COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

SDG 14. Life Below water

14.2 SUPPORTING AQUATIC ECOSYSTEMS THROUGH EDUCATION

14.2.3. OVERFISHING (COMMUNITY OUTREACH)

Brainstorming Session on

Greening the Fisheries Sector

Innovations and Solutions from the Industry

14.2.3. OVERFISHING (COMMUNITY OUTREACH)

1.BRAINSTORMING SESSION ON GREENING THE FISHERIES SECTOR: INNOVATIONS AND SOLUTIONS FROM THE INDUSTRY

On February 17, 2023, a brainstorming session on Greening the fisheries sector: Innovations and solutions from the industry was organised by BOBP in collaboration with CUSAT and many educational and research institutes. The team headed by Dr. Sabu S., Director, School of industrial fisheries were actively participated as the collaborator from CUSAT. Global fishing fleet annually consumes about 30–40 million tonnes of fuel and accounts for more than 1% of the global marine fuel demand. There is a conscious effort on the part of the Government and the fishers to use mechanical power for fishing leading to increase fuel consumption. As the resources are depleting over time, people are using higher engine power to reach far-flanged fishing grounds implying that fuel consumption will likely to rise further in the future. In addition, there is a growing realization of the importance of on-board handling and processing of fish. While this has led to value addition and better price realization, the environmental cost is increased need for refrigeration and other freezing techniques. Moreover, the BOB countries, in general, aim at increasing fish production especially from the deeper waters.

Understanding the drivers of greenhouse gas emissions in food production systems is becoming urgent. The emission of greenhouse gasses from the marine capture fisheries sector is continuously increasing over time. Continuous but scattered efforts to managing the technical solutions for fuel savings and reducing GHG emissions are currently underway in different parts of the world. The event will explore can technology play a role in mitigating it and what management support will be required to make the technological solution effective. The event also discussed on the overfishing and methods to limit overfishing practices and to implement greening the fisheries sector.

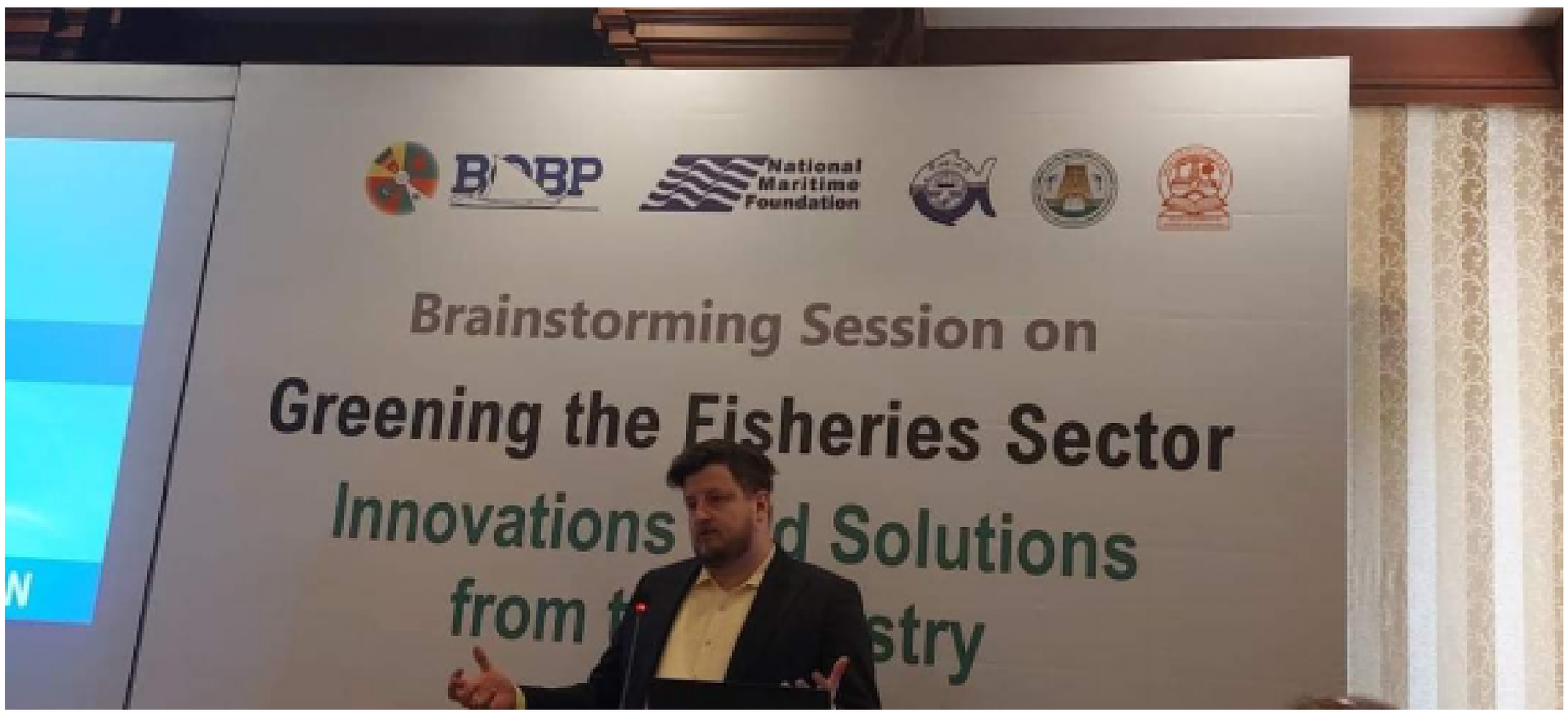


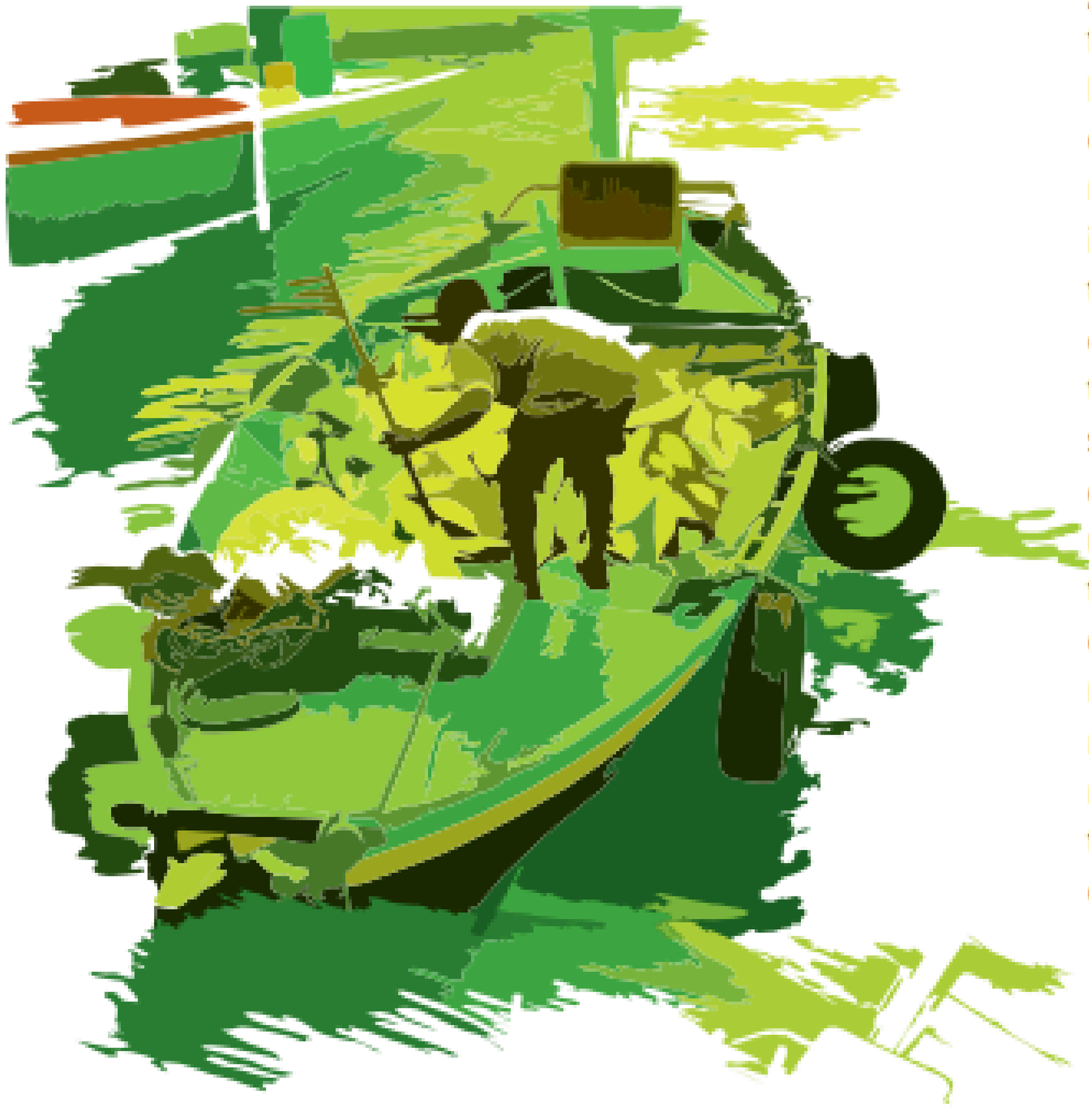
Fig. 14.2.18. Brainstorming session on greening the fisheries sector

Brainstorming Session on

Greening the Fisheries Sector

Innovations and Solutions from the Industry

17 February 2023



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Programme

09.00 – 09.30	**Registration**	
09.30 – 10.30	**Greening the fisheries**	
09.30 – 09. 35	Opening Remarks	**Dr. P. Krishnan** *Director, BOBP-IGO*
09. 35 – 09.55	De-Carbonization of the Fisheries Sector	**Commodore Debesh Lahiri** *NMF, New Delhi*
09.55 – 10.15	Greening the Fisheries Sector: Innovations and Ideas from INCOIS	**Dr. Srinivasa Kumar** *Director, INCOIS, Hyderabad*
10.15 – 10. 30	Special Remarks	**Shri. Sagar Mehra** *Joint Secretary, DoF, GoI*
10.30 – 11.00	**Coffee Break**	
11.00 – 12.45	**Industrial Innovations & Solutions for harvest sector**	
	Co-Chairs: 1. **Dr. Md. Shainee**, *Former Minister of Fisheries, Maldives* 2. **Mr. Dhammika Ranatunga**, *Director General (Technical), MFARD, Sri Lanka*	
11.15 – 11.25	Hambidgan Group, Iceland	**Mr. Georg Haney** *Director, Environmental Group*
11.25 – 11.35	OSAC, Norway	**Mr. Ulf Lundvall** *Chairman of the Board*
11.35 – 11.45	Kongsberg Maritime, Spain	**Mr. Ignacio Soler Martinez** *Fishery Advisor*
11.45 – 11.55	Shellcatch, USA	**Mr. Alfredo Sfeir** *CEO*
11.55 – 12.05	Odaku Online Services, India	**Mr. Xavier Lawrence** *CEO*
12.05 – 12.15	Garware technical Fibres, India	**Mr. Jitenda Soni** *Product Manager*
12.15 – 12.45	Discussion (Q&A)	Participants
12. 45 – 13.00	**Closing Session**	
12.45 – 12.55	Summary & Conclusions	Co-Chairs
12.55 – 13.00	Words of Thanks	**Dr. S. Sabu** *Director, School of Industrial Fisheries CUSAT*

Context

Global fishing fleet annually consumes about 30–40 million tonnes of fuel and accounts for more than 1% of the global marine fuel demand. There is a conscious effort on the part of the Government and the fishers to use mechanical power for fishing leading to increase fuel consumption. As the resources are depleting over time, people are using higher engine power to reach far-flanged fishing grounds implying that fuel consumption will likely to rise further in the future. In addition, there is a growing realization of the importance of on-board handling and processing of fish. While this has led to value addition and better price realization, the environmental cost is increased need for refrigeration and other freezing techniques. Moreover, the BOB countries, in general, aim at increasing fish production especially from the deeper waters.

A holistic policy and management solution is required to address the problem, from a pure technology perspective and therefore the challenge is, ceteris paribus, what can be done to reduce carbon and GHG emission from the marine fisheries sector.

For many centuries, fishing was usually geared towards large catch quantities and greater efficiency. In times of growing environmental awareness and increasing concern about global climate change, the fishing industry is looking for more sustainable and climate-friendly practices that better protect the environment. The ideal intervention to harness the under-utilized resources would be to enhance the fish catch per unit effort (CPUE) without disturbing the fragile ecosystem than increasing the fishing effort. The strategy to harvest more fish with the existing efforts by spending less on non-renewable resources can be termed 'green fishing'.

The Bay of Bengal is one of the world's 64 Large Marine Ecosystems (LMEs). The Bay is bounded by eight countries like Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand. This region faces multi-dimensional challenges from climate change impacts such as sea-level rise, ocean acidification, and extreme weather events, leading to changes in the distribution of aquatic species, and community structures due to migration and decreased economic productivity. It is now a proven fact that healthy ecosystems are the key to the productivity of the fishing industry. To combat the stressors that deteriorate ocean health, *Green fishing practices* are an ideal solution. It should be clear to all countries that the de-carbonization of vessel propulsion requires bold ideas, huge efforts and investment. Small cosmetic adjustments such as more energy-efficient designs will not be enough on their own. In order to be able to meet the requirements for 2050, the global fishing industry must also change to alternative fuels and new sources of energy.

Governments in the region may consider prioritizing research and development initiatives in green fisheries infrastructure, technology, and innovative practices to reduce environmental risks and ecological stress. Countries importing fishery products prefer a low energy fish catch tag on their product which emphasizes the need for green fishing methods such as the utilization of alternate marine fuels, and incorporation of renewable energy in fishing vessels in the form of solar panels. Through a holistic, cross-domain effort, the fishing endeavour in the Bay region could be made sustainable, energy efficient, environment friendly more affordable and profitable in the long-run.

The side event aims to promote and identify issues related to green fishing in the Bay of Bengal Region. It would bring various stakeholders associated with the developing the energy-efficient fishing vessels and promoting green fishing operations with the following objectives:

- ***Promote the sustainable fishing practices in the Bay of Bengal Region***
- ***Development of strategies for de-carbonization of fisheries sector***
- ***Share experiences on development and implementation issues with Green Fishing activities***

A Side Event Alongside

ICES CIEM

DEPARTMENT OF FISHERIES

Food and Agriculture Organization of the United Nations

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

and

Symposium on Innovations in Fishing Technologies for Sustainable and Resilient Fisheries

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

Fig. 14.2.19. Brochure of Brainstorming session on Greening the fisheries sector: Innovations and solutions from the industry