



Food and Agriculture
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DEPARTMENT OF
FISHERIES



*Report of the Regional Capacity
Building Workshop on*
**Strengthening Regional Representation
in Global Stock Status Reporting
(FAO State of Stocks Index):
Preparing the BOBP-IGO Members
for the FIRMS and SDG 14.4.1 Data Calls**

**29 – 31 May 2025
Four Points by Sheraton, Kochi**





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Bay of Bengal Programme
Inter-Governmental Organisation

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BOBP

Food and Agricultural Organization of the United Nations (FAO)

FAO is a specialized UN agency founded in 1945 to combat global hunger and promote sustainable agricultural development. Headquartered in Rome, FAO works with governments and international organizations to improve food security, nutrition, and rural livelihoods. It plays a key role in fisheries and aquaculture governance, developing international agreements

Department of Fisheries (DoF)

It is a governmental body responsible for the development, management, and regulation of fisheries and aquaculture in India. It plays a crucial role in formulating policies, implementing schemes, and promoting sustainable fisheries practices to enhance productivity, livelihoods, and food security. The DoF oversees the conservation and management of marine and inland fisheries resources, enforces regulatory frameworks. It also supports capacity-building initiatives, research, and technological advancements to strengthen India's fisheries sector.

Bay of Bengal Inter Governmental Organisation (BOBP-IGO)

The BOBP-IGO is a regional fisheries advisory body with Bangladesh, India, Maldives and Sri Lanka as its contracting parties. It is mandated to enhance cooperation amongst its member countries and other countries (especially, Indonesia, Malaysia, Myanmar and Thailand) for sustainable fisheries management in the Bay of Bengal region. The BOBP-IGO Secretariat is located at Chennai. The Department of Fisheries, Government of India is the nodal agency from India and the hosting agency.

Abbreviation and Acronyms

APFIC	Asia-Pacific Fishery Commission
B/BMSY	Biomass relative to Biomass at MSY
BOBLME	Bay of Bengal Large Marine Ecosystem
BOB-SAN	Bay of Bengal Stock Assessment Network
CECAF	Fishery Committee for the Eastern Central Atlantic
CMSY	Catch-MSY (Maximum Sustainable Yield)
DB-SRA	Data-Based Stock Reduction Analysis
DoF	Department of Fisheries
FAO	Food and Agriculture Organization of the United Nations
FCWC	Fishery Committee for the West Central Gulf of Guinea
FIRMS	Fisheries and Resources Monitoring System
GFCM	General Fisheries Commission for the Mediterranean
GRSF	Global Record of Stocks and Fisheries
ICES	International Council for the Exploration of the Sea
JABBA	Just Another Bayesian Biomass Assessment
LBB	Length-Based Bayesian Biomass Estimation
LB-SPR	Length-Based Spawning Potential Ratio
MMSY	Multispecies Maximum Sustainable Yield
MSY	Maximum Sustainable Yield
NARA	National Aquatic Resources Research and Development Agency
NFISI	Information and Knowledge Management Team (within FAO)
ODP	Operational Data Provider
RAM Legacy	RAM Legacy Stock Assessment Database
RFB	Regional Fishery Body
SDG	Sustainable Development Goals
SMT	Stock Monitoring Tool
SOFIA	The State of World Fisheries and Aquaculture
SOSI	State of Stocks Index
SPiCT	Stochastic Production Model in Continuous Time
SRA+	Stock Reduction Analysis Plus
UUID	Universally Unique Identifier
VRE	Virtual Research Environment

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Participants at the Workshop

1. Introduction

Since its first global review of marine fishery resources in 1971, the Food and Agriculture Organization of the United Nations (FAO) has played a central role in assessing the state of global fish stocks, providing vital insights to support sustainable fisheries management. These assessments have formed the backbone of FAO's flagship biennial publication, The State of World Fisheries and Aquaculture (SOFIA), which since 1995 has offered indispensable data, statistics, and analyses to scientists, policymakers, and decision-makers worldwide. A key output of these assessments is the State of Stocks Index (SOSI), which classifies stocks into three main categories—underfished, maximally sustainably fished, and overfished. Over the decades, FAO has expanded its stock coverage from 146 in 1974 to 531 in more recent assessments, reflecting the evolving landscape of global fisheries and the increasing demand for comprehensive monitoring. To enhance transparency, comparability, and responsiveness to national and global needs, FAO is now undertaking a major methodological overhaul, driven by the UN Sustainable Development Goal Indicator 14.4.1 and the need to include more species and stock units. Central to this paradigm shift is the Fisheries and Resources Monitoring System (FIRMS), a collaborative platform established in 2004 that unites intergovernmental fisheries organizations to provide validated, authoritative fisheries data. FIRMS will now serve as the primary database for FAO's stock assessments, aligning closely with national reporting systems and global reference databases. Through regional consultations, updated reference stock lists have been developed for each FAO fishing area, ensuring broader and more accurate coverage of current fishing activities. The reconfigured approach aims to deliver improved assessments, greater transparency, and strengthened regional collaboration. With the next SOFIA cycle in 2026, FAO plans to integrate this new methodology and publish comprehensive technical documentation comparing previous and updated approaches, marking a significant step toward more inclusive, cooperative, and data-driven global fisheries governance.



2. Opening session

Dr. P. Krishnan, Director, BOBP-IGO, commenced the workshop by warmly welcoming the country participants, and introduced the distinguished guests and set the tone for the workshop. Special thanks were extended to Dr. Rishi Sharma, Senior Fisheries Officer, FAO-RAP for his decade-long contributions to stock assessment and regional fisheries management. Emphasizing the importance of collaboration, Dr. Krishnan described the workshop as a platform for institutional learning, regional best practices, and national replication.

Dr. Grinson George, Director, ICAR-CMFRI, Kochi delivered an overview of CMFRI's historical and scientific contributions to India's marine fisheries sector. He emphasized that CMFRI's evolution has paralleled the development of scientific fish stock assessment in India. With a strong data backbone involving catch, effort, and biological parameters, CMFRI has pioneered indigenous methodologies for multi-species stock assessments in tropical waters. Dr. George discussed the transition from traditional paper-based data collection to AI-enabled mobile technologies and ongoing pilot initiatives to develop automated, real-time stock monitoring systems. He emphasized the need to align national data generation systems with international frameworks such as FAO's, while also retaining the strengths of India's unique fishery landscape.

Dr. K. Mohammed Koya, Fisheries Development Commissioner, Department of Fisheries, Government of India, joined the workshop virtually and extended warm greetings to all



participants. In his opening remarks, Dr. Koya acknowledged India's privileged position within the Indian Ocean region and the vast potential of its fisheries resources. He reiterated the Government of India's priority on sustainable development and responsible management of these resources. Dr. Koya emphasized the importance of aligning national frameworks with evolving regional and global standards and expressed strong support for the workshop's objectives. He reaffirmed the Department's commitment to continued collaboration with international partners and regional initiatives like BOBP-IGO to strengthen fisheries governance and data reporting systems.

Ms. Nilufa Akter, Additional Secretary, Ministry of Fisheries and Livestock, Bangladesh representing Bangladesh, addressed the workshop and extended warm greetings to all participants. Speaking on behalf of her country under the BOBP framework, she highlighted Bangladesh's ongoing efforts in fisheries assessment and data collection. She noted that the most recent national report was published in 2022, based on two primary data sources: river cruises and landing center monitoring. Ms. Akter acknowledged the value of the workshop in enhancing understanding of standardized reporting systems, concluding her remarks, she wished the workshop every success and expressed appreciation for the opportunity to participate.





3. Lead presentations

3.1 Overview of FAO's role in structuring global state of stocks monitoring and in support of global fisheries management

- Dr. Rishi Sharma

The presentation on “Blue Transformation: FAO Vision for Incorporating Change in Fisheries and Aquaculture” outlines a comprehensive global strategy aimed at transforming aquatic food systems through sustainability, inclusivity, and data-driven governance. Anchored in FAO's 10-year vision, the initiative is structured around three core pillars: sustainable aquaculture development, effective fisheries management, and value chain enhancement. The presentation emphasized the shift from aggregate to stock-level assessments to improve precision in monitoring and management, with a target of bringing 100% of marine and inland fisheries under effective management. A key advancement is the development of the Global Record of Stocks and Fisheries (GRSF), integrating 2,570 globally identified stocks—including 238 from India, Bangladesh, and Sri Lanka—into a centralized system under the FIRMS partnership. Stocks are categorized into three tiers based on data availability and methodological rigor. The approach promotes alignment with SDG indicators and supports the Bay of Bengal Large Marine Ecosystem (BOBLME) project by establishing baselines and ecosystem-level indicators. Dr. Sharma underscored that sustainable aquatic food systems are central to global food security, contingent on collaborative assessments, improved data resolution, and continuous capacity-building across regions.

3.2 FAO's role as custodian agency for SDG Indicator 14.4.1 at National level and convergence with the regional and global indicator – Dr. Anne Elise Nieblas

The presentation emphasized FAO's role as the custodian agency for SDG Indicator 14.4.1—tracking the sustainability of fish stocks—and its alignment with the State of Stocks Index (SOSI). She outlines the convergence of national, regional, and global indicators using diverse data sources, including FIRMS, RAM Legacy, FishSource, and national SDG questionnaires. A key focus is improving data quality and coverage through enhanced reporting processes, updated methodologies, and a multi-tiered stock assessment approach. She highlighted persistent challenges such as technical capacity gaps, limited data granularity, and institutional communication barriers. To address these, FAO has implemented comprehensive capacity development initiatives—eLearning courses, workshops, virtual platforms, and expert help desks—to support countries in robust data collection and stock assessment. The presentation underscores encouraging trends in reporting quality and regional participation, especially within BOBP-IGO countries, while calling for continued investment in technical tools, training, and governance mechanisms to strengthen global fisheries monitoring and achieve SDG 14.4.1 targets.

3.3 The FIRMS partnership in support of the collation of fishery stock assessment at global and regional level – Mr. Aureliano Gentile

Mr. Aureliano Gentile's presentation provided a comprehensive overview of the FIRMS (Fisheries and Resources Monitoring System) Partnership, emphasizing its pivotal role in



global fishery stock assessment and monitoring. Established in 2004, FIRMS functions as an information-sharing platform among 19 intergovernmental organizations encompassing 24 Regional Fishery Bodies (RFBs) and 4 collaborative organizations to promote standardized, high-quality, and transparent reporting of marine resources and fisheries data. The presentation highlighted FIRMS' contributions to the FAO's State of Stocks Index (SOSI), especially through the Global Record of Stocks and Fisheries (GRSF), which assigns unique identifiers for over 2,000 stock records to harmonize global data. The collaboration between BoBP-IGO and FIRMS aims to strengthen regional representation in global assessments, enhancing visibility and policy relevance for the Bay of Bengal. Mr. Gentile detailed the data collection mechanisms, biennial reporting cycles, and protocols that ensure consistency and scientific rigor. Overall, the presentation underscored the importance of evidence-based fisheries governance, capacity building, and regional integration into global stock status reporting through collaborative frameworks.

3.4 Introduction to FAO's updated State of Stocks Index (FAO SOSI) – Dr. Rishi Sharma

The presentation on the updated methodology for the FAO State of World Fisheries and Aquaculture (SOFIA) report marks a significant shift toward more transparent, evidence-based, and regionally representative assessments of global fish stocks. Tracing its evolution since 1974, the presentation critically analyzes the limitations of earlier approaches—such as lack of transparency, representativeness, and replicability—and introduces a revised framework that classifies stocks into data-driven tiers and integrates multiple data sources, including SDG 14.4.1 reporting. The new method, tested across six regions, incorporates both assessed and unassessed stocks using a tiered system to evaluate biological sustainability and overfishing. Findings reveal that while 65% of global stocks are around or above target reference points, 35% remain below, highlighting significant yield loss risks. Notably, Tier 2 (data-limited) stocks are generally in worse condition than well-assessed Tier 1 stocks. The approach promotes harmonization with national and regional systems and aims to balance MSY-based sustainability targets with global food security needs. Dr. Sharma emphasized

that despite data limitations and system variability, this updated methodology ensures consistency, stakeholder buy-in, and capacity development, forming a robust basis for future SOFIA reports and SDG monitoring.

3.5 Categorization of stock assessment methodologies: tiered approaches (Tiers 1,2,3) – Dr. Rishi Sharma

The presentation on fish stock assessment methods provides a structured, tier-based framework for evaluating marine resources under varying data availability and complexity. The approach categorizes assessments into three tiers: Tier 1 (data-rich) utilizes integrated and surplus production models; Tier 2 (moderate data) relies on catch-effort and survey-based models like SRA+; and Tier 3 (data-limited) applies methods such as CMSY, LB-SPR, and expert judgment-based weight-of-evidence models. The presentation underscored the trade-off between model sophistication and data requirements, especially for multispecies and multigear fisheries. It also emphasizes emerging tools like LBB, DB-SRA, and MMSY for ecosystem-based fisheries management. Dr. Sharma highlighted that while modeling techniques have advanced significantly, the main constraint remains the availability of reliable biological, environmental, and socio-economic data. The tiered approach ensures scalability and applicability across regions with different assessment capacities, supporting evidence-based, precautionary, and adaptive fisheries management.

3.6 Data categories and collection methods: Categories of data sources – Dr. Anne Elise Nieblas

The presentation provided a critical overview of the data architecture supporting the FAO State of Stocks Index (SOSI), emphasizing transparency, representativeness, and integration of diverse data sources. The updated SoSI reference list now includes 2,570 stocks, categorized into Tier 1 (formal assessments), Tier 2 (rapid assessments with limited data), and Tier 3 (empirical or expert-informed assessments), reflecting improved biological understanding, governance, and socioeconomic priorities. Key data streams include the Global Record of Stocks and Fisheries (GRSF), SDG 14.4.1 questionnaires, FAO-led rapid assessments, and regional consultations. Each stock is uniquely identified via internationally standardized universally unique identifiers (UUIDs) to ensure traceability and harmonization. The presentation highlighted the operational processes and roles of data owners and providers, especially for transboundary and nationally significant stocks, including those from BOBP-IGO countries. Dr. Nieblas emphasized the importance of aligning regional reporting mechanisms with global frameworks like SDG 14.4.1 and FIRMS, enhancing both the quality and visibility of regional contributions to global stock status reporting.

3.7 Revising and expanding fishery stock lists (SoSI list FAO area 51, 57) – Steps for revising regional lists

3.7.1 Presentation by each country

Bangladesh

Bangladesh has revised its SoSI list, maintaining 14 species by including Donkey croaker and Sardinellas NEI, while excluding two species due to lack of species-level data. Sardine, earlier treated as a group, is now represented at the species level as Sardinella. All listed species fall under SoSI Type 1. Of these, only sea catfish and Indian threadfin are classified as overfished, while Hilsa, croaker, and Bombay duck are assessed at maximum sustainable yield (MSY).



Chinese silver pomfret, giant tiger prawn, speckled shrimp, and some newly added species such as Hilsa remain unassessed. The Bay of Bengal (BOB) indicator species is yet to be finalised, with Hilsa proposed for consideration. Data ownership and provision rest with Bangladesh, with the designated departmental official responsible for reporting.

Maldives

Maldives has listed all the species listed in the SoSI as groupers. Dr. Rishi Sharma inquired about the analytical methods being applied. Maldives clarified that the current data originated from SWIOFC reporting, not the SDG framework. Discussions also addressed the potential for shared funding, especially for transboundary species, and the importance of citizen-related responses. A point of confusion was raised over tuna data being attributed to SWIOFC, despite its reporting to IOTC.

India

A total of 219 stocks were reviewed, with two identified as erroneous—one due to a missing reference and another due to an incorrect species entry. A key discrepancy was noted for the North-East (Area 57), where a 2023 reference was incorrectly cited; the actual assessment pertains only to the South-East. A revised species list, effective from 2026 and based on the North-West region of India, will cover 196 species and 300 stocks, with data expected by mid-January. Updates using the 2020 dataset have been incorporated, and further revisions are planned by December. India is the data owner, with the Department of Fisheries serving as the data provider.

Sri Lanka

Sri Lanka's SoSI database was updated in 2024 from six initial entries, with one group-level family entry revised into two species-specific entries based on updated assessments. A locally significant species with two distinct stocks was also added. Data source references were corrected to align with SDG Indicator 14.4.1, with assessment status categories (overfished, maximally sustained, underfished) and citations from research papers or national reports being incorporated for all six stock units. Sri Lanka is the data owner, with the national agency designated as the data provider. Distinct pathways for SDG and FIRMS reporting are being maintained. As part of the Bay of Bengal indicator process, Sri Lanka was requested to nominate 4–5 indicator stocks from the existing 13, ensuring ecological representation through varied resilience species. Suggested indicators include *Sardinella*, shrimp, blue swimming crab, and sea cucumbers, with spatial considerations noted for species like lobsters to ensure alignment with Area 57 boundaries.

3.7.2 Suggestions by the panellist in regard to the presentation

1. Citation of Sources (Published Research or National Report)

Panelists emphasized that every stock assessment entry must be supported by a verifiable source. This ensures scientific credibility and traceability of the information provided. For assessments that are peer-reviewed and published in scientific journals, the full citation should be included. In the absence of published literature, countries are expected to document their assessments in a formal national report or technical document that can be cited.

2. Clarification of Data Owner, Operational Process, and Data Provider

The panel highlighted the importance of distinguishing between the data owner, data provider, and data process/operator.

Data Owner: Owner/Creator of a content, legal or otherwise. For the SoSI list, it can be an Organization (RFB, FAO), Country or Territory (preferred generally for simplification) or related combination in specific cases (Country[-State]; Country[-State] [-Inst]) identified as owner of the content submitted to SoSI.

Data Provider: The actual FIRMS partner entity providing to FIRMS the stock status data biennially to inform the index, or "national" when data owner is a country and process is SDG 14.4.1 ("national" for a simplified presentation in the SoSI dissemination corner). Noting that the data provider is not necessarily the entity with the legal ownership of the data themselves (e.g. CECAF is a data provider but not a legal entity which is FAO)

Operational Data Process: The process represented by the combination of entities responsible for the data provision (e.g. FIRMS-BOBP represents the FIRMS Data call which BOBP is committed to; FAO-SDG 14.4.1 represents the FAO SDG 14.4.1 Questionnaire call). The data process refers to the channel or mechanism through which the data enters the SOS platform.

3. Indicator Species for BOBLME

Each country was encouraged to identify a subset of assessed stocks to serve as ecosystem indicators under the Bay of Bengal Large Marine Ecosystem (BOBLME) initiative. These indicators should be selected based on ecological representativeness, geographic spread, and resilience levels—ranging from low to high. The rationale is to use around 30% of

assessed stocks to provide a baseline view of ecosystem health. Suggested candidate species include sardines, shrimp, sea cucumbers, and blue swimming crab.

4. Standardization of Stock Status Classification

Countries should ensure that stock status (e.g., overfished, fully fished, underfished) is consistently entered in the designated column, using the agreed terminology. This classification must align with the FAO guidelines or national reference points, where available.

5. Geographical Accuracy in Assessment Entries

Assessments should be entered with clear regional specificity (e.g., Area 57). Stocks that are assessed for a specific subregion should not be mistakenly attributed to a different or broader area. This is particularly important for species with restricted distributions or localized management practices, such as lobsters or certain reef species.

6. Timely Updating of Legacy Entries

Legacy data (e.g., entries from 2019 or 2020) should be reviewed and updated wherever newer assessments are available. Outdated information may misrepresent the current stock status and lead to inaccurate conclusions. Countries should regularly audit their existing entries and replace or revise them as new assessments become available, preferably backed by updated citations.

7. Disaggregation by Stock and Species

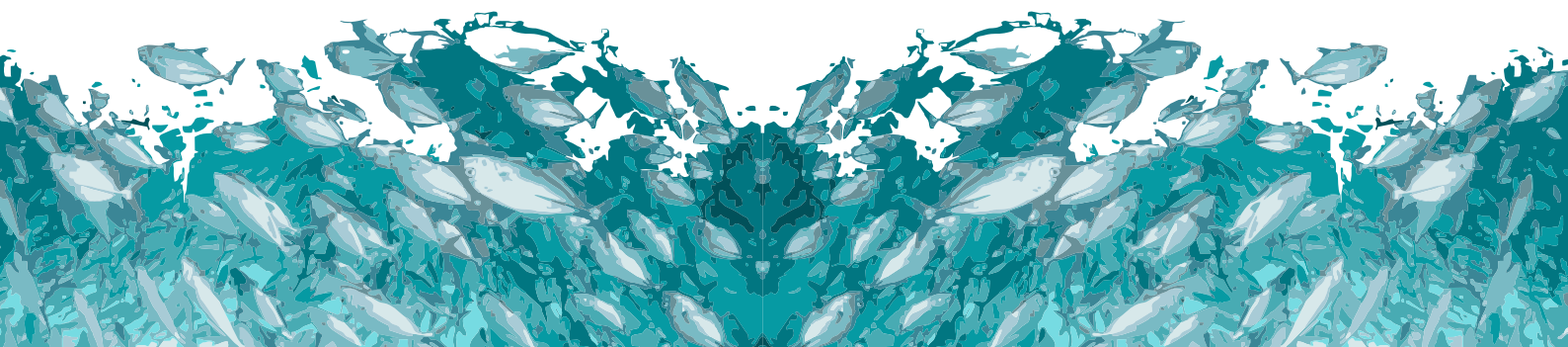
Countries should move toward disaggregating their data at the most specific level possible—ideally by individual stock rather than just by species or family groups. Where feasible, data should reflect multiple stocks of the same species, especially if they are geographically or ecologically distinct.

8. Integration with Regional and Global Reporting Platforms

Stock assessments included in SoSI should ideally be harmonized with other reporting obligations. This avoids duplication, improves efficiency, and enhances coherence across platforms. Where regional organizations are the channel through which data is submitted, this should be transparently noted in the provider/process columns.

9. Inclusion of Assessment Methodology and Quality Notes

Each assessment entry should include a brief note (or linked reference) on the methodology used—e.g., catch trends, surplus production models, data-limited methods, etc.—as well as any caveats regarding data quality. Even a simple categorization (e.g., “data-limited assessment”) can improve the interpretability of the results for regional analysts and policy users.



4. Lead Presentation 30.05.2025

4.1 Country and BOBP plans for 2026 – 2028 (and beyond) SoSI updates

4.1.1 Selection of Baseline Indicator species for BOBLME

Countries have selected baseline indicator species for BOBLME, categorized by resilience. India selected the nearly 40 stocks. Bangladesh and Sri Lanka each selected 4 stocks, while Maldives selected 3. Detailed list of Stocks in presented in Annex 1.

Country	Resilience	Number of Stocks
India	High	12
India	Medium	23
India	Low	5
Bangladesh	High	1
Bangladesh	Medium	3
Bangladesh	Low	0
Maldives	High	0
Maldives	Medium	2
Maldives	Low	1
Sri Lanka	High	1
Sri Lanka	Medium	2
Sri Lanka	Low	1

4.2 Stock status determination in data poor situations – a light refresh on data limited assessments methods - Dr. Anne Elise Nieblas

The presentation introduced the FAO's i-Marine Virtual Research Environments (VREs) as essential digital platforms for supporting stock assessment and capacity development under the SOFIA-TAF and SDG 14.4.1 frameworks. These web-based environments facilitate the application of data-limited assessment methods such as SRA+ (within SOFIA-TAF) and LBI, LBSPR, Elefan/YPR, and CMSY (within the SDG 14.4.1 VRE), enabling consistent, transparent, and reproducible workflows using remote computing infrastructure. Designed for accessibility and collaboration, these VREs eliminate the need for local installations and allow users to conduct assessments seamlessly across operating systems.

Dr. Rishi Sharma highlighted the ongoing update of the Stock Monitoring Tool (SMT), which currently features CMSY, LBI, and LBSPR methods and will add JABBA and SPiCT. While CMSY is commonly used, he noted that it is best applied when other options are unavailable, due to its reliance on assumptions and catch-only data. He emphasized the value of length-based methods, which offer more robust alternatives. The VRE for rapid assessment will remain unchanged, as it is a script-based tool intended for advanced users.

Dr. Anne Elise Nieblas confirmed that updates to the SMT and e-learning course are planned for November. The revised e-learning will be split into two separate modules—one focusing on SDG context and reporting, and the other on stock assessment methods, particularly

data-limited approaches, supported by the SMT. Each course will include an exam and certificate. Users were advised that while the SMT interface may change, access will remain available, with continued support provided.

4.3 National SDG 14.4.1 reporting framework - Dr Anne Elise Nieblas

The presentation outlined the framework for national reporting under SDG Indicator 14.4.1 and its integration with the FAO's SOSI, with a focus on strengthening the participation of BOBP-IGO member countries. The presentation details the evolution of methodologies, emphasizing convergence between national, regional, and global stock status reporting. A structured, multi-step process, ranging from institutional setup and stock reference list development to categorization and submission via revised questionnaires, ensures consistency and quality. The quality assurance system (QA1 and QA2) determines the credibility of submitted data, influencing whether stock records are incorporated into the Global Record of Stocks and Fisheries (GRSF), and whether they are eligible for the SoS Index. Dr Nieblas stressed the need for countries to align their SDG-reported stocks with the SoSI reference list to ensure coherence and visibility in global assessments.

4.4 Hands on: Current status of SDG data from BOBP-IGO member countries

4.4.1 Presentation by each country

India has currently mapped its stock data at a relatively fine spatial resolution. However, moving forward, the country is transitioning to a region-based aggregation system for stock assessments. This means several coastal states will be grouped into larger zones—such as North East, South East, North West, and South West—with states like Karnataka and Kerala forming one unit, and Maharashtra and Gujarat forming another. While the zonation appears broader, the species-level disaggregation ensures that the resolution in biological terms is maintained or even enhanced. India has committed to reviewing the existing stock-to-area mappings and will provide feedback, ensuring that definitions align well with their national monitoring and reporting systems

Bangladesh has acknowledged that, geographically, its marine fishing zone lies entirely along the southern coastline within the Bay of Bengal, specifically in the Chittagong and Khulna divisions. The country agrees that, no further zonation is considered necessary at this point, since the same species composition and fishing activity occur uniformly across the defined area.

Sri Lanka proposed a more detailed spatial subdivision, noting that its coastline spans both the Bay of Bengal (east and north) and Arabian Sea (west), and contains significant ecological variation, including an upwelling zone in the southern region. It was recommended to divide the island into at least four operational sub-areas, northern, eastern, southern, and western zones, for more accurate assessments and management. Although these zonations are not yet part of formal legislation, there exist research-driven boundaries used for scientific purposes, which could potentially serve as a foundation for official polygons. Sri Lanka will review their internal zonation practices, consult existing oceanographic or fisheries management divisions, and share either formal references or geographic coordinates to enable polygon creation.

Maldives currently lacks formally defined sub-zonations for stock assessment purposes. Historical work, especially on tuna standardization, did use a three-atoll grouping, north, mid, and south, mainly for catch per unit effort analysis. However, the current grouper

fishery lacks sufficient spatial information, particularly in terms of reef-specific catch distribution. Although data is collected from landing sites, the origin of catches within the vast archipelago (spanning over 2,000 km) remains largely undifferentiated.

4.4.2 Suggestion by the panelists

1. Dataset Submission Format and Timeline

It was confirmed that there will be no new input formats introduced for the current cycle. All dataset submissions will follow the template, for which relevant links have already been shared. As participating teams are already familiar with this format, the process is expected to proceed without difficulty. All countries, India, Maldives, and Sri Lanka, are expected to complete their submissions by December 2025.

2. Country-Specific Submissions and Updates

India will revise its list of stocks and submit an updated version, based on current analysis, by 1st December 2025. This list will serve as the final submission under the current system. In the next cycle, however, a new list aligned with the SDG reporting format will be introduced, ensuring future consistency with international standards.

Maldives will adhere to the same deadline and format, submitting data for five identified grouper stocks.

Sri Lanka will also follow suit, submitting data for 13 stocks (12 + 1 additional) through its national agency, which will forward it to BOBP-IGO for consolidation and submission to FAO.

Country	List of Stocks	Deadline	Template 2025 Data Call	Next SoSI Editions
Bangladesh	12 stocks already updated (2 additions / 2 removal)	Done	SDG 14.4.1 Questionnaire	SDG 14.4.1 Questionnaire
India	Stocks List to be revised (from States to Regions)	By 1st December 2025	FIRMS/SoSI MDR template	SDG 14.4.1 Questionnaire
Maldives	5 stocks on Grouper	By 1st December 2025	FIRMS/SoSI MDR template	SDG 14.4.1 Questionnaire
Sri Lanka	13 stocks - area to be defined	By October 2025	FIRMS/SoSI MDR template	SDG 14.4.1 Questionnaire

3. Coordination and Oversight Mechanism

A working group under the BOBP framework will be established to ensure consistency and quality in the datasets. Comprising experts from participating countries, the group will review submissions and oversee the process across both the current MDR-based and future SDG-based cycles. Whether the data is submitted directly to FAO or via BOBP, the delivery mechanism is secondary to the primary goal: timely, accurate, and comprehensive reporting.

4. Encouragement for Early Submission

Although the final submission deadline is 1st December 2025, countries, India, Maldives, and Sri Lanka, were urged to complete their internal processes and submit datasets well in advance. Early submission would allow for essential review, feedback, and revision time, enhancing the accuracy of global reporting. It was also cautioned that post-December opportunities for revision will be limited, highlighting the importance of proactive national coordination.

4.5 FIRMS reporting framework, requirements and formats: ensuring data quality and consistency.

4.5.1 GRSF stock and fisheries unique identifiers

The presentation on the Global Record of Stocks and Fisheries (GRSF) highlights its critical role as a centralized digital platform for assigning unique identifiers to fisheries and stock records, thereby enabling traceability, data harmonization, and transparent global monitoring. Developed through the EU-funded BlueBRIDGE initiative and governed under the FAO-FIRMS partnership, the GRSF integrates records from major sources such as FIRMS, RAM Legacy, and SDG 14.4.1 questionnaires. The core innovation lies in the use of Universally Unique Identifiers (UUIDs) and semantic identifiers, which ensure persistent, interoperable references for each stock or fishery, supporting data integration across systems and time. The GRSF categorizes records into assessment units, fishing units, and traceability units, aligning with international standards and enhancing data quality and consistency for reporting to SDGs, ecolabelling, and scientific assessments. By fostering interoperability with regional databases (e.g., ICES, FCWC, GFCM), GRSF facilitates a unified, transparent view of global fisheries, improving the quality of policy decisions and sustainability practices. The system is currently in a pilot phase, publishing validated identity information and serving as a backbone for future ecosystem-based fisheries management.

4.5.2 Area standards for the BOBP-IGO region

This presentation outlines the standardized geographic area classifications essential for defining fish stock units in the Global Record of Stocks and Fisheries (GRSF) within BOBP-IGO region. It highlights the use of various area typologies—including FAO Major Fishing Areas, Large Marine Ecosystems (LMEs), and management areas defined by Regional Fishery Bodies (e.g., IOTC, SIOFA, SEAFDEC), to enable precise stock identification and harmonized reporting. Each stock's area is encoded using a semantic identifier that integrates both species and spatial components. The presentation critically emphasizes the need for countries to explore more granular area delineations beyond national waters to improve assessment accuracy and regional representativeness.

4.6 Hands-on: FIRMS training in using the stocks and fisheries reporting templates and the FAO standards in fish stocks unique identifiers

The current stock assessment under the Bay of Bengal Large Marine Ecosystem (BOBLME) initiative provides a foundational baseline for understanding the status of fishery resources across the eastern region, specifically incorporating data from India, Bangladesh, and the Maldives. A total of 51 stocks have been identified, but only 48 have been assessed due to the lack of data for three stocks from the Maldives. Analysing the sustainability indicators derived from these assessments reveals a troubling picture: approximately 40.6% of the assessed stocks are categorized as overfished. This includes 19 stocks explicitly marked as overfished, with others falling into categories that raise similar concern, reflecting degraded stock health. They also serve as a critical benchmark for measuring progress in improving sustainability and stock health over the coming years, particularly as part of broader regional conservation and management goals.

4.7 Addressing challenges and identifying solutions to an effective data reporting workflow

4.7.1 Review “Operational data providers” for the SoSI list of stocks

Discussions on the SoSI reporting process and SDG indicator framework focused on the Maldives and Sri Lanka, with a key clarification made regarding the distinction between data owner and data provider. It was reaffirmed that the legal data owner is always the respective country, while the data provider is the entity (e.g., research institute or ministry) that interacts directly with FAO.

In the Maldives, the government is the data owner, and for the current cycle, BOBP-IGO serves as the data provider, though this is a temporary arrangement. Future submissions will be made directly through the SDG questionnaire. FAO has also provided a pre-filled template for the Maldives, particularly for groupers, with optional and mandatory fields; national authorities retain the right to determine whether to disaggregate stocks geographically.

For Sri Lanka, notable progress was made in updating species and area details, although a few items remain pending. NARA, the national research institute, is the technical data provider to the government but not directly to FAO; submissions are made through officially designated government channels. Sri Lanka’s reporting form has been updated to include fields for transboundary and shared stocks, including judicial distribution types—important for regional stock management. Confidential data will continue to be submitted through the SDG channel, while FIRMS will handle public data. Both countries now have defined reporting pathways through ODP and are on track for full alignment with the SDG questionnaire, contributing to enhanced regional and global fisheries data governance.

Discussions on India’s fisheries data reporting highlighted the complexity of aligning national systems with SDG standards. A key issue was the classification of stocks (national, shared, straddling), with India allowed to reclassify stocks using scientific or policy-based justifications. Internal reporting challenges were noted, particularly regarding how states like West Bengal and Tamil Nadu may be grouped or treated separately based on ecological and operational logic—pending further national clarification. Unique stock identification issues were also raised, such as species impacted by local ecological factors (e.g., hyacinth overgrowth), emphasizing the need for context-specific reporting. Finally, India was encouraged to better align its biodiversity and ecosystem-focused projects with international stock-level reporting, recognizing both conservation and market pressures in data submissions.

4.8 Strengthening BOBP – FAO partnership and knowledge sharing with member countries - Dr Pkrishnan

Dr. P. Krishnan, Director of BOBP-IGO, outlined the organization’s strategic initiatives to enhance stock assessment and scientific reporting in the Bay of Bengal region through the Bay of Bengal Stock Assessment Network (BOB-SAN). Positioned as a collaborative platform of national experts, BOB-SAN promotes knowledge exchange, harmonization of methodologies, and evidence-based fisheries management. It also emphasizes BOBP-IGO’s formal partnership with FIRMS, endorsed by its XIIIth Governing Council, aimed at improving the visibility and representation of regional data in global frameworks like the FAO’s State of the World Fisheries and Aquaculture (SOFIA). These efforts collectively aim to align national stock assessments with international standards, strengthen regional capacity, and reinforce the role of scientific evidence in fisheries policy decisions.

4.9 Final summarization

Mr. Aureliano provided an overview of the regional stock assessment process, focusing on the countries of India, Maldives, Sri Lanka, and Bangladesh. He highlighted the interplay between scientific evolution, national data capacities, institutional procedures, and the emerging need for harmonized regional reporting. The focus was not just on the technical aspects of stock assessments but also on the governance, transparency, and policy alignment necessary to ensure effective outcomes.

Country	Recommendations	Challenges
India	• Confirm regional area codes for updated stock list • Ensuring consistency and accuracy in area code application	• Provide mapping of stocks from code 219 to 392 • Translating old stock classifications to new mappings effectively
Sri Lanka	• Indicate water area breakdowns for stock definitions (e.g., Tomato hind by coast; Lobster by district)	• Delineating coastal stock boundaries clearly • Standardizing area references for stock monitoring
Bangladesh	• Confirm and update stock assessments • Contribute to joint reporting on shared stocks (e.g., Hilsa, Mackerels)	• Maintaining updated and scientifically robust assessments • Coordinating data sharing across borders for shared stocks
Maldives	• Verify existence of area breakdowns (e.g., north-south divisions) for stock reporting	• Limited or unclear internal spatial stock divisions • Need for formalizing spatial references in national assessments
Others (Regional/Collective)	• FAO to provide pre-filled list of stocks in SoSI template • BOBP members to submit updated data as per plan • Confirm comments with SDG Technical Working Group	• Support joint reporting for transboundary/shared species • Harmonizing stock reporting formats across BOBP region • Capacity and coordination challenges among member • Technical alignment with SDG indicators and FAO templates

Common Challenges Identified

- Lack of clarity in templates and misalignment between selected stock assessment methods and the data fields expected in final reports.
- Timing of data calls and submissions, particularly when they coincide with national holidays or fiscal year-end administrative overloads.
- The need to balance transparency with confidentiality, especially when dealing with shared or transboundary stocks.
- Ongoing difficulty in determining whether stocks are national or shared, especially without specific examples or precedent cases.
- Variability in regional area code mapping, requiring countries to confirm or update codes to avoid duplication or gaps.

5. Discussion: Way forward

1. Strengthen Regional Collaboration

Given the transboundary nature of marine ecosystems in the Bay of Bengal region, strengthening regional collaboration is critical. Countries sharing common ecological and socio-economic challenges must coordinate efforts to develop standardized and context-specific fisheries assessment and management strategies. This includes:

- Establishing regular platforms for dialogue and technical exchange among stock assessment experts.
- Promoting joint initiatives for data sharing, training, and validation of methodologies.
- Leveraging Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO) to support harmonization of assessment frameworks and policy approaches.
- Facilitating collaborative research and stock assessments, especially for shared stocks.

2. Prioritize Data and Capacity Development

A recurring theme from the discussions was the inadequate prioritization of data collection and assessment at national levels, particularly in developing countries like Bangladesh. To address this:

- Governments must allocate adequate financial and institutional support for fishery data systems.
- Capacity building programs should be scaled up to enhance technical expertise in statistical analysis, modeling, and data interpretation.
- Investment is needed in infrastructure and technology, such as digital data platforms, biological sampling systems, and Vessel Monitoring Systems (VMS).

3. Tailor Stock Assessment Methods to Local Contexts

Given the diverse ecological conditions, species composition, and available data in the region, countries must adopt stock assessment methods that are feasible and relevant to their specific contexts:

- Methods must be selected based on available data types, human resource capacity, and management goals.
- One or two practical and validated methods should be recommended for immediate application, with the option to scale up as capacity grows.
- National and regional technical working groups should define clear criteria for method selection and facilitate adaptation or simplification of complex models for local use.
- Validation of country-specific approaches by regional and FAO experts can help ensure both scientific credibility and practical relevance.

4. Ensure Alignment Between International Reporting Frameworks and Practical Realities

Countries face challenges in meeting the reporting requirements of frameworks such as SDG Indicator 14.4.1 and the State of the Stock Index (SOSI), especially when method outputs do not align with form requirements. To bridge this gap:

- FAO shall offer greater flexibility and more precise guidance on acceptable data formats (e.g., allowing ratio indicators like B/BMSY when absolute values are not available).
- There should be better coordination between global reporting systems, avoiding redundancy and conflicting requirements.
- Capacity-building efforts should include training on data formatting, quality assurance processes, and navigating reporting tools.
- Feedback mechanisms should be in place so countries can indicate limitations and methodological justifications for reported values.

5. Progressively Evolve Toward More Complex and Integrated Assessment Approaches

While many countries currently rely on simple or semi-quantitative methods due to data and capacity limitations, there is a need to advance toward more robust and integrated stock assessment techniques gradually:

- Roadmaps or national plans can be developed to guide countries in moving from Tier 1 (data-poor) to Tier 3 (data-rich) assessments over time.
- Regional cooperation can accelerate this evolution by enabling shared training, technology transfer, and peer learning.

6. Conclusion

In his concluding remarks, the Dr. P. Krishnan extended heartfelt thanks to all participants for their active presence and meaningful engagement throughout the workshop. He acknowledged the special support of FAO in organizing the event and for extending the submission deadlines beyond April, allowing broader regional participation in the global reporting process. Appreciation was also conveyed to the respective governments for nominating key officials who contributed significantly to the discussions.



7. Discussions

Stock Assessment Complexity and Methods

1. Why is the questionnaire on stock assessment considered complex, and what steps are being taken to simplify it?

The questionnaire is complex primarily because it needs to accommodate a wide diversity of stock assessment methods used globally, which vary based on data availability and national capacities. To improve clarity, efforts are being made to enhance the questionnaire with more definitions, resource links, and technical support. The aim is to ensure robust, accurate reporting while also making the process more user-friendly for countries.

2. Are there any methods to analyze fish stock using biomass estimation data collected independently of catch data?

Yes, there are methods. One common approach is the swept area ratio method, which works best for virgin populations to estimate Maximum Sustainable Yield (MSY). However, in places like Sri Lanka, where fisheries have been exploited for decades, this method alone is insufficient because it doesn't indicate how current biomass compares to MSY.

3. How can biomass estimation data be used effectively in stock assessment when catch data is limited or unreliable?

Instead of relying on absolute biomass, you can create an index of abundance, which is a relative measure over time. By conducting repeated surveys every 3-6 years, this index tracks changes in stock abundance. When combined with landings data, it supports a tier 2 assessment model. Because this index is fishery-independent (derived from surveys rather than catch data), it is especially useful for fitting stock assessment models and provides a more robust estimate.

4. Do Tier 1, Tier 2, and Tier 3 stock assessments differ in terms of sustainability outcomes and data requirements?

Tier 1 assessments, which require high-quality data, often indicate a higher percentage of overfished stocks, while Tier 2 and Tier 3 assessments—based on moderate or low data—tend to give more optimistic outcomes. For instance, Tier 1 may show 35% overfished, Tier 2 around 15%, and Tier 3 even less. This reflects the inherent uncertainty in lower-tier methods and emphasizes the importance of improving data quality to move towards Tier 1-level assessments.

5. Why is it important to evaluate the differences between old and new assessment approaches when reporting stock indicators?

It's important because different methods may produce very different results, and understanding why those differences occur is crucial. These results must be interpreted in context to determine if they are defensible. For example, incorrect assumptions—such as errors in age-length conversions—can lead to misleading conclusions. These foundational assumptions greatly influence outcomes, so it's essential to critically assess them, especially when transitioning to new methods or tools.

Data Structure, Reporting & Confidentiality

6. Is it possible to report multi-species stocks as a single unit, and how should such data be structured?

Yes, group-associated or multispecies data can be included, particularly when species share similar life histories or ecological characteristics. However, care must be taken in such aggregations. For instance, grouping species like grouper (with a short life history) and snapper (with a longer life history) may not provide accurate assessment results. The suitability of such groupings will depend on scientific justification and data quality.

7. Difference between data owner, data provider, and operational data process?

Data Owner: Owner/Creator of a content, legal or otherwise. For the SoSI list, it can be an Organization (RFB, FAO), Country or Territory (preferred generally for simplification) or related combination in specific cases (Country[-State]; Country[-State] [-Inst]) identified as owner of the content submitted to SoSI.

Data Provider: The actual FIRMS partner entity providing to FIRMS the stock status data biennially to inform the index, or "national" when data owner is a country and process is SDG 14.4.1 ("national" for a simplified presentation in the SoSI dissemination corner). Noting that the data provider is not necessarily the entity with the legal ownership of the data themselves (e.g. CECAF is a data provider but not a legal entity which is FAO)

Operational Data Process: The process represented by the combination of entities responsible for the data provision (e.g. FIRMS-BOBP represents the FIRMS Data call which BOBP is committed to; FAO-SDG 14.4.1 represents the FAO SDG 14.4.1 Questionnaire call). The data process refers to the channel or mechanism through which the data enters the SOS platform.

8. What is the difference between data submitted to the SDG reporting platform and the FIRMS platform in terms of confidentiality and public access?

The SDG questionnaire data can be confidential depending on the country's decision. Countries have the option to opt out of reporting or require internal verification prior to reporting. By contrast, the FIRMS (Fisheries Resources Monitoring System) platform is designed with the explicit objective of public data dissemination. While FIRMS provides some flexibility, such as allowing countries to flag sensitive data for exclusion, its general goal is open access to fisheries status information. Therefore, countries must be aware of this distinction and decide what to submit to FIRMS based on their data sensitivity policies.

9. If a country submits a stock assessment through the SDG questionnaire, does it also need to submit that stock to the SoSI list separately?

No, if a country submits its stock assessment data through the SDG questionnaire and it's already defined that the data feeds into the SoSI list, separate submission is not required. The process is streamlined so that the relevant data reported in the SDG questionnaire will be automatically used for the SoSI list, eliminating duplication of effort.

National-Level Reporting (India, Maldives, Sri Lanka, Bangladesh)

10. Has India decided to revise its stock list for the 2024 reporting round?

No, India has decided not to revise its list for the 2024 reporting round. Instead, it will submit a separate, standalone list for this cycle. This submission is still considered a valid report, despite the lack of convergence with prior lists.

11. Will India's separate list still be assessed for quality assurance, and what is recommended?

Yes, even though the list is separate, it will still be assessed through the quality assurance (QA) process. It is recommended that India addresses all QA comments and fills in any missing fields. Doing so will allow the list to be scored properly. Otherwise, the submission may not be scored, which could affect national-level indicators. Therefore, it is advised to submit the best available information, even if the list is expected to change in the future.

12. How is the Maldives managing its current data submission to FAO, and what changes are expected in the future?

For the current cycle, the Maldives is submitting data through BOBP-IGO via ODP. FAO has provided a pre-filled template for reporting key stock groups (e.g., groupers), with mandatory and optional fields. While there was a suggestion to break down data by north and south Maldives, the decision on such stratification rests with the national authorities. In future cycles, the Maldives will transition to submitting data directly through the SDG indicator questionnaire, aligning with the global SDG framework.

13. How is the reporting of transboundary stocks handled in Sri Lanka's SDG reporting?

The updated SDG reporting format for Sri Lanka now includes fields for jurisdictional distribution types and indications of shared or transboundary resources. This improvement supports regional stock management and coordination across countries sharing fishery resources.

14. What is the current status of Bangladesh's data collection system, particularly in coastal areas?

Bangladesh is actively working on improving its data collection system in coastal areas. A new regulatory framework was introduced this year to strengthen catch and effort reporting, especially for small-scale fisheries. However, data collection is still in a preliminary stage, and much of the reporting currently depends on local sources, with national officials having only recently started reporting formally.

15. How many fish stocks is Bangladesh currently reporting, and what are the challenges with species-level data?

Bangladesh currently reports 14 key species, with plans to include an additional 12 species, bringing the total to 26 stocks. However, not all of these species have data at the species level, which complicates accurate stock assessments. Some data is available only at grouped or multispecies levels, especially in cases where species have similar ecological or catch profiles.

16. Can Bangladesh include group-associated or multispecies data in the stock assessment framework?

Yes, group-associated or multispecies data can be included, particularly when species share similar life histories or ecological characteristics. However, care must be taken in such aggregations. For instance, grouping species like grouper (with a short life history) and snapper (with a longer life history) may not provide accurate assessment results. The suitability of such groupings will depend on scientific justification and data quality.

17. Will the updated stock assessments align with SDG 14 targets and the regional reference list?

Yes, there was a misalignment previously between the global/regional stock list and the SDG-reported list, but efforts are now underway to align both lists. The new reporting cycle will align with Tier 1–3 assessment frameworks, and an updated list of stocks is expected to be in place by end of 2025, with contributions from regional partners and national institutes.

18. What is the timeline for updating and submitting new data for stock assessments?

The tentative deadline for submitting new data is early December, especially to account for the upcoming national fisheries census. While October was considered, December is now being accepted to allow countries, like Bangladesh, to finalize and submit comprehensive data in time for the next reporting and analysis cycle starting January, though countries are encouraged to submit their updates as soon as possible.

19. There seems to be confusion about how regional groupings such as West Bengal and Tamil Nadu are aligned within the reporting framework. Could you clarify this alignment?

Yes, there is some regional reorganization under discussion. West Bengal is expected to be joined as part of the North East grouping, whereas Tamil Nadu may be considered more as an infusion point or stand-alone entry due to its geographic and ecological characteristics. This restructuring aims to better reflect regional ecological realities, though final classifications are still under review.

SDG Targets and Global Standards

20. Is it possible to change the Sustainable Development Goal (SDG) targets, particularly the one related to fish stocks exceeding Maximum Sustainable Yield (MSY)?

The SDG target in question explicitly states that 100% of fish stocks should be managed at or above MSY levels. Changing this target is not straightforward. Once agreed upon at the global level, such targets are typically fixed and can only be altered through a formal review process involving member states and legal amendments. There currently appears to be no clear avenue to change that target unilaterally, so countries must work within the existing framework.

21. If a country reports a species under a national stock list, but global databases classify it as straddling or transboundary, how should this discrepancy be addressed?

This is a common situation. While FAO and the SDG indicator framework may classify a stock as straddling or transboundary based on available global data, countries are encouraged to provide their own justifications. If a country considers a species to be a national stock based on its distribution, data, or management considerations, it can retain the classification by supplying a rationale. This flexibility ensures national realities are respected, while still aligning with global standards.

Regional Coordination & BOBLME Project

22. What is the purpose of the current indicator tracking in the Bay of Bengal Large Marine Ecosystem (BOBLME) project?

The current indicator tracking in the BOBLME project aims to establish a baseline for evaluating the status of fisheries in the four participating countries. This baseline will be used to monitor progress with an update scheduled for next year and a final update in 2028 (effectively 2029). One of the project's overarching goals is to achieve a 20% improvement in global fisheries sustainability, aiming to reduce the proportion of overfished stocks, which is currently around 30%. The indicator serves as a performance benchmark within a broader strategy to track ecosystem health and fisheries management efforts, even though direct management actions are determined by individual countries.

23. Can the BOBLME project or any regional IGO recommend fisheries management actions to participating countries?

No, the BOBLME project and regional Intergovernmental Organizations (IGOs) like APFIC do not have the authority to enforce management actions. They provide science-based evidence and recommendations, but implementation of measures lies with national governments. While organizations like APFIC can be empowered to provide binding scientific advice if their mandates (such as Article 14.4A) are amended by member countries, any changes or decisions must still be taken by each country's high-level authorities or project steering committees.

24. What is the major limitation currently affecting the regional assessment work?

The limited availability of structured data, particularly concerning the "data pool" and the "social net," is a significant constraint. This restricts the scope of immediate assessment work. However, he emphasized that foundational efforts are underway to address these gaps, starting with schema and classification development, which will lead to a more structured dataset in the coming weeks.

25. What are the medium-to-long-term goals discussed in relation to shared stock assessments?

Shared stock assessments and collaborative reporting mechanisms remain medium-to-long-term goals. Mr. Aureliano invited countries to reflect on existing challenges, share feedback, and propose practical solutions to standardize and align assessment methodologies with expected outputs. The aim is to ensure consistent and collective progress toward integrated regional reporting.



List of Indicator Species for BOBLME

Country	Species / Group / Stocks	Resilience
India	<i>Tenualosa ilisha</i>	Medium
India	<i>Cynoglossus</i> spp.	Medium
India	<i>Aluterus monoceros</i>	Medium
India	<i>Epinephelus</i> spp.	Medium
India	<i>Harpadon nehereus</i>	High
India	<i>Leiognathus</i>	High
India	<i>Lutjanus fulvus</i>	Medium
India	<i>Lutjanus johnii</i>	Medium
India	<i>Lutjanus quinquelineatus</i>	Low
India	<i>Nemipterus japonicus</i>	Medium
India	<i>Polynemidae</i>	Medium
India	<i>Pomadasys kaakan</i>	Medium
India	<i>Synodontidae</i>	Medium
India	<i>Johnius</i> spp.	High
India	<i>Trichiuridae</i>	Medium
India	<i>Coilia dussumieri</i>	High
India	<i>Chirocentrus dorab</i>	Medium
India	<i>Sardinella longiceps</i>	Medium
India	<i>Sardinella</i> spp.	High
India	<i>Mullidae</i>	Medium
India	<i>Thryssa</i> spp.	High
India	<i>Auxis thazard</i>	Medium
India	<i>Scomberomorus commerson</i>	Medium
India	<i>Scomberomorus guttatus</i>	Medium
India	<i>Coryphaena hippurus</i>	High
India	<i>Megalaspis cordyla</i>	Medium
India	<i>Pampus argenteus</i>	Medium
India	<i>Parastromateus niger</i>	Medium
India	<i>Rastrelliger kanagurta</i>	Medium
India	<i>Sphyræna putnamae</i>	Medium
India	<i>Gymnura</i> spp.	Verylow
India	<i>Rhinobatos lionotus</i>	Low
India	<i>Portunus pelagicus</i>	High
India	<i>Penaeus</i> spp.	High
India	<i>Sepia aculeata</i>	Medium
India	<i>Uroteuthis duvaucelii</i>	High
India	<i>Metapenaeus</i> spp.	High
India	<i>Lethrinidae</i>	Low
India	<i>Portunidae</i>	High
India	<i>Elasmobranchii</i>	Low
Bangladesh	<i>Tenualosa ilisha</i>	Medium
Bangladesh	<i>Sciaenidae</i>	Medium
Bangladesh	<i>Harpadon nehereus</i>	High
Bangladesh	<i>Pampus argenteus</i>	Medium
Sri Lanka	<i>Sardinella gibbosa</i>	High
Sri Lanka	<i>Cephalopholis sonnerati</i>	Medium
Sri Lanka	<i>Cephalopholis sonnerati</i>	Medium
Sri Lanka	<i>Panulirus homarus</i>	Low
Maldives	<i>Anyperodon leucogrammicus</i>	Low
Maldives	<i>Epinephelus fuscoguttatus</i>	Medium
Maldives	<i>Variola louti</i>	Medium

Programme Agenda

Day 1: 29 May 2025	Resource Persons
Overview of FAO's role in structuring global state of stocks monitoring (SOFIA SoSI) FAO's support to global fisheries management	Kisni Snarma <i>Senior Fishery Officer, FAO-RAP, Bangkok, Thailand</i>
FAO's role as custodian agency for SDG Indicator 14.4.1	Anne Elise Nieblas <i>Fisheries Data Analyst, (NFISI), FAO, Rome.</i>
The FIRMS Partnership in support of the collation of fishery stock	Aureliano Gentile <i>Information Manager, Information and Knowledge Management Team (NFISI), FAO, Rome.</i>
Introduction to FAO's updated State of Stocks Index (SOFIA-SoSI) - Categorization of stock assessment methodologies: tiered approaches (Tiers 1, 2, 3) - Data categories and collection methods: categories of data sources	Rishi Sharma <i>Senior Fishery Officer, FAO-RAP, Bangkok, Thailand</i>
- Data categories and collection methods: categories of data sources - Revising and expanding stock lists (SoSI list area 51, 57) <i>Hands-on:</i> SoSI list breakout session	Anne Elise Nieblas <i>Fisheries Data Analyst, (NFISI), FAO, Rome.</i>
Day 2: 30 May 2025	
Stock status determination in data poor situations - a light refresh on data limited assessment methods National SDG 14.4.1 reporting framework	Anne Elise Nieblas <i>Fisheries Data Analyst, (NFISI), FAO, Rome.</i>
Hands on: Current status of SDG data from BOBP-IGO member countries	Aureliano Gentile <i>Information Manager, Information and Knowledge Management Team (NFISI), FAO, Rome.</i>
FIRMS reporting framework - FIRMS stock and fisheries templates, - SoSI minimum data requirements, - Area standards for the BOBP region - Ensuring data quality and consistency Hands-on: FIRMS training in using the reporting templates	Aureliano Gentile <i>Information Manager, Information and Knowledge Management Team (NFISI), FAO, Rome.</i>
Day 3: 31 May 2025	
Addressing challenges and identifying solutions to an effective data reporting workflow - Review "Operational data providers" for the SoSI list of stocks - Data dissemination rules	Aureliano Gentile <i>Manager, NFISI, FAO, Rome</i>
Strengthening BOBP - FAO partnership and knowledge sharing with Member Countries Breakout session: Action plan to improve data collection and reporting Members Countries debrief and finalization of action plan Finalizing recommendations and next steps	Krishnan Pandian <i>Director, BOBP-IGO, Chennai</i>

List of Participants

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24.		Dr. Rishi Sharma, Senior Fishery Officer, FAO Regional Office for Asia and the Pacific, Bangkok – 10200, Thailand.	Tel: +12 03 501 0577 rishi.Sharma@fao.org
25.	BOBP-IGO	Dr. P. Krishnan, Director, Bay of Bengal Programme, Inter Governmental Organisation (BOBP-IGO), Chennai – 600 018, India.	Tel: +91 9498050062 krishnanars@bobbigo.org
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30.		Ms. V. Suryapraba, Research Associate, Directorate of Incubation and Vocational Training in Fisheries, Ramanathapuram, Tamil Nadu, India.	

Brief Profile of the Speaker / Facilitators



Dr. P. Krishnan, Director, BOBP-IGO

Served as a scientist for over 20 years in Indian Council of Agricultural Research (ICAR) under Government of India. He has published over 100 research papers on diverse areas in fisheries and environment management. He spearheads many regional programs on fisheries management in the BOB region. He also serves as the vice chair of the RFB Secretariat Network (RSN).



Dr. K. Mohammed Koya, Fisheries Development Commissioner, Department of Fisheries, India

He has a strong background in fisheries science and management. He focuses on pelagic fish population dynamics, sea cage farming, and the use of geospatial technology in marine fisheries management.



Ms. Nilufa Akter, Additional Secretary, Ministry of Fisheries and Livestock, Bangladesh Secretariat, Bangladesh

Serves as Additional Secretary, Ministry of Fisheries and Livestock, Bangladesh Secretariat. Oversees the fisheries development and important policy legislation development in the country and serves as nodal point for the fisheries in the country.



Dr. Anne Elise Nieblas, Fisheries Data Analyst Information & Knowledge Management (NFISI), FAO

Marine scientist with over 15 years of experience in fisheries science and sustainable resource management. She leads COOOL, a company developing innovative, low-cost marine monitoring technologies. Her work includes projects on epigenetic tools, coral reef monitoring, and data systems for small-scale fisheries.



Mr. Aureliano Gentile, Information Manager, Information & Knowledge Management (NFISI), FAO

Serves as Development Coordinator for the Global Record of Stocks and Fisheries (GRSF), supporting traceability and sustainability initiatives. Long-standing Secretariat member for FIRMS and representative liaison with global fisheries institutions. Led EU-funded projects such as iMarine and Blue-Cloud. Expertise in data modeling, master data management, web content systems, and fisheries data standards.



Dr. Rishi Sharma, Senior Fishery Officer FAO-RAP, Bangkok

Analyst in global stock status. He is a lead scientific officer on deep sea fisheries, and work on global tuna fisheries and MSE's in open access waters. His major focus currently is on evaluating SDG 14 ("Life Under Water") at global and national levels and building institutional capacity on stock assessment.



Dr. Grinson George, Director, ICAR-CMFRI, India

Serves as director ICAR-CMFRI and extensively applied oceanography, remote sensing, and modeling to enhance food and nutritional security in Indian fisheries and aquaculture. Developed tools like Potential Fishing Zone Advisories and coral bleaching alerts, supported by citizen science. Promoted remote sensing for assessing fishing potential and advancing cage aquaculture. Led impactful climate change research influencing national policy and grassroots adaptation strategies.



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