region?

Saji Cherian: Timely amendments have been made to the Kerala Marine Fishing Regulation Act (KMFR Act) and implemented to increase fish stock. Under Section 4A of the Act, illegal fishing practices have been completely banned. Under Section 5C, catching fish less than 5 cm in size is banned. This has contributed greatly to the conservation of small fish. 1000 artificial reefs were installed at a cost of Rs. 10-crore. Additionally, the ban on trawling during the monsoon season was extended to 52 days. This helped in creating a natural habitat for fish to breed and grow. In addition, fishing within 12 nautical miles for boats with a length of more than 20 meters and an engine power of more than 250 HP was completely banned. This came as a

"A Safe Home has been Always a Big Dream for Fishermen"



great relief to the traditional fishermen. Records show that these measures have helped to increase the fish stock in the region in the recent past.

KC: What steps have been taken to ensure the job security of fishermen?

Saji Cherian: The government has increased its share in the Savings Relief Scheme to provide compensation for the loss of workdays. This scheme provides financial assistance to fishermen when they lose their jobs during the monsoon trawling ban and disaster conditions like the Okhi and the Covid-19 pandemic. Modern equipments such as GPS and life jackets have been distributed to ensure safe fishing to reduce accidents at sea. To ensure emergency medical assistance, 3 state-of-the-art marine ambulances *Pratheeksha*, *Prathyasha* and *Karunya* are operating in Vizhinjam, Vypeen and Beypore. This helps in providing quick treatment to those who are in

danger at sea. 24-hour Fisheries Control Rooms have been set up. In addition to this, rescue boats and more than 500 trained lifeguards have been deployed in all 9 coastal districts.

How much focus has been given for the social development of the coastal region?

Saji Cherian: In the education sector, the *Vidyatheeram* scheme is a great help to the children

of fishermen to get enrolled in prestigious coaching centres for medical, engineering and civil services

coaching. *Prathibha Theeram* is another educational scheme. Rs. 136 crore has been allocated for improving the infrastructure of schools in the coastal region. We have implemented a web-based system called 'e-Grants' for the timely distribution of educational benefits. This helps in ensuring that all students of fishermen after class 10 receive educational assistance in a timely manner. In terms of health care, the *Santhwana Theeram* Scheme is implemented by the Kerala Fishermen's Welfare Fund Board. It ensures health support and welfare to fishermen, allied workers and pensioners. I have great hopes regarding the *Thozhil Theeram*, a special employment scheme implemented by the Kerala Knowledge Economy Mission in collaboration with the Fisheries Department. This scheme, which was launched for the first time in the country for job seekers belonging to the fishing community, targets Plus Two qualified Fishermen's Welfare Fund Board members aged 18 to 40 and those living in inland fishing villages. With the successful implementation of these projects I am looking forward for a better and advanced fishing community in the state.

KC: Kerala's fisheries sector went through an unprecedented crisis after the sinking of MSC Elsa 3. How did the government respond to this emergency?

Saji Cherian: The government was quick to respond to the situation. Our primary focus was on immediate damage control. The Fisheries Department initiated the remedial measures for fishermen and addressed the apprehension of the common public. We announced immediate cash relief to compensate for the loss of working days and distributed the same to 1,05,518 families within a span of two weeks. This helped in a great deal in boosting the confidence of the community. We also instantly allayed the fears of the general public by testing samples and convinced them that eating fish is not harmful. Timely and appropriate intervention by the government helped us tide over this enormous crisis.

Rs. 1000 crore has been spent on the renovation of coastal roads.

Under Punargeham, 2578 houses (including 390 flats and 2188 houses) have been completed so far. 1184 flats and 1240 houses are under various stages of construction.

Crusade against Plastic Pollution at Kerala Coast



Safna Nazarudeen IAS

With rivers acting as conduits, plastic waste generated on land eventually finds its final destination in the seas. From massive discarded fishing nets to invisible micro plastics, the marine environment is now saturated with plastic debris, jeopardising marine life, food security, human health and even the global climate.

Plastic pollution in the oceans is no longer a distant problem—it is a current crisis with tangible impacts. Marine animals mistake plastic for food, causing injuries and death. Long-term exposure is linked to endocrine disruption, cancer and developmental issues in humans. Plastic production is deeply entwined with fossil fuel extraction, contributing significantly to global warming. Plastic litter devalues coastal destinations, deterring tourism and imposing high cleanup costs.

Faced with the growing menace of marine plastic pollution, Kerala launched an ambitious campaign: Suchitwa Sagaram, a

venture which received the UN Recognition. Launched on 20 November 2017, the initiative aimed to:

- Prohibit plastic waste dumping at sea.
- Collect plastic materials inadvertently caught during fishing operations.
- Dispose of marine plastic in an environmentally responsible manner.

The program brought together key stakeholders—Fisheries Department, SAF, NETFISH, Harbour Engineering Department, Suchitwa Mission, and most importantly, the fisherfolk. It empowered them not only as custodians of the sea but also as

From 2017 to 2025, fishermen in Kollam district alone retrieved over 180 tonnes of marine plastic. 96 tonnes were shredded, and 87 tonnes repurposed for road tarring, including the 2-km stretch between Keralapuram and Kovilmukku, making it Kerala's first plastic-waste road.



environmental warriors.

Operational Model

- Plastic waste entangled in nets is now brought ashore instead of being discarded back into the sea.
- Collection points at Neendakara and Sakthikulangara harbours gather and segregate plastic.
- A shredding unit at Neendakara converts the waste into plastic pellets used in road construction.

Building upon the success of this project, the *Suchitwa Sagaram – Sundara Theeram* project was introduced to extend the clean-up efforts to the coastline.

The project sanctioned in 2022, evolved into a multi-phased people's campaign across all nine coastal districts. It united fishermen, students, NGOs, Kudumbashree units, local self-governments, youth clubs and research institutions like CMLRE and FSI under a common banner.

The second phase, termed Plastic Nirmarjana Yajna, was conducted on 11 April 2025 with impressive outcomes:

- 154 tonnes of plastic waste were collected from coastal stretches in a single day.
- 17,000+ volunteers across 478 Action Kendras participated.
- 100 corrosion-resistant bottle booths were installed to prevent future littering.

The third phase of the project is envisaged by the Government through establishing plastic shredding units in the major fishing harbours of the country.

Recognition and Replication

- The project's exhibit was awarded first place at the World Fisheries Day Exhibition in 2022
- International NGOs like Plast Save (UK) have appreciated the project.

The success of *Suchitwa Sagaram – Sundara Theeram* is a testament to what collective will, community participation, and environmental vision can achieve.

The writer is Director at Fisheries



Photo: District Information Office, Kollam

A Quantum Leap to Blue Revolution



P. I. Sheik Pareeth IAS (Rtd)

Redefining Quality, Hygiene and Accessibility in the Domestic Fisheries Trade

Fish markets are no longer just transactional spaces at least in Kerala. With strategic planning, introduction of modern infrastructure and active community participation the State has set a national benchmark to the stage II Blue Revolution by redefining traditional fisheries sectors into people friendly high tech retail centres. Having contributed to the food security of the State, fishing communities now symbolise Kerala's commitment to public health, women empowerment and economic resilience.

Traditionally, the marketing of fish in Kerala has been rooted in decentralised, informal and community-driven systems which lacked infrastructure, cold chain logistics and access to market spaces. Coupled with poor sanitation, post-harvest losses, food safety risks, caused marginalisation of fish vendors, especially the women folk who often ended up with selling fish at unhygienic

roadside stalls or open market places. This, in the recent past, shifted to a silent revolution sweeping across the state a transformation in marketing, handling, storing and selling of fish. Advent of modern technologies in the fisheries value chain, greater public awareness about health and hygiene, rising consumer demand for safe and quality food, and an increased emphasis by the government on infrastructure-led inclusive growth accelerated this paradigm shift.

Kerala State Coastal Area Development Corporation (KSCADC), the guiding force behind this, conceptualised, designed and executed innovations, inclusivity, and modernisation in the fish marketing domain in collaboration with the Department of Fisheries. KSCADC has introduced a new package of state-of-the-art hygienic fish markets chains, blended tradition with technology, heritage with hygiene and tailored to the specific needs of each location while ensuring universal standards in quality and infrastructure offering vendors livelihoods with dignity. Thus, the Corporation ensured scientific handling and

sanitation, infrastructure development that supports cold storage, waste management, and clean vending spaces. These initiatives helped in reshaping mindsets through upgrading physical spaces while, materializing its mission to empower fish vendors (especially women), to ensure fair prices for producers and buyers, to reduce post-harvest losses, and to make safe, hygienic, and affordable fish available to all segments of society.

KSCADC has successfully completed 40 modern, hygienic fish markets with the financial support of the National Fisheries Development Board (NFDB) and the State Government. Another 51 more world-class fish markets worth Rs. 142-crore are under construction with the support of the Kerala Infrastructure Investment Fund Board (KIIFB).

These markets are envisioned as centres of trade as well as vibrant, inclusive community spaces — thoughtfully designed to uphold public health, commercial dignity, and equitable access. Each facility stands for Kerala's commitment to create progressive infrastructure that empowers people, safeguards quality and redefines the standards of domestic fish marketing. Salient features of these modern fish markets include:

- **Dual Facilities for Wholesale and Retail Trade:** Dedicated auction halls, unloading bays, and bulk handling systems, ensuring efficient movement and fair pricing mechanisms.
- **Hygienic Retail Units:** Individualised vending spaces, each with dedicated display units, stainless steel sinks, running water supply, drainage connections, and seating arrangements.
- **Infrastructure Supporting Cold Chain and Sanitation:** Freezer rooms, flake ice machines, potable water units, antiskid flooring, effluent and sewage treatment plants, and solid waste disposal systems, significantly reducing the risk of contamination and improving shelf life.
- **Customer-Friendly Design:** Ergonomically planned with a focus on customer comfort, parking facilities and aesthetic layouts, thereby attracting more consumers and improving the market experience.

In addition, two monumental, state-of-the-art fish market consortiums, each with an estimated investment of Rs. 50 crore have taken shape in Aluva



and Kozhikode, laying new milestones in Kerala's fish marketing infrastructure. These flagship projects are envisioned as integrated mega-markets, where the entire spectrum of fish and fishery-related products — from freshly caught marine and inland fish, value-added products, dry fish, and shellfish, to ready-to-cook and processed items — can be availed under one modern, hygienic, and customer-friendly roof. Designed as comprehensive trade and service hubs, these mega-consortiums too are equipped with all the facilities offered in other modern fish markets which are already functional and food courts — offering a world-class fish shopping and trading experience to both bulk buyers and walk-in consumers.

With over 85% of Kerala's total fish catch consumed domestically, robust market systems are pivotal to the sector's sustainability. Moreover, with increasing international trade regulations and periodic fluctuations in global demand, the importance of a reliable, accessible and hygienic domestic market cannot be overstated. By investing in world-class infrastructure at the grassroots level, Kerala is creating a resilient value chain that protects both producers and consumers emerging as a model to be emulated. ■

The writer is Managing Director at KSCADC

Ocean of Academic Excellence

Kerala's pioneering fisheries university leads India's marine education with global partnerships, cutting-edge research, and sustainable community outreach.



Dr. Dinesh Kaippilly

With a vision to foster human capital in research and training in fisheries and ocean sciences the Kerala University of Fisheries and Ocean Studies (KUFOS) stands as a paragon of academic excellence. Established on 20th November 2010, by the Kerala University of Fisheries and Ocean Studies Act 2010, KUFOS proudly holds the distinction of being India's first publicly funded university solely dedicated to the disciplines of fisheries and ocean studies. Officially inaugurated

on 1st April 2011, KUFOS was born from the reorganisation of the erstwhile College of Fisheries.

"KUFOS is not merely an academic institution; it is a crucible where science meets society and theory transforms into practice."

Operating under the aegis of the Department of Fisheries, KUFOS boasts an impressive physical and academic infrastructure with a main campus spanning 62 acres in *Panangad*, merely 12 kilometres from the city of Kochi. KUFOS supplemented by a 50-acre brackish and marine aquaculture facility

at *Puthuvype*, and a 12.5-acre research centre in



Payyannur. Academically, the university offers two undergraduate programmes—B.E.Sc. and B.Tech. in Food Science—and 25 specialised postgraduate courses ranging from aquaculture and fisheries engineering to maritime law. Additionally, it offers doctoral and post-doctoral degrees. The university is structured into four specialised faculties: Fisheries Science, Ocean Science and Technology, Fisheries Engineering, and Fisheries Management.

KUFOS is distinguished by its focus on research-driven education and impactful extension initiatives.

At KUFOS, learning extends beyond classrooms, into the sea, the shore, and the very heart of community life.

The institution maintains formal collaborative agreements with 26 national and international research bodies. In a notable Indo-Norwegian exchange programme in 2025, nine scholars and two faculty

members underwent advanced training in Norway's leading marine research centres. Such global partnerships have yielded cutting-edge research, technology transfers, and grassroots community benefits, particularly for Kerala's coastal populations.

KUFOS's growing acclaim is underscored by its academic recognitions: 12B status from the University Grants Commission in 2021–22, ICAR accreditation in 2023–24, and AICTE approval for its engineering programmes. Most recently, the university earned an 'A' grade in its maiden NAAC accreditation cycle, an accolade few institutions achieve at first attempt.

With plans afoot to establish Fisheries and Ocean Studies Knowledge Centres across all districts of Kerala, beginning with *Chavakkad*, KUFOS is charting a course towards becoming a benchmark in marine education, research, and societal engagement. KUFOS remains the state's premier institution for producing adept professionals equipped to meet the demands of sustainable development within the maritime sector.

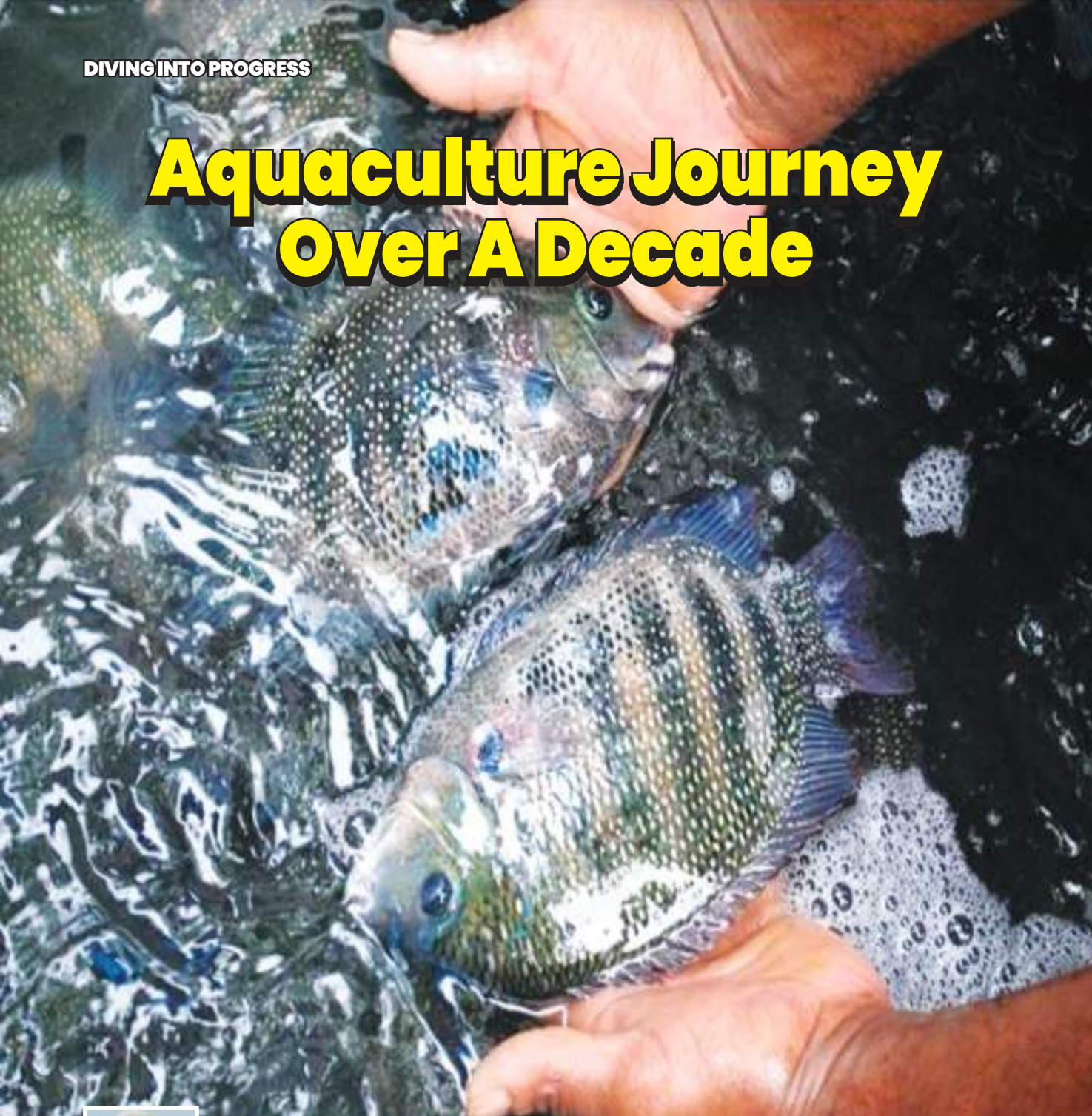
A Multi-Faculty Marine Powerhouse

The university comprises four distinct faculties:

- Faculty of Fisheries Science (FFS)
- Faculty of Ocean Science and Technology (FOST)
- Faculty of Fisheries Engineering (FFE)
- Faculty of Fisheries Management (FFM)

The writer is Professor at Department of Aquaculture, Dean i/c, Faculty of Fisheries Science & Registrar, KUFOS

Aquaculture Journey Over A Decade



Santhosh Kumar S.

With over 40,000 beneficiaries and consistent year-on-year expansion, aquaculture development has not only improved food security and employment generation, it has positioned Kerala as a progressive state in inland fish farming. The initiatives started by the state Government during the 9th and 11th 5-year plan periods guided

a new path for promoting aquaculture.

The formation of a task force on Inland fisheries and aquaculture in 2007 under the chairmanship of Dr. M.N. Kutty drew a clear path for the future of aquaculture development in Kerala utilising innovative technologies and through vertical and horizontal diversification. The state's aquaculture sector has

The aquaculture production was doubled from 20000 metric tonnes to 41000 metric tonnes from 2016 to 2025.

undergone a notable transformation over the past decade, after the implementation of the committee recommendations. The initiatives supported by technological advancements and sustainable practices increased the aquaculture production from 20000 metric tonnes to 41000 metric tonnes from 2016 to 2025.

Various initiatives and policies such as *Janakeeya Matsya Krishi* initiative aided sustainable aquaculture development by ensuring people participation with the support of local government, while disseminating the idea *fish for all, food for all*. In addition to that, financial supports were extended to the farmers for setting up of infrastructure and aquaculture inputs. Every year around thousand local bodies were involved in the *Janakeeya Matsya Krishi* programme. Seed production centres were established and adequate financial assistance were also provided to the farmers for the production of quality seeds. Ecosystem restoration programmes were implemented in major water bodies for the conservation of aquatic resources. Marketing supports were also ensured in field level. Around 150 fish vending outlets were established in potential areas. District, regional and state level aquatic animal health labs were established for the quick and spontaneous disease monitoring and surveillance system.

The development and expansion of species-specific aquaculture practices, such as those suited to brackish water and freshwater fish, especially freshwater IMCs, tilapia, murrel (snakehead), magur (catfish), pangasius, giant river prawn, seabass, pearl spot (Karimeen), climbing perch, catla, rohu, mrigal, and other native species are being given priority. These targeted interventions had boosted the productivity and economic viability of aquaculture in the state.

The implementation of the project has brought about structured changes in the aquaculture scenario. Cage farming, raft culture of mussels

and IMTA has emerged as highly promising and sustainable model. Species suitable for aquaculture, which once showed a survival rate of only 30-60%, are now achieving improved survival rates up to 90% through advanced practices. This progress has been particularly evident in the farming of species like pearl spot (Karimeen), Tilapia, and

Murrels, which are well-suited for small and medium-scale farming systems.

The implementation of scientific techniques has contributed significantly to this progress, the volume of cage farming units, which was around 5000 cubic metre in 2016, increased to 1 lakh cubic metre by 2025, reflecting the rapid growth and acceptance of this sustainable aquaculture model. The success model of cage farming in seven reservoirs of Kerala with the active participation of tribal communities and technical support from ADAK, and financial assistance through PMMSY also contributes a remarkable achievement in aquaculture production. It also ensures the livelihood of the local communities.

The traditional knowledge of fish farming, inherited through generations, along with the practical expertise of farmers and the scientific support through

fisheries department with the help of state and central institutions like the Kerala University of Fisheries and Ocean Studies (KUFOs), CIFE, CIBA, CIFT, Kerala University - Aquatic Biology department, CUSAT, ADAK and CMFRI has laid a strong foundation for the development of aquaculture.

The implementation of the Janakeeya Matsya Krishi (JMK) project along with Subhiksha Keralam and PMMSY has marked a transformative phase in aquaculture sector of Kerala. The

widespread adoption of modern farming models, including RAS, cage culture, biofloc systems, and integrated farming,

underscores the growing confidence of fish farmers and stakeholders in aquaculture as a viable livelihood option. ■

The Government of India awarded Kerala as the 'Best performing Marine State' during 2024.



The writer is South Zone Joint Director at Fisheries Department



A Enhancing Law for Marine Sustainability

Kerala's fisheries sector showcases a harmonious blend of conservation, innovation and community empowerment.



Dr. Sophia Margaret Joseph

Kerala's fisheries sector emotionally connects with lifeline of millions. As the world grapples with the consequences of marine degradation and over exploitation, the State harnessed the bell with its legislative scaffolding for marine sustainability. Crafting rigorous legislation and its enforcement with community involvement, scientific rigor and technological advancement is the new approach to enhance marine conservation with higher yields, rejuvenation of ecosystems and empowering the socio-economic fabric of Kerala's coastal population.

Teeming with over 300 fish species, Kerala's marine waters hold around 40 fish items of commercial significance which include seer fish, ribbonfish, prawns, and mackerel among others. The State's average per capita fish consumption is 24.4 kg against the national figure of 3.5 kg, underlining the pivotal role of fisheries sector in the regional food security. While, a combination of overfishing, unsustainable practices, and climatic aberrations started tapering

off the rich marine bounty the State of Kerala harnessed enforcing the amendment to the Kerala Marine Fishing Regulation (KMFR) Act 2018, which include the Minimum Legal Size (MLS) restrictions for 58 fish species to juvenile fishing. As a result, the industry contributed 15,482 crores to the state's Gross Value Added (GVA) in 2023–24 accounting for 1.51% of its GDP and a significant 15.14% of the primary sector.

Over one million individuals derive their livelihood—directly or indirectly—from fisheries, with 10.65-lakh fisher folk (comprising 3.17% of the state's population) forming the backbone of this sector. The fleet includes 3,777 mechanised boats, 31,612 motorised vessels, and 3,609 traditional crafts, spread across 222 marine and 113 inland fishing villages. More than 2.4-lakh workers are formally registered with the Kerala Fishermen Welfare Fund Board, with an additional 85,094 engaged in allied sectors such as fish marketing, net repair, and processing.

Now, a strengthened KMFR Act provides the legislative scaffolding for Kerala's marine sustainability initiatives. Central to this framework is the establishment of participatory, three-tier Fisheries Management Councils (FMCs) at state, district, and village levels while ensuring the active involvement of communities in policy and conservation decisions.

Reform includes:

- **Enforcing MLS for 58 species to prevent premature harvests.**
- **Use of square mesh cod ends in trawl nets, facilitating the escape of juvenile fish and reducing the catch.**
- **Mandatory Turtle Excluder Devices (TEDs) to protect endangered marine life.**
- **Installation of Vessel Tracking Devices (VTD) and Automatic Identification Systems (AIS) to bolster maritime safety and monitoring.**
- **Deployment of standardised fishing gear to minimise ecological harm.**
- **Requirement of navigational and safety apparatus on vessels.**

One standout initiative is the mandated use of square mesh codends particularly in shrimp trawl nets allowing undersized fish and non-target species to escape. Their implementation along the Kerala coast has demonstrably reduced bycatch, contributing to marine biodiversity and long-term stock viability.

Global Trade and Government Commitment

Kerala is an export powerhouse in marine products. In 2022–23, it exported 2.18 lakh tonnes of seafood worth 8,285.03-crore (US\$1.05 billion), featuring prominently in shrimp, squid, and cuttlefish exports. Ranking third in quantity and second in value across India, Kerala's dominance is bolstered by skilled labour, modernised harbours, and processing infrastructure. To accelerate the momentum the government has stepped up with the following initiatives:

- **Subsidies for gear modernisation and vessel motorisation.**
- **Interest-free loans for women fish vendors.**
- **Infrastructure investments in sanitation, roads, and housing.**
- **Insurance coverage and welfare programmes under the Kerala Fishermen Welfare Fund.**
- **Employment generation schemes including microfinance and term loans**

Innovation in Conservation

Kerala's conservation measures extend beyond policy to science-backed action. Notable strategies include:

- The annual trawl ban, extended from 47 to 52 days.
- Artificial reef deployment, with over 4,190 modules across 17 coastal sites and another 6,300 module in



42 fishing villages of Thiruvananthapuram alone.

- Technological upgrades such as online registration, colour-coded vessel identification, LED information boards, camera surveillance at 10 harbours.
- Marine Stewardship Council (MSC) certification drives for species like black clam, oil sardine, and deep-sea shrimp.
- Introduced participatory fisheries management and enforcement of Minimum Legal Size (MLS) for 58 species to combat juvenile fishing
- Three-tier Fisheries Management Councils were established to encourage stakeholder participation in planning and conservation.

Enforcement outcomes are equally telling between 2017 and 2023, the KMFR Act facilitated 28,630 sea rescues, saved 269 lives, registered 1,410 violations, and collected 11.89 crores in fines.

With continued innovation, deeper investment in climate resilience and a steadfast commitment to inclusive development the state is poised to lead the country into a new era of responsible marine stewardship. ■

The writer is Deputy Director at Fisheries Directorate, Government of Kerala

Roads for Sustainability

Improving Kerala's coastal roads boosts livelihoods, eases fish transport, and safeguards vulnerable communities through unified, quality infrastructure upgrades.



Mohamed Ansari

Nowhere is the need for road infrastructure more acute than in Kerala's coastal belt. With a large fishing community dependent on the quick transport of perishable catch, the importance of well-constructed coastal roads cannot be overstated. Roads in these regions do more than connect—they empower. They link fishing harbours to local markets and processing units, reducing waste and improving incomes.

Being one of the densest road networks in India, with 528.8 km of roads per 100 sq.km, which is well above the national average of 387 km, the challenge lies in quality and accessibility. About 90% of the state's village roads are single-lane, bearing 20% of the overall traffic. This traffic is growing rapidly, at an annual rate of 10–11%, underscoring the need for continuous infrastructure development.

To address this need in the coastal area, the Government, through the Harbour Engineering Department, has launched a comprehensive coastal road development initiative. This program focuses not only on improving existing roadways but also on adapting them to meet the challenges of coastal terrain—frequent flooding, heavy monsoons, narrow road widths, and increasing coastal erosion due to climate change.

The state's Fisheries Department has allocated an impressive 90 crore annually for the development of coastal roads. This unified effort, with a single agency overseeing implementation, ensures adherence to consistent design and quality standards across the state—an important step toward long-term resilience and connectivity.

Between 2021 – 2026 financial year administrative sanction has been granted for the upgradation of 638



coastal roads across 77 constituencies, with a total investment of 359.31 crore. Of these, 409 projects are already completed, and 163 are underway.

District-level efforts reflect this wide-scale commitment:

- Thiruvananthapuram: 76 roads, 32.58 crore
- Alappuzha: 125 roads, 72.89 crore
- Kozhikode: 75 roads, 37.45 crore
- Kannur: 91 roads, 50.84 crore
- Kollam: 45 roads, 34.45 crore
- Ernakulam: 30 roads, 17.26 crores
- Malappuram : 82 roads, 47.14 crores
- Kasaragod : 45 roads , 25.52 crores
- Kottayam: 13 roads ,10.15 crores
- Thrissur : 50 roads ,27.71 crores
- Palakkad : 8 roads ,4.9 crores

This infrastructural boost is proving especially beneficial for poor and marginalized fishing communities, providing smoother, safer access to livelihoods and essential services. In turn, the improved roads foster regional development and enhance economic opportunities along Kerala's coast.

In a developing country like India, rural and village road networks are the lifelines of progress, especially in states with unique geographic and social compositions. Kerala, renowned for its high population density and expansive coastline is undergoing a silent but significant transformation through targeted investment in its coastal roads. By prioritizing these coastal networks, Kerala is not just building roads but connecting communities, supporting local economies and enhancing sustainable development through improved livelihoods, and coastal resilience for generations to come. ■

The writer is Chief Engineer at Harbour Engineering Department, Government of Kerala



Fish, Fields and Futures

Community-led aquaculture transforms Kerala's rural waterways into thriving economic ecosystems through sustainable embankment fish farming initiatives.



Sajimon P. S.

Nestled within the serene landscapes of Kerala's Alappuzha district, a quiet revolution is stirring the waters—both literally and figuratively. Along the banks of Kottachaal, the 'Changathikkoottam' Self-Help Group (SHG) has scripted a compelling story of community resilience, sustainable enterprise, and rural innovation through an ambitious embankment fish farming venture.

Launched in February 2024, this initiative marks the first of its kind in the district. With the guidance of Kerala's Fisheries Department and the support of the 'Janakeeya Matsya Krishi' scheme, their efforts have not only yielded a remarkable harvest of 2,800 kilograms of pearl spot (Karimeen) but have also set a precedent for environmentally conscious

aquaculture across the state.

The Changathikkoottam group, embarked on their aquatic endeavour by releasing 5,000 fingerlings each of Karimeen and Varaal (banded snakehead) into a one-hectare stretch of public water at Kottachaal. The approach was rooted in scientific methodology—utilising floating feed, administered bi-daily, and adhering to low-impact, eco-friendly farming practices.

Unlike conventional aquaculture, embankment fish farming involves the temporary construction of bunds within existing water bodies, allowing fish to be reared without disrupting the natural flow of canals and streams. Within eight to twelve months, the fingerlings matured to a marketable size of 300–400 grams, fetching a profit of approximately 5 lakh—testament to both the technique's viability and the insatiable local



demand for native fish varieties.

The official harvest ceremony, graced by Kerala Fisheries Hon. Minister Saji Cherian, was not just a celebration of fish—it was a celebration of self-reliance, ecological stewardship, and grassroots entrepreneurship.

The Kerala Government envisions expanding this model across 50 hectares statewide.

With the success of Kottachaal the government envisions expanding this model across 50 hectares statewide. In Chengannur alone, two hectares have already adapted the method. Jalanidhi Matsya Karshaka Group, another SHG has initiated a project in the Changappadam canal, stocking 1,000 Karimeen and 9,000 Varaal fingerlings promising similar dividends in the near future.

Financial viability is further bolstered by

substantial government subsidies. SHGs receive up to 60% of the initial-15 lakh required for a one-hectare project, covering critical costs like feed, fingerlings, and site preparation. An additional 20% subsidy is available for recurring essentials. The minimum commitment period is three years, ensuring continuity and sustainability.

SHGs receive up to 60% of the initial 15 lakh required for a one-hectare project, covering critical costs like feed, fingerlings, and site preparation.

More than just a successful pilot, the Changathikkootam initiative is an exemplar of how scientific knowledge, state support, and community spirit can transform untapped resources into engines of local prosperity. By converting Kerala's water bodies into thriving centres of aquaculture, these groups are not just cultivating fish—they're cultivating futures. ■

The writer is Assistant Information Officer at I&PRD, Alappuzha

Enterprising Fisherwomen



Staff Reporter

Vincy Sandhya, a 55-year old housewife had to fend for a family of three children with the meagre earnings that her husband got from fishing. Her destiny changed when she enrolled in the Society for Assistance to Fisherwomen (SAF) and set up a fish processing unit, along with four other women. Today, the unit has a monthly turnover of around Rs three lakhs. Each member earns up to Rs 20,000 per month. The team has also won awards for the best Theeramaithri unit. Recognising the need to empower women like Vincy, dedicated initiatives have been taken up to uplift their socio-economic status. SAF was one such initiative, committed to improving the lives of women in fishing communities. From 2005, SAF has been able to ensure stable employment and income for more than 10,000 fisher women.

Schemes by SAF

- Development of Micro Enterprises
- Grant of up to Rs. 5 lakh per group (Rs. 1 lakh per member) for

starting an enterprise for 2 to 5 middle-class fisher women.

- 75 percent grant, 20 percent bank loan, 5 percent profit share
- Around 80 different enterprises set up in various sectors including fish processing, food processing, tailoring and garments, supermarket and retail stores.

The turnover of SAF units in the financial year 2024-25 is Rs. 150.95 crore. 8.79 lakh work days have been created through the scheme. 1648 small business enterprises involving 4687 women have been started in the last 10 years. In the financial year 2025-26, 200 small businesses involving 200 fisherwomen are being started under the One Family One Job scheme. In addition, Rs. 1 crore has been allocated for starting small-scale enterprises involving 2 to 5 women.

Joint Liability Groups

The scheme is being implemented to provide working capital.



The government's budget allocation for the schemes implemented through SAF in the financial year 2025-26 is Rs. 24 crore.

- An interest-free revolving fund of up to Rs. 50,000 per group (Rs. 10,000 per member) as working capital.
- Units that complete the repayment of the revolving fund will be granted Rs. 1 lakh (Rs. 20,000 per member) in subsequent tranches.
- Since 2019, 1070 JLG groups comprising 5350 fisherwomen have been granted a revolving fund of Rs. 5.35 crore in the first phase.
- From the repayment amount of the revolving fund, Rs. 27.88 crore has been granted to the units in subsequent phases as a revolving fund.
- In the financial year 2025-26, 4000 fisherwomen will be granted revolving fund through the JLG scheme.

Coastal Friendly Seafood Restaurants

The Theeramaithri Seafood Restaurants project was implemented to ensure employment and income for fisherwomen in coastal districts and to make good seafood available to the common people at low prices. A grant of up to Rs. 5 lakh was provided for setting up restaurant. Through this project, 45 Theeramaithri Seafood Restaurants started operations and 225 women benefited.

Theeramaveli Scheme

Jointly launched by the Fisheries Department and the Civil Supplies Department, this scheme provides food grains and other products at subsidised rates to the coastal families.

Gender Equality and Women Empowerment Policy

Educated women from fishing families are provided training in Digital Media Marketing & Advertising Design. A 3-month online course was provided to 55 young women graduates selected from fishing families in 9 coastal districts and Kottayam district. 6 months of field-level practical training was also provided in SAF units.

Since 2016, a total of Rs. 66.93 crore has been spent on various schemes through SAF.

Interest-free Fund

- In addition to the assistance to start small businesses, SAF also provides assistance for the survival of the enterprises.
- Assistance ranging from Rs. 25,000 to Rs. 1 lakh for small scale enterprises
- Assistance up to Rs. 1.5 lakh for supermarkets, seafood restaurants and community provision stores
- Repayment in 20 installments
- A revolving fund of Rs. 4.5 crore has been sanctioned till date.

Vidyatheeram Making Waves

The 13-crore scholarship scheme for children of fishing community to foster them to professional education has produced 264 professionals in nine years.

Staff Reporter

Jayakrishnan S., a second-year MD Paediatrics student at Kozhikode Government Medical College is proud to say his admission in Alappuzha Medical College as a medical student in 2016 has changed his life, thanks to Vidyatheeram scholarship he received from the Fishermen Welfare Board. The scholarship is exclusively meant for preparing the children of fishermen in the entrance exam by enrolling them in leading coaching institutes.



Jayakrishnan S.

The Department of Fisheries has implemented various welfare schemes to inculcate the culture of education within fishing community including the establishment of coastal schools and inclusion of fisheries studies in curricula. Yet, Vidyatheeram

distinguishes itself by its objectives of grooming professionals, particularly doctors. "My family was unable to support me financially. The scholarship helped me to fulfil my ambition to become a doctor. I was sent to the same leading coaching institute where all other brilliant students got admission in," says Jayakrishnan S. As he says, this initiative has already borne fruit with several beneficiaries successfully securing admission into various professional courses, thereby setting a precedent for future aspirants from the community. "My younger brother also is a beneficiary of this scheme. Both of us are now doctors. My brother is doing first-year MS Orthopaedics, and I am in my second year of Paediatrics," he adds.



Harikrishnan S.

MD



How to Enroll

Each year, Vidyatheeram selects students from fishing community based on the results they scored in 12th-grade examinations and enrolls them in Kerala's premier medical coaching centres, where they undergo intensive one-year residential training programme to compete in highly competitive medical entrance tests. Currently sanctioned to accommodate 130 students annually, the program extends substantial financial assistance up to ₹1.25 lakh for medical aspirants and ₹70,000 for those pursuing entrance into elite engineering institutes like NITs and IITs.

As the Government Order issued to implement the project envisage: "By fostering such educational advancement, Vidyatheeram not only enhances the employability of fisher folk youth but also stimulates a broader cultural shift within these communities, gradually dismantling barriers of poverty and social exclusion". The project has produced 97 doctors and 167 other professionals and gave coaching to 641 students in nine years. Dr.Anagha Ranjith



K.V recollects to attend NEET coaching at Pala Brilliant College. I scored high in the exam, gained admission to HNA Medical College, and have completed my MBBS. I am deeply grateful to the Fisheries Department, the Kerala government for the Vidyatheeram scholarship. The project should be continued as it is a catalyst for youth from the fishing community to come up and stand hand by hand with

other students."

The project has the target to coach 130 eligible students in prestigious medical entrance coaching institutes by spending 1.30 crores this year. The scheme also plans to provide coaching to 15 students for Civil Service Exam by spending Rs.80,000/head and 15 students to prepare for Residential NIT/IIT Coaching by spending Rs.60,000/head.

Year-wise Enrolment & Output

year	No.of students undergone Coaching.	MBBS	B.Tech/ BDS/ BAMS/ BHMS/ BVSC	Other Courses	TOTAL
2015-16	47	11	4		15
2016-17	33	7	2	14	23
2017-18	50	6	8	8	22
2018-19	56	10	4	11	25
2019-20	84	15	14	11	40
2020-21	61	11	8	8	27
2021-22	90	15	8	3	26
2022-23	112	9	15	24	48
2023-24	108	13	9	16	38
TOTAL	641	97	72	95	264

Kerala's Vidyatheeram embodies a paradigm of progressive governance that harmonizes socio-economic development with educational empowerment. It is an exemplar of how targeted, well-conceived interventions can rewrite the narratives of historically marginalised groups, enabling them to reclaim their rightful place in the mainstream. As this initiative continues to expand, it promises to serve as a beacon of hope for many marginalised communities in India.

Receding Shores, Reclaiming Homes



Kerala's coastal resettlement project shifts vulnerable families, ensuring safety from sea erosion with government-funded housing solutions.

Staff Reporter

Punargeham, one of the major housing projects under Kerala's Fisheries Department has provided the much-needed reassurance to more than 9000 families living in precarious conditions along the coastline. The project has been instrumental in moving people living within 50 metres of the high tide line to safer inland areas, protecting them from sea erosion and rising tides. The larger goal is to resettle 22,174 such families from the dangerous 50-metre coastal zone to safer inland areas.

As of now, 9,104 families have shown willingness to move. Out of these:

- 2,878 families have been fully resettled

- Housing has been confirmed for 5,361 individuals
- 4,421 families have found suitable land and received district-level approval
- 3,835 families have completed the land registration process
- 3,743 families are yet to find land and begin their resettlement process
- 568 families are about to start construction
- 779 houses are currently under different stages of building

Under Punargeham, families are offered different options for relocation. They can either:

- Build individual homes on land they find themselves
- Form groups to jointly buy land and build



apartment complexes

- Move into flats built by the government on public or acquired land.

Each beneficiary can receive up to Rs. 10 lakh in financial aid to support their relocation and home construction.

In a later update to the scheme, the government included 355 families who already own land more than 200 metres away from the tide line but are currently living within the danger zone. These families, listed in the official survey, are now eligible for 4 lakh each from the original project fund.

Punargeham represents a major step in protecting lives and homes from climate threats along Kerala's vulnerable coast.

This large-scale project has a total approved cost of Rs.2,450 crore. The main responsibility for running the scheme at the state level lies with the Project Implementation

Unit (PIU). Of the total funds, Rs.1,398 crore comes from the Chief Minister's Distress Relief Fund, while Rs.1,052 crore comes from the state department's regular budget.

2,878 families have been fully resettled, and housing has been confirmed for 5,361 individuals.

Completed housing projects have already been handed over in several areas:

- Karode (128 units) and Beemapally (20 units) in Thiruvananthapuram
- QSS Colony (114 units) in Kollam
- Ponnani (128 units) in Malappuram

Other projects are ongoing, including:

- 804 flats across Muttathara Phase II, Kadakampally, Valiyathura, Mannumparam, Ponnani, Niramruthur, West Hill and Koyippadi.



Theerasadass to Strengthen Ties

Staff Reporter

Our fishermen community have been eulogised as the Army of Kerala. In recognition of their invaluable contribution to the economic, social and cultural fabric of the state, the Government of Kerala launched *Theerasadass*, an initiative aimed at giving back to this vital community. This visionary initiative set out to forge a direct bond between the government and the fishermen.

Spanning 47 coastal locations across all legislative constituencies, *Theerasadass* was not merely a programme, but a soulful dialogue, a space where the fishermen could share their stories, their struggles and their hopes. It is a platform where their voices are heard, their concerns are addressed and the government's development and welfare initiatives are brought to their very doorstep. Through this noble endeavor the government of Kerala aimed to cultivate

an environment of inclusivity, sustainability and mutual respect.

As part of the *Theerasadass* initiative, a total of 25,150 applications were received across the nine coastal districts. Applications related to the Fisheries Department and associated agencies have been resolved. In total, ₹7,99,51,961 in financial assistance was disbursed through the *Theerasadass* under various heads including medical aid, Fishers Welfare Fund Board insurance benefits, and SAF benefits. Applications pertaining to other departments were forwarded to the respective departments for further action, and coordinated efforts at the district level are ongoing to ensure their resolution in collaboration with the concerned departments.

At the beginning of each event, discussions were held with local representatives to identify regional



issues and assess developmental possibilities.

As part of Theerasadass, a total of 25,150 applications were received across the nine coastal districts.

Through this platform, the fishermen were able to interact directly with the Minister for Fisheries. Concerns were heeded and issues that could be addressed were resolved on the spot.

Issues raised and resolved during the sessions included:

- Conversion of APL (Above Poverty Line) ration cards to BPL (Below Poverty Line)
- Provision of VHF marine radios
- Waivers on overdue interest from cooperative societies
- Medical assistance
- Disbursement of accidental death insurance benefits
- Loans via Matsyafed
- Improved amenities at Government Regional

Fisheries Technical High Schools

Reconstruction was approved for 184 dilapidated houses at a cost of ₹4 lakh per house in fishermen colonies with a total administrative sanction of ₹7.36 crores for FY 2023–24. Beneficiary selection has been completed, and funds are being disbursed accordingly. So far:

- 54 beneficiaries under Phase I have received ₹1 lakh each (₹54 lakh total),
- 23 beneficiaries under Phase II have received ₹1.5 lakh each (₹34.5 lakh total),
- Thus, a total of ₹88.5 lakh has already been distributed.

In total, ₹7,99,51,961 in financial assistance was disbursed through the Theerasadass.

Complaints regarding non-availability of funds under the Punargeham Scheme were addressed by distributing the available funds to eligible beneficiaries.

Theerasadass stands as a testament to the Government of Kerala's unwavering commitment to its fishermen. More importantly, Theerasadass has empowered fishermen by giving them a platform to voice their challenges and aspirations directly to the highest levels of government. ■

Waves of Risk, Nets of Hope



Empowering Kerala's fishermen with protection, dignity, and financial security through an inclusive insurance scheme that values every life at sea.

Staff Reporter

Kerala's coastline has shaped the lives of millions yet, risks faced by coastal communities are deeply personal and relentless. Unprecedented storms, capsizing of boats, life-threatening injuries and tragic losses of life at sea often turn their life upside down. Despite mechanization and technological advancements the fishing community essentially need social protection.

Recognizing this urgent need, the Government has introduced

the Group Personal Accident Insurance Scheme of Kerala through the Kerala Fishermen's Welfare Fund Board (KFWFB) in 1986 and expanded in 1999 to include allied sectors. Under this scheme, all registered fishermen (aged 18–70) and allied workers (aged 18–60) are insured at no personal cost, which means the premium is borne by the government. In 2024 alone, 12.73 crore was sanctioned for fishermen and 1.18 crore for allied workers, covering over 3 lakh individuals under this scheme.



The scheme provides:

- 1 lakh for accidental death, permanent disability, or disappearance at sea
- 50,000 for partial disability
- 25,000 in hospitalization costs

Over a million Keralites depend directly or indirectly on the sea for their livelihood, forming the heart of the state's food chain and economy.

- 10,000 in educational support for children of the deceased
- 2,500 towards funeral expenses

Additionally, parallel schemes by agencies like Matsyafed provide further safety nets. Matsyafed's insurance covers fishing crafts and inputs,

other than personal accidents, covering up to 10-lakh families of deceased fishermen and extend educational support for their children. The policy also covers insurance for boats and engines, which reflects a broader, ecosystem-level approach to secure the fishing economy.

In the wake of natural disasters and climate-related accidents, this scheme has offered timely and life-saving financial relief, helping families to overcome difficulties without the added burden of economic despair.

As Kerala continues to modernize and diversify its fisheries sector, such initiatives will remain pivotal in honouring the dignity of labour. Because no matter how turbulent the waves, a society must ensure that those who navigate them find safe harbour.



Coastal Education: A Model of Inclusive Excellence

Kerala, long celebrated for its educational achievements, is now setting a new benchmark through a transformative initiative targeting its coastal schools. Spearheaded by the Department of Fisheries, in collaboration with the Kerala Infrastructure Investment Fund Board (KIIFB) and the Kerala State Coastal Area Development Corporation (KSCADC), this programme is revolutionizing education in historically underserved coastal regions.

Aimed at bridging regional disparities, the initiative has successfully redeveloped 57 coastal schools, introducing world-class infrastructure tailored to local needs. Each institution is custom-designed considering geography, population, and community requirements—ensuring functionality, sustainability, and user-friendliness.

Environmentally conscious architecture integrates natural lighting, ventilation, and weather-resistant materials, reflecting ecological responsibility.

Facilities now include state-of-the-art academic blocks, IT and science labs, arts and sports spaces, smart classrooms, and upgraded kitchens for mid-day meals. The programme also supports students beyond infrastructure; 4,000 bicycles have been distributed to girl students from fisherfolk communities to ease school access, and sports kits have encouraged physical activity.

Furthermore, select Government Regional Fisheries Technical Higher Secondary Schools have been upgraded into Centres of Excellence, offering modern residential facilities, advanced laboratories, and comprehensive vocational training in fisheries and allied sectors.

This holistic, inclusive, and sustainable model has not only raised educational standards but also elevated aspirations within coastal communities. Kerala's focused investment in coastal education now stands as a national exemplar of how visionary governance can deliver equity, opportunity, and lasting impact.

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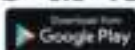
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