आज़ादी का अमृत महोत्सव

G20 भारत 2023 INDIA

ICES CIEM

सत्यमेव जयते
DEPARTMENT OF FISHERIES

Food and Agriculture Organization of the United Nations

ICES/FAO Working Group on Fishing Technology and Fish Behaviour (WGFTFB23)

Symposium on

Innovations in Fishing Technologies for Sustainable and Resilient Fisheries

13-17 February 2023 | Taj Gateway Hotel, Kochi, India

Organised by

BOBP

NFDB

National Fisheries Development Board
Department of Fisheries
Government of India

In collaboration with

ICAR

सी एम एफ आर आइ
CMFRI

INDIAN BRANCH

The world fisheries, as we know is facing various developmental and sustainability challenges. The issues in the marine fisheries sector range from depleted fish stocks, habitat destruction coupled with pollution and climate change, fish loss and wastage and other issues such as by-catch and ghost fishing. This calls for adopting sustainable practices including improved fishing and post-harvest techniques. The choice of technology that we make is very important as it may affect the ecological outcomes but also the social, economic outcomes and human well-being.

The small-scale fisheries in India in particular and the South and Southeast Asia in general, are mostly marginal and vulnerable. Their choice of technology or lack of it has led to the state of fisheries that we see today. The time to ponder and take action is NOW.

This International Symposium hopes to provide a platform for structuring actionable agenda, identifying research and capacity building needs and forging partnerships between and among researchers, academia, industry and the policy makers for a sustainable fisheries future.

Event Summary

	ICES / FAO WGFTFB & International Symposium	Side Events Panel Discussions	Networking Opportunities	
	WATER FRONT HALL	**ANCHOR HALL**	**MARINA HALL**	**BESIDES WATER FRONT HALL**
13 Feb	**Inauguration** **Plenum presentations:** • Active gears **Working Group Meeting**		**Bilateral Meetings**	**Waves of Art** *(BOBP Social Art Initiative)* Participatory Sketching Event on Fishing Technology **Industry Expo / Booths:** Display of Products, Innovations and Programmes by Industry/ Institutes
14 Feb	**Plenum Presentations:** • Passive gears • Indicator • ALDFG	Development of a Marine Fisheries Research Network for BOB Region Artificial Reefs and Sea Ranching: Experience Sharing (**Marina Hall**)		
15 Feb	**Plenum Presentations:** • ALDFG • Behavior **Topic Group Meetings** 1-3 *[1 - Water Front Main Hall; 2 Anchor Hall 1; 3 Anchor Hall 2]*		**Bilateral Meetings** (For private network meetings among the participants)	
16 Feb	**Plenum Presentations** • Energy • General **Field trip**	Future Proofing the Small Scale Fisheries (SSF)		
17 Feb	**Plenum Presentation:** • General • Gear Design **Working Group Meeting** **Valedictory Session**	Greening the Fisheries Sector in the Bay of Bengal Region Innovations and Solutions for Fish Harvest Sector		

ICES/FAO Working Group on Fishing Technology and Fish Behaviour (WGFTFB23)

and

Symposium on Innovations in Fishing Technologies for Sustainable and Resilient Fisheries

The 23rd meeting of the International Council for the Exploration of the Sea (ICES)-FAO Joint Working Group on Fishing Technology and Fish Behavior (ICES-FAO WGFTFB) is being organized alongside the International Symposium on Innovations in Fishing Technologies for Sustainable and Resilient Fisheries being hosted by Department of Fisheries, Government of India.

The primary objective of the ICES-FAO WGFTFB is the incorporation of fishing technology issues and expertise into management advice including, inter alia, the impacts of fishing on the environment (e.g. by-catch, unaccounted fishing mortality, habitat impacts, energy use, greenhouse gas emission).

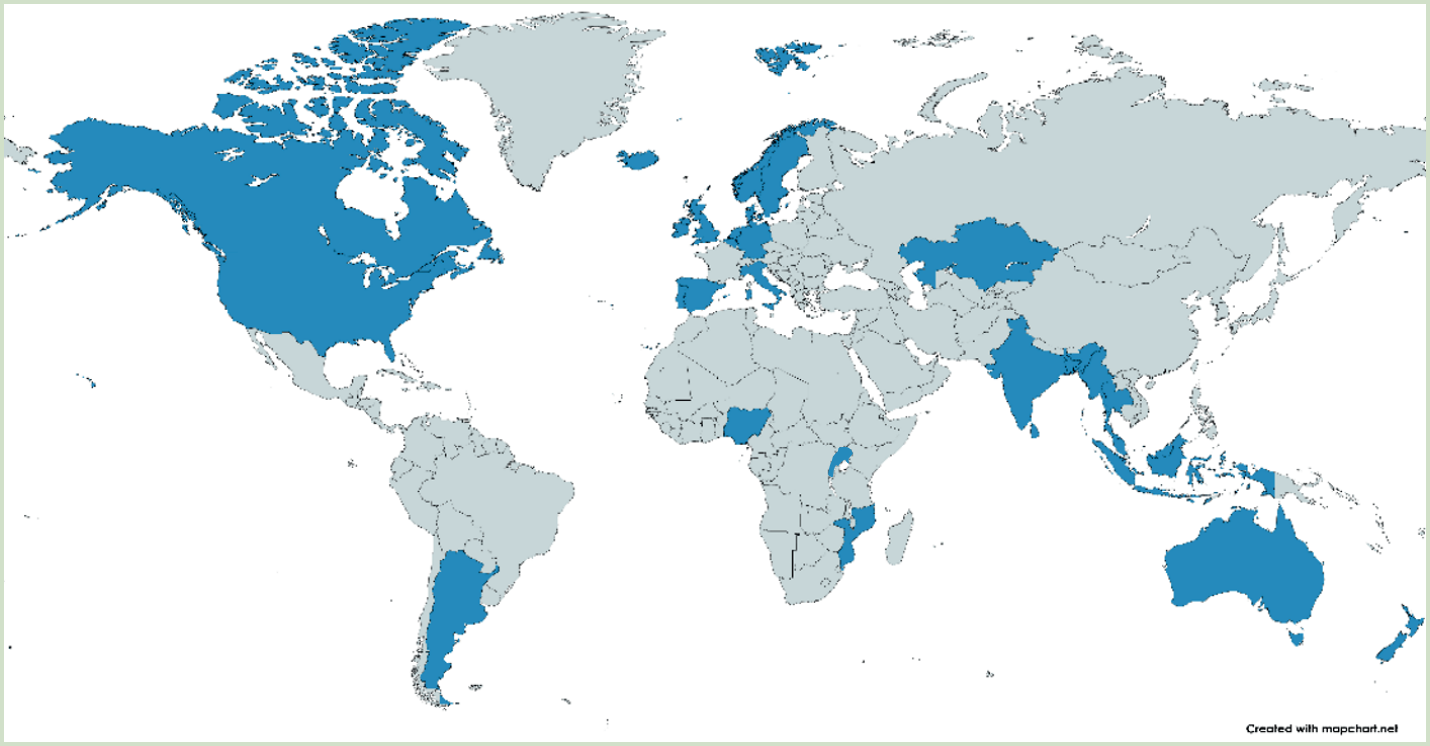
Objectives

The objectives of the International Symposium are to:

- Provide a forum for global synthesis of scientific knowledge;
- Identify appropriate technologies for a blue transformation of the SSF;
- Discuss and review innovations in various domains of fishing technologies; and
- Evaluate the options for optimizing energy use and reduce GHG emissions.

The participants include scientists, researchers, officials, policy makers, diplomats, industry, entrepreneurs, and students.

About 250 participants from about 30 countries are attending this event.



Geographical spread of the participants

Overall Programme for the WGFTFB / International Symposium

Date	Agenda*	Details
February 13, 2023	**Inauguration**	
	Plenum presentations: Active gears [12]	Various aspects of trawl such as selectivity, gear modifications, by-catch and also on seine fisheries
	WGFTFB Administration	Working Group Meeting among the WGFTFB members
February 14, 2023	**Plenum Presentations:** Passive gear [18]	Catch efficiency, gear modifications, selectivity, and sustainability of fisheries by different passive gears.
	Plenum presentations: Indicators [03]	Trawl selectivity, predicting discard survival and addressing the by-catch issues in fisheries.
	Plenum presentations: ALDFG (Ghost Gears) [07]	Gear marking, Global and regional status of ALDFG, and gear modification to curb ghost fishing, etc.
February 15, 2023	Plenum presentations: ALDFG (Ghost Gears) (Continues)	Gear marking, Global and regional status of ALDFG, and gear modification to curb ghost fishing, etc.
	Plenum presentations: Behavior [02]	Responses of fish during fishing.
	Topic Group Meetings [16]	Discussion on PASSIVE GEARS; ALDFG; INDICATORS will be held in three breakout groups, with respective experts.
February 16, 2023	**Plenum presentations:** Energy [08]	Alternate technologies for energy conservation, reducing GHG emission, etc.
	Plenum presentations: General [10]	Innovations and advancement in fishing technologies
	Field trips	Options to visit Technology or Research Institutions, a processing plant, a city visit and a Backwater Boat trip.
February 17, 2023	**Plenum Presentation:** General (continues)	Innovations and advancement in fishing technologies
	Plenum Presentation: Gear Design [12]	Impact of fishing gears, experimental gear design, advancements in gear accessories, real time by-catch detection, etc.
	WGFTFB Administration	Working Group Meeting among the WGFTFB members
	Valedictory session	

*Numbers of presentations in parentheses

In addition, 50 posters will be displayed in two batches of 25 each in the Symposium Venue.

SIDE EVENTS

Parallel to the main presentations being held in **Marina Hall** during 13-17 Feb 2023, thematic discussions will be held in ANCHOR HALL on selected themes on the 14th, 16th & 17th Feb 2023.

HD-BOBP Dialogue on

DEVELOPMENT OF A REGIONAL MARINE FISHERIES RESEARCH PLATFORM FOR THE BAY OF BENGAL REGION

14 February 2023
0900 - 1700

Brainstorming Session on

STRATEGIES FOR DEPLOYING ARTIFICIAL REEFS AND SEA RANCHING IN SOUTH ASIA: LEARNING FROM THE EXPERIENCES

14 February 2023
1400 - 1700

Panel Discussion on

FUTURE PROOFING SMALL SCALE FISHERIES (SSF): INNOVATIONS IN FISHING TO ENHANCE CONTRIBUTION OF SSF TO FOOD SECURITY

16 February 2023
0900 - 1300

Panel Discussion on

GREENING THE FISHERIES SECTOR IN BAY OF BENGAL OPPORTUNITIES AND STRATEGIES

17 February 2023
0900 - 1300

Industry - Stakeholder Interaction on

INNOVATIONS AND SOLUTIONS FOR FISH HARVEST SECTOR

17 February 2023
0900 - 1300

1 SIDE EVENT

Centre for Humanitarian Dialogue

BOBP

HD-BOBP Dialogue on

Development of a Regional Marine Fisheries Research Platform for the Bay of Bengal Region

14 February 2023 | 0900 - 1700

Context

The key challenges of Bay of Bengal region include changing climate, marine pollution, overfishing and habitat degradation. The transboundary nature of these issues require countries in the region to come together and plan collaborative actions. Fisheries is a key sector in the national Blue Economy strategy of the rim countries. These issues and opportunities are gaining attention from the R&D institutions in the region, but a regional platform for marine scientific research is not in place.

The Event

The event will have coordinated country presentations from delegates from India, Bangladesh, Indonesia, Maldives, Malaysia, Myanmar, Sri Lanka, and Thailand.

The participants will deliberate on the following points: Need for collaboration, potential areas, potential institutes, and existing framework for facilitating collaboration and expected outcome and application.

There shall be a moderated group activity to elucidate opinions on the following points:

- Functional arrangement of networking platform - Potential organisational set-up for creating the platform (is it necessary to have a central coordinating body or can be a bilateral/multilateral arrangement between countries addressing common themes)
- Seeking government support-Likelihood of governments accepting and extending support to the platform and strategies thereof.
- Financial arrangements: Innovative models for operation.

Participants

The participants include academicians and scientists from more than 20 organizations from the BOB rim countries, apart from the mission heads and senior policy makers from the Governments of countries in South Asia.

2 SIDE EVENT

Brainstorming Session on

Strategies for Deploying Artificial Reefs and Sea Ranching in South Asia: Learning from the Experiences

14 February 2023 | 1400 - 1700

Context

The increasing global concern over the threats to sustainable marine fisheries, actions towards mitigating the negative effects of natural and anthropogenic impacts on the coastal and marine ecosystems, are gaining momentum.

Artificial reefs (AR) are effective area-based conservation measures (OECMs) for in situ conservation of biodiversity, to promote habitat recovery and to enhance reef-dependent resources. Sea ranching involves introducing juveniles into the natural water body, where they are allowed to grow and harvested later possibly after maturity. It is a widely adopted practice in many countries, especially for conserving species such as salmon, sea cucumber, pearl oyster, blue crab and shrimps, many grouper species, flat fishes, sea bream, etc.

The Event

This side event is intended to discuss various dimensions and past experiences related to artificial reefs and their impact in the Indian context, emerging challenges and enabling policies that are necessary for further development in artificial reefs.

It will also deliberate upon suitable size of release, area specifications, species-specific favorable seasons, ranching techniques and economics of sea ranching so as to enable successful ranching programs in future.

Participants

The event hosted in hybrid mode will be attended by experts from reputed institutes in India, Greece, USA, Japan and France, apart from the researchers / policy makers from the BOB rim countries.

3 SIDE EVENT

Panel Discussion on

Future Proofing Small Scale Fisheries (SSF): Innovations in Fishing to Enhance Contribution of Ssf to Food Security

16 February 2023 | 0900 - 1300

Context

Small-scale fisheries across the Bay of Bengal region are a major component of the region's food system.

A large part of the rural economy of the Bay depends on fisheries. However, the SSF in the Bay of Bengal is facing a number of issues of growing magnitude, including overfishing, climate change impacts, and a sluggish and scattered input and output market structure. Therefore, to retain fishers in the small scale fisheries and to sustain their contribution to the overall fishery, there is an urgent need to ensure enhanced organizational focus towards innovations with regard to craft and gear modifications; handling and post-harvest; safety of fishers and access to advanced communication and information technologies, with specific focus to the SSF.

The Event

The Event will bring together different organizations working on SSF to discuss and promote various innovations which can result in sustainable SSF.

Speakers will share their experiences from the region on:

- Existing socio-economic and environmental challenges for the development of the SSF
- New innovations in the SSF sector (both marine and inland): Experiences from South Asia
- Developing and promoting strategies towards the application of innovative technologies
- Sea safety, social protection, onboard fish handling, engine optimization, etc.

Participants

The participants include ICES-FAO and regional experts, representatives from various industries, government, academia and research institutions.

4 SIDE EVENT

Panel Discussion on

Greening the Fisheries Sector in Bay of Bengal Opportunities and Strategies

17 February 2023 | 0900 - 1300

Context

Carbon emission from the marine capture fisheries is increasing over time. With growing importance of value addition and better price realization, the environmental cost has increased following wider use of refrigeration and other freezing techniques. A holistic policy and management solution is required to address the problem, from a pure technology perspective and therefore the challenge is, what can be done to reduce carbon emission from the marine fisheries sector without adversely affecting the benefits.

The Event

The event aims to identify and promote opportunities to encourage green fishing in the Bay of Bengal Region. Expert speakers will share experiences on the research and development initiatives related to de-carbonization, innovations in engines, alternative energy, green fishing activities, and green infrastructure & technology.

The deliberation will take stock of the energy efficient fishing practices in different countries and explore opportunities for collaboration among countries and stakeholders for development of green fishing technologies.

Participants

Senior officials from various countries, academia and research institutes from regional and international organizations will attend the event.

5 SIDE EVENT

Industry - Stakeholder Interaction on
Innovations and Solutions for Fish Harvest Sector

17 February 2023 | 0900 - 1300

Context

The Industry Expo will showcase innovations and technologies in fish harvest sector. The booths in the expo will provide immense opportunity for industry stakeholders to display and exchange technological ideas to the prospective end users, industry stakeholders, experts in the field and senior officials from world over.

The Event

The broad objective of this session is to provide opportunities for showcasing emerging technologies from the global and Indian industry majors, exchanging ideas, and developing leads for academia-industry collaborations. It will include presentation on various topics such as:

- Innovations in fishing technologies
- Fisheries engineering
- Communication & Sea safety
- Digital Technologies

Participants

The participants would include ICES-FAO experts, representatives from various industries, government officials and research institutions.

Field trips

February 16, 2023 (2 pm – 6 pm)

Participants can select the package of their choice to visit

Option 1

ICAR-CIFT & Processing Plant

Central Institute of Fisheries technology (ICAR-CIFT) is the major national center in the country where research in all disciplines relating to fishing technology and fish processing is undertaken.

Kochi is one among the top five fish export centers in India. There are several state-of-the-art fish processing plants in Kochi. CIFT will coordinate a visit to one of the plants.

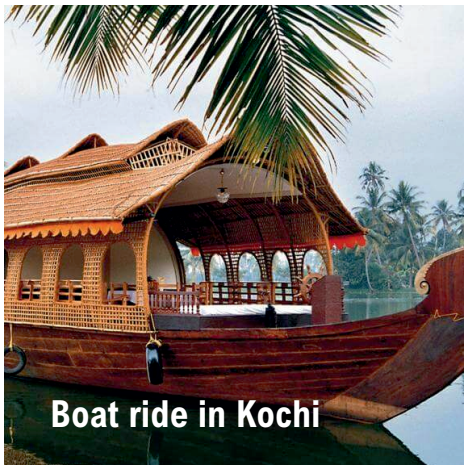
Option 2

ICAR-CMFRI & City Ride

Central Institute of Marine Fisheries Institute (ICAR-CMFRI) is the leading tropical marine fisheries research institute in the region.

The Institute's multidisciplinary approach to research in marine capture and culture fisheries has won recognition as a premier institute comparable to any well-established marine laboratory in the world.

Option 3



Kochi backwater tour will allow to enjoy unmatched beauty of nature, and enable one to get a glimpse of the busy city life.

Kochi backwaters is blessed with rich aquatic life.

The point where Arabian Sea and Vembanad Lake meets is a splendid sight.

WAVES of Art... Series 3

As a part of the Social Art Initiative of BOBP-IGO, a special sketching event will be held during 13-14 Feb 2023 at the Venue, adjacent to the Marina Hall, wherein art enthusiants and Symposium particiopants will get to sketch on the theme of fishing technology.

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13-17 February 2023 | Taj Gateway Hotel, Kochi, India

Symposium Organizing Committee

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Secretary
Department of Fisheries, Govt. of India

Patrons
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Joint Secretary
Department of Fisheries, Govt. of India
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Ministry of Agriculture and Farmers Welfare

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