ISBN 978-629-7629-14-8
SEAFDEC/MFRDMD/RM/51

Japan-ASEAN Cooperation

REPORT ON THE WORKSHOP FOR DEVELOPING QUESTIONNAIRE ON THE PELAGIC FISHERIES MANAGEMENT STRATEGIES IN THE ASIAN REGION

SABAK BERNAM, SELANGOR, MALAYSIA
10-12 SEPTEMBER 2025

SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
MARINE FISHERY RESOURCES
DEVELOPMENT AND MANAGEMENT DEPARTMENT

Report on The Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs

Grand Sabak Hotel, Sabak Bernam,
Selangor, Malaysia

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10 - 12 September 2025

Southeast Asian Fisheries Development Center
Marine Fishery Resources Development and Management Department
2025

PREPARATION AND DISTRIBUTION OF THIS DOCUMENT

Report on The Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs, held in Grand Sabak Hotel, Sabak Bernam, Selangor, Malaysia, from 10 to 12 September 2025, was prepared by Marine Fishery Resources Development and Management Department.

BIBLIOGRAPHIC CITATION

Mazalina, A., Mohammad Faisal, M.S., and Khairiah, J. 2025. Report on The Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs. 10 – 12 September 2025, Grand Sabak Hotel, Sabak Bernam, Selangor, Malaysia. SEAFDEC/MFRDMD/RM/51. 27 pp

This publication has been funded by the Japan-ASEAN Integration Fund (JAIF) through the Implementation and Assessment of the ASEAN Regional Plan of Action for the Management of Fishing Capacity project. The views expressed in this publication are the author's alone and are not necessarily the views of the Government of Japan, ASEAN Member States, and the ASEAN Secretariat.

Cover page image photographed by: Mohd Saki Noor

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Taman Perikanan Chendering
21080 Kuala Terengganu,
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Cataloguing-in-Publication Data

Perpustakaan Negara Malaysia

A catalogue record for this book is available from the National Library of Malaysia

ISBN 978-629-7629-14-8

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10 – 12 September 2025
Grand Sabak Hotel, Sabak Bernam, Selangor, Malaysia

I. INTRODUCTION AND OPENING OF THE WORKSHOP

1. SEAFDEC/MFRDMD convened the Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs, funded by Japan-ASEAN Integration Fund (JAIF) from 10 to 12 September 2025 in Grand Sabak Hotel, Selangor, Malaysia. This workshop was attended by participants from the Department of Fisheries Malaysia (DOFM) – Headquarters; DOF Sabah; Fisheries Research Institute (FRI) Kampung Acheh, Perak; FRI Batu Maung, Pulau Pinang; FRI Bintawa, Sarawak; resource persons from the Universiti Malaysia Terengganu (UMT); Chief, Special Departmental Coordinator, and officials from SEAFDEC/MFRDMD. The list of participants appears as **Annex 1**.

2. The Chief of SEAFDEC/MFRDMD, *Mr. Abd Haris Hilmi Ahmad Arshad* officiated the workshop. In his speech, he welcomed all participants to the Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs. He briefly mentioned that two questionnaires had been developed last year, and this workshop aimed to create a third one, focusing specifically on management strategies for pelagic fisheries. He also emphasized that collaboration between fisheries research officers from the Fisheries Research Institute and fisheries officers from the Department of Fisheries (Headquarters) plays a vital role in ensuring that policy decisions are grounded in reliable data and sound scientific research. This collaboration helps shape practical and effective tools for regional fisheries governance. *Mr. Abd Haris Hilmi* also expressed his gratitude to Japan-ASEAN Integration Fund for supporting the project. His opening remarks appears as **Annex 2.**

3. The agenda of this meeting was presented to the participants and adopted without any amendment appearing as **Annex 3**.

II. INTRODUCTION OF FISHERIES MANAGEMENT

4. The resource person, *Assoc. Prof. Dr. Rumeaida Mat Piah*, presented "Pelagic Fisheries Management: Challenges, Strategies, and Future Pathways." During her presentation, she shared four insightful case studies that highlighted various regional approaches and challenges in managing pelagic fisheries. The Case Study No. 1 focused on tuna fisheries within the frameworks of the Western and Central Pacific Fisheries Commission (WCPFC) and the Indian Ocean Tuna Commission (IOTC). The Case Study No. 2 examined the impact of the closed fishing season policy for sardines in the Zamboanga Peninsula, Philippines. The Case Study No. 3 explored the evolution, deficiencies, and future outlook of China's pelagic fisheries management from 1985 to 2024. Lastly, The Case Study No. 4 explored the population dynamics and management of small pelagic fishes around the Japanese Archipelago. Her presentation appears as **Annex 4**.

5. *Mr. Abd Haris Hilmi* expressed his interest in Case Study No. 4, which, according to the presentation slides, highlighted a shift in the dominant small pelagic fish species around the Japanese archipelago from sardines to anchovies in the 1990s, a change attributed to overfishing.

6. *Mr. Jamil Musel* from FRI Bintawa inquired further about Case Study No. 2. *Assoc. Prof. Dr. Rumeaida* shared that after three years of implementing the closed fishing season policy, there was a noticeable increase in the landing catch of both sardines and non-sardine species. With strong support from the community and industry, the policy proved feasible and effective. Although factory workers had to seek alternative livelihoods during the closed season, once the season ended, factories experienced an increase in working hours and days, which in turn led to higher wages for the workers.

7. *Mr. Jamil* then asked about Case Study No. 3, which outlined the evolution of China's pelagic fisheries management, divided into three distinct phases: the first period (1985–1997), the second period (1998–2015), and the third period (2016–2024). *Assoc. Prof. Dr. Rumeaida* explained that during the third period, the Chinese government identified several deficiencies in its pelagic fisheries management. As a result, efforts are currently underway to review and address these shortcomings in preparation for a potential fourth phase.

III. DEVELOPING QUESTIONNAIRE ON THE PELAGIC FISHERIES MANAGEMENT STRATEGIES IN THE ASIAN REGION

8. *Assoc. Prof. Dr. Rumeaida*'s outline for introducing the task of developing a questionnaire appears as **Annex 5.**

9. All participants actively contributed to the development of the questionnaire on Conservation Efforts and Management Strategies in Asian Member States (AMSs).

10. *Ms. Lim Ai Gaik* from DOF Malaysia provided several constructive suggestions that were positively received and directly incorporated into the questionnaire, enhancing its relevance and comprehensiveness.

11. On the topic of Gear Regulations and Selectivity Improvements, specifically bycatch and incidental catch reduction devices, *Ms. Haryati Abd Wahab* from DOF shared insights on the use of a device known as a pinger. This device is attached to fishing nets and emits acoustic signals that deter dolphins and other marine mammals from approaching and entangling in the nets, thereby minimizing the risk of accidental bycatch. Her insight was acknowledged and subsequently incorporated into the questionnaire.

12. *Assoc. Prof. Dr. Rumeaida* expressed her agreement with the workshop's proposal to include a new chapter focusing on success stories that have been effectively implemented in AMSs. She emphasized the importance of showcasing practical examples of successful conservation and management strategies to inspire regional collaboration and learning. Furthermore, she noted that AMS will be required to present the details of their selected success story during the upcoming Regional Technical Consultation (RTC) scheduled for January 2026.

13. *Mr. Azlan Md Nor* from DOF Malaysia shared the successful deployment of artificial reefs across several states, including Kedah, Perak, Melaka, Pahang, Terengganu, and Kelantan. These reef sites have reportedly contributed to significant ecological benefits, with each location generating fish biomass ranging from 129 to 6,047 kilograms. The initiative demonstrates the effectiveness of artificial reef structures in enhancing marine habitats, supporting fish population recovery, and promoting sustainable fisheries in Malaysian waters.

14. *Mr. Irman Isnain* from DOF Sabah shared that the department received funding from both the state government under the Twelfth Malaysia Plan (RMK-12) and also Petronas to deploy Fish Aggregation Devices (FADs) especially Payao in Semporna and as well as West Coast of Sabah (Kota Kinabalu, Papar & Kuala Penyu). These installations aim to attract tuna and other pelagic fish species, contributing to enhanced fishery productivity and supporting sustainable fishing practices in the region.

15. *Mr. Ryon Siow* from FRI Kampung Acheh proposed highlighting the anchovy management strategies in Langkawi as a potential success story. *Mr. Abd Haris Hilmi* agreed, noting that the Langkawi anchovy initiative could be featured as one of Malaysia's successful fisheries management efforts. He explained that the anchovy stock in the area has increased significantly, particularly within the designated Fisheries Conservation Zone (FCZ). This positive outcome reflects the strong cooperation and active participation of the local fishing community in Langkawi, demonstrating the effectiveness of spatial management and community-based conservation.

16. At the end of the workshop, *Assoc. Prof. Dr. Rumeaida* agreed to include glossary and editing some questions sentences. The latest version of the questionnaire appears as **Annex 6.**

IX. CONCLUSION AND WAY FORWARD OF THE PROJECT

17. Project coordinator, *Ms. Mazalina Ali* presented the way forward for this project. Her presentation appears as **Annex 7**.

X. CLOSING SESSION

18. On behalf of Chief of SEAFDEC/MFRDMD, *Ms. Mazalina* delivered Chief's closing remarks. The closing remarks appears as **Annex 8**.

ANNEX 1

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ANNEX 2

OPENING ADDRESS

Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs
10 – 12 September 2025
Sabak Bernam, Selangor, Malaysia

By Mr. Abd Haris Hilmi Ahmad Arshad, Chief of SEAFDEC/MFRDMD

السَّلَامُ عَلَيْكُمْ وَرَحْمَةُ اللهِ وَبَرَكَاتُهُ

A very good morning.
Ms. Mazalina Ali, Project Coordinator for the Regional Project of Fishing Capacity and also Special Departmental Coordinator of SEAFDEC/MFRDMD
Our resource persons, Assoc. Prof. Dr. Rumeaida Mat Piah and Dr. Abdullah Mohamad from University Malaysia Terengganu
Representatives from DOF Malaysia, DOF Sabah, FRI Kg. Acheh Perak, FRI Batu Maung Pulau Pinang, FRI Bintawa Sarawak, officers and staffs from SEAFDEC/MFRDMD

Ladies and gentlemen,
On behalf of SEAFDEC/MFRDMD, I warmly welcome you to this Workshop on Developing Questionnaire on the Pelagic Fisheries Management Strategies in the Asian Region. We are gathered here to collaboratively develop a questionnaire on pelagic fisheries management strategies, an important output under the JAIF-funded project titled *"Implementation and Assessment of the ASEAN Regional Plan of Action (RPOA) for Management of Fishing Capacity."* This two-year initiative, running from April 2024 to March 2026, involves fisheries management agencies across ASEAN Member States (AMSs), excluding Lao PDR. It aims to strengthen regional cooperation and enhance fisheries information systems through the implementation of RPOA-Capacity, focusing on selected pelagic species to promote sustainability and environmental stewardship.

To date, SEAFDEC/MFRDMD has conducted several key activities. Two questionnaires were developed last year. The first questionnaire addressed on national capacity profiles, the implementation status of the RPOA, and the ASEAN Guidelines on IUU fishing. The second questionnaire focused existing fisheries information systems in AMSs. Feedback was presented during the Regional Technical Consultations (RTCs) held in February and May 2025, respectively

Today's workshop marks the next phase: to develop a targeted questionnaire on pelagic fisheries management strategies. We are honoured to have with us today both the fisheries research officers and fisheries officers from the Department of Fisheries Headquarters, whose collaboration plays a vital role in ensuring that policy decisions are based on reliable data and sound scientific research. Your active participation will be key to shaping a practical and effective tool for regional fisheries governance.

I would like to extend my sincere appreciation to Ms. Mazalina Ali, our resource person, and to all participants, representatives, and secretariat members for making this workshop a reality. With that, I officially declare the workshop open.

ANNEX 3

Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs

10-12 September 2025
Sabak Bernam, Selangor

Provisional Agenda and Timetable

9 September 2025	
15:00 –	Check-in hotel
Day 1 (10 September 2025) ***Moderator: Ms. Nurul Syazwani Mustaffa***	
08:30 – 09:00	Registration
Agenda 1: Opening of the Meeting	
09:00 – 09:10	Opening Address *by Mr. Abd Haris Hilmi Ahmad Arshad, Chief of SEAFDEC/MFRDMD*
Agenda 2: Introduction of Fisheries Management	
09:10 – 09:40	Presentation on Fisheries Management for Pelagic Fisheries *by Assoc. Dr. Rumeaida Mat Piah, Resource Person*
09:40 – 10:00	Group Photo
10:00 – 10:30	Morning Break
Agenda 3: Developing Questionnaire	
10:30 – 13:00	Developing Questionnaire on the Pelagic Fisheries Management Strategies in the Asian Region *Facilitator: Resource Person*
13:10 – 14:30	Lunch Break
14:30 – 16:30	Developing Questionnaire on the Pelagic Fisheries Management Strategies in the Asian Region Continued *Facilitator: Resource Person*.
16:40 – 17:10	Tea Break
Day 2 (11 September 2025) ***Chairperson: Chief of SEAFDEC/MFRDMD***	
09:00 – 10:00	Developing Questionnaire on the Pelagic Fisheries Management Strategies in the Asian Region Continued *Facilitator: Resource Person*.
10:00 – 10:30	Morning Break

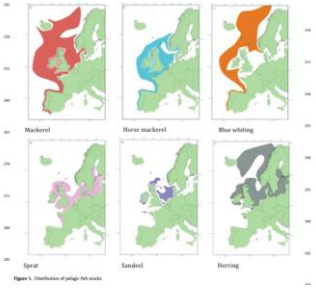
10:30 – 13:00	Developing Questionnaire on the Pelagic Fisheries Management Strategies in the Asian Region Continued *Facilitator: Resource Person*.
13:00 – 14:30	Lunch Break
14:30 – 16:00	Developing Questionnaire on the Pelagic Fisheries Management Strategies in the Asian Region Continued *Facilitator: Resource Person*.
16:00 – 16:30	Tea Break
Day 3 (12 September 2025) ***Chairperson: Chief of SEAFDEC/MFRDMD***	
09:00 – 10:30	Developing Questionnaire on the Pelagic Fisheries Management Strategies in the Asian Region Continued *Facilitator: Resource Person*.
10:30 – 11:00	Morning Break
11:00 – 11:30	Developing Questionnaire on the Pelagic Fisheries Management Strategies in the Asian Region Continued *Facilitator: Resource Person*.
Agenda 4: Way Forward of the Project	
11:30 – 11:45	Way Forward *by Ms Mazalina Ali, Project Coordinator*
Agenda 5: Closing of the Meeting ***Moderator: Ms. Nurul Syazwani Mustaffa***	
11:45 – 12:00	Closing Session *by Chief of SEAFDEC/MFRDMD*
13 September 2025	
08:00 – 12:00	Check-out hotel

PELAGIC FISHERIES MANAGEMENT; CHALLENGES, STRATEGIES AND FUTURE PATHWAYS

Assoc. Prof. Dr Rumeaida Mat Piah
Faculty of Fisheries and Aquaculture Sciences, UMT
12 September 2025

INTRODUCTION

- Pelagic = open-water species (e.g., tuna, mackerel, sardines, anchovies).
- Importance: Global food security, livelihoods (millions employed in SE Asia) trade.
- Contribution: ~40% of global marine catch (FAO 2022).
- Critical component of ecosystems providing a forage base linking primary ar secondary production in the world's oceans to upper trophic level species, including marine mammals, seabirds, and predatory fishes (Rooper et al., 2024)
- Pelagic fish has characteristics that make them very difficult to assess. Small pelagic fishes are typically fast growing and short-lived and can experience large variations in recruitment and growth due to environmental fluctuation.



CURRENT STATUS AND TRENDS

- Rising demand for tuna and small pelagic species.
- Abundant evidence that the key species in many areas are overexploited or under excessive fishing pressure (Duncan, 2013).
- Many predatory fish species are heavily exploited for human consumption and are dependent on small pelagic fishes as prey. Species of small pelagic fishes are also directly exploited by humans, through commercial, recreational, and subsistence and ceremonial harvest (Rooper et al., 2024)
- High exploitation rates; ~34% of global stocks overfished.
- Regional variation: some recovery in large pelagic due to RFMO actions, small pelagic declining in SE Asia (FAO, 2020, 2022). Example: Decline in small pelagic stocks (sardines, anchovies, mackerel) in Philippines, Indonesia, Malaysia.
- Tunas (skipjack, yellowfin, bigeye): heavily exploited, some RFMO-managed recovery.

MANAGEMENT MEASURES/STRATEGIES

Fishery Management and Regulations	• Fishery Management Plans (FMPs) • Harvest strategies • Catch Limit and Quotas • Regulation Enforcement
Sustainable Fishing Practice	• Sustainable Fishing practice • Bycatch mitigation • Full retention program
Spatial and Ecosystem- Based Management	• Marine Protected Areas (MPAs) • Spatial Management • Ecosystem Approach to Fisheries Management
Monitoring and Technology	• Fisheries monitoring • Vessel Monitoring System (VMS) & GPS • Electronic logbook & E -monitoring
Community and Stakeholder Engagement	• Community -based fisheries management • Stakeholder Engagement

ANNEX 4

CHALLENGES

Overfishing- Unsustainable exploitation of stock

IUU Fishing: Accounts for ~20% of global catch (Agnew et al., 2009).

Bycatch: Sharks, turtles, seabirds affected

Climate change- Shifting species distribution, reduced productivity.

Overcapacity in coastal small pelagic fisheries.

Transboundary stocks (tuna & mackerel migrate across EEZs.

Weak enforcement

Limited data for stock assessment

CASE STUDY 1: TUNA FISHERIES IN WCPFC & IOTC

- **Tuna: major export commodity in Asia (Philippines, Indonesia, Maldives).**
- **WCPFC: skipjack relatively sustainable; yellowfin & bigeye under pressure.**
- **IOTC: yellowfin overfished despite rebuilding plan.**

-through a series of resolutions and interim plans, with Resolution 17/01 establishing an interim plan in 2017 and further measures being considered at annual meetings, though progress has been hampered by disagreements among member states and issues with compliance and reporting, particularly from artisanal fisheries.

-recent meetings have focused on reducing catches, improving monitoring, and increasing accountability to achieve a 67% chance of recovery by 2030

- **Challenges:**

✔**Quota compliance**

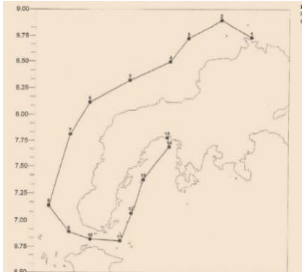
✔**Monitoring distant-water fleets.**

Western and Central Pacific Fisheries Commission

INDIAN OCEAN Tuna Commission

CASE STUDY 2: IMPACT OF THE CLOSED FISHING SEASON POLICY FOR SARDINES IN ZAMBOANGA PENINSULA, PHILIPPINES

- The **closed fishing season policy** was imposed for **December 1 to March 1**, to allow for a more productive spawning season and address the declining fish catch- **starts in 2011**
- The policy prohibits commercial purse seine, ringnet, bagnet, and scoop net fishing encompassing the East Sulu Sea, Basilan Strait, and Sibuguey Bay to **protect sardines during their peak spawning season.**



CASE STUDY 2: IMPACT OF THE CLOSED FISHING SEASON POLICY FOR SARDINES IN ZAMBOANGA PENINSULA, PHILIPPINES

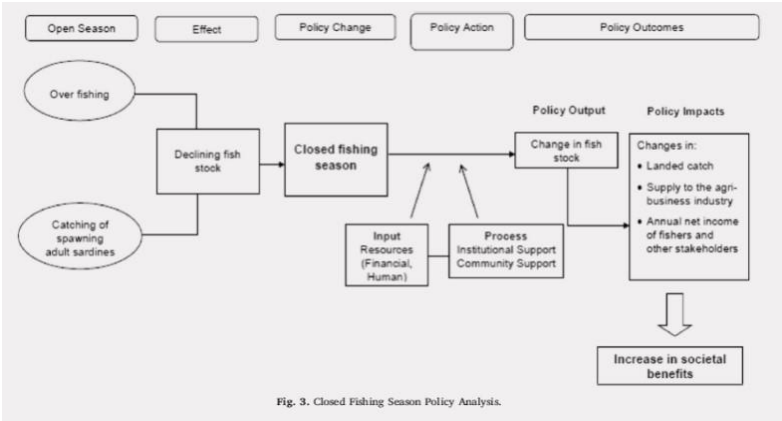


Fig. 3. Closed Fishing Season Policy Analysis.

CASE STUDY 2: IMPACT OF THE CLOSED FISHING SEASON POLICY FOR SARDINES IN ZAMBOANGA PENINSULA, PHILIPPINES

- **Results (after 3 years) showed:**

✔**increase in landed catch of sardines after the policy implementation.**

✔**increase in catch of high value non-sardine species (Spill-overs were the increased value of catch as a result of increase in the volume of non-sardines species that are high valued)**

✔**Incomes of fishing crew increased. Factory wages declined during the months of December to February, although working hours and days increased during open season.**

✔**Factory workers found alternative livelihoods during the closed season. There was positive impact to society overall.**

- **Lesson: seasonal closures + industry cooperation can work.**

CASE STUDY 3: THE EVOLUTION, DEFICIENCIES, AND FUTURE OUTLOOK OF CHINA'S PELAGIC FISHERIES MANAGEMENT FROM 1985 TO 2024

Three distinct phases

-First period (1985–1997): focus on accelerating the development of pelagic fisheries

-Second period (1998–2015)- focus on progressively engaging in international fisheries governance

-Third period (2016–2024) -focus on the ecological advancement of the pelagic fisheries.

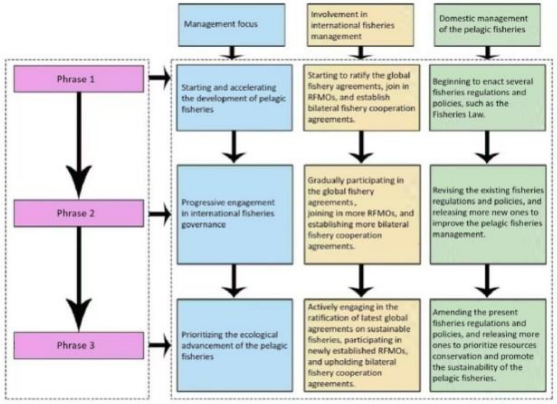


Fig. 3. The structure diagrammatic sketch on evolutionary phases of pelagic fisheries management in China.

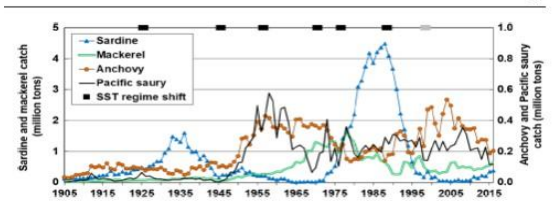
CASE STUDY 3: THE EVOLUTION, DEFICIENCIES, AND FUTURE OUTLOOK OF CHINA'S PELAGIC FISHERIES MANAGEMENT FROM 1985 TO 2024

Deficiencies in pelagic fisheries management:
- inadequate management
- unreasonable subsidies
- Outdated equipment and technology
- limited stakeholders engaged in management
- conflicting maritime interests with other nations

To fix this:
- Enhancing pelagic fisheries management system (promoting the improvement and enforcement of the regulations and policies, deploying electronic monitoring system, improving observer coverage ratio and implementing precautionary system)
- Improving subsidies for pelagic fisheries (reviewing the existing subsidy policies, terminating harmful subsidies, and strengthening the subsidies for resources conservation;
- Prioritizing the significance of science and technology (promoting the development and utilization of new equipment and advanced technology, and establishing the science and technology centers on pelagic fisheries)
- Enhancing stakeholders engagement in management processes,
- Enhancing international fishery collaboration across various levels

CASE STUDY 4: POPULATION DYNAMICS AND MANAGEMENT OF SMALL PELAGIC FISHES AROUND THE JAPANESE ARCHIPELAGO

- The catch and biomass of SPF generally showed decadal-scale variability with **prominent species replacements** since the 1900s.
- The causes of species replacements were generally associated with **climatic/oceanic variability**.
- **Overfishing** during the 1990s and early 2000s prevented the recovery of the Pacific stocks of sardine and chub mackerel.
- The fundamental cause of overfishing was derived from a **mismatch between investments in larger purse seine fleet** during the 1980s **and poor ocean productivity** since the 1988/89 regime shift, when dominant SPF began to shift from sardine to anchovy.



CASE STUDY 4: POPULATION DYNAMICS AND MANAGEMENT OF SMALL PELAGIC FISHES AROUND THE JAPANESE ARCHIPELAGO

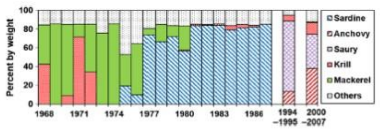


Fig. 3 Minke whales' stomach contents by weight from northwestern Pacific, mainly off Sanriku of Honshu Island, and southeastern Hokkaido Island. N.B.: data of 1994–1995 and 2000–2007 are aggregated by the original references

Proposed Management

(1) improve Harvest Control Rule (HCRs) and stock assessment methods

(2) collate mechanisms of population dynamics among stock/species and changes in ecosystems in order to create more realistic operating models,

(3) conserve marine biodiversity in order to help SPF adapt to the potential effects of climate change,

(4) establish an international framework for stock assessment and management in the Japan Sea, East China Sea, and Yellow Sea.

EMERGING AND FUTURE DIRECTIONS

- Climate-smart fisheries policies.
- Digital tools: AI for monitoring, blockchain for traceability.
- Strengthening transboundary and regional cooperation.

Emerging Directions for Asia

- **Ecosystem-based approaches** (addressing multispecies fisheries).
- **Strengthening co-management** with local communities.
- **Digital monitoring**: electronic logbooks, satellite data.
- **Regional collaboration**: ASEAN IUU action plan, joint patrols, SEAFDEC data harmonization.
- **Climate adaptation**: shifting stocks require flexible policies.

Management of pelagic fishes needs to be robust to changes in the environment, stock productivity, abundance, and natural mortality, as well as changes in predator abundance and composition (Pikitch et al. 2012; Skern-Mauritzen et al. 2016;Siple et al. 2021).

EMERGING AND FUTURE DIRECTIONS

FUTURE DIRECTIONS IN RESEARCH

- ✔ Using commercial fishing vessels and data on large scales to assess the abundance of small pelagic fishes
- ✔ Extending the use of fish surveys as platforms for monitoring ecosystem structure and function;
- ✔ Further implementation of Ecosystem Based Fisheries Management for small pelagic fishes
- ✔ Incorporating predator–prey dynamics into assessment models and MSE (Management Strategy Evaluation);
- ✔ Explicit inclusion of climate change into MSE simulations;
- ✔ Developing dynamic HCRs (Harvest Control Rules) robust to changes in stock productivity;
- ✔ Developing advanced technologies, tools, and techniques in sampling, analyzing, and modelling to sustainably manage small pelagic fishes

(International Symposium on Small Pelagic Fish: New Frontiers in Science for Sustainable Management held in November 2022)

CONCLUSION

- **Pelagic fisheries = vital but vulnerable.**
- **Effective management needs:**
  - **Multi-level governance (local → international).**
  - **Integration of science, technology, and community knowledge.**
  - **Cooperation across borders.**
- **Balancing utilization with conservation is key.**

- **Pelagic fisheries in Asia = high economic and social value but under threat.**
- **Management must:**
  - **Balance utilization & conservation.**
  - **Strengthen regional cooperation (shared stocks).**
  - **Adopt climate-smart, ecosystem-based strategies.**
- **Lessons: Combining national measures+ regional governance is crucial.**

THANK YOU

COMPILATION AND ASSESSMENT ON THE CONSERVATION EFFORT AND MANAGEMENT STRATEGIES OF PELAGIC SPECIES

10-12 SEPTEMBER 2025

INTRODUCTION

TASK: Develop questionnaires on the current status of the closed season, closed areas, or other management strategies of selected pelagic species in AMSs

Objective of this activity/task:

- To obtain and compile the information on the **current conservation efforts and management strategies** of pelagic species conducted by AMSs
- To analyse the **gaps in the conservation efforts and management strategies** of pelagic species in AMSs countries
- To obtain and compile **potential strategies** for better conservation efforts and management of pelagic species

PROPOSED QUESTIONAIRES

PART 1

- MAIN ISSUES ON THE FISHERIES OF PELAGIC SPECIES OF AMS

PART 2

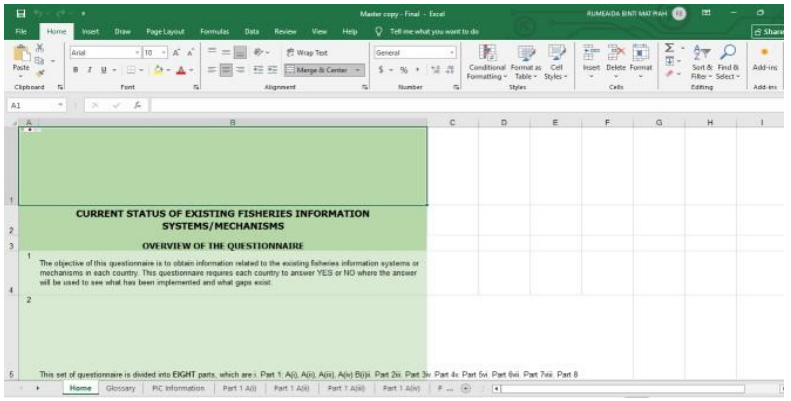
- CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES
  - A: Current conservation efforts and management strategies
  - B. Current regulatory and governance frameworks

PART 3

- CHALLENGES IN IMPLEMENTATIO

PART 4

- POTENTIAL NEW STRATEGIES



COMPILATION AND ASSESSMENT ON THE CONSERVATION EFFORT AND MANAGEMENT STRATEGIES OF PELAGIC SPECIES

OVERVIEW OF THE QUESTIONNAIRE

1	The objective of this questionnaire is: i. To obtain and compile the information on the current conservation efforts and management strategies of pelagic species conducted by AMSs ii. To analyse the gaps in the conservation efforts and management strategies of pelagic species in AMSs countries iii. To obtain and compile potential strategies for better conservation efforts and management of pelagic species
2	This set of questionnaires is divided into **FIVE** parts, which are: i. Part 1 ii. Part 2: A & B iii. Part 3 iv. Part 4 v. Part 5
3	To make it easy to navigate, this questionnaire was designed by using **TWO** colors, which are: i. Light green indicates questions that been asked. ii. Light yellow designates the respondent's answer space.
4	This questionnaire consists of two types of questions, which are: i. Open-ended question: The respondent needs to fill in relevant answers. ii. Closed-ended question: The respondent needs to choose between the options provided (e.g. **YES/NO**).
5	If you have any inquiries, please contact our secretariat, **Miss Mazalina Ali at mazalina@seafdec.org.my or +609-6175940 / +609-6177867 / +609-6171543.**
6	Please answer all questions.

Please provide the following information:	
Name of country	
Contact person	
Designation	
Email address	
Name of organization	
Date of filling out this questionnaire	

Glossary

Term	Definition
AIS	Automatic Identification System
Bycatch	Refers to the unintended capture of non-target species while fishing for a specific type of fish or seafood.
Climate-driven shifts	Changes in species distribution caused by warming oceans, changes in sea ice, increased storm frequency, and ocean acidification
Community-based allocations	Involve granting resource use rights, like fishing or carbon emission allowances, to a community or group rather than individuals or companies, aiming to achieve social, economic, and environmental goals
Discard	Refers to the portion of the catch that is thrown back into the sea—either dead or alive—instead of being landed or kept.
Ecosystem services	Also known as environmental services, are all those benefits that an ecosystem provides to society, and which influence the health, quality of life, and economic development of the people who make it up (benefits that human get from nature)
FAD	Fish Aggregating device
Fishing vessel	A fishing vessel is a type of boat or ship that is specifically used for catching fish in the sea.
Forage fish	Small schooling species of fish that serve as prey for larger ecologically, recreationally, culturally, and commercially important fish, marine mammals, and sea birds
Gear marking	The practice of physically or electronically marking fishing gear to establish ownership and legality, prevent abandoned, lost, or otherwise discarded fishing gear (ALDFG), combat illegal, unreported, and unregulated (IUU) fishing, reduce gear conflicts, and enhance safety at sea
Individual transferable quotas (ITQs)	Allocation of shares or portions of a total allowable catch (TAC) to individual fishers, vessels, communities or others with an interest in the fishery
IUU fishing	Illegal, unreported, unregulated fishing
Pelagic fish	Refers to fish that live in the pelagic zone of the ocean, which means they inhabit the open water column, not near the bottom (benthic zone) or the shore (coastal areas). These fish are typically found in the midwater or surface layers of the sea.
Predator-prey dynamics	Complex interactions between predator and prey fish species. Example: Predation can regulate the dynamics of prey populations directly by reducing recruitment and survival. Prey can also influence predators as prey quantity and quality affect feeding rates, growth, and reproductive success of predators.
Restocking	The release of hatchery seed to rebuild severely depleted fish stocks
Sea ranching	Release of hatchery seed in-put, grow and take operations
Slot Limit/ harvest limit	A slot limit is a type of fisheries regulation that specifies a size range of fish that must be released, while allowing fish both smaller and larger than that range to be harvested (harvest of intermediate size fish).
Stock enhancement	The release of hatchery seed to improve self-sustaining populations
TED	Turtle Excluder Device
Total Allowable Catches (TACs)	A catch limit, expressed in weight, that sets the maximum amount of a specific fish species or stock that can be harvested from a particular fishery during a given period, usually a year

PART 1: MAIN ISSUES IN THE FISHERIES OF PELAGIC SPECIES OF AMS			
The questions in this section are intended to obtain information regarding pelagic fish fisheries issues in each country. ***Pick and rank by order the TOP 5 issues that occur in your country.**			
No.	**Item**		**Top 5 issues**
i	Please select the main issues related to the management of pelagic resources in AMS	IUU (illegal, unreported, unregulated) fishing	
		Changes in species distribution	
		Overfishing	
		Overcapacity	
		Use of unsustainable fishing gears	
		Increase of fishing effort	
		Lack of management and conservation measures	
		Lack of data collection at fish landing sites	
		Lack of regulated/ authorised fish landing site	
		Lack of capacity in data collection	
		Lack of systematic data collection	
		Lack of regular fish stock assessment	

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES				
A. Current conservation efforts and management strategies implemented				
This section contains questions about the current management measures and conservation efforts for pelagic fisheries in AMS. Select YES if these measures and efforts are currently being implemented in your country, and provide specific details. ***This question pertains to management measures and conservation efforts that have already been implemented and are not in a trial, pilot, or experimental phase.**				
No.	**Item**		**YES/ NO**	**Specify:**
i	Output control: catch Limits and Quotas	Total Allowable Catches (TACs) set based on stock assessments		
		Allocation of quotas among fleets or vessels		
		Minimum fish size limit		
		Maximum fish size limit		
		Slot limit		
		Catch prohibition of certain pelagic species		
		Other (Please specify)		
ii	Gear Regulations and Selectivity Improvements	Use of circle hooks		
		Bycatch/ incidental reduction devices/ mitigation (e.g., Pinger, bird-scaring lines)		
		Control on gear modification (e.g., Prohibit high opening of trawl net)		
		Control on fishing aids in driftnets and purse seine operation (e.g., Intensity of lights, FADs, fish site identification, fish finder)		
		Gear marking		

		Control on gear specification	Mesh size control		
			Cod end mesh size		
			Depth of the net		
			Length of net		
			Other (Please specify)		
iii	Fishing Effort/ Input control	Limitation of the number of fishing vessels			
		Limitation of the number of fishing gears			
		Licensing and vessel registration system			
		Control on the carrier vessel and mother boat	Size		
			Numbers		
		Control on horsepower of fishing vessels			
		Control the number of light boat			
		Control of light usage on fishing vessel	Intensity of light		
			Colour of light		
			Use of underwater light		
			Other (Please specify)		
iv	Spatial and Temporal Closures	Marine protected areas (MPAs)			
		Closed season			
		Closed area			
		Other closures (Please specify)			
v	Ecosystem-Based Approaches	Monitoring predator-prey dynamics			
		Monitoring forage fish exploitation			
		Monitoring climate-driven shifts in pelagic ecosystems			
		Protecting ecosystem services, not just target species			
		Other (Please specify)			
vi	Monitoring, Control, and Surveillance (MCS)	Vessel Monitoring Systems (VMS)			
		Automatic Identification System (AIS)			
		e-Navigation			
		Manual logbooks			
		Electronic logbooks			
		Onboard observers			
		Port State Measures to prevent IUU fishing			
		Other (Please specify)			
vii	Resource enhancement measures	Deployment of artificial reef			
		Sea Ranching, Stock Enhancement, Restocking			
		Habitat restoration and rehabilitation			
		Fisheries Refugia			
		Other (Please specify)			

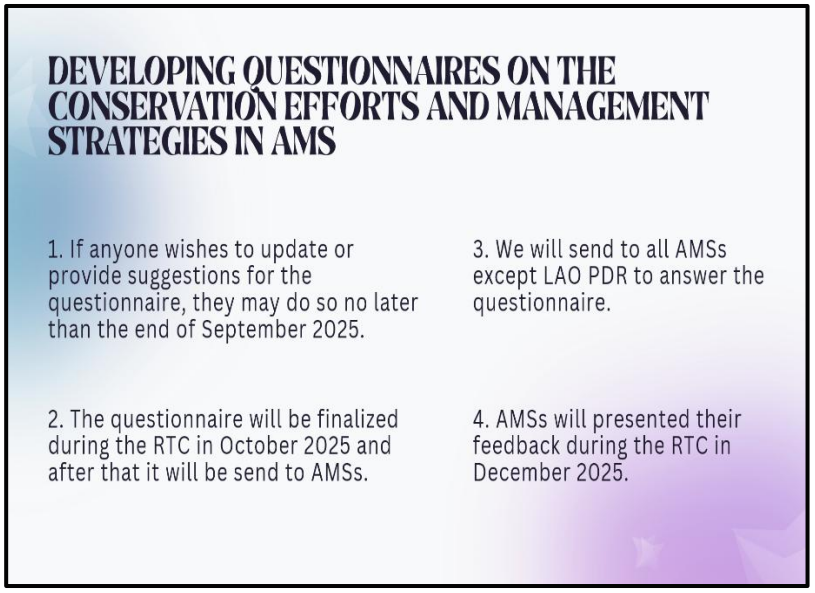
PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES				
B. Current regulatory and governance frameworks to implement conservation goals effectively.				
This section contains questions about the Current regulatory and governance frameworks for pelagic fisheries in AMS. Select YES if these regulatory and framework are currently being implemented in your country, and provide specific details. ***This question pertains to management measures and conservation efforts that have already been implemented and are not in a trial, pilot, or experimental phase.**				
No.	**Item**		**YES/ NO**	**Specify:**
i	Governance	National Management Plans		
		Country adopt regional regulation and management measures (e.g., FAO Code of Conduct for Responsible Fisheries)		
		Periodically revise regulation or management measures		
		Main agency in the country responsible to formulate the management measure of pelagic resources (Please specify)		
		Country has fishers' association		
		Country adopting precautionary approach		
		Country adopting marine spatial planning		
		Country has MCS system		
ii	Rights-Based Management	Individual transferable quotas (ITQs)		
		Community-based quota allocations		
		Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries.		
iii	Adaptive Management	Incorporating new data and scientific advice into dynamic decision-making.		
		Adjusting strategies in response to climate change impacts (e.g., Shifting distributions of tuna stocks).		
iv	Traceability and Market-Based Tools	Eco-certifications [(e.g., Marine Stewardship Council (MSC)]		
		Catch documentation schemes		
		Trade restrictions on IUU (illegal, unreported, unregulated) products		
v	Capacity Building and Stakeholder Engagement	Train local managers and fishers in data collection and stock assessment		
		Engagement with fishers to enhance compliance		
		Inclusive governance involving governments, NGOs, industry, and communities		
vi	List of pelagic fish group/ species that have their own management plans			i. ii. iii.

PART 3: CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES			
Please determine the challenges faced in implementing management measures, conservation efforts on pelagic fisheries in AMS. Select YES for the challenges faced by your country, and provide specific details. ***Pick and rank by order the TOP 5 challenges that occur in your country.**			
No.	**Item**	**Top 5 challenges**	**Specify:**
i	IUU (illegal, unreported, unregulated) fishing		
ii	Limited cooperation from fishers		
iii	Limited cooperation from other stakeholders		
iv	Limited support from government		
v	Climate change and distributional shifts of species		
vi	Lack of Monitoring, Control, and Surveillance (MCS)		
vii	Financial/ budget constraint		
viii	Overlapping of jurisdiction		
ix	Limited capacity (e.g., stock assessment, enforcement)		
x	Limited capability (e.g., stock assessment, enforcement)		
xi	Regulatory limitation and gaps		
xii	Lack of awareness among fishers		
xiii	Lack of compliance among fishers		
xiv	Inconsistency in governance mechanism		

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH			
This section aims to obtain input regarding strategies and approaches that will be taken by AMS in the management and conservation of pelagic fisheries in the future. Select YES for the related strategies in your country, and provide specific details. **Can choose more than one**			
No.	**Item**	**YES/ NO**	**Specify:**
i	Introduction of more sustainable fishing gears		
ii	Introduction of new fishing gear technologies		
iii	Development of more efficient post-harvest and processing equipment		
iv	Monitoring predator-prey dynamics		
v	Monitoring forage fish exploitation		
vi	Monitoring climate-driven shifts in pelagic ecosystems		
vii	Protecting ecosystem services, not just target species		
viii	Train local managers and fishers in data collection and stock assessment		
ix	Engagement with fishers to enhance compliance		
x	Inclusive governance involving governments, NGOs, industry, and communities.		
xi	Considering socioeconomic of fishers in formulation of management measures		
xii	Deployment of artificial reef		
xiii	Adopting artificial intelligence (AI) technology in data collection		
xiv	Increase financial/ funding/ allocation		
xv	Establish/ strengthen co-management with communities		
xvi	Other (Please specify)		

PART 5: SUCCESS STORIES	
This section is for sharing success stories related to the management and conservation of pelagic fish in each AMS. ***You can share more than one success story with us. This success story will be presented during regional technical consultation (RTC).**	
No.	**Success story**
i	
ii	
iii	


Workshop for Developing Questionnaires on the Conservation Efforts and Management Strategies in AMSs
10 – 12 September 2025
Sabak Bernam, Selangor
WAY FORWARD
Presented By: Mazalina Ali


DEVELOPING QUESTIONNAIRES ON THE CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES IN AMS
1. If anyone wishes to update or provide suggestions for the questionnaire, they may do so no later than the end of September 2025.
2. The questionnaire will be finalized during the RTC in October 2025 and after that it will be send to AMSs.
3. We will send to all AMSs except LAO PDR to answer the questionnaire.
4. AMSs will presented their feedback during the RTC in December 2025.


Future Activities


Activity 3:
Standardization of Simple and Practical Indicators
Sub-Activity 3.1:
Regional workshop for harmonization of simple and practical indicators to support planning and monitoring of sustainable fisheries of pelagic fish:
22 - 24 October 2025, Subang

Activity 4:
Compilation and Assessment of Management Strategies of Selected Pelagic Species

- **Sub-Activity 4.2:** RTC on conservation efforts and management strategies of selected pelagic species in AMSs:

  17 - 19 Dec 2025
  Kuala Lumpur

- **Sub-Activity 4.3:** Key-in information and regional synthesis of proposed management strategies for selected pelagic species in AMSs based on the questionnaire:

  Jan 2026

Activity 5:
Compilation and Publication of the Terminal Report

- **Sub-Activity 5.1:** Compilation information for the success stories in AMSs:

  November 2025

- **Sub-Activity 5.2:** Compilation information for the draft of terminal report:

  January 2026

- **Sub-Activity 5.3:** Harmonization of the draft of terminal report:

  February 2026

- **Sub-Activity 5.4:** Finalization of terminal report:

  April 2026

Activity 6:
Project Monitoring and Evaluation

- **Sub-Activity 6.2:** Terminal Project Monitoring and Evaluation Workshop:

  Mar 2026

ANNEX 8

CLOSING REMARKS

Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs
10 – 12 September 2025
Sabak Bernam, Selangor, Malaysia

By Mr. Abd Haris Hilmi Ahmad Arshad, Chief of SEAFDEC/MFRDMD

السَّلَامُ عَلَيْكُمْ وَرَحْمَةُ اللهِ وَبَرَكَاتُهُ

I would like to extend my highest appreciation and heartfelt thanks to all of you for your commitment, ideas, and invaluable contributions throughout the course of this workshop. Your active participation clearly reflects our shared dedication to ensuring the success of this workshop.

Throughout the discussion sessions, we successfully exchanged views, refined proposals, and developed the foundation for a questionnaire that will serve as an important guide in collecting data and information related to pelagic fisheries management. This effort will not only strengthen management strategies but also act as a catalyst for closer regional cooperation in the future.

On behalf of MFRDMD, I would also like to express my gratitude to Assoc. Professor Dr. Rumeaida Mat Piah and Dr. Abdullah Mohammad for their roles as resource persons, who have successfully guided and provided direction in developing a questionnaire on Pelagic Fisheries Management Strategies in the Southeast Asian Region.

I believe the spirit of cooperation and unity demonstrated throughout this workshop reflects our commitment to ensuring that pelagic fishery resources continue to be managed sustainably. These resources are vital for securing the livelihoods of fishers, food security, and the socioeconomic development of communities in this region.

In closing, let us take home the knowledge and experience gained, and continue our collective efforts towards more effective and sustainable pelagic fisheries management. May the network of cooperation established here continue to be strengthened in the future.

With that, I am pleased to officially close this workshop and wish everyone a safe journey back to your respective destinations.

Thank you.

APPENDIX

Meeting images photographed by Ms. Fauzana Che Su

Mr. Abd Haris Hilmi Ahmad Arshad
Chief of MRFDMD

Ms. Mazalina Ali
Special Departmental Coordinator of MFRDMD

Assoc. Prof. Dr. Rumeaida Mat Piah
Resource Person

Dr. Abdullah Mohamad
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Mr. Mohammad Faisal Md Saleh
MFRDMD

Ms. Nurul Syazwani Mustaffa
MFRDMD

Ms. Khairiah Jaafar
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Southeast Asian Fisheries Development Center (SEAFDEC)

What is SEAFDEC?

SEAFDEC is an autonomous intergovernmental body established as a regional treaty organization in 1967 to promote sustainable fisheries development in Southeast Asia. SEAFDEC currently comprises 11 Member Countries: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

Vision

Sustainable management and development of fisheries and aquaculture to contribute to food security, poverty alleviation and livelihood of people in the Southeast Asian region

Mission

To promote and facilitate concerted actions among the Member Countries to ensure the sustainability of fisheries and aquaculture in Southeast Asia through:

i. Research and development in fisheries, aquaculture, post-harvest, processing, and marketing of fish and fisheries products, socio-economy and ecosystem to provide reliable scientific data and information.
ii. Formulation and provision of policy guidelines based on the available scientific data and information, local knowledge, regional consultations and prevailing international measures.
iii. Technology transfer and capacity building to enhance the capacity of Member Countries in the application of technologies, and implementation of fisheries policies and management tools for the sustainable utilization of fishery resources and aquaculture.
iv. Monitoring and evaluation of the implementation of the regional fisheries policies and management frameworks adopted under the ASEAN-SEAFDEC collaborative mechanism, and the emerging international fisheries-related issues including their impacts on fisheries, food security and socio-economics of the region.


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ISBN 978-629-7629-14-8