BOBP

DEPARTMENT OF FISHERIES

GEO BLUE PLANET

Regional Launch Workshop

Bay of Bengal Network of Ocean Researchers for Fisheries (BOB-NOR)

Mainstreaming Ocean Science Evidence into Fisheries Management Decisions in the Bay of Bengal

03-06 Nov 2026 | CMFRI, Kochi

Collaborators

TPS FOUNDATION · ICAR CMFRI · MERCATOR OCEAN INTERNATIONAL · SAFARI · CCG · pogo

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On the sidelines

TREVOR - SAFARI Symposium 2026

ICAR-Central Marine Fisheries Research Institute (CMFRI), Kochi

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

BOB-NOR shall be a global model for mainstreaming ocean data into fisheries management – one of the Ocean Decade Targets

1. Background

The Bay of Bengal supports highly productive fisheries, major coastal economies and millions of small-scale fishing households. Its fisheries are strongly influenced by monsoon circulation, ocean temperature, productivity, salinity, oxygen concentration, river discharge, coastal currents and extreme weather events. These oceanographic processes influence the distribution, abundance, migration, recruitment and availability of fishery resources.

The Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO) is currently advancing regional cooperation to manage shared fishery resources, including pilot initiatives on Hilsa between Bangladesh and India and on green shrimp between India and Sri Lanka. These initiatives require the systematic integration of fisheries information with relevant oceanographic and environmental data.

BOBP-IGO has already demonstrated the value of a specialized regional scientific network through the Bay of Bengal Stock Assessment Network (BOBSAN), which brings together government-nominated stock-assessment practitioners from the four member countries, with BOBP-IGO serving as its nodal point. It operates under the guidance of a Scientific Advisory Committee comprising internationally recognised fisheries scientists and practitioners. The Committee supports methodological development, harmonization of data protocols, strategic planning, regional studies, capacity development and alignment with global best practices.

The BOBSAN Regional Dialogue also identified several concerns that are relevant to ocean research:

- limited technical capacity and technological infrastructure;
- inadequate availability and quality of data;
- insufficient formal interaction between scientists and fisheries managers;
- weak translation of scientific evidence into practical management recommendations;
- the need for current, periodically available and decision-ready information;
- the need to study climate impacts on commercially important shared stocks; and
- the importance of harmonised regional data collection and collaborative studies.

Although BOBSAN mainly deals with fisheries data and stock assessments, there is a need for a regional platform that unites oceanographers and fisheries experts to translate ocean information into practical fisheries management tools.



2. Origin of the Proposed Network

At the GEO Blue Planet Fisheries Workshop on "Ocean Data to Support Global Sustainable Fisheries Management," held in London during 21–22 April 2026, BOBP-IGO emphasized that the access to raw ocean data alone would not close the gap between science and fisheries management and highlighted the need to improve ocean literacy and the capacity of fisheries institutions to interpret and apply ocean information.

The workshop recognised the INCOIS–BOBP partnership as a useful regional model and identified the Indian Ocean – Bay of Bengal as a priority region for a pilot initiative involving BOBP-IGO and INCOIS and other relevant interested organisations. The proposed pilot was expected to operationalize the concept of Minimum Viable Ocean Data, map how information reaches decision-makers, strengthen institutional acceptance and build regional capacity.

These emerging plans at the GEO Blue Planet Fisheries Workshop were further developed in consultation with the Trevor Platt Science Foundation (TPSF), ICAR-Central Marine Fisheries Research Institute (ICAR-CMFRI), the Trevor Platt Science Foundation (TPSF) and SAFARI (Societal Application in Fisheries and Aquaculture using Remote-sensing Imagery).

Ocean data and fisheries data are generally maintained under different institutions, mandates, professional cultures and operational systems. Thus, the major constraint is not merely data availability but its assimilation into fisheries decisions. Effective assimilation requires a hybrid combination of:

- oceanographic literacy;
- co-development of strategies with the fishing community;
- data curation, interpretation and analytical capacity; and
- understanding of fisheries management and fishing operations.

The proposed "Bay of Bengal Network of Ocean Researchers (BOB-NOR)" would provide the institutional bridge required to address this gap.

The network shall meet in conjunction with the periodical TREVOR-SAFARI Symposium co-organized by the Trevor Platt Science Foundation (TPSF), the Plymouth Marine Laboratory (PML), ICAR-CMFRI and INCOIS along with other co-sponsors.

The Network will be launched on 03 November 2026 during the Regional Workshop organized on the sidelines of the TREVOR-SAFARI 2026 Symposium at ICAR-CMFRI, Kochi during 04-06 Nov 2026 and convened by the Cochin University of Science & Technology (CUSAT), Kochi, Kerala, India.

The network participants will be invited to attend the TREVOR SAFARI Symposium, in which fisheries is an important theme.



3. Rationale

Oceanographic data is becoming more accessible via satellite observations, research surveys, and autonomous platforms, and are being readily available through national ocean-information agencies. Ocean models are playing an important role in improving our understanding of oceanic processes in relation to fisheries. Despite this, a large portion of this information is not consistently converted into products that fisheries managers can easily utilize for:

- identifying changes in fish distribution;
- understanding recruitment and productivity;
- assessing climate-related vulnerability;
- developing potential fishing-zone advisories;
- improving data collection and data sharing strategies;
- designing seasonal and spatial management measures;
- assessing habitat suitability;
- engaging with fishing community;
- improving safety at sea;
- detecting harmful algal blooms, hypoxia and pollution risks; and
- supporting ecosystem-based fisheries management.

Effective fisheries governance depends on combining various types of essential information. These include data on stock abundance, catch and fishing effort, biological traits, spatial and habitat details, as well as environmental and oceanographic conditions and compliance data. Key variables like sea-surface temperature, chlorophyll levels, dissolved oxygen, salinity, and ocean acidification are especially crucial for understanding how climate change affects stock distribution, productivity, and ecosystem health.

The GEO Blue Planet Fisheries Workshop highlighted that ocean-data needs cannot be addressed with a one-size-fits-all list. Instead, they should be customized based on regional ecosystems, key fisheries, institutional abilities, and specific management issues. The value of ocean data also improves when integrated with long-term time series, fisheries observations, socio-economic data, and the experiential knowledge of fishing communities.

BOB-NOR would thus supplement BOBSAN by linking the physical, chemical, and biological states of the Bay of Bengal with fisheries evaluation, management strategies, and the operational requirements of fishing communities.

4. Goal

To establish a regional platform that promotes the systematic use of oceanographic information in fisheries research, management, climate adaptation and fishing operations in the Bay of Bengal region to improve sustainable fisheries management practices.

The workshop expected to arrive at “Kochi Declaration on Mainstreaming Ocean Data in Fisheries management Roadmap development and Way forward” encapsulating these ideas.

5. Specific Objectives

- Establish a formal regional interface between ocean-science institutions and fisheries research and management agencies.
- Identify priority oceanographic variables and products required for fisheries decision-making in Bangladesh, India, Maldives and Sri Lanka.
- Translate ocean data into fisheries-relevant products, indicators, maps, advisories and management recommendations.
- Strengthen ocean literacy and analytical capacity among fisheries researchers, managers and other users.
- Develop pilot applications that demonstrate how ocean information can improve practical fisheries decisions.
- Improve routine, timely and user-friendly sharing of oceanographic and fisheries information
- Improve engagement with the fishing community and co-develop research and strategies that best meet the needs of the user community

6. Goal

The BOB-NOR will consist of 3-4 researchers from academic or national research institutions from each of the member countries of BOBP-IGO, currently working on satellite oceanography, climate modelling, or any relevant domain of ocean science, duly nominated by the national governments.

They will work alongside the BOBSAN experts from the region to explore complementarity. BOBP-IGO shall be the Secretariat for the BOB-NOR, the activities of which will be duly guided and coordinated through its Governing Council.

Scientific Advisory Committee

Following the BOBSAN model, BOB-NOR will be supported by a team of Scientific Advisory Committee comprising selected experts from oceanography, climate science, fisheries, remote sensing and data applications and those involved in international ocean-modelling and Earth-observation programmes.

Regional experts from oceanographic institutions; universities and marine research institutes; will also be roped in eventually to expand the advisory committee.

The Scientific Advisory Committee would:

- provide technical and strategic guidance;
- advise on regional pilot studies;
- facilitate engagement and collaboration with other Indian Ocean rim countries
- facilitate access to global expertise and data systems;
- support training and mentoring; and
- help align with international best practices.

Composition of the Committee

1. **Dr. Ryan Vandermeulen**, *GEO Blue Planet Fisheries Working Group Member, Senior Research Scientist, National Oceanic and Atmospheric Administration (NOAA), USA*
2. **Dr. Hassan Moustahfid**, *GEO Blue Planet Fisheries Working Group Co-Chair, Co-Chair (Marine Biodiversity Observation Network-MBON), National Oceanic and Atmospheric Administration (NOAA), USA*
3. **Dr. Milton Kampel**, *Senior Researcher & Head, National Institute for Space Research (INPE – Instituto Nacional de Pesquisas Espaciais), Head of the Institutional Affairs Office, Brazil*
4. **Dr. Renato Quiñones**, *Director, Ocean Institute, University of Concepción, Chile*
5. **Dr. Shubha Sathyendranath**, *Merit Scientist, Plymouth Marine Laboratory (PML), London, United Kingdom*
6. **Dr. Grinson George**, *GEO Blue Planet Fisheries Working Group Member, Director, Indian Council of Agricultural Research - Central Marine Fisheries Research Institute (ICAR-CMFRI), Kochi*
7. **Dr. T.M. Balakrishnan Nair**, *Director, Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, India*
8. **Dr. Raisha Lovindeer**, *International Ocean Colour Coordinating Group (IOCCG)*
9. **Dr. Sophie Seeyave**, *Partnership for Observation of the Global Oceans (POGO)*

Convenor : **Dr. P. Krishnan**, *Director, BOBP-IGO, Chennai*

Coordinator : **Dr. Nimit Kumar**, *GEO Blue Planet Fisheries Working Group Member, Senior Scientist, ICAR-Central Institute of Fisheries Education (CIFE), Mumbai*

7. Priority Thematic Areas

The priority areas will be identified during the first meeting of the BOB-NOR. An indicative list is provided below.

Minimum Viable Ocean Data for Fisheries: Identify a practical set of regionally relevant and regularly updated ocean variables, including sea-surface temperature, chlorophyll-a, salinity, currents, dissolved oxygen, wind, waves, rainfall, river discharge and marine heatwave indicators.

Regional Ocean–Fisheries Data Inventory: Compile information on data-producing institutions, available datasets, time-series coverage, observation platforms, research vessels, modelling products, advisory services, access conditions and major data gaps.

Ocean-Data-to-Decision Workflow Mapping: Document how ocean data are generated, stored, processed, interpreted and communicated to fisheries institutions, while identifying technical, administrative and institutional barriers that limit their use in management.

Climate and Ecosystem Impacts on Fisheries: Undertake regional studies on shifts in fish distribution, recruitment–environment relationships, marine heatwaves, changes in spawning and migration, habitat compression and climate vulnerability of commercially important fisheries.

Operational Fisheries Advisories: Support the development and improvement of potential fishing-zone advisories, species-specific advisories, rough-sea warnings, harmful algal bloom alerts, pollution alerts, habitat maps and seasonal ocean–fisheries bulletins in consultation with fishing communities.

8. Inaugural Meeting of BOB-NOR

- **Date**: 03 November 2026
- Duration: One day
- Suggested format: Hybrid
- Proposed Participants
  - 3 researchers nominated by each of the members;
  - selected BOBSAN representatives;
  - invited representatives from INCOIS & CMFRI
  - selected members of the GEO Blue Planet Fisheries Working Group;
  - members of the proposed Scientific Advisory Committee; and
  - invited national or regional experts

9. Tentative Meeting Agenda

Session	Discussion Points
0930-1030	*Inaugural Session and Context Setting: Significance of BOB-NOR & Interface with BOBSAN*
1030-1200	*Country Presentations: Ocean-data and fisheries management interface – current status and aspirations*
1200-1230	*Available ocean observations, models and advisory products*
1230-1300	*Defining Minimum Viable Ocean Data for Bay of Bengal fisheries*
1300-1400	*Lunch break*
1400-1430	*Introduction to Group Exercise*
1430-1530	*Three concurrent Breakout Sessions* *- Mapping institutional and data-flow barriers* *- Selection of regional pilot studies* *- Governance, work plan and resource mobilisation*
1600-1700	*Kochi Declaration on Mainstreaming Ocean Data in Fisheries management* *Roadmap development and Way forward*



10. Expected Outcomes

The establishment of BOB-NOR is expected to:

- create a sustained institutional link between ocean science and fisheries management;
- improve awareness and understanding of available ocean-data products;
- strengthen regional oceanographic and fisheries research collaboration;
- make scientific information more accessible and usable for fisheries managers;
- support climate-resilient and ecosystem-based fisheries management;
- improve the scientific basis of BOBP-IGO shared-stock initiatives;
- enhance advisory services for small-scale fishers;
- support fisheries safety and adaptation to extreme ocean conditions
- Kochi Declaration on Mainstreaming Ocean Data in Fisheries management Roadmap development and Way forward



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