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REPORT ON THE REGIONAL TECHNICAL CONSULTATION ON THE CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES OF PELAGIC FISHERIES RESOURCES IN SOUTHEAST ASIA

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

Report on the Regional Technical Consultation on The Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia

D'Wharf Hotel and Serviced Residence, Port Dickson, Malaysia

6 – 8 January 2026

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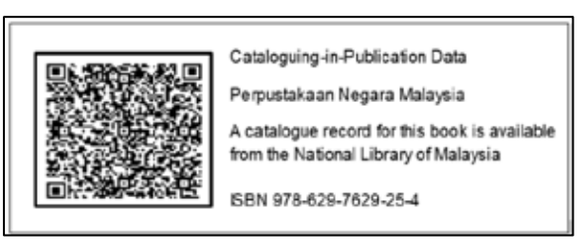

ACRONYMS

AMSs	ASEAN Member States
AI	Artificial Intelligence
AR	Artificial Reef
CFi	Community Fisheries
DOF	Department of Fisheries
EAFM	Ecosystem Approach to Fisheries Management
ETI	Ecosystem Traits Index
FAO	Food and Agriculture Organization
FMA	Fisheries Management Areas
FMP	Fisheries Management Plan
FRI	Fisheries Research Institute
GT	Gross Tonnages
GRT	Gross Registered Tonnages
IMO	International Maritime Organization
IUU	Illegal, Unreported and Unregulated
JAIF	Japan-ASEAN Integration Fund
LMA	Local Management Area
MFRDMD	Marine Fishery Resources Development and Management Department
MPA	Marine Protected Areas
MPABD	Maritime and Port Authority of Brunei Darussalam
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
NGO	Non-Government Organization
PCM	Program Committee Meeting
PIPO	Port In Port Out
RIMF	Research Institute Marine Fisheries
RPOA	Regional Plan of Action
RTC	Regional Technical Consultation
SDG	Sustainable Development Goal
SOFIA	State of World Fisheries and Aquaculture
TAC	Total Allowable Catch
TD	Training Department
UMT	Universiti Malaysia Terengganu
VMS	Vessel Monitoring System

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The Regional Technical Consultation on the Conservation Efforts and Management Strategies of the Pelagic Fisheries Resources in Southeast Asia
6 – 8 January 2026
Port Dickson, Negeri Sembilan, Malaysia

I. INTRODUCTION AND OPENING OF MEETING

1. SEAFDEC/MFRDMD convened the *Regional Technical Consultation on the Conservation Efforts and Management Strategies of the Pelagic Fisheries Resources in Southeast Asia* at Port Dickson, Negeri Sembilan, Malaysia, from 6 to 8 January 2026. The meeting was funded by the Japan-ASEAN Integration Fund (JAIF). It was attended by representatives from eight ASEAN Member States (AMS) namely Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam; representatives from the Fisheries Research Institute (FRI) Kampung Acheh, FRI Batu Maung, and FRI Bintawa; a Resource Person from Universiti Malaysia Terengganu (UMT); representatives from the SEAFDEC Secretariat and SEAFDEC/TD; as well as the Chief, Special Departmental Coordinator, and officials from SEAFDEC/MFRDMD. The list of participants is provided in **Annex 1**.

2. The meeting was officiated by the Chief of SEAFDEC/MFRDMD, *Mr. Abd Haris Hilmi Ahmad Arshad*. In his opening speech, he welcomed all participants to the Regional Technical Consultation (RTC) and outlined the project's aims and duration. He highlighted the key activities successfully conducted by MFRDMD and expressed his hope that participants would actively contribute constructive inputs throughout the three-day consultation. Such contributions, he noted, would enable the development of effective solutions, strengthen regional solidarity, and ensure continued collaboration in promoting sustainability and responsible resource management. He further conveyed his gratitude to the Japan-ASEAN Integration Fund (JAIF) for supporting the project. His opening remarks appear as **Annex 2**.

II. ADOPTION OF AGENDA AND INTRODUCTION OF PROJECT

3. *Ms. Mazalina Ali*, the Project Coordinator, presented the timetable of the RTC. Her presentation appears as **Annex 3**. The meeting timetable was adopted with minor corrections, and the provisional prospectus together with the revised timetable is presented in **Annex 4**.

4. *Ms. Mazalina* presented 'Introduction to the Implementation and Assessment of the ASEAN Regional Plan of Action for the Management of Fishing Capacity'. She shared the project overview, objectives, six key outputs, and the activities implemented by SEAFDEC/MFRDMD in 2024 and 2025. Her presentation appears as **Annex 5**.

III. INTRODUCTION TO CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

5. The resource person, *Assoc. Prof. Dr. Rumeaida Mat Piah* delivered a presentation on Pelagic Fisheries Management: Challenges, Strategies, and Future Pathways. She also shared three case studies highlighting management strategies for pelagic fisheries resources. Her presentation appears as **Annex 6**.

6. *Mr. Djoko Arye Prasetyo*, the representative from Indonesia, expressed his interest in Case Study No. 1: Impact of the Closed Season Policy for Sardines in Zamboanga Peninsula, Philippines. He sought for clarification on how the income of fishers and workers in fish processing plants is sustained during the closed season, when fishing is prohibited and canning factories are not operating. *Assoc. Prof. Dr. Rumeaida* responded that workers build their savings and focus on production during the open season, while fishers engage in small businesses as an additional source of income. *Mr. Djoko* further suggested the use of Artificial Intelligence (AI) in monitoring fisheries resources to reduce the workload of fisheries officers. In response, *Assoc. Prof. Dr. Rumeaida* noted that the application of AI will be considered in the future direction of the agenda.

7. *Ms. Kima Karla H. Cedo*, the representative from the Philippines, added that during the closed season the factory continues operating for machinery maintenance, with workers receiving lower salaries as no heavy work is required during this period. She noted that during the open season, income increases in line with higher production and workload.

8. *Mr. Jamil Musel* from FRI Bintawa, Sarawak, requested further information on how fish production is managed and fisheries are controlled during the closed season for sardines as shown in Case Study 1. *Ms. Cedo* clarified that the closed season was previously implemented during the monsoon period. Factories would stockpile sardines before the start of the closed season, and to sustain production, a minimal quantity of sardines was imported to meet the demand for canned fish. To control fishing activities during the closed season, the government prohibited all commercial fishing of sardines in Zamboanga Peninsula, while also increasing the number of enforcement personnel to ensure compliance. *Ms. Cedo* further noted that there has been a recent update to the closed season policy, with details to be shared during the presentation on the success story.

9. *Ms. Pattaratjit Kaewnuratchadasorn*, the Policy and Program Coordinator from the SEAFDEC Secretariat, shared several insights on *Assoc. Prof. Dr. Rumeaida's* presentation. She suggested incorporating case studies related to multi-species fisheries in Southeast Asia and highlighted SEAFDEC regional initiatives such as Fisheries Refugia for Indo-Pacific mackerel, lobster, blue swimming crab, blood cockles, and tiger prawn, conducted by Member Countries. She also noted that the Food and Agriculture Organization (FAO) has conducted activities on small pelagic fisheries management in the region, which could serve as alternative case studies, referencing their website and The State of World Fisheries and Aquaculture (SOFIA) publications. Finally, she emphasized the importance of improving data collection based on scientific evidence, as reliable data is essential for stock assessment and for presenting the current fisheries

situation to gain international support for management efforts. *Assoc. Prof. Dr. Rumeaida* thanked *Ms. Pattaratjit* for her valuable inputs.

10. *Dr. Supapong Pattarapongpan*, the Fishery Oceanographer from SEAFDEC/TD shared his views on the closed season in the Philippines based on the lesson learned in Thailand. He suggested adopting a flexible closed season period and interval, taking into account climate change factors. *Assoc. Prof. Dr. Rumeaida* acknowledged the suggestion and agreed that it is essential to consider the impacts of climate change on fisheries management.

IV. COUNTRY AND DEPARTMENT PRESENTATION ON THE CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES OF PELAGIC FISHERIES RESOURCES

11. *Ms. Siti Nur Nisrina Matali*, the representative from Brunei Darussalam, delivered 'Brunei Darussalam Country Report: Questionnaire on Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia'. Her presentation appears as **Annex 7**.

12. *Mr. Jamil* sought clarification on the *'one license for one mother boat'* policy. The representative from Brunei Darussalam, *Ms. Desimawati Haji Metali*, clarified that the rule of one license per type of fishing gear applies only to commercial fishing vessels, such as trawlers, purse seiners, and longliners.

13. *Ms. Liza Haji Long* from the Department of Marine Fisheries Sarawak, Malaysia requested information on the new fishing zonation for Brunei Darussalam waters, which was implemented on 1 January 2024. *Ms. Desimawati* elaborated that Zone 1 (0–7 nautical miles) is designated for small-scale fishers; Zone 2 (7–20 nautical miles) is for vessels less than 60 Gross Tonnage (GT); Zone 3 (20 - 45 nautical miles) is for vessels between 60 GT - 150GT; and Zone 4 (45 - 200 nautical miles) is for vessels with size more than 150 GT.

14. *Mr. Jamil* inquired about the rationale behind Brunei's expansion of Zone 1 from 0–3 nautical miles to 0–7 nautical miles under the new zoning system. *Ms. Desimawati* explained that the expansion aims to reduce conflict between small-scale and commercial fishers, alleviate fishing pressure in nearshore areas, and enhance the protection of reefs that serve as ecologically significant nursery and spawning grounds for marine fish. *Ms. Siti Nur Nisrina Matali* further explained that Zone 2, previously covering 3–20 nautical miles, was a shared fishing area for small-scale and commercial fishers, which prompted the introduction of the new zoning system.

15. *Ms. Pattaratjit* inquired whether Brunei Darussalam plans to evaluate the impact of expanding Zone 1, particularly in terms of increasing income. *Ms. Desimawati* clarified that the new zoning system is only implemented in 2024, and therefore additional time is required to properly assess its impact. She noted, however, that small-scale fishers have reported an increase in their catch, while commercial fishers have expressed concerns

over declining catches following the implementation of the new zoning system for Zone 1.

16. *Dr. Chea Tharith*, the representative from Cambodia, presented 'Status of fish stock assessment in Cambodia'. His presentation appears as **Annex 8**.

17. *Mr. Ryon Siow*, from FRI Kampung Acheh, Perak, inquired about the implementation of the size limit in Cambodia. *Dr. Chea* responded that the strategy has successfully reduced the proportion of juvenile fish in the catch by approximately 40%.

18. *Mr. Djoko* presented 'Indonesia Country Report: Conservation Efforts and Management Strategies of Pelagic Fisheries Resources'. His presentation appears as **Annex 9**.

19. *Ms. Marlinda Anim Marham* from DOF Malaysia inquired about the implementation of digital systems in fisheries data collection. *Mr. Djoko* explained that the majority, fishers in Indonesia consist of small-scale fisheries, and are considered to have limited educational background to effectively utilize new technologies for data collection. Therefore, manual logbooks are still being used to record fisheries data. He emphasized the need for more hands-on training for fishers before digital data systems can be fully adopted.

20. *Mr. Irman Isnain,* the representative from DOF Sabah, Malaysia inquired about the main focus of the Fisheries Management Plan (FMP) for Flying Fish. *Mr. Djoko* explained that flying fish are found only in certain areas, such as between Kalimantan and Sulawesi, where there is a high risk of overexploitation. Therefore, the FMP for Flying Fish is established to protect this vulnerable species.

21. *Ms. Haryati* presented 'Compilation and Assessment on the Conservation and Management Strategies of Pelagic Species'. Her presentation appears as **Annex 10**.

22. *Mr. Irman* delivered 'Conservation Efforts & Management Strategies of Pelagic Fisheries Resources in Sabah'. His presentation appears as **Annex 11**.

23. *Mr. Djoko* sought for clarification about the specific percentage or coverage area for the development of Marine Protected Areas (MPAs) in Malaysia. *Ms. Haryati* clarified that Malaysia follows the Sustainable Development Goal (SDG) 14 target of achieving 10% coverage of national waters for MPAs by 2030. She explained that MPAs also encompass other fisheries management areas such as Marine Parks and Fisheries Refugia. *Ms. Liza* further added that MPAs are not necessarily closed areas, as fish sanctuaries can also be included.

24. *Mr. Soe Win*, the representative from Myanmar, inquired about lobster and cockle conservation areas in Malaysia. *Mr. Irman* explained that lobsters are mostly caught from the wild, and there is limited information available on their distribution. Therefore, the resource is currently managed through catch regulation rather than area-based measures. With regard to cockles, he noted that the Beluran area once had abundant resources, but

these were severely depleted due to overexploitation. At present, size regulations have been implemented to manage and restore the cockle resource.

25. *Mr. Zaw Khaing*, the representative from Myanmar, presented 'Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Myanmar'. His presentation appears as **Annex 12**.

26. *Mr. Jamil* inquired about the use of circle hooks in Myanmar waters. *Mr. Soe Win* explained currently Myanmar allows the use of C-hooks in long lines but does not permit the use of J-hook which are also banned internationally.

27. *Mr. Irman* requested examples of fishing gear designed to reduce bycatch. *Mr. Soe Win* clarified that Myanmar does not currently have any specialized fishing gear specifically designed to reduce bycatch; instead, bycatch mitigation is addressed through regulations on mesh size for existing fishing gears, particularly purse seines and trawlers. For purse seines, the minimum mesh size is 1 inch, while for trawlers, the minimum mesh size at the cod end is 1 inch.

28. *Mr. Abd Haris Hilmi* asked which species are involved in the closed season held from April to June. *Mr. Soe Win* explained that it involves all species as there is no fishing operation allowed during the close season.

29. *Mr. Ryon* queried about the control of light intensity. *Mr. Soe Win* responded Myanmar only allows the use of not more than 80 kilowatts (kW) of light power intensity which is mainly used for squid fishing.

30. *Ms. Noimie Rose B. Dicdiquin*, the representative from the Philippines, delivered 'Country Presentation on the Conservation Efforts and Management Strategies of Pelagic Fisheries'. Her presentation appears as **Annex 13**.

31. *Mr. Jamil* requested more information about the management of Payao whether the Payao belong to the vessel or fisheries company. *Ms. Cedo* informed that the Payao belongs to the vessel and a single Catcher vessel is allowed to have only 40 units of Payao.

32. *Ms. Liza* asked if there is any study on biomass in the Payao area to implement any close season or catch limit for certain species. *Ms. Cedo* informed that Payao majorly targets migrating tuna. Currently there is no study about the stock or biomass of other species specific in the Payao area but at the moment, the Philippines has good data on the status of tuna stocks.

33. *Dr. Nipa Kulanujaree,* the representative from Thailand, presented 'Compilation and Assessment on the Conservation Effort and Management Strategies of Pelagic Species'. Her presentation appears as **Annex 14**.

34. *Mr. Jamil* asked about the use of light for squid fishing in the area less than 3 nautical miles from the coastline. *Dr. Nipa* explained that commercial vessels (more than 30 GT)

not allowed to fish in the coastal area (approximately 3 nm from coastline) include the squid fishing. Fishing vessels smaller than 10 GT are permitted to operate in coastal areas; however, the use of light-assisted fishing gear in coastal areas is only allowed in specific provinces where such activities are officially authorized.

35. *Ms. Cedo* requested for more information on the output control. *Dr. Nipa* explained that the DOF Thailand regulates the Total Allowable Catch (TAC), measured in kilograms, for each fishing vessel. In addition, they also control the number of fishing days permitted. However, these measures apply only to commercial fishing vessels. *Ms. Cedo* further noted that the Philippines faces challenges in obtaining catch and effort data from unregistered boats.

36. *Dr. Vu Viet Ha*, the representative from Viet Nam, presented 'Country Presentation on the Conservation Efforts and Management Strategies of Pelagic Fisheries'. His presentation appears as **Annex 15**.

37. *Ms. Cedo* asked about the average size of MPA areas in Viet Nam, noting that the country currently has 12 MPAs. *Dr. Ha* responded that the total area of these 12 MPAs is approximately 206,000 hectares where the sea surface area is about 185,000 hectares.

38. *Ms. Liza* asked what Viet Nam has done to combat Illegal, Unreported and Unregulated (IUU) fishing and to withdraw from the yellow card. *Dr. Ha* explained that Viet Nam has implemented Port-In Port-Out (PIPO), a logbook program and catch report for fishing vessels 12 meters and above in length, and the Vessel Monitoring System (VMS).

39. *Mr. Ryon* inquired the response regarding the slot limit and the length of the net, since it was stated "YES" but with remarks that these measures were not yet regulated. *Dr. Ha* explained that the provincial office has implemented the slot limit for blue swimming crab; however, it is not regulated by the Central government of Viet Nam and has not been incorporated into any Fisheries Law or Decree. The same applies to the regulation on net length.

40. *Ms. Noor Suhailis Zelani* from DOF Malaysia inquired about the period for renewing licenses, noting that the quota or TAC is updated every five years. *Dr. Ha* responded that Vietnamese fishers renew their fishing licenses every five years, together with the quota.

41. *Dr. Supapong* presented "The Conservation Efforts and Management Strategies of Pelagic Fisheries: What We've Done Here in TD." SEAFDEC/TD has implemented the activities related to pelagic fishery resources management from various perspectives. Some key initiatives include Stock Assessments of neritic tuna, Stock Assessments in the Sulu and Sulawesi Seas, as well as Acoustic surveys using the Scientific Echosounder EK80. Examples of regional fishery management efforts are Genetic identification of Indo-Pacific mackerel (*Rastrelliger brachysoma*) and Regional Seminar on the Progress of Fish Stock Assessment in SEAFDEC Member Countries. Regarding fishery refugia, SEAFDEC/TD has been actively engaged in, i) Refugia site identification for pelagic fish, ii) Fish larvae identification and iii) Application of the Ecosystem Approach for Fisheries

Management (EAFM). Currently, SEAFDEC/TD is undertaking a five-year project to explore possible methods for monitoring and managing pelagic fishery resources in the context of climate uncertainties. His presentation appears as **Annex 16**.

42. *Ms. Pattaratjit* highlighted additional initiatives undertaken by SEAFDEC. She informed the Meeting on the Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN (RPOA-Neritic Tunas), which was an existing regional policy document under the ASEAN Mechanism. This RPOA-Neritic Tunas, builds on and provides the actions and strengthens regional cooperation to promote conservation and management for sustainable neritic tuna fisheries in the Southeast Asian Waters. The Scientific Working Group on Neritic Tunas was established under this RPOA-Neritic Tunas, which tasks to conduct the stock assessment of neritic tunas in Southeast Asia and provides the results, management recommendations for national management measures consideration. This reflects strong collaborative efforts among AMSs in addressing important transboundary species. The RPOA-Neritic Tunas is considered a key achievement that has been recognized at the ASEAN level. In addition, she informed the Meeting that MFRDMD successful conducted the Stock and Risk Assessments of Two Seerfish Species (*Scomberomorus guttatus* and *S. commerson*) Resources (1950–2022) in the Southeast Asia Region using ASPIC 5, which recently adopted by SEAFDEC Council and ASEAN mechanism in 2025. Furthermore, she informed on the upcoming capacity-building activities under the collaboration between FAO and SEAFDEC, on mixed-stock species, which will be conducted in 2026 and the invitation letters will be sent to the AMSs soon.

V. COUNTRY PRESENTATION ON SUCCESS STORY

43. *Ms. Siti Nur Nisrina* presented 'Success Story on Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Brunei Darussalam'. Her presentation appears as **Annex 17**.

44. *Mr. Muhammad Amirullah Al-Amin Ayob* inquired about the average size of the Artificial Reef (AR) and its depth of deployment. *Ms. Desimawat*i explained that ARs are constructed in various sizes according to designated deployment zones, with the largest weighing approximately 5 tonnes. The deployment areas range from Zone 1 to Zone 3, primarily near natural coral reef areas, with deployment depths of up to 40 metres.

45. *Mr. Irman* queried about the caretaker of the ARs. *Ms. Desimawati* explained that management of ARs falls entirely under government responsibility. However, in some shallow areas, non-governmental organizations (NGOs) assist in supporting management efforts, including deployment and monitoring activities.

46. *Mr. Djoko* asked about the specific approach and differentiation for ARs management and deployment. *Ms. Desimawati* shared that Brunei has a small sea area for maritime activities and limited MPA areas. Due to this limitation, the Maritime and Port Authority of Brunei Darussalam (MPABD) is the principal agency taking part in the decision-

making on the area for deployment of artificial reefs, in accordance with the regulations set by the International Maritime Organization (IMO)

47. *Mr. Abd Haris Hilmi* inquired about regulations and enforcement in the AR areas. *Ms. Desimawati* explained that AR areas fall under the Fisheries Act, and enforcement is carried out to prevent illegal fishing activities.

48. *Dr. Chea* presented 'Success Stories Related to The Management and Conservation of Pelagic Fish in Cambodia'. His presentation appears as **Annex 18**.

49. *Mr. Djoko* sought for clarification on trade restrictions to combat IUU fishing. *Dr. Chea* clarified that the restriction applies only to Cambodian fishing vessels and does not extend to foreign vessels.

50. *Ms. Pattaratjit* inquired, besides *Rastrelliger* spp., *Portunus pelagicus*, and *Encrasicholina heteroloba*, what other species Cambodia plans to implement a conservation program. *Dr. Chea* explained that Cambodia has already selected 51 additional species for the conservation purpose and is still under discussion.

51. *Assoc. Prof. Dr. Rumeaida* requested further information about Community-Based Co-Management through Community Fisheries (CFi). *Mr. Leng Syvann*, from the Fisheries Administration of Cambodia, elaborated that CFi must be officially recognized by the Cambodian government. He explained that CFi contributes to patrolling, data collection, and educating both fishers and students about the importance of fisheries resources.

52. *Ms. Liza* inquired whether CFi are empowered to regulate the law. *Mr. Leng* explained that CFi assists in patrolling the protected fisheries areas; however, their power right is limited. If illegal fishing activities are detected, CFi are required to report the incidents to competent fisheries officers for the implementation of legal action.

53. *Mr. Karto Pulung*, the representative from Indonesia, presented 'Fisheries Management Plans (FMPs) of Lemuru (*Sardinella lemuru*) at Bali Strait'. His presentation appears as **Annex 19**.

54. *Ms. Liza* sought for clarification on how Indonesia allocates fishing quotas to the Fisheries Management Areas (FMA), specifically whether allocation is determined by designated zoning areas or by vessel size. *Mr. Djoko* clarified that the fishing quota is given by zoning (Fisheries Management Areas) and also by licensing from both central and local governments. *Ms. Liza* further inquired about the size of purse seine fishing vessels operating in certain zones. *Mr. Djoko* shared that fishing licences in Indonesia are divided into 2 authorities. Fishing vessels licensed by the central government are generally vessels with a size of more than 30 gross tonnage (>30 GT), while vessels with a size of less than 30 GT (<30GT) are licensed by the provincial government.

55. *Ms. Marlinda Anim Marham* inquired about the key factors contributing to the success of the FMP Lemuru program. *Mr. Djoko* highlighted two important aspects:

i) the availability of reliable data, particularly on Maximum Sustainable Yield (MSY) and reproduction; and ii) effective communication between central governance, provincial governance, and the fishers. He acknowledged that there were challenges during the early stage of implementation; however, fishers eventually accepted the program as they recognized its potential benefits.

56. *Ms. Cedo* inquired about the Marine Stewardship Council (MSC) certification. *Mr. Djoko* responded that at least 10 companies have been disseminated related to MSC-certification. At present there is one company proposed for MSC certification on pelagic fisheries in Bali strait. He further noted that the fee for obtaining the MSC certificate is fully borne by the company.

57. *Ms. Liza* queried whether the Indonesian government provides any intervention to help the fishers in this program, for example giving the matching grant for modernization or upgrading the vessels or gears. *Mr. Djoko* explained that the Central Government acts as a "bridge," facilitating coordination and support between provincial authorities and fishers, rather than directly providing subsidies.

58. *Ms. Pattaratjit* asked whether this FMP Lemuru is considered to take the EAFM approach for the implementation. *Mr. Djoko* explained that in order to develop such FMPs, there are three aspects that need to be considered before, namely i) ecosystem aspect (fisheries resources and habitat), ii) socio-economic aspect, and iii) good governance aspects. These three aspects become essential indicators in implementing EAFM. Therefore, FMPs Lemuru will be more comprehensive, both in concept and implementation as well.

59. *Ms. Haryati* presented 'Mainstreaming Artificial Reefs into the Ecosystem Approach to Fisheries Management (EAFM) in Sarawak, Malaysia'. Her presentation appears as **Annex 20**.

60. *Mr. Irman* presented 'Artificial reef project in Sabah'. His presentation appears as **Annex 21**.

61. *Mr. Leng* would like to know more about Malaysia's experience concerning the effectiveness of ARs, including what kind of structure of ARs is effective, in terms of biodiversity species and coral reefs. *Mr. Irman* responded that although exact figures are not currently available, local fishers have provided feedback indicating that certain fish species which had previously disappeared have reappeared following ARs deployment.

62. *Ms. Haryati* explained that Malaysia has two types of AR based on purpose of deployment; i) Conservation AR, where the DOF Malaysia does not disclose the ARs locations to fishers as fishing activity is prohibited. These ARs are intended for conservation purposes to protect the habitat and deter trawling activities, and ii) Recreational AR, where fishers are allowed to fish by using eco-friendly traditional fishing gear like hook and line.

63. *Mr. Jamil* shared that FRI Bintawa Sarawak is involved in the study on the sustainable structure of AR, with a specific officer assigned. He mentioned that the information on the AR structure can be shared with *Mr. Leng*.

64. *Ms. Liza* added information about collaboration between the Department of Marine Fisheries Sarawak with Petroliam Nasional Berhad (PETRONAS – Malaysia's National Oil and Gas Company) on the Malaysia Master Reefing Plan launched in late 2024 in conjunction with the Rigs to Reefs program where decommissioned oil rig platforms will be deployed as ARs in Sarawak waters.

65. *Mr. Muhammad Amirullah Al-Amin* gave information on the structure, design and material of ARs in Malaysia. He briefly explained that there are many structures of ARs deployed in Malaysia with various types of material. Started with tyre reefs, confiscated fishing vessels, concrete and oil rig platforms. Tyre reefs were no longer used for ARs after it was banned by the DOF Malaysia in 1990 due to environmental pollution. Other than tyres, DOF Malaysia also used confiscated fishing vessels as ARs but this structure is not purposely designed as ARs. From the experience the vessel structure drifted from the original deployment location due to strong water current. Currently, DOF Malaysia only focuses on deployment of concrete ARs which are divided into two types of design which are soft-bottom and hard-bottom ARs. This ARs structure is robust and expected to last up to 50 years if deployed in a right seabed condition. He also highlighted that, the most important part in ARs deployment program is to conduct a site selection survey before the deployment to avoid the ARs from sunken into a thick muddy seabed.

66. *Ms. Cedo sought* for clarification about potential environmental pollution risks associated with the use of oil rig platforms as artificial reefs (ARs). In response, *Mr. Muhammad Amirullah Al-Amin* clarified that the United Nations has prohibited the use of tyres as ARs due to research findings indicating that tyres can cause environmental pollution. He clarified that, in contrast, the use of oil rigs as ARs in collaboration with PETRONAS adheres to the standards outlined by the United Nations Environment Programme (UNEP) under the Guidelines for the Placement of Artificial Reefs: London Convention and Protocol. He emphasized that, prior to approval by DOF Malaysia, PETRONAS was required to ensure that the structures were thoroughly cleaned of hydrocarbons and other potential marine pollutants in accordance with international standards. *Ms. Liza* added that, in the Malaysia Master Reefing Plan, the subsea and partially largely intact structures of oil rigs will be converted into ARs in-situ, at their original locations. While the other types of platforms, the top and jacket are transported to coastal areas for deployment at agreed designated sites as ARs ex-situ. All rigs must follow the decommissioned key requirements and steps such as well plugging and cleaning, environmental hazard assessment and regulatory approval before transformed into ARs.

67. *Mr. Abd Haris Hilmi* inquired whether Sarawak or Sabah had undertaken any studies on biomass in ARs. *Mr. Irman* explained that such work is still an ongoing process. For Sarawak, *Mr. Jamil* reported that the Bintawa had conducted a study focusing on species composition and density within ARs in Sarawak waters. He noted that the findings

provide valuable baseline information for assessing biomass and monitoring the ecological performance of ARs in Sarawak waters.

68. *Mr. Soe Win* presented 'Fisheries Management Measure and Fisheries conservation in Myanmar'. His presentation appears as **Annex 22**.

69. *Ms. Haryati* asked about the three-month closed season (April to June). Mr. Soe Win explained that the area affected during this period is the offshore zone. He added that, during the closed season, fishing workers receive support from the owners of the fishing vessels. Non-Governmental Organizations (NGOs) will assist in patrolling the Local Management Area (LMA) in the inshore zone.

70. *Mr. Sallehudin Jamon* from FRI Kampung Acheh, Perak queried about the closed species. *Mr. Soe Win* answered it involved lobster bearing eggs and any endangered species.

71. *Ms. Noor Suhailis* queried how April to June was selected as the closed season. *Mr. Soe Win* explained that Myanmar initially implemented June to August as closed months in 2014. Then, starting from 2018, the closed season was shifted to April to June to align with the spawning period of many species.

72. *Ms. Cedo* presented 'Philippines: Success Story on the Conservation Efforts and Management Strategies of Pelagic Fisheries'. Her presentation appears as **Annex 23**.

73. *Assoc. Prof. Dr. Rumeaida* expressed her appreciation to the Philippines for providing an update on the Closed Season Policy for sardines in the Zamboanga Peninsula. She noted that the revised closure period for sardines in the Zamboanga Peninsula now commences in November. She emphasized that this adjustment reflects the importance of revising management policies and strategies in accordance with the latest scientific evidence.

74. *Dr. Nipa* inquired about the challenges that occurred after the closed season ended. *Ms. Cedo* acknowledged the occurrence of a "race to fish" situation during the early months after the closed season, which resulted in increased fishing pressure. She noted that, in the near future, the Government of the Philippines plans to implement a buffer measure in Fisheries Management Area (FMA) 12, during which some fishing gears that contribute to the catching of juvenile fish will be prohibited for another three months after the closed season.

75. *Ms. Pattaratjit* inquired about the current situation of IUU Fishing Index and Threat Assessment Tool (IFIT) that has been implemented in the Philippines, how the upgraded system and utilization by other sites. *Ms. Cedo* explained that more financial support is needed to expand to other areas and conduct a re-assessment since IFIT is an ongoing process.

76. *Dr. Nipa* presented 'The success story of Output control: catch Limits and Quotas in Thailand'. Her presentation appears as **Annex 24**.

77. *Dr. Ha* sought for clarification on how to standardize the fishing effort since it has different fishing gears and each type of fishing gear targets a certain species or species group. *Dr. Nipa* explained that fishing effort is standardized prior to aggregation. Standard fishing gears are selected for each species group: research vessels are used as the standard for demersal fauna, purse seine for pelagic fish, and anchovy purse seine for anchovy species. Effort from other gears is then standardized relative to these reference gears before being combined.

78. *Mr. Abd Haris Hilmi* queried about the dominant species among demersal fauna and pelagic fish, in which *Dr. Nipa* replied that sardines, mackerel, scad, and several species of neritic tuna are the dominant species for pelagic fish.

79. *Mr. Irman* asked on Ecosystem Traits Index (ETI), asking whether the analysis was conducted using single species, multiple species, or the entire fisheries community. *Dr. Nipa* clarified that the analysis is carried out using the whole fish community for management purposes. However, she emphasized the importance of also conducting analysis at the single-species level.

80. *Dr. Ha* presented 'Country Presentation: Success stories related to the management and conservation of pelagic fish in Vietnam'. His presentation appears as **Annex 25**.

81. *Dr. Nipa* queried why the range size of fish decreased after the deployment of AR. *Dr. Ha* explained that many fish are attracted to the ARs and establish nursery grounds nearby; therefore, the fish caught tend to be smaller in size.

82. *Mr. Ryon* raised a question regarding the materials and quantity of AR deployed in Viet Nam waters. *Dr. Ha* responded that the ARs was constructed from concrete, and a total of 174 blocks have currently been deployed. He further expressed hope that additional ARs units will be deployed in the future.

83. *Mr. Muhammad Amirullah Al-Amin* shared his experience regarding monitoring the effectiveness of ARs. He mentioned that monitoring the effectiveness of ARs is quite complex. There are two types of fish around ARs which categorize into resident fish such as *Lutjanidae, Serranidae, Haemulidae, Pomacentridae* and visiting species such as *Caranx ignobilis*, *Caranx sexfasciatus*, and *Carangoides fulvoguttatus*. To address this variation, he increased the sampling frequency around the ARs and employed multiple types of fishing gear to capture the full range of species compositions. In addition to technical monitoring, *Mr. Muhammad Amirullah Al-Amin* highlighted the importance of ARs management. Following deployment, continuous monitoring is essential to prevent local fishers from conducting fishing activities directly around the ARs. Without proper regulation, ARs may function as highly effective fish aggregating devices, which could inadvertently lead to overexploitation of adult fish stocks in the area.

84. *Dr. Ha* explained that Viet Nam conducted independent fisheries surveys prior to the deployment of AR, which are usually placed around 10 nautical miles from the shore. At present, data on ARs diversity is primarily obtained from the fisheries independent

surveys conducted by RIMF before and after the deployment of ARs. He expressed hope that, in the future, underwater cameras and divers could be utilized to monitor the biodiversity within the AR more effectively.

85. *Ms. Liza* shared the measures undertaken by the Department of Marine Fisheries Sarawak in monitoring ARs within Sarawak waters. She explained that fishers who use fish traps are licensed for Zone C which is required to operate beyond 12 nautical miles from the coastline. Any fish traps found within 12 nautical miles will be disposed of by the department's divers, thereby ensuring that ARs deployed within this zone are not adversely affected.

VI. TECHNICAL DISCUSSION ON THE CONSERVATION MEASURES AND MANAGEMENT STRATEGIES

86. *Assoc. Prof. Dr. Rumeaida* facilitated the session on the 'Summary of Feedback on Conservation Efforts and Management Strategies Questionnaire'. The participants reviewed the summary and proposed several modifications. *Assoc. Prof. Dr. Rumeaida* acknowledged the revisions and updated her summary slides accordingly. The updated presentation appears as **Annex 26**.

VII. CONCLUSION AND WAY FORWARD OF THE PROJECT

87. *Assoc. Prof. Dr. Rumeaida* facilitated the session on 'Regional Recommendations on the Future Direction of Pelagic Fisheries'. She shared that during the Forty-eighth Meeting of the Program Committee of the Southeast Asian Fisheries Development Center held on 3- 5 November 2025 in Langkawi, Kedah, Malaysia, there was suggestion that future activities should emphasize integrating digital data platforms and strengthening capacity building to support the AMSs that continue to face challenges in collecting and harmonizing fishery statistics data. The 48 PCM meeting highlighted the importance of inter-agency coordination at the national level, particularly among research, enforcement, and policy authorities. In response to that suggestion, *Assoc. Prof. Dr. Rumeaida* suggested looking into aspects of integration data and capacity building programs.

88. All participants gave constructive suggestions for future direction. Their inputs and insights lay the groundwork for more resilient and sustainable governance of pelagic fisheries in the region.

89. *Assoc. Prof. Dr. Rumeaida* also presented the Recommendation for the Future Direction of Pelagic Fisheries (2026–2035), in which outlined key suggested actions that AMSs could undertake over the ten-year period. She listed in three phases; i) Phase 1 Foundation (2026-2027), ii) Phase 2 Integration and Pilot (2028-2030), and iii) Phase 3 Consolidation (2031-2035). Her updated presentation appears as **Annex 27.**

90. *Ms. Mazalina* presented 'The Way Forward of the Project'. Her presentation appears as **Annex 28**.

91. *Ms. Pattaratjit* added that since the project 'Introduction to the Implementation and Assessment of the ASEAN Regional Plan of Action for the Management of Fishing Capacity' is also implemented under the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (FCG/ASSP), the outcomes of the Project will be reported through the ASEAN mechanism.

VIII. CLOSING REMARKS

92. Chief of SEAFDEC/MFRDMD, *Mr. Abd Haris Hilmi* expressed his gratitude to all participants for their attendance and active participation in the discussions. He formally closed the RTC. His closing remarks appear as **Annex 29**.

ANNEX 1

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ANNEX 2

OPENING ADDRESS

The Regional Technical Consultation (RTC) on The Conservation Effort and Management Strategies of Pelagic Fisheries Resources in Southeast Asia,
6-8 January 2026
Port Dickson, Negeri Sembilan, Malaysia.

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

A very good morning.

Our resource person, Assoc. Prof. Dr. Rumeaida Mat Piah from University Malaysia Terengganu

Ms. Mazalina Ali, Project Coordinator for the Regional Project of Fishing Capacity and also the Special Departmental Coordinator of SEAFDEC/MFRDMD

Representative from SEAFDEC Secretariat and SEAFDEC Training Department,

Representative from Brunei Darussalam,
Representative from Cambodia,
Representative from Indonesia,
Representative from Malaysia,
Representative from Myanmar,
Representative from The Philippines,
Representative from Thailand,
Representative from Vietnam.

Representatives from the Department of Fisheries Sabah, Fisheries Research Institute Kg. Acheh Perak, FRI Batu Maung Pulau Pinang, FRI Bintawa Sarawak, Department of Marine Fisheries Sarawak, as well as officers and staffs from SEAFDEC/MFRDMD

Ladies and gentlemen,
First of all, I wish Happy New Year 2026 and warmly welcome to The Regional Technical Consultation (RTC) on the Conservation Effort and Management Strategies of Pelagic Fisheries Resources in Southeast Asia, which will be held from today until 8 January 2026 in Port Dickson, Negeri Sembilan.

This RTC represents the fourth and final consultation under the project entitled "Implementation and Assessment of the ASEAN Regional Plan of Action (RPOA) for Management of Fishing Capacity." Initiated in April 2024 and scheduled to conclude in April this year, this project is generously funded by the Japan-ASEAN Integration Fund (JAIF). It involves the active participation from fisheries management agencies across ASEAN Member States (AMSs), except for Lao PDR. The project's goal is to strengthen regional cooperation and enhance fisheries information systems through the implementation of RPOA Capacity, focusing particularly on selected pelagic species to promote sustainability and responsible resource management.

During 2024 and 2025, MFRDMD successfully carried out ten (10) key activities, including the development of three comprehensive questionnaires. The first questionnaire examined national fishing capacity profiles, the implementation status of the RPOA Capacity, and the implementation status of ASEAN Guidelines on IUU Fishing in AMSs. The second questionnaire assessed the existing fisheries information systems or mechanisms in AMSs. The third questionnaire, which focused on Conservation Efforts and Management Strategies of pelagic fisheries resources, will be the subject of discussion and feedback during this RTC.

In 2025, SEAFDEC/MFRDMD successfully organized three Regional Technical Consultations (RTCs). The first RTC, titled "The Regional Technical Consultation on Fishing Capacity Profiles and Implementation Status of the RPOA-Capacity in the Asian Region", was held on 25 to 27 February in Kuala Lumpur with 41 participants, including representatives from 8 AMSs, the SEAFDEC Secretariat, SEAFDEC/TD, and collaborating organizations. The second RTC, titled "The Regional Technical Consultation on the Current Status of the Regional Fisheries Information or Mechanism in the Asian Region", took place on 28 to 30 May in Kuala Lumpur, attended by 38 participants, including representatives from 7 AMSs, the SEAFDEC Secretariat, SEAFDEC/TD and associated entities. Lastly, the third RTC, titled "The Regional Technical Consultation on Harmonization of Simple and Practical Indicators for Sustainable Pelagic Fisheries in Southeast Asia", was held on 22 to 24 October in Subang, Selangor, Malaysia, with 37 participants including representatives from 7 AMSs and additional partner institutions.

Ladies and gentlemen,
Today's RTC marks an important milestone as we move into the fourth output of the project: "Current status on conservation and management strategies of selected pelagic fishes in AMSs are identified and documented." Conservation efforts for pelagic fisheries are vital to safeguarding fish stocks and marine ecosystems, while management strategies emphasize regulating fishing capacity, strengthening monitoring and surveillance, and fostering regional cooperation. Together, these approaches form the foundation for ensuring the long-term sustainability of shared pelagic resources, which are critical to food security, livelihoods, and ecological balance in Southeast Asia.

In this RTC, we will exchange valuable information on policies and strategies that have already been implemented across our region. I am confident that many AMSs have achieved notable successes, with positive impacts observed on fisheries resources in their respective countries. These experiences will serve as important lessons and inspiration for further collaborative action. Your active participation and constructive input throughout this consultation are essential. This will enable us to move forward with effective solutions, strengthen regional solidarity, and ensure continued collaboration in promoting sustainability and responsible resource management.

Finally, on behalf of MFRDMD, I wish to express my deepest gratitude and appreciation to our distinguished resource person, Associate Professor Dr. Rumeaida Mat Piah, the Project Coordinator, Ms. Mazalina Ali, as well as to all representatives and meeting secretariats for their dedication and, commitment in making this consultation a reality.

With that, I am honoured to declare "The Regional Technical Consultation (RTC) on the Conservation Effort and Management Strategies of Pelagic Fisheries Resources in Southeast Asia." is officially opened.
Thank you very much

THE REGIONAL TECHNICAL CONSULTATION ON THE CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES OF PELAGIC FISHERIES RESOURCES IN SOUTHEAST ASIA

6 TO 8 JANUARY 2026
PORT DICKSON, NEGERI SEMBILAN
MALAYSIA

INTRODUCTION

- SEAFDEC, through MFRDMD, has been implementing regional initiatives to strengthen pelagic fisheries management frameworks and enhance scientific knowledge, including stock assessments, indicators for monitoring, and regional cooperation mechanisms for shared and transboundary stocks.
- AMSs also have undertaken various conservation efforts and management strategies to safeguard pelagic resources.
- Regional cooperation has also been strengthened through initiatives aligned with international frameworks such as the ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries for Food Security, the FAO Code of Conduct for Responsible Fisheries, and the United Nations Sustainable Development Goals, particularly SDG 14: Life Below Water.

INTRODUCTION

3

- Recognizing the urgent need for coordinated regional action, this Regional Technical Consultation (RTC) aims to consolidate national and regional experiences, identify priority, strengthen conservation efforts and harmonize management strategies, and develop recommendations to support sustainable pelagic fisheries in Southeast Asia.

OBJECTIVE OF THE RTC

4

- **Assess** the current status of pelagic fisheries resources in Southeast Asia.
- **Discuss** conservation and management measures currently applied in AMSs and identify good practices, lessons learned, and gaps.
- **Identify** common challenges and opportunities for regional collaboration.
- **Develop** regional recommendations and strategies to enhance conservation and management efforts of pelagic fisheries.
- **Strengthen** partnerships among governments, research institutions, and regional organizations.

EXPECTED OUTPUTS

- Consolidated regional overview on pelagic fisheries status.
- Documentation of country management practices/strategies, conservation, and challenges.
- Recommendations for capacity building, action plan, and regional frameworks for conservation and management strategies.

TENTATIVE AGENDA

Agenda 1: Opening Session

Agenda 2: Adoption of Agenda and Introduction of the project

Agenda 3: Introduction to the Conservation Efforts Management Strategies of Pelagic Fisheries

Agenda 4: Country Presentations on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources

Agenda 5: Technical Discussion on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia

Agenda 6: Conclusion and Way Forward

Agenda 7: Closing Session

PROVISIONAL AGENDA AND TIMETABLE

5 January 2026 (Monday)	
15:00 –	Check-in hotel
Day 1 (6 January 2026, Tuesday)	
Moderator: Mr. Muhammad Amirullah Al Amin bin Ayob	
08:30 – 09:00	Registration
Agenda 1: Opening Session	
09:00 – 09:10	Opening Address *by Chief of SEAFDEC/MFRDMD*
09:10 – 09:20	Self-Introduction of Participants
Agenda 2 & 3: Adoption of Agenda and Introduction of the Project	
Chairperson: Chief of SEAFDEC/MFRDMD	
09:20 – 09:30	Adoption of the Agenda *by Ms Mazalina Ali, Project Coordinator*
09:30 – 09:40	Introduction of the Project *by Ms Mazalina Ali, Project Coordinator*

Agenda 3: Introduction to Conservation Efforts and Management Strategies of Pelagic Fisheries	
09:40 – 10:40	Technical Presentation *by Resource Person*
10:40 – 11:10	Group Photo and Morning Break
Agenda 4: Country Presentation on the Conservation Efforts and Management Strategies of Pelagic Fisheries	
11:10 – 11:30	Brunei Darussalam
11:30 – 11:50	Cambodia
11:50 – 12:10	Indonesia
12:10 – 12:30	Malaysia
12:30 – 14:30	Lunch Break
14:30 – 14:50	Myanmar
14:50 – 15:10	Philippines
15:10 – 15:30	Thailand
15:30 – 15:50	Viet Nam
15:50 – 16:10	Sec/TD
16:10 – 16:30	DOF Sabah
16:30 – 17:00	Tea Break

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Day 2 (7 January 2026, Wednesday) *Chairperson: Chief of SEAFDEC/MFRDMD*	
Agenda 5: Country Presentation on the Success Stories	
09:00 – 09:20	Brunei Darussalam
09:20 – 09:40	Cambodia
09:40 – 10:00	Indonesia
10:00 – 10:20	Malaysia
10:20 – 11:00	Morning Break
11:00 – 11:20	Myanmar
11:20 – 11:40	Philippines
11:40 – 12:00	Thailand
12:00 – 12:20	Viet Nam
12:20 – 12:40	DOF Sabah
12:40 – 14:30	Lunch Break

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Agenda 6: Technical Discussion on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia	
14:30 – 16:30	Technical Discussion on Conservation Measures and Management Strategies *Facilitator: Resource Persons*
16:30 – 17:00	Tea Break
Day 3 (8 January 2026, Thursday) ***Chairperson: Chief of SEAFDEC/MFRDMD***	
09:00 – 10:30	Technical Discussion on Conservation Measures and Management Strategies Cont. *Facilitator: Resource Persons*
10:30 – 11:00	Morning Break
11:00 – 13:00	Technical Discussion on Conservation Measures and Management Strategies Cont. *Facilitator: Resource Persons*
13:00 – 14:30	Lunch Break

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Agenda 7: Conclusion and Way Forward of the Project	
14:30 – 15:30	Regional Recommendations on the Future Direction of Pelagic Fisheries *Facilitator: Resource Persons*
15:30 – 15:40	Way Forward *by Ms Mazalina Ali, Project Coordinator*
15:40 – 16:40	Tea Break
16:40 – 17:00	Adoption of the Meeting Report
Agenda 8: Closing Session	
17:00 – 17:10	Closing Session *by Chief of SEAFDEC/MFRDMD*
9 January (Friday)	
08:00 – 12:00	Check-out hotel

TERIMA KASIH

THANK YOU

ANNEX 4

The Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia

6 to 8 January 2026
Port Dickson, Malaysia

PROVISIONAL PROSPECTUS

1. Background

Pelagic fisheries play a vital role in the socio-economic and food security landscape of Southeast Asia, contribute significantly to the total marine capture fisheries production in the region. These species form the backbone of many coastal and island communities' livelihoods and are integral to regional and international seafood trade. Pelagic fisheries consistently contributed approximately 45–60% of the total marine capture fisheries production in Southeast Asia. Countries such as Indonesia, Philippines, Thailand, and Viet Nam are among the largest producers, contributing substantial volumes of pelagic fish both for domestic consumption and export markets. In recent years, the region has seen an increase in demand for pelagic species, driven by population growth, changing consumption patterns, and international market pressures.

The sustainability of pelagic fisheries in Southeast Asia is under growing pressure due to overfishing, illegal, unreported and unregulated (IUU) fishing, habitat degradation, climate change, and limited management capacity. The transboundary nature of many pelagic fisheries, coupled with disparities in data collection and monitoring among ASEAN Member States (AMSs), further complicates effective regional management.

Recognizing these challenges, SEAFDEC, through MFRDMD, has been implementing regional initiatives to strengthen pelagic fisheries management frameworks and enhance scientific knowledge, including stock assessments, indicators for monitoring, and regional cooperation mechanisms for shared and transboundary stocks. AMSs also have undertaken various conservation efforts and management strategies to safeguard pelagic resources. These include the establishment of marine protected areas, seasonal fishing closures, gear restrictions, catch documentation schemes, and community-based fisheries management. Regional cooperation has also been strengthened through initiatives aligned with international frameworks such as the ASEAN-SEAFDEC Resolution and Plan of Action on Sustainable Fisheries for Food Security, the FAO Code of Conduct for Responsible Fisheries, and the United Nations Sustainable Development Goals, particularly SDG 14: Life Below Water.

Recognizing the urgent need for coordinated regional action, this Regional Technical Consultation (RTC) aims to consolidate national and regional experiences, identify priority, strengthen conservation efforts and harmonize management strategies, and develop recommendations to support sustainable pelagic fisheries in Southeast Asia.

2. Objective of the RTC

This RTC aims to:

- Assess the current status of pelagic fisheries resources in Southeast Asia.
- Discuss conservation and management measures currently applied in AMSs and identify good practices, lessons learned, and gaps.
- Identify common challenges and opportunities for regional collaboration.
- Develop regional recommendations and strategies to enhance conservation and management efforts of pelagic fisheries.
- Strengthen partnerships among governments, research institutions, and regional organizations.

3. Expected Outputs

This RTC is expected to:

- Consolidated regional overview on pelagic fisheries status.
- Documentation of country management practices/strategies, conservation, and challenges.
- Recommendations for capacity building, action plan, and regional frameworks for conservation and management strategies.

4. Date and Venue of the RTM

The Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia will be held from 6th to 8th January 2026 in Port Dickson, Malaysia.

5. Participants of the Meeting

It is envisaged that the participants of the meeting will be:

a. Two resource persons,
b. Two representatives from AMSs except Lao PDR and Malaysia,
c. Representatives from Department of Fisheries (DOF) Malaysia, DOF Sabah, Department of Marine Fisheries Sarawak, Fisheries Research Institute (FRI) Kg. Acheh, FRI Batu Maung, and FRI Bintawa,
d. Chief, Deputy Chief, Project Coordinator, and relevant officers from SEAFDEC/MFRDMD.

6. Tentative Agenda

Agenda 1: Opening Session

Agenda 2: Adoption of Agenda and Introduction of the project

Agenda 4: Introduction to the Conservation Efforts Management Strategies of Pelagic Fisheries

Agenda 5: Country Presentations on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources

Agenda 6: Technical Discussion on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia

Agenda 7: Conclusion and Way Forward

Agenda 8: Closing Session

Secretariat and Correspondence

All correspondence regarding the Regional Technical Consultation should be addressed to:

Ms. Mazalina Ali
mazalina@seafdec.org.my
Special Department Coordinator
SEAFDEC/MFRDMD
Kuala Terengganu, Malaysia
Tel: 609 – 6175940

The Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Resources in Southeast Asia

6 – 8 January 2026
Port Dickson, Malaysia

PROVISIONAL TIMETABLE

5 January 2026 (Monday)	
15:00 –	Check-in hotel
Day 1 (6 January 2026, Tuesday) ***Moderator: Mr. Muhammad Amirullah Al Amin bin Ayob***	
08:30 – 09:00	Registration
Agenda 1: Opening Session	
09:00 – 09:10	Opening Address *by Chief of SEAFDEC/MFRDMD*
09:10 – 09:20	Self-Introduction of Participants
Agenda 2: Adoption of Agenda and Introduction of the Project	
09:20 – 09:30	Adoption of the Agenda *by Ms Mazalina Ali, Project Coordinator*
09:30 – 09:40	Introduction of the Project *by Ms Mazalina Ali, Project Coordinator*
Agenda 3: Introduction to Conservation Efforts and Management Strategies of Pelagic Fisheries	
09:40 – 10:40	Technical Presentation *by Resource Person*
10:40 – 11:10	Group Photo and Morning Break
Agenda 4: Country Presentation on the Conservation Efforts and Management Strategies of Pelagic Fisheries	
11:10 – 11:30	Brunei Darussalam
11:30 – 11:50	Cambodia
11:50 – 12:10	Indonesia
12:10 – 12:30	Malaysia
12:30 – 14:30	Lunch Break

14:30 – 14:50	Myanmar
14:50 – 15:10	Philippines
15:10 – 15:30	Thailand
15:30 – 15:50	Viet Nam
15:50 – 16:10	Sec/TD
16:10 – 16:30	DOF Sabah
16:30 – 17:00	Tea Break
Day 2 (7 January 2026, Wednesday) ***Chairperson: Chief of SEAFDEC/MFRDMD***	
Agenda 5: Country Presentation on the Success Stories	
09:00 – 09:20	Brunei Darussalam
09:20 – 09:40	Cambodia
09:40 – 10:00	Indonesia
10:00 – 10:20	Malaysia
10:20 – 11:00	Morning Break
11:00 – 11:20	Myanmar
11:20 – 11:40	Philippines
11:40 – 12:00	Thailand
12:00 – 12:20	Viet Nam
12:20 – 12:40	DOF Sabah
12:40 – 14:30	Lunch Break
Agenda 6: Technical Discussion on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia	
14:30 – 16:30	Technical Discussion on Conservation Measures and Management Strategies *Facilitator: Resource Persons*
16:30 – 17:00	Tea Break
Day 3 (8 January 2026, Thursday) ***Chairperson: Chief of SEAFDEC/MFRDMD***	
09:00 – 10:30	Technical Discussion on Conservation Measures and Management Strategies Cont. *Facilitator: Resource Persons*
10:30 – 11:00	Morning Break

11:00 – 13:00	Technical Discussion on Conservation Measures and Management Strategies Cont. *Facilitator: Resource Persons*
13:00 – 14:30	Lunch Break
Agenda 7: Conclusion and Way Forward of the Project	
14:30 – 15:30	Regional Recommendations on the Future Direction of Pelagic Fisheries *Facilitator: Resource Persons*
15:30 – 15:40	Way Forward *by Ms Mazalina Ali, Project Coordinator*
15:40 – 16:40	Tea Break
16:40 – 17:00	Adoption of the Meeting Report
Agenda 8: Closing Session	
17:00 – 17:10	Closing Session *by Chief of SEAFDEC/MFRDMD*
9 January (Friday)	
08:00 – 12:00	Check-out hotel

Implementation and Assessment of the ASEAN Regional Plan of Action for the Management of Fishing Capacity

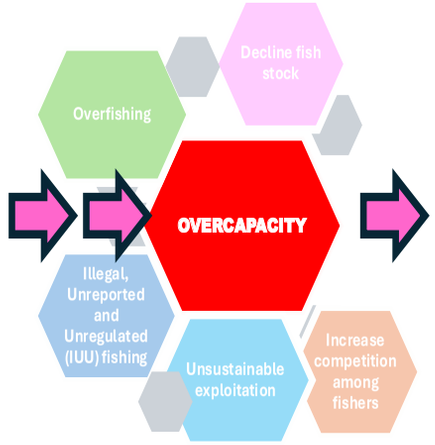
PROJECT PROGRESS 2024 TO 2025

By:
MAZALINA ALI
06.01.2026
SEAFDEC/MFRDMD

PROJECT INTRODUCTION

The **marine capture fisheries production in ASEAN Member States (AMSs)** showed an increasing trend from 2000 to 2018, with some fluctuation in 2019 and onward, still contributed approximately **23.1% to the global marine capture fisheries production**

The rapidly growing fishing industry has led to increasing fishing capacity and fishing



The ASEAN Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity) was developed in **2017** to guide AMSs in implementing effective and coordinated strategies to manage fishing capacity

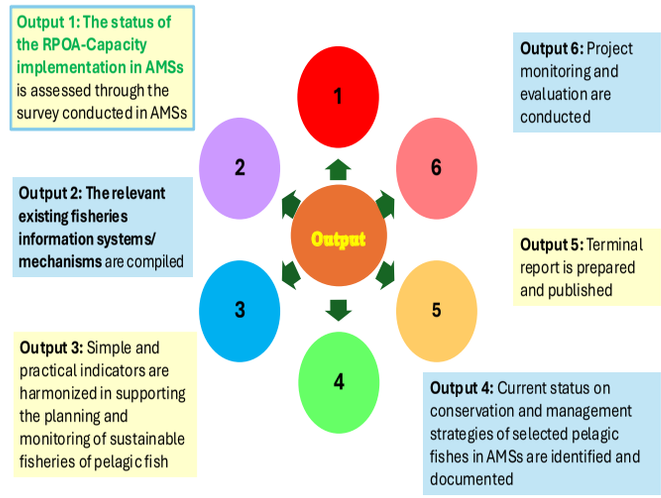
SEAFDEC/ MFRDMD has taken the initiative to conduct ***Implementation and Assessment of the ASEAN Regional Plan of Action for the Management of Fishing Capacity*** project that run from **April 2024 to April 2026.**

Participating:
9 ASEAN Member States (AMSs) except Lao PDR
Donor:
Japan-ASEAN Integration Fund (JAIF)

Objective:
- To enhance ASEAN cooperation
- facilitate the improvement of regional fisheries information systems/ mechanisms through the implementation of RPOA-Capacity

Outcome:
Assessment on the implementation of the ASEAN Regional Plan of Action – the management of the fishing capacity and regional fishery information systems/mechanisms

Aligned with the:
- Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 No. 7 and 8
- Plan of Action for ASEAN Region Towards 2030 under A. Planning and Information, B. Fisheries Management



PROJECT **ACHIEVEMEMT 2024-2025**

OUTPUT 1
SUB- ACTIVITY 1.1

The Workshop for Developing Questionnaire For Management & Assessment Of Fishing Capacity
27-29 August 2024, at Kuantan, Pahang

Participants	: 14 (Including 2 Resource Person (RP) from UMT, FRI Kg. Acheh, FRI Batu Maung and MFRDMD officials)
Key output	Successfully developed the draft of first questionnaires, on: 1) National Fishing Capacity Profile for Pelagic Fisheries, 2) Implementation Status of RPOA Capacity, and 3) Implementation Status of the ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain (ASEAN Guidelines IUU).
Publications	1) SEAFDEC Newsletter Volume 47, Number 3 2) Published report ***Report of the Workshop for Developing Questionnaire for Management and Assessment of Fishing Capacity*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2777

OUTPUT 1
SUB- ACTIVITY 1.2

The Regional Hybrid Kick-off Meeting for the Implementation and Assessment of ASEAN Regional Plan of Action for Management of Fishing Capacity,
28-29 October 2024 at Alor Star, Kedah

Participants	25 in-person + 5 online. (Cambodia, Indonesia, Malaysia DOF Headquarters, Myanmar, Thailand, Viet Nam, 2 RP, DOF Sabah, and MFRDMD officials)
Key output	The launching or kick-off of the project 'Implementation and Assessment of ASEAN Regional Plan of Action for Management of Fishing Capacity'. The in-person and online participants provided feedback on the draft questionnaires which was finalized during the Meeting.
Publications	1) SEAFDEC Newsletter Volume 47, Number 4 2) Published report ***Report on The Regional Hybrid Kick-off Meeting for the Implementation and Assessment of ASEAN Regional Plan of Action for Management of Fishing Capacity*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2867

OUTPUT 2
SUB- ACTIVITY 2.1

The Workshop for Developing Questionnaire on the Current Status of Existing Fisheries Statistics and Information or Relevant System in AMSs ,
24-26 December 2024 at Kota Bharu, Kelantan

Participants	23 (including 2 DOF Malaysia, FRI Kg. Acheh, FRI Batu Maung and MFRDMD officials)
Key output	The participants contributed to developing the draft questionnaires on the current status of existing fisheries statistics and information or relevant system in AMSs.
Publications	1) SEAFDEC Newsletter Volume 47 Number 4 2) Published report ***Report on the Workshop for Developing Questionnaire on the Current Status of Existing Fisheries Statistics and Information or Relevant System in AMSs*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2866

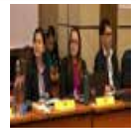



OUTPUT 1
SUB- ACTIVITY 1.3

Regional Technical Consultation (RTC) on Fishing Capacity Profiles and Implementation Status of the RPOA-Capacity in the Asian Region,
25 - 27 Feb 2025, at Kuala Lumpur

Participants	41 (Including 8 AMSs, 2 RP from UMT, FRI Kg. Acheh, FRI Batu Maung, FRI Bintawa; SEAFDEC Secretariat, TD and MFRDMD)
Key output	AMS representatives presented the feedback based on questionnaires on National Fishing Capacity Profile, Implementation Status of RPOA Capacity and ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain (ASEAN Guideline IUU)
Publications	1) SEAFDEC Newsletter Volume 48, Number 1 2) Published report ***Report on The Regional Technical Consultation on Fishing Capacity Profiles and Implementation Status of the RPOA-Capacity in the Asian Region*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2777






OUTPUT 1
SUB- ACTIVITY 1.4

Workshop on the Analysis of the Regional Fishing Capacity Questionnaire,
9 – 12 April 2025, at Langkawi, Kedah

Participants	22 (including 2 RP from UMT; DOF Malaysia, FRI Kg. Acheh, FRI Batu Maung, FRI Bintawa, MFRDMD)
Key output	Analyzed the feedback received from AMS representatives on the first questionnaire (Activity 1.3)
Publications	1) SEAFDEC Newsletter Volume 48, Number 2 2) Published report ***Report on Assessment of National Pelagic Fisheries Profile, Status of RPOA Capacity and ASEAN Guidelines IUU in the Southeast Asian Region*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2868




OUTPUT 2
SUB- ACTIVITY 2.2

The Regional Technical Consultation(RTC) on Current Status of the Regional Fisheries Information or Mechanism in the Asian Region ,
28 – 30 May 2025, at Kuala Lumpur

Participants	38 (Including 7 AMSs, 2 RP from UMT, DOF Sabah; FRI Kg. Acheh, FRI Batu Maung, FRI Bintawa; SEAFDEC Secretariat, TD and MFRDMD)
Key output	AMSs representative provided feedback on the second questionnaire, which focuses on the current status of fisheries information systems or mechanisms in their respective countries
Publications	1) SEAFDEC Newsletter Volume 48, Number 2 2) Published report: ***Report on the Regional Technical Consultation on Current Status of Regional Fisheries Information/Mechanisms in the Asian Region*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2940




OUTPUT 2
SUB- ACTIVITY 2.3

Workshop on the Assessment of Regional Fisheries Information/Mechanism Questionnaire ,
17 – 18 July 2025, at Cherating, Pahang

Participants	20 (Including 2 RP from UMT, DOFM Headquarters; DOF Sabah,; FRI Kg. Acheh, FRI Batu Maung & FRI Bintawa; MFRDMD)
Key output	Analyzed the feedback received from AMS representatives on the second questionnaire (Activity 2.2)
Publications	1) SEAFDEC Newsletter Volume 48, Number 3 2) Published report ***Report on The Current Status of the Regional Fisheries Information Systems/Mechanisms in AMSs*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2946

OUTPUT 3
SUB- ACTIVITY 3.1

The Regional Technical Consultation (RTC) on the Harmonization of Simple and Practical Indicators for Sustainable Pelagic Fisheries in Southeast Asia,
22 – 24 October 2025, at Subang, Selangor

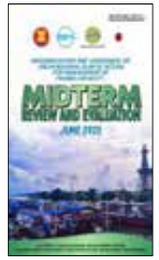
Participants	37 (Including 7 AMSs, 2 RP from UMT, DOF Sabah; FRI Kg. Acheh, FRI Bintawa; and MFRDMD)
Key output	AMS presented the indicators used in their respective country. Throughout the consultation, the resource person guided participants in selecting suitable and simple indicators that could be applied across all AMSs.
Publications	1) The article will be submitted for publication in SEAFDEC Newsletter Volume 48, Number 4 2) Published report ***Report on the Regional Technical Consultation on The Harmonization of Simple and Practical Indicators for Sustainable Pelagic Fisheries in Southeast Asia*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2957

OUTPUT 4
SUB- ACTIVITY 4.1

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

Participants	18 (Including 2 RP from UMT, DOFM Headquarters, DOF Sabah, FRI Kg. Acheh, FRI Batu Maung & FRI Bintawa; MFRDMD
Key output	Developed questionnaire on the Conservation Efforts and Management Strategies that has been established in AMSs (the third questionnaire)
Results	1) SEAFDEC Newsletter Volume 48, Number 3 2) Published report ***Report on The Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs*** Online link: https://repository.seafdec.org.my/handle/20.500.12561/2945

OUTPUT 6
SUB- ACTIVITY 6.1



Midterm Review and Evaluation Meeting,
22 – 24 April 2025, at Penang, Malaysia

(subsequent internal meeting 11- 13 July 2025 at MFRDMD office, Terengganu)

Participants	20 (1 RP from UUM, DOFM Headquarters; FRI Kg. Acheh & FRI Bintawa; MFRDMD) (subsequent internal meeting involved only 8 participants which was 1 RP from UUM and 7 MFRDMD officials)
Key output	Reviewed the progress of the fishing capacity project
Publications	1) SEAFDEC Newsletter Volume 48, Number 2 2) Published report *Implementation and Assessment of ASEAN Regional Plan of Action for Management of Fishing Capacity: Midterm Review and Evaluation* Online link: https://repository.seafdec.org.my/handle/20.500.12561/2887

OVERALL PROGRESS & WORKPLAN

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Outputs 1: The status of the implementation of RPOA -Capacity in AMSs is assessed through the survey conducted in AMSs								
Activity 1: Management and Assessment of Fishing Capacity								
Sub-Activity 1.1: Workshop for Developing Questionnaire for Management and Assessment of Fishing Capacity	/							
Sub-Activity 1.2: Regional Hybrid Kick-Off Meeting and Finalization of the Questionnaire		/						
Sub-Activity 1.3: Regional Technical Consultation (RTC) on Fishing Capacity Profiles and Implementation Status of the RPOA-Capacity in the Asian Region			/					
Sub-Activity 1.4: Workshop on the Analysis of the Regional Fishing Capacity Questionnaire				/				

OUTPUT 1

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 2: The relevant existing fisheries information systems and mechanisms are compiled and enhanced								
Activity 2: Compilation and Enhancement of Relevant Existing Fisheries Information System / Mechanisms								
Sub-Activity 2.1: Workshop for developing questionnaires on the current status of existing fisheries statistics and information or relevant system in AMSs		/						
Sub-Activity 2.2: The Regional Technical Consultation (RTC) on Current Status of the Regional Fisheries Information or Mechanism in the Asian Region				/				
Sub-Activity 2.3: Workshop on the Assessment of Regional Fisheries Information/Mechanism Questionnaire					/			

OUTPUT 2

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 3: Simple and practical indicators are standardized in supporting the planning and monitoring of sustainable fisheries of pelagic fish								
Activity 3. Standardization of Simple and Practical Fisheries Indicators								
Sub-Activity 3.1: Regional Technical Consultation on the Harmonization of Simple and Practical Indicators for Sustainable Pelagic Fisheries in Southeast Asia						/		

OUTPUT 3

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 4: The current status on conservation and management strategies of selected pelagic fishes in AMSs are identified and documented								
Activity 4: Compilation and Assessment of Management Strategies of Selected Pelagic Species								
Sub-Activity 4.1: Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs					/			
Sub-Activity 4.2: Regional Technical Consultation (RTC) on Conservation Efforts and Management Strategies of Selected Pelagic Fisheries Resources in AMSs							X	

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 6: Project monitoring and evaluation are conducted								
Activity 6: Project monitoring and evaluation								
Sub-Activity 6.1: Midterm Review and Evaluation Meeting				/				

THE END

Any question?

Thank You

Terima Kasih

PELAGIC FISHERIES MANAGEMENT; CHALLENGES, STRATEGIES AND FUTURE PATHWAYS

Assoc. Prof. Dr Rumeaida Mat Piah
Faculty of Fisheries and Aquaculture Sciences, UMT
6 January 2026

REGIONAL OVERVIEW OF PELAGIC FISHERIES

- Pelagic fisheries target fish that live in the water column away from the bottom.
- Importance: Global **food security**, **livelihoods** (millions employed in SE Asia), trade.
- Contribution: **~40% of global marine catch** (FAO 2022). In SEA countries: pelagic species often account for the highest share of marine catch.
- Purse seining is widespread across SEA, especially for schooling small pelagic fishes. Pelagic longlining is widely used for tunas and large pelagic fishes.
- Marine capture fisheries in SEA overall are among the world's most productive, with tunas and small pelagic fishes driving much of this output (Devanto, 2022)
- 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.

REGIONAL OVERVIEW OF PELAGIC FISHERIES

- **Small pelagic species** (e.g., anchovies, sardines, scads, mackerel), generally schooling species found above continental shelves.
- Common small pelagics include scads (Decapterus spp.), Indian mackerel (Rastrelliger spp.), sardinellas (Sardinella spp.), anchovies, and others. These species often dominate inshore and shelf catches owing to high productivity in tropical waters.
- Small pelagics in the South China Sea constitute a significant portion of pelagic landings; they are frequently targeted by purse seines and various net gears

- **Large pelagic species** (e.g., tuna and tuna-like species, billfishes) — often highly migratory and occur offshore.
- Tuna and tuna-like species (e.g., skipjack, yellowfin) are major components of offshore fisheries and are targeted with longlines, purse seines, and pole-and-line gear.
- Highly migratory species often cross multiple EEZs, creating shared stock issues among ASEAN states

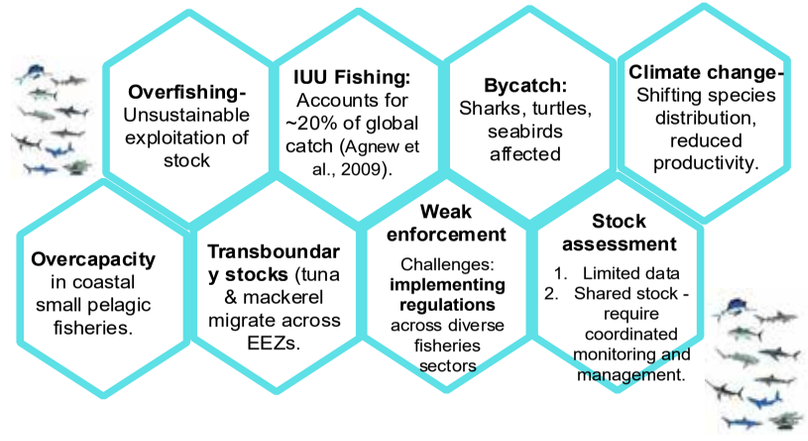
CURRENT STATUS AND TRENDS

- **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

CHALLENGES



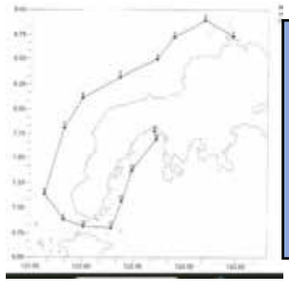
CASE STUDIES

CASE STUDY 1

- 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**.

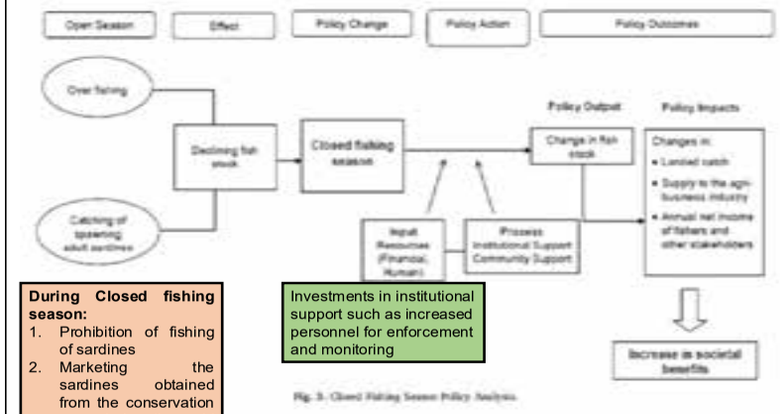
Zamboaga Peninsular: Centre for sardine industry, producing 50-60% of the country's annual total sardine production
-19 fishing companies
-8 caning companies
-3 tin can manufactures
-Caning industry-employs 15000 workers who process 1000 tonnes of sardines daily

Peak production in 2009-then declining
2011-serious decline, 50% less from the previous year.



2011: The Department of Agriculture (DA) and the Department of Interior and Local Government (DILG) of the Philippines issued Joint DA-DILG Administrative Order (JAO-01s2011):

-Establishing a conservation area- a closed fishing season for commercial scale harvest of sardines
-No-fishing zone: 13 987 square kilometres



During Closed fishing season:
1. Prohibition of fishing of sardines
2. Marketing the sardines obtained from the conservation area during the said period

Investments in institutional support such as increased personnel for enforcement and monitoring

Fig. 3. Closed Fishing Season Policy Analysis

RESULTS (AFTER 3 YEARS):

- ✓ 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.

Lessons learned from the experience

1	**Strong link between the sardine industry and the science community** , helpful in decision making. The main issue in the formulation of the closed fishing season policy is its implementation period. The link facilitated the generation and analysis of data (e.g., trends in fish stock, peak spawning period) to show magnitude of the problem and policy outcome for evidence-based decision making.
2	Stakeholders' participation in the policy process is critical, thus the need for communication. **Information dissemination activities**, e.g., regular dialogue, should address clarity, consistency and coherence of policy provisions and implementing mechanisms to promote common understanding and facilitate consensus building or reaching agreements.
3	Provision of **training** for employees who will be out of jobs during the closed season. Other **national agencies provided capacity building program**s to address the expected unemployment.

CASE STUDY 2

Heliyon

Research article

The review of the evolution, deficiencies, and future outlook of China's pelagic fisheries management from 1985 to 2024

Xiaolin CHU

This study focuses on the examination of international, regional, and national fisheries documents to analyze its evolution, deficiencies and future outlook.

Three distinct phrases

-**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.

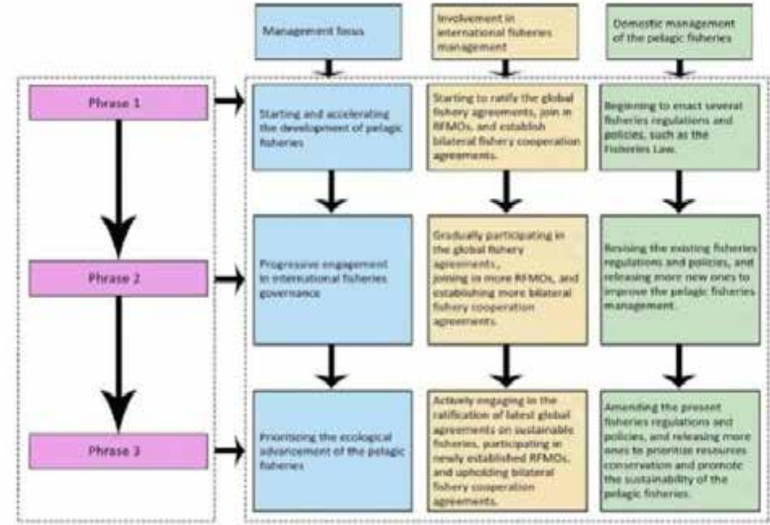


Fig. 3. The structure diagrammatic sketch on evolutionary phases of pelagic fisheries management in China.

Over nearly four decades, China's pelagic fishery management has undergone significant evolution, demonstrating a clear trajectory towards sustainability

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 (Lessons learned from the experience)

- **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 3

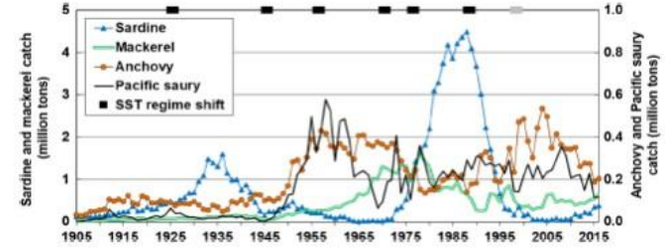
REVIEW ARTICLE

Review of population dynamics and management of small pelagic fishes around the Japanese Archipelago

Akihiko Yatsu[1]

Population dynamics and Japan's fishery management of the principal small pelagic fishes (SPF) around the Japanese Archipelago were reviewed on the basis of available information,

- long-term trajectories of commercial catch,
- biomass,
- spawning stock biomass (SSB),
- recruitment,
- recruitment per spawning stock biomass (RPS, No./kg),
- fishing mortality coefficient (F),
- exploitation rate (ER, catch weight/biomass).



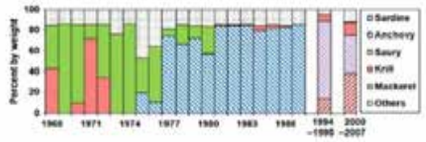


Fig. 3 Minke whales' stomach contents by weight from northwestern Pacific, mainly off Sanriku of Honshu Island, and southeastern Hokkaido Island. N.B.: data of 1994–1995 and 2000–2007 are aggregated by the original references

- 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.

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.

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ANNEX 7 BRUNEI DARUSSALAM

1 TOP 5 ISSUES IN BRUNEI DARUSSALAM

	Issues	
1	**Lack of regular fish stock assessment**	• routine sampling activities are undertaken for both small-scale fisheries and commercial operators, however, the collected data has yet to be analysed. • A comprehensive marine resources survey was conducted in 2024, and the analysis of the findings is currently underway.
2	**Lack of regulated/ authorised fish landing site**	• Particularly for small-scale fisheries, landing sites are widely dispersed across the country, and many of these locations currently operate without any formal monitoring mechanisms.
3	**Lack of systematic data collection & Lack of capacity in data collection**	• shortage of manpower and especially personnel with taxonomic knowledge and expertise in fish species identification. • A data collection system is required with a central database is currently being developed to enhance the organisation and reliability of SSF data collection.
4	**IUU (illegal, unreported, unregulated) fishing**	• Enforcement efforts remain limited due to inadequate manpower and insufficient operational capacity to carry out comprehensive monitoring and enforcement.
5	**Lack of management and conservation measures**	• The implementation of management and conservation measures is constrained by the lack of stock assessment data and limited research to inform evidence-based decision-making

2A

No.		Issues	Yes/No	Specify:
i	Output control: catch Limits and Quotas	Total Allowable Catches (TACs) set based on stock assessments	NO	
		Allocation of quotas among fleets or vessels	NO	Each vessels have own catch target based on gear and fishing zonation
		Minimum fish size limit	NO	
		Maximum fish size limit	NO	
		Slot limit	NO	
		Catch prohibition of certain pelagic species	YES	Banning of catch/landing and importation of all species of sharks

2A

No.	Items		Yes/No	Specify:
ii	Gear Regulations and Selectivity Improvements	Use of circle hooks	NO	
		Bycatch/ Incidental reduction devices/ mitigation (e.g., Finger, bird-scaring lines)	NO	
		Control on gear modification(e.g., Prohibit high opening of trawl net)	NO	
		Control on fishing aids in carriers and purse seine operation (e.g., intensity of lights, FADs, fish site identification, fish finder)	NO	
		Gear marking	NO	
	Control on gear specification	Mesh size control	YES	
		Cod end mesh size	YES	For Bottom trawlers
		Depth of the net	NO	By gear type
		Length of net	YES	for licensing purposes

2A

	Items		Yes/No	Specify:
iii	Fishing Effort/ input control	Limitation of the number of fishing vessels	YES	
		Limitation of the number of fishing gears	YES	
		Licensing and vessel registration system	YES	Vessel registration: Maritime and Port Authority of Brunei Darussalam Fishing gear registration: Department of Fisheries
		Control on the carrier vessel and mother boat – Size	YES	For mother boat only (size of vessels measured in GT)
		Control on the carrier vessel and mother boat – Numbers	YES	1 licensed 1 mother boat
		Control on horsepower of fishing vessels	YES	For trawlers only
		Control the number of light boat	NO	
		Control of light usage on fishing vessel – Intensity of light	YES	Requirement by MPA&D for navigation light
		Control of light usage on fishing vessel – Color of light	YES	MPA&D requirements:Red (portside), Green (Starboard), White (Deck), Yellow (Stern)
		Control of light usage on fishing vessel – Use of underwater light	NO	

2A

No.	Items		Yes/No	Specify:
iv	Spatial and Temporal Closures	Marine protected areas (MPAs)	YES	
		Closed season	NO	
		Closed area	NO	
		Other closures (Please specify)	NO	
v	Ecosystem-Based Approaches	Monitoring predator-prey dynamics	NO	
		Monitoring forage fish exploitation	YES	Coral Reef Area
		Monitoring climate-driven shifts in pelagic ecosystems	NO	
		Protecting ecosystem services, not just target species	YES	Protection of habitat especially within MPA

2A

		Items	Yes/No	Specify:
vi	Monitoring, Control, and Surveillance (MCS)	Vessel Monitoring Systems (VMS)	NO	
		Automatic Identification System (AIS)	YES	Class B (without satellite)
		e-Navigation	NO	
		Manual logbooks	NO	
		Electronic logbooks	NO	
		Onboard observers	NO	
		Port State Measures to prevent IUU fishing	NO	Pending accession
vii	Resource enchancement measures	Deployment of artificial reef	YES	
		Sea Ranching, Stock Enhancement, Restocking	YES	Stock Enhancement; Artificial Reef Deployment; Restocking; Giant Freshwater Prawn (Macrobrachium rosenbergii)
		Habitat restoration and rehabilitation	YES	Artificial Reef Deployment, Seagrass relocation, Coral propagation
		Fisheries Refugia	NO	Brunei has MPA but not totally a Refugia

3

		Items	Yes/No	Specify:
i	Governance	National Management Plans	YES	• NPOA-IUU • NPOA on IPOA • Banning of catch, landing and importation of Sharks since 2016
		Country adopt regional regulation and management measures (e.g. FAO Code of Conduct for Responsible Fisheries)	YES	• Establishment of MPA • Manual of Brunei Darussalam on Hygiene Requirement(s) For Fishing Vessels and Landing Sites (align with FAO regulation) • Deployment of artificial reefs
		Periodically revise regulation or management measures	NO	
		Main agency in the country responsible to formulate the management measure of pelagic resources (Please specify)		Department of Fisheries
		Country has fishers association	NO	
		Country adopting precautionary approach	NO	
		Country adopting marine spatial planning	NO	
		Country has MCS system	YES	Multiagency Collaboration

2B

No.		Items	Yes/No	Specify.
ii	Rights Based Management	Individual transferable quotas (ITQs)	NO	
		Community-based quota allocations	NO	
		Co management with fishing communities, especially for small scale (artisanal/ traditional) pelagic fisheries.	NO	
iii	Adaptive Management	Incorporating new data and scientific advice into dynamic decision making.	YES	Based on regional and national studies
		Adjusting strategies in response to climate change impacts(e.g. Shifting distributions of tuna stocks).	NO	
iv	Traceability and Market Based Tools	Fishery certifications(e.g. Marine Stewardship Council (MSC))	NO	
		Catch documentation schemes	YES	• Pilot country for the use of e-ACDS in 2017 • In the process of developing a new database system based on e-ACDS source code, to be implemented in 2027
		Trade restrictions on IUU (illegal, unreported, unregulated) products	YES	Brunei does not allow transhipment

2B

No.	Items		Yes/No	Specify:
V	Capacity Building and Stakeholder Engagement	Train local managers and fishers in data collection and stock assessment	NO	
		Engagement with fishers to enhance compliance	YES	• Through socioeconomic survey, roadshows and capacity building trainings especially for small-scale fishers
		Inclusive governance involving governments, NGOs, industry, and communities	YES	
VI	List of pelagic fish group/ species that have their own management plans		i	-
			ii	-
			iii	-

3 TOP 5 ISSUES IN BRUNEI DARUSSALAM

No.	Issues	
1	**Regulatory limitation and gaps**	Lack of legal framework
2	**Lack of Monitoring, Control, and Surveillance (MCS)**	
3	**Limited capability (e.g., stock assessment, enforcement)**	
4	**Lack of compliance among fishers**	
5	**Overlapping of jurisdiction**	

4

	Items	Yes/No	Specify:
i	Introduction of more sustainable fishing gears	YES	
ii	Introduction of new fishing gear technologies	YES	
iii	Development of more efficient post harvest and processing equipment	YES	
iv	Monitoring predator-prey dynamics	YES	
v	Monitoring forage fish exploitation	YES	
vi	Monitoring climate-driven shifts in pelagic ecosystems	YES	
vii	Protecting ecosystem services, not just target species	YES	
viii	Train local managers and fishers in data collection and stock assessment	YES	
ix	Engagement with fishers to enhance compliance	YES	Brunei has done engagement programs with fishers. However, more engagement programs needed to increase awareness

2A

No.	Items	Yes/No	Specify:
x	Inclusive governance involving governments, NGOs, industry, and communities.	YES	
xi	Considering socioeconomic of fishers in formulation of management measures	YES	
xii	Deployment of artificial reef	YES	Brunei has done deployment of AR however, we need capacity building on technical knowledge on site selection, AR design for both commercial and small-scale fishers
xiii	Adopting artificial intelligence (AI) technology in data collection	YES	Current AI adoption: coral monitoring using Reefcloud Potential: Using AI for species identification of fish catch
xiv	Increase financial/ funding/ allocation	YES	
xv	Establish/ strengthen co-management with communities	YES	
xvi	Other (Please specify)	YES	1) Research on selected pelagic species2) Capacity building on gear (net) making3) Gear marking4) Training for trainers

5

No.	Success Story
1	**Deployment of Artificial Reefs** **1) Deployment of ARs under DOF Initiatives** DOF has implemented artificial reef deployment as part of fisheries resource enhancement programs. These AR structures are strategically placed around MPA boundary/ outside MPA to create new sheltered habitats for juvenile and adult fish, promote biodiversity, and reduce fishing pressure on natural reef systems by providing alternative fishing grounds. **2) Artificial Reefs from Decommissioned Oil Rigs** In collaboration with BSP, decommissioned oil and gas platforms are being assessed and repurposed as artificial reefs that can support coral colonisation, attract reef associated species, and contribute to long term habitat enrichment. This approach aligns with international best practices for converting decommissioned offshore infrastructure into productive marine ecosystems.
2	**New Fishing Zonation Implemented on 1 January 2024** The Department of Fisheries has implemented a new fishing zonation policy effective 1 January 2024. The redelineation of fishing zones expands the spatial extent of Zone 1 from 0-3 nautical miles to 0-7 nautical miles, designated exclusively for small-scale fisheries.This expansion aims to: 1) reduce fishing pressure in nearshore areas; and 2) enhance the protection of ecologically significant nursery and spawning grounds for key marine species. Under the new zonation policy, commercial fishing activities have been displaced to 7 nautical miles and above from the coastline.

5

No.	Success Story
3	**Engagement and Capacity Building** **Collaboration with the Australian Institute of Marine Science (AIMS)** DOF collaborates with AIMS in the application of ReefCloud, a digital platform used for coral reef image analysis. This collaboration supports the identification of benthic taxonomic groups, enhances the accuracy of coral reef assessments, and improves the efficiency of long-term monitoring programmes. **Awareness Programmes for Small-Scale Fishers** DOF has implemented a series of awareness activities focusing on fisheries regulations, DOF programmes, and the importance of marine conservation measures such as fishing zonation and artificial reefs. These programmes are delivered through roadshows and targeted briefings to ensure small-scale fishers are well informed of current policies and best practices. **Capacity Building for Small-Scale Fishers** Capacity-building initiatives are designed to enhance technical knowledge and operational skills among small-scale fishers, particularly in the diagnosis and maintenance of outboard engines, as well as the proper use of GPS and fish finders. These initiatives aim to improve operational efficiency, reduce maintenance costs, and support the long-term sustainability of the small-scale fishing sector.

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Regional Technical Consultation on the Conservation Effort and Management Strategies of Pelagic Fisheries Resources in Southeast Asia

Status of fish stock assessment in Cambodia

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Marine Fisheries Research and Development Institute (MaFReDI)
Mr. LENG Syvann
Department of Fisheries Conservation, Fisheries Administration (FiA)
6-8 January 2026
Port Dickson, Malaysia

Introduction

Cambodia manages its pelagic fisheries through ecosystem-based strategies, including MPAs, closed areas, and closed seasons to protect spawning and nursery grounds. Fisheries refugia, artificial reefs, and habitat restoration enhance ecosystem health, while gear regulations and bycatch mitigation reduce fishing impacts. Monitoring combines logbooks, onboard observers, AIS/VMS, and environmental data to inform adaptive management. Community-based co-management strengthens compliance and sustainability. These strategies aim to ensure resilient ecosystems and sustainable fisheries, despite ongoing challenges in enforcement and data coverage.

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
1	Please select the main issues related to the management of pelagic resources in AMS	IUU (illegal, unreported, unregulated) fishing	1
		Changes in species distribution	
		Overfishing	2
		Overcapacity	
		Use of unsustainable fishing gears	3
		Increase of fishing effort	4
		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	5

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:
1	Output control: catch Limits and Quotas	Total Allowable Catches (TACs) set based on stock assessments	YES	Cambodia is beginning to adopt the concept of Total Allowable Catches (TACs) for some commercial and pelagic fisheries, based on stock assessments, though implementation is limited and still developing.
		Allocation of quotas among fleets or vessels	YES	Cambodia has started allocating fishing quotas among fleets and vessels, but this is limited in scope and mostly applies to commercial fisheries.
		Minimum fish size limit	YES	Cambodia enforces minimum fish size limits as part of its fisheries management measures to protect juvenile fish and ensure sustainable harvests
		Maximum fish size limit	YES	Cambodia has provisions for maximum fish size limits for certain species, although implementation is limited and less common than minimum size limits
		Slot limit	YES	Cambodia is exploring or implementing slot limits for certain fisheries, though this measure is still limited and mostly in pilot or research stages

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

		Catch prohibition of certain pelagic species	YES	Cambodia enforces catch prohibitions for certain pelagic species to protect vulnerable stocks, support reproduction, and maintain ecosystem balance
		Other (Please specify)	YES	Marine and inland habitat restoration,Artificial reefs and fish aggregation devices (FADs), Climate adaptation measures, Eco-certification and sustainable market initiatives, Post-harvest and value chain improvements, Capacity-building and research partnerships, Integration of digital technology and AI
ii	Gear Regulations and Selectivity Improvements	Use of circle hooks	YES	Cambodia is promoting the use of circle hooks in certain fisheries as a sustainable fishing practice, though adoption is still limited
		Bycatch/ incidental reduction devices/ mitigation (e.g., Pinger, bird-scaring lines)	YES	Cambodia is promoting the use of bycatch reduction and mitigation devices in selected fisheries, although implementation is still limited
		Control on gear modification (e.g., Prohibit high opening of trawl net)	YES	Cambodia regulates gear modifications to ensure sustainable fishing practices and prevent destructive fishing methods.
		Control on fishing aids in driftnets and purse seine operation (e.g., Intensity of lights, FADs, fish site identification, fish finder)	YES	Cambodia regulates the use of fishing aids in driftnet and purse seine operations to promote sustainable fishing practices and prevent overexploration
		Gear marking	YES	Cambodia enforces mesh size controls as a key fisheries management measure to promote

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

				sustainable harvests and protect juvenile fish
	Control on gear specification	Mesh size control	YES	
		Cod end mesh size	YES	
		Depth of the net	YES	Cambodia regulates the depth of fishing nets as part of gear control measures to promote sustainable fishing and protect fish stocks
		Length of net	YES	Cambodia regulates the length of fishing nets as part of gear control measures to ensure sustainable fishing practices
		Other (Please specify)	YES	Community-led gear monitoring, Gear marking and identification
	Limitation of the number of fishing vessels		YES	Cambodia implements limitations on the number of fishing vessels as a fisheries management measure to prevent overcapacity and overfishing
	Limitation of the number of fishing gears		YES	
	Licensing and vessel registration system		YES	Cambodia has a licensing and vessel registration system in place to regulate fishing activities and strengthen fisheries management
	Control on the carrier vessel and mother boat	Size	NO	
		Numbers	NO	

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

				sustainable harvests and protect juvenile fish
	Control on gear specification	Mesh size control	YES	
		Cod end mesh size	YES	
		Depth of the net	YES	Cambodia regulates the depth of fishing nets as part of gear control measures to promote sustainable fishing and protect fish stocks
		Length of net	YES	Cambodia regulates the length of fishing nets as part of gear control measures to ensure sustainable fishing practices
		Other (Please specify)	YES	Community-led gear monitoring, Gear marking and identification
	Limitation of the number of fishing vessels		YES	Cambodia implements limitations on the number of fishing vessels as a fisheries management measure to prevent overcapacity and overfishing
	Limitation of the number of fishing gears		YES	
	Licensing and vessel registration system		YES	Cambodia has a licensing and vessel registration system in place to regulate fishing activities and strengthen fisheries management
	Control on the carrier vessel and mother boat	Size	NO	
		Numbers	NO	

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

Approaches	dynamics			
	Monitoring forage fish exploitation		NO	
	Monitoring climate-driven shifts in pelagic ecosystems		NO	
	Protecting ecosystem services, not just target species		YES	Cambodia is gradually incorporating the protection of ecosystem services into its fisheries management, moving beyond single-species focus
	Other (Please specify)		YES	Habitat restoration and enhancement, Artificial reefs and Fish Aggregating Devices (FADs)
	Vessel Monitoring Systems (VMS)		YES	
	Automatic Identification System (AIS)		YES	Cambodia is in the early stages of implementing Automatic Identification System (AIS) technology to improve fisheries monitoring and vessel tracking, particularly for larger commercial vessels.
	e-Navigation		NO	
	Manual logbooks		YES	Cambodia uses manual logbooks as a basic fisheries data collection and monitoring tool, particularly for small-scale and artisanal fisheries.

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

vi	Monitoring, Control, and Surveillance (MCS)	Electronic logbooks	YES	Cambodia is gradually introducing electronic logbooks (e-logbooks) for fisheries data collection, particularly for larger commercial vessels, to improve monitoring and management.
		Onboard observers	YES	Cambodia is implementing onboard observer programs on selected fishing vessels to monitor fishing activities, catch, and compliance with regulations.
		Port State Measures to prevent IUU fishing	YES	Cambodia is implementing onboard observer programs on selected fishing vessels to monitor fishing activities, catch, and compliance with regulations.
		Other (Please specify)	YES	Community-based monitoring, Patrols and inspections, Collaboration with regional and international partners, Fisher training and awareness campaigns
vii	Resource enchancement measures	Deployment of artificial reef	YES	ambodia deploys artificial reefs as part of its fisheries and habitat enhancement programs to support fish populations and ecosystem health.
		Sea Ranching, Stock Enhancement, Restocking	YES	
		Habitat restoration and rehabilitation	YES	ambodia implements habitat restoration and rehabilitation programs as part of its ecosystem-based fisheries management to enhance fish stocks and ecosystem health.
		Fisheries Refugia	YES	ambodia is establishing fisheries refugia as part of its ecosystem-based fisheries management to protect critical habitats and support stock recovery.
		Other (Please specify)	YES	Mangrove-friendly aquaculture practices, Community-based habitat protection

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	YES	MARINE FISHERIES RESEARCH STRATEGIC PLAN FOR MAFREDI (2025-2029
		Country adopt regional regulation and management measures (e.g., FAO Code of Conduct for Responsible Fisheries)	YES	Cambodia has formally adopted and engaged with regional and international fisheries management frameworks, including the FAO Code of Conduct for Responsible Fisheries and related regional measure
		Periodically revise regulation or management measures	YES	Cambodia periodically revises its fisheries regulations and management measures
		Main agency in the country responsible to formulate the management measure of pelagic resources (Please specify)		
		Country has fishers association	YES	Cambodia has fishery associations, mainly organized in the form of Community Fisheries (CFi).
		Country adopting precautionary approach	YES	National fisheries policies and the Fisheries Law, which emphasize conservation,
		Country adopting marine spatial planning	NO	Cambodia is involved in marine spatial planning (MSP) efforts, but it has not yet fully adopted a formal national MSP policy
		Country has MCS system	YES	Cambodia has a Monitoring, Control and Surveillance (MCS) system in place for fisheries management

ii	Rights-Based Management	Individual transferable quotas (ITQs)	NO	Cambodia does not implement Individual Transferable Quotas (ITQs)
		Community-based quota allocations	YES	Cambodia implements community-based quota allocations through the Community Fisheries (CFi) system
		Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries	YES	Cambodia actively practices co-management with fishing communities, particularly for small-scale and artisanal fisheries
iii	Adaptive Management	Incorporating new data and scientific advice into dynamic decision-making	YES	Cambodia incorporates new data and scientific advice into dynamic fisheries management and decision-making, though the system is still developing.
		Adjusting strategies in response to climate change impacts (e.g., Shifting distributions of tuna stocks)	YES	Cambodia is beginning to consider climate change impacts in fisheries management, although systematic adjustments are still in early stages.

iv	Traceability and Market-Based Tools	Eco-certifications [(e.g., Marine Stewardship Council (MSC)]	NO	Cambodia currently has limited engagement with formal eco-certifications such as the Marine Stewardship Council (MSC).
		Catch documentation schemes	NO	
		Trade restrictions on IUU (illegal, unreported, unregulated) products	YES	Cambodia applies trade-related restrictions and controls to address IUU (Illegal, Unreported and Unregulated) fishing
v	Capacity Building and Stakeholder Engagement	Train local managers and fishers in data collection and stock assessment	YES	FAO supported
		Engagement with fishers to enhance compliance	YES	Cambodia actively engages with fishers to enhance compliance with fisheries regulation
		Inclusive governance involving governments, NGOs, industry, and communities	YES	Cambodia applies an inclusive governance approach in fisheries management, involving government agencies, NGOs, the private sector (industry), and local communities.
vi	List of pelagic fish group/ species that have their own management plans		i.	Portunus pelagicus
			ii.	Rastrelliger spp.
			iii.	Encrasicholina heteroloba

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	5	A major issue in Cambodia, especially for marine and commercial fisheries; addressed through MCS and catch documentation but still high risk.
ii	Limited cooperation from fishers	3	Generally improving through Community Fisheries (CFi) co-management, but non-compliance persists in some areas.
iii	Limited cooperation from other stakeholders	3	Coordination with NGOs, private sector, and provincial authorities is ongoing but not always consistent.
iv	Limited support from government	2	Government support exists via FiA and legal frameworks; resources are sometimes limited but political will is present.
v	Climate change and distributional shifts of species	4	Emerging concern; shifting fish distributions affect pelagic and small-scale fisheries; adaptive management is still developing.
vi	Lack of Monitoring, Control, and Surveillance (MCS)	4	MCS system exists but coverage is limited, particularly for small-scale, inland, and nearshore fisheries.

PART 3: CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES

vii	Financial/ budget constraint	5	Critical constraint for implementing MCS, stock assessments, research, and enforcement programs.
viii	Overlapping of jurisdiction	3	Some overlap between provincial authorities, FiA, and other ministries; can delay decision-making.
ix	Limited capacity (e.g., stock assessment, enforcement)	4	Human resources and technical capacity remain limited for science-based management
x	Limited capability (e.g., stock assessment, enforcement)	4	Similar to capacity; refers to technical expertise and institutional strength
xi	Regulatory limitation and gaps	3	Laws exist but gaps remain in implementing certain measures, especially for multi-species small-scale fisheries.
xii	Lack of awareness among fishers	3	Awareness has improved through training and CFi engagement but still affects compliance.
xiii	Lack of compliance among fishers	4	Non-compliance occurs, particularly in open-access areas and for high-value species.
xiv	Inconsistency in governance mechanism	3	Co-management exists, but integration between central, provincial, and community levels can be inconsistent.

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	YES	Cambodia is promoting the introduction of more sustainable fishing gears to reduce environmental impact, protect juvenile fish, and improve long-term fisheries sustainability.
ii	Introduction of new fishing gear technologies	YES	Cambodia is gradually introducing new fishing gear technologies to improve efficiency, safety, and sustainability in both small-scale and commercial fisheries.
iii	Development of more efficient post harvest and processing equipment	YES	Cambodia is promoting the development and adoption of more efficient post-harvest and processing equipment to reduce losses, improve product quality, and increase the value of fishery products
iv	Monitoring predator-prey dynamics	YES	Cambodia is beginning to monitor predator-prey dynamics in fisheries and aquatic ecosystems, mainly through research and ecological studies

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

v	Monitoring forage fish exploitation	YES	Cambodia monitors forage fish exploitation, particularly for small pelagic species that play a key role in aquatic food webs and local livelihoods
vi	Monitoring climate-driven shifts in pelagic ecosystems	YES	Cambodia is beginning to monitor climate-driven shifts in pelagic ecosystems,
vii	Protecting ecosystem services, not just target species	YES	Cambodia is increasingly recognizing the importance of protecting ecosystem services, not just target fish species, in fisheries management.
viii	Train local managers and fishers in data collection and stock assessment	YES	Cambodia actively trains local managers and fishers in data collection and stock assessment
ix	Engagement with fishers to enhance compliance	YES	Cambodia actively engages with fishers to enhance compliance with fisheries regulations.
x	Inclusive governance involving governments, NGOs, industry, and communities	YES	Cambodia practices inclusive governance in fisheries management, engaging government agencies, NGOs, the private sector, and fishing communities

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

xi	Considering socioeconomic of fishers in formulation of management measures	YES	Cambodia considers the socioeconomic conditions of fishers when formulating fisheries management measures.
xii	Deployment of artificial reef	YES	Cambodia deploys artificial reefs to support fisheries enhancement and habitat restoration, particularly in coastal and estuarine areas.
xiii	Adopting artificial intelligence (AI) technology in data collection	YES	Cambodia is beginning to explore the adoption of Artificial Intelligence (AI) technology in fisheries data collection and management, though it is still at an early stage.
xiv	Increase financial/ funding/ allocation	YES	Cambodia is working to increase financial resources and funding allocation for fisheries management and development
xv	Establish/ strengthen co-management with communities	YES	Cambodia has established and continues to strengthen co-management with fishing communities through the legally recognized Community Fisheries (CFi) system.
xvi	Other (Please specify)	YES	Ecosystem restoration and habitat protection,Integ ration with regional frameworks, Gender and social inclusion initiatives, Research and innovation partnerships, Traceability and market access improvements and Pilot projects for climate adaptation

THANK YOU FOR YOUR ATTENTION

Indonesia's Fisheries Management Framework Based on the Fisheries Management Areas (WPPNRI)

1. Indonesia's marine waters are managed through 11 Fisheries Management Areas of the Republic of Indonesia (FMAs/WPPNRI)
2. WPPNRI 571 (Malacca Strait and Andaman sea) – Malaysia And Singapura
3. WPPNRI 711 (Karimata Strait, Natuna Sea, and the South China Sea) – Malaysia, Singapura, Thailand, VIetnam
4. WPPNRI 716 (Sulawesi Sea and North Halmahera Sea) – Filipina

MAIN ISSUES IN THE FISHERIES OF PELAGIC SPECIES

1. **IUU (illegal, unreported, unregulated) fishing**
2. **Lack of data collection at fish landing sites**
3. **Lack of capacity in data collection**
4. **Lack of systematic data collection**
5. **Lack of regulated/ authorised fish landing site**
6. **Lack of regular fish stock assessment**
7. **Increase of fishing effort**
8. **Overcapacity**
9. **Overfishing**
10. **Use of unsustainable fishing gears**

Incididunt ut labore et dolore

11. **Changes in species distribution**
12. **Lack of management and conservation measures**

1. In the Indonesian context, IUU fishing is primarily associated with unreported catches and unlicensed fishing vessels.
2. This situation is largely driven by the dominance of small-scale fishing vessels and the practice of landing catches at informal landing sites outside official fishing ports.
3. As a result, fisheries capture data collection remains weak.
4. In 2026, the Directorate of Fishery Resources Management (PSDI) will strengthen fisheries data collection by expanding data collection locations to include non-port landing sites

1. The exploitation level of small pelagic fish is classified as overexploited in WPPNRI 713 (E > 1); moderate (E = 0.5–1) in WPPNRI 573, 711, 714, 715, 716, and 718; and moderate in WPPNRI 571, 572, 712, and 717, (In the Ministerial Decree of Marine Affairs and Fisheries No. 19 of 2021)
2. In 2024, WPPNRI 571, 712, 713, and 714 produced catches exceeding the Total Allowable Catch (TAC), So there are need for management and regulatory measures.
3. Production in WPPNRI 572, 573, 711, 715, 716, 717, and 718 remained below the TAC, but monitoring and evaluation are still necessary to prevent overfishing

1. Climate change is an unavoidable reality, and fish respond to these changes by adapting through migration to waters that are more optimal for their growth and survival.
2. In managing marine protected areas, the Ministry of Marine Affairs and Fisheries (MMAF/KKP) applies a conservation area management evaluation method (EVIKA), the performance of which has shown continuous improvement on an annual basis

CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES 2a

A. Current conservation efforts and management strategies implemented

Output control: catch Limits and Quotas

1. Total Allowable Catches (TACs) set based on stock assessments
2. Allocation of quotas among fleets or vessels
3. Minimum fish size limit
4. Maximum fish size limit
5. Slot limit
6. Catch prohibition of certain pelagic species

1. Indonesia has established estimates of fishery resource potential, Total Allowable Catch (TAC), and exploitation status through the Ministerial Decree of Marine Affairs and Fisheries No. 19 of 2021, which serve as the basis for the issuance of fishing licenses.
2. When the exploitation status is classified as overexploited, no new fishing licenses may be issued. In cases where the status is fully exploited, utilization must be conducted with caution and under strict management measures.

Size limits have been established as part of sustainable fisheries management for key species,
1. Min size limits for Blue Swimming Crab, Mud Crab, and Lobster (MoMAF Decree No. 7/2024),
2. Min and Max size limits for Napoleon Wrasse (MoMAF Decree No. 37/2013).

1. Several pelagic species are fully protected from fishing, including the Dwarf Sawfish (*Pristis clavata*) under MoMAF Decree No. 66 of 2025, Manta Rays (*Manta birostris*) under MoMAF Decree No. 14 of 2014, and Walking Sharks (*Hemiscyllium* spp.) under MoMAF Decree No. 30 of 2023.
2. Limited utilization is applied to Napoleon Wrasse (*Cheilinus undulatus*) in accordance with MoMAF Decree No. 37 of 2013.

CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES 2a

A. Current conservation efforts and management strategies implemented

Gear Regulations and Selectivity Improvements

1. Use of circle hooks
2. Bycatch/ incidental reduction devices/ mitigation
3. Control on gear modification
4. Control on fishing aids in driftnets and purse seine operation (Intensity of lights, FADs, fish site identification, fish finder)
5. Gear marking
6. Control on gear specification (meshsize, Depth of the net, length of net)

Ministerial Regulation of Marine Affairs and Fisheries No. 36 of 2023 regulates permitted fishing gears (API) and fishing support equipment (ABPI), including their technical specifications (e.g. gear size, vessel capacity, and selectivity). The regulation also defines fishing lanes within the PIT Zone and the WPPNRI to determine where specific gears and support equipment may be deployed and operated, as well as rules on the use of support devices such as fish aggregating devices (FADs/rumpon) and fishing lights.

Fishing Effort/ Input control

1. Limitation of the number of fishing vessels
2. Limitation of the number of fishing gears
3. Licensing and vessel registration system
4. Control on the carrier vessel and mother boat (Size)
5. Control on horsepower of fishing vessels (Numbers)
6. Control the number of light boat

Examples include:

- **Fishing Lane II (4–12 nautical miles):** vessels <30 GT, with licenses issued by provincial governments;

Fishing Lane III (>12 nautical miles): vessels >30 GT, with licenses issued by the central government.

- The operation of fishing gears that are harmful to the sustainability of fishery resources is prohibited, **Trawl fishing.**
- **Small pelagic purse seine (single vessel):** mesh size >1 inch, net length <300 m, lighting power <5,000 watts, vessel size 5 GT, permitted in Fishing Lanes IA and II.
- **Squid jigging:** lighting power <10,000 watts for vessels of 10–30 GT in Fishing Lane II; lighting power <20,000 watts permitted in Fishing Lane III.

CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES 2a

A. Current conservation efforts and management strategies implemented

Spatial and Temporal Closures

1. Marine protected areas (MPAs)
2. Closed season
3. Closed area

1. Each Fisheries Management Area of the Republic of Indonesia (WPPNRI) includes marine conservation areas that are zoned into core zones and supporting zones. Core zones are designated for resource protection, while supporting zones allow sustainable activities such as capture fisheries, aquaculture, and marine tourism.
2. To date, open–closed season or area management measures for small pelagic fisheries have not yet been widely implemented due to limited scientific studies on fish life cycles and stock dynamics. However, spatial and temporal closure measures have been applied to tuna fisheries in WPPNRI 714, where specific areas and periods are designated for closure and opening as part of sustainable fisheries management efforts.

Ecosystem-Based Approaches

1. Monitoring predator–prey dynamics
2. Monitoring forage fish exploitation
3. Monitoring climate-driven shifts in pelagic ecosystems
4. Protecting ecosystem services, not just target species

1. Studies on the biological, social, and economic aspects of fisheries management are conducted by researchers from the National Research and Innovation Agency (BRIN) as well as academics from universities.
2. These researchers and academics are involved in discussions and decision-making processes related to fisheries management, in accordance with their respective expertise and capacities.

CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES 2a

A. Current conservation efforts and management strategies implemented

Monitoring, Control, and Surveillance (MCS)

1. Vessel Monitoring Systems (VMS)
2. Automatic Identification System
3. e-Navigation
4. Manual logbooks
5. Electronic logbooks
6. Onboard observers
7. PSM to prevent IUU fishing

Based on the Ministerial Regulation of Marine Affairs and Fisheries No. 33 of 2021,

1. all fishing vessels are required to report their catches through the completion of fishing logbooks, either manually or electronically.
2. However, in practice, various challenges remain, particularly in catch reporting by small -scale fishing vessels, due to limitations in capacity, access to technological facilities, and fishers' level of understanding of their reporting obligations.
3. In addition, the implementation of the observer-on-board program is currently limited and is specifically applied to tuna fisheries.

Ministerial Decree of Marine Affairs and Fisheries No. 40 of 2025 designates several ports in Indonesia as locations for the implementation of Port State Measures (PSM) to prevent, deter, and eliminate Illegal, Unreported, and Unregulated (IUU) fishing. These designated ports include Nizam Zachman Oceanic Fishing Port (Jakarta), Bitung Oceanic Fishing Port (North Sulawesi), Bungus Oceanic Fishing Port (Padang), and Belawan Oceanic Fishing Port (Medan).

Resource enchancement measures

1. Deployment of artificial reef
2. Sea Ranching, Stock Enhancement, Restocking
3. Habitat restoration and rehabilitation
4. Fisheries Refugia

1. Studies on the biological, social, and economic aspects of fisheries management are conducted by researchers from the National Research and Innovation Agency (BRIN) as well as academics from universities.
2. These researchers and academics are involved in discussions and decision-making processes related to fisheries management, in accordance with their respective expertise and capacities.

2b CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

B. Current regulatory and governance frameworks to implement conservation goals effectively.

Governance

1. National Management Plans
2. Country adopt regional regulation and management measures
3. Periodically revise regulation or management measures

Indonesia has established 11 Fisheries Management Plans (FMPs) based on the Fisheries Management Areas of the Republic of Indonesia (WPPNRI), as well as six Fisheries Management Plans based on specific fishery types. These plans are developed in accordance with the guidelines for FMP formulation as stipulated in the Ministerial Regulation of Marine Affairs and Fisheries No. 22 of 2022. The implementation of these fisheries management plans is subject to regular evaluation and review to ensure their continued relevance and effectiveness.

Indonesia has established fisheries management council in each Fisheries Management Area of the Republic of Indonesia (WPPNRI) that are cross-sectoral and involving the central government, provincial governments, researchers, non-governmental organizations (NGOs), industry associations, and fisher groups. Secretariat UPP WPPNRI 571 in PPS Belawan (Nort Sumatra) UPP WPPNRI 572 in PPS Bungus (West Sumatra), 711 (PPN tanjungpandan), 716 (PPS Bitung,), ...

1. Local governments in Indonesia have established Provincial Regulations (Perda) on the Zoning Plan for Coastal Areas and Small Islands (RZWP3K). As of 2025, a total of 27 provinces have enacted these regulations.
2. **Sumatra**: North Sumatra, West Sumatra, South Sumatra, Bengkulu, Jambi, Bangka Belitung **Java**: East Java, Central Java, West Java, Yogyakarta; **Kalimantan**: North Kalimantan, South Kalimantan, West Kalimantan, Central Kalimantan **Sulawesi**: North Sulawesi, West Sulawesi, Central Sulawesi, Southeast Sulawesi, South Sulawesi **Maluku & Papua**: Maluku, North Maluku, West Papua **Nusa Tenggara**: West Nusa Tenggara (NTB), East Nusa Tenggara (NTT)

1. Country has fishers association
2. Country adopting precautionary approach
3. Country adopting marine spatial planning
4. Country has MCS system

2b CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

B. Current regulatory and governance frameworks to implement conservation goals effectively.

Rights-Based Management

1. Individual transferable quotas (ITQs)
2. Community-based quota allocations
3. Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries.

The increase in both the volume and number of conservation areas is expected to improve ecosystems and fish habitats, thereby supporting the sustainability of fishery resources. The annual rise in the percentage of sustainably managed conservation areas (Gold category) demonstrates the successful implementation of co-management principles. In the context of co-management, the management of conservation areas involves collaboration among central and local governments, researchers, academics, non-governmental organizations (NGOs), fisheries associations, fisher groups, and local communities. This collaboration ensures that management decisions are inclusive, reflect community aspirations, and enhance compliance with regulations, transparency, and the overall effectiveness of conservation area management.

The WPPNRI fisheries management institution, which includes a scientific panel (researchers and academics), develops policy recommendations for fisheries management based on the latest conditions and scientific studies.

Adaptive Management

1. Incorporating new data and scientific advice into dynamic decision-making.
2. Adjusting strategies in response to climate change impacts (e.g., Shifting distributions

2b CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

B. Current regulatory and governance frameworks to implement conservation goals effectively.

Traceability and Market Based Tools

1. "Eco-certifications [(e.g., Marine Stewardship Council (MSC)] "
2. Catch documentation schemes
3. Trade restrictions on IUU (illegal, unreported, unregulated) products

Several Indonesian fishery products have obtained MSC certification, particularly for tuna fisheries. Other fisheries, such as small pelagics, blue swimming crab, and squid, are currently in the certification process. Examples include **squid fisheries in WPPNRI 571**, snapper–grouper in WPPNRI 714, blue swimming crab in WPPNRI 712, and lemuru in WPPNRI 573.

Catch Documentation Schemes (CDS) are implemented for fishing vessels targeting tuna in areas under the jurisdiction of Regional Fisheries Management Organizations (RFMOs). These schemes serve as a key tool to ensure the traceability of tuna products from the point of capture to the market, thereby preventing the entry of illegally caught tuna into international trade.

STELINA enables the tracking of seafood and fishery products from upstream to downstream. This technology allows data related to origin, capture and aquaculture processes, processing, distribution, and marketing of seafood products to be digitally documented and easily accessible. The application integrates various relevant data, such as fishing vessel information, catch reports, storage locations, aquaculture site locations, and fish logistics. This aligns with the principle of product traceability, which is a key requirement for international fishery trade in markets such as the European Union, the United States, and Japan.

Capacity Building and Stakeholder Engagement

1. Engagement with fishers to enhance compliance
2. Train local managers and fishers in data collection and stock assessment
3. Inclusive governance involving governments, NGOs, industry, and communities

The Directorate General of Surveillance fosters Pokmasmas as an example of fisher compliance and co-management in the monitoring of fisheries resources.

The WPPNRI fisheries management institution, which includes a consultative panel (fishers, fisheries associations, NGOs, etc.), promotes the strengthening of capture fisheries data collection. Through this panel, members can report catch and catch size to the government, contributing to the availability of reliable capture fisheries data. However, this process requires standardized data collection mechanisms (data collection protocols), as well as training, monitoring, and evaluation to ensure the validity of the reported catch data

2b CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

B. Current regulatory and governance frameworks to implement conservation goals effectively.

List of pelagic fish group/ species that have their own management plans

1. Fisheries Management Plan for FMAs 571
2. Fisheries Management Plan for FMAs 572
3. Fisheries Management Plan for FMAs 573
4. Fisheries Management Plan for FMAs 711
5. Fisheries Management Plan for FMAs 712
6. Fisheries Management Plan for FMAs 713
7. Fisheries Management Plan for FMAs 714
8. Fisheries Management Plan for FMAs 715
9. Fisheries Management Plan for FMAs 716
10. Fisheries Management Plan for FMAs 717
11. Fisheries Management Plan for FMAs 718

1. Fisheries Management Plan for Tuna, Skipjack, and Frigate Tuna
2. Fisheries Management Plan for Snapper–Grouper
3. Fisheries Management Plan for Eel
4. Fisheries Management Plan for Flying Fish
5. Fisheries Management Plan for Lemuru (Bali Sardine)
6. Fisheries Management Plan for Blue Swimming Crab

CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES

1. **IUU (illegal, unreported, unregulated) fishing**
2. **Financial/ budget constraint**
3. **Limited capacity (e.g., stock assessment, enforcement)**
4. **Lack of Monitoring, Control, and Surveillance (MCS)**
5. **Lack of awareness among fishers**
6. **Lack of compliance among fishers**
7. **Limited cooperation from fishers**
8. **Limited cooperation from other stakeholders**
9. **Limited support from government**
10. **Overlapping of jurisdiction**
11. **Regulatory limitation and gaps**
12. **Inconsistency in governance mechanism**
13. **Climate change and distributional shifts of species**

POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

1. Introduction of more sustainable fishing gears
2. Introduction of new fishing gear technologies
3. Development of more efficient post harvest and processing equipment
4. Increase financial/ funding/ allocation
5. Engagement with fishers to enhance compliance
6. Inclusive governance involving governments, NGOs, industry, and communities.

BULIKMANIS is a trap-type fishing gear (bubu) specially designed to be foldable, compact, and easy to carry in large quantities on board. This gear is intended for small - scale fishers to help increase catch and income. It is an environmentally friendly fishing technology innovation developed by the Semarang Fishery Capture Research Center (BBPI Semarang) https://www.instagram.com/reels/DMhjxy0vMPo/)

Pokmasmas are community-based groups formed by coastal communities and fishers to support monitoring and reporting of fisheries and marine resource violations in local water

POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

7. NGOs, industry, and communities.
8. Considering socioeconomic of fishers in formulation of management measures
9. Train local managers and fishers in data collection and stock assessment
10. Deployment of artificial reef
11. Establish/ strengthen co-management with communities
12. Adopting artificial intelligence (AI) technology in data collection

The cross-sectoral fisheries management institutions within the WPPNRI, involving government agencies, researchers, academics, industry associations, NGOs, and fishers, promote inclusive fisheries management that reflects community aspirations, thereby enhancing policy acceptance among all stakeholders.

Increasing the number and area of marine conservation zones, along with sustainable management, improves fish stock status and fishers' livelihoods. GLOD performance rose from 0% (basic) in 2021 to 9% in 2025, and from 38% (optimal/Silver) to 46%

To strengthen fisheries catch data collection, Indonesia has launched e-Logbook Version 3. https://www.instagram.com/reels/DPfMGUykwNw/

POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

1. Monitoring predator-prey dynamics
2. Monitoring forage fish exploitation
3. Monitoring climate-driven shifts in pelagic ecosystems
4. Protecting ecosystem services, not just target species

The WPPNRI fisheries management institution, which includes a scientific panel (researchers and academics), develops policy recommendations for fisheries management based on the latest conditions and scientific studies.

THANK YOU

PART 1: MAIN ISSUES IN THE FISHERIES OF PELAGIC SPECIES

1. Illegal, unreported and unregulated fishing - from local & foreign fishing vessels
2. Use of unsustainable fishing gears - e.g. unregulated fishing gear specification for drift net & intensity of light for stick held dip net & liftnet
3. Lack of regulated/authorised fish landing site - limited accessibility to private jetties
4. Lack of capacity in data collection - budget constraint
5. Lack of regular fish stock assessment - budget & expertise constraint

PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES

A. Current conservation efforts and management strategies implemented

II. Gear Regulations and Selectivity Improvements

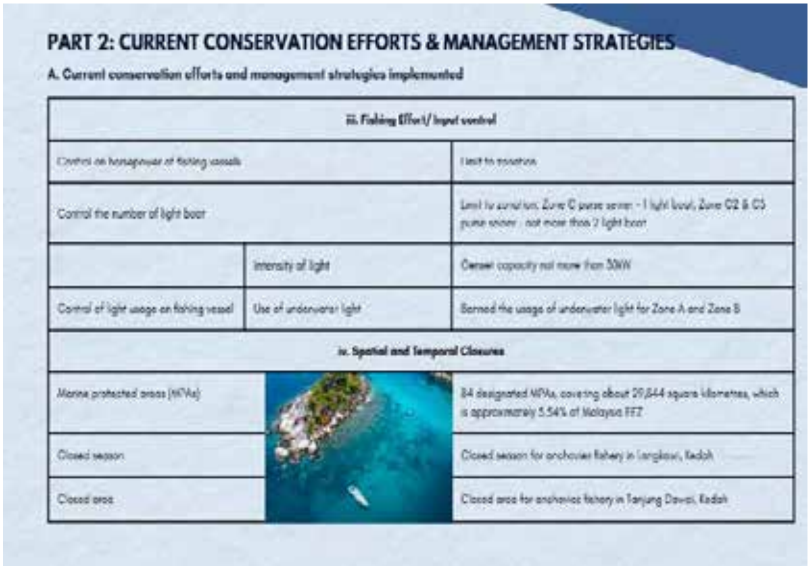
Gear marking		Mesh size control	Mesh size of anchovy purse seine net not more than 1 cm and for drift net not more than 25.4 cm
Control on gear specification		Cod end mesh size	Mesh size of trawl net not less than 38 mm
	Others		Modified linear net with high opening as limited to mesh size specification of not more than 5 meter or any portion of the net and the headrope length must not exceed 60 meter
Limitation on the number of fishing vessels			Through licensing quota by state
Limitation on the number of fishing gears			Through licensing quota by state
Licensing and vessel registration system			Licensing policy & procedure for fishing vessel, fishing gears and Fisherman registration

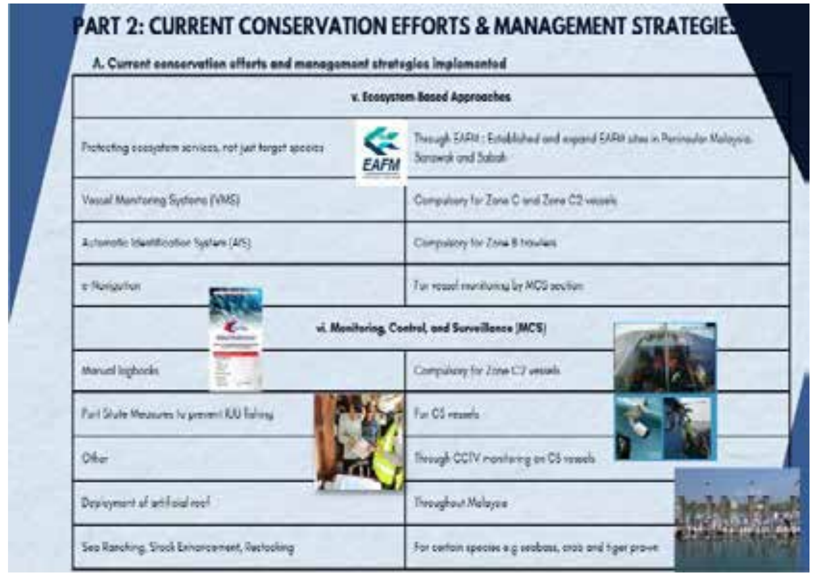
Compilation and Assessment on the Conservation and Management Strategies of Pelagic Species

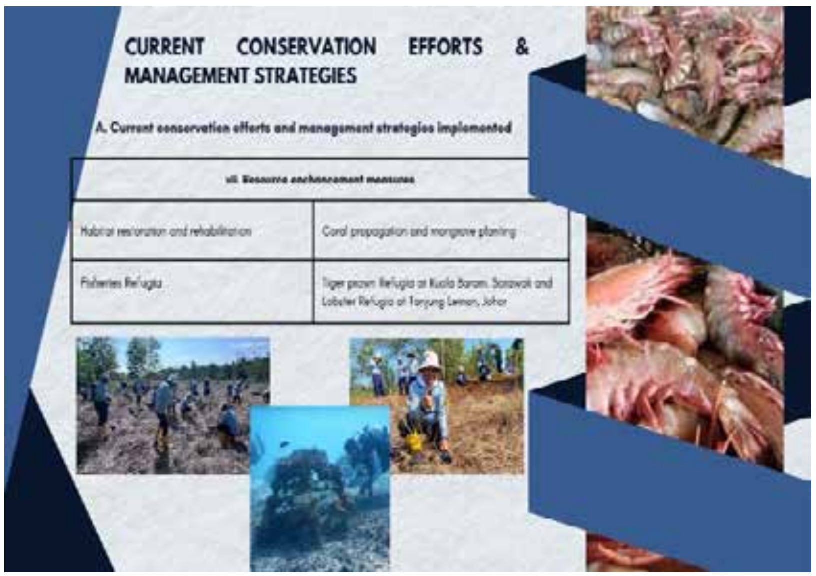
PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES

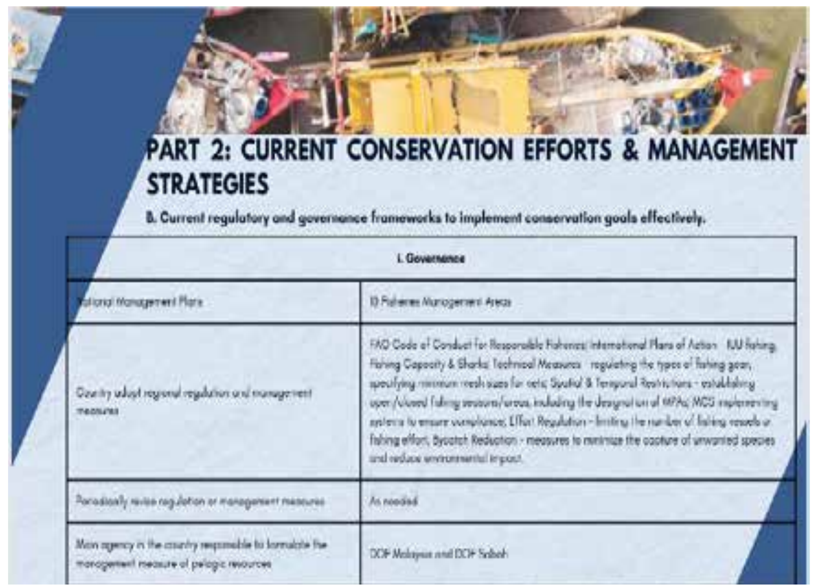
A. Current conservation efforts and management strategies implemented

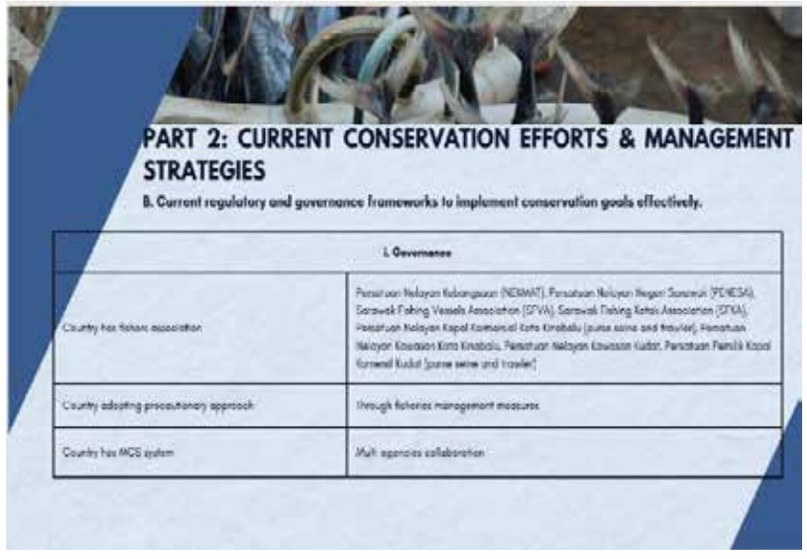
I. Output Control: Catch Limits and Quotas	
Bycatch/incidental reduction devices/ mitigation	Malaysian Acoustic Deterrent Device (MADD), Turtle Excluder Device (TED)
Control on gear modification	Prohibit high opening of trawl net (Zone B)
Control on fishing aids or methods and purse seine operation	Control of light intensity in certain fishing state such as stick held dip net and light boost (MFFI) for purse seiner


PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES
A. Current conservation efforts and management strategies implemented
iii. Fishing Effort/ Input control
Control on horsepower of fishing vessels
Control the number of light boat
Limit to zonation; Zone C purse seiner - 1 light boat, Zone C2 & C3 purse seiner - not more than 2 light boat
Intensity of light
Control of light usage on fishing vessel
Use of underwater light
Banned the usage of underwater light for Zone A and Zone B
iv. Spatial and Temporal Closures
Marine protected areas (MPAs)
84 designated MPAs, covering about 29,844 square kilometres, which is approximately 5.54% of Malaysia EEZ
Closed season
Closed season for anchovies fishery in Langkawi, Kedah
Closed area
Closed area for anchovies fishery in Tanjung Dawai, Kedah

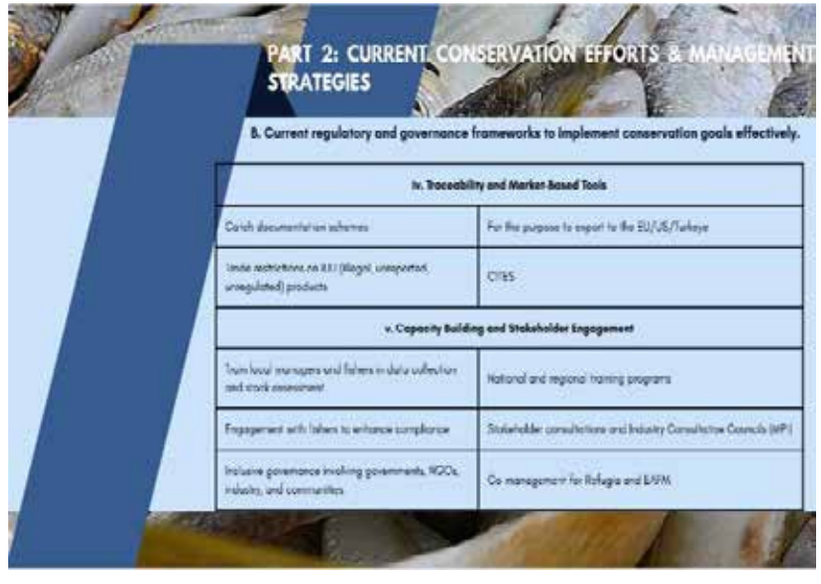

PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES
A. Current conservation efforts and management strategies implemented
v. Ecosystem Based Approaches
Protecting ecosystem services, not just target species
EAFM
Through EAFM : Established and expand EAFM sites in Peninsular Malaysia, Sarawak and Sabah
Vessel Monitoring Systems (VMS)
Compulsory for Zone C and Zone C2 vessels
Automatic Identification System (AIS)
Compulsory for Zone B trawlers
e-Navigation
For vessel monitoring by MCS section
vi. Monitoring, Control, and Surveillance (MCS)
Manual logbooks
Compulsory for Zone C2 vessels
Port State Measures to prevent IUU fishing
For C3 vessels
Other
Through CCTV monitoring on C3 vessels
Deployment of artificial reef
Throughout Malaysia
Sea Ranching, Stock Enhancement, Restocking
For certain species e.g seabass, crab and tiger prawn


CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES
A. Current conservation efforts and management strategies implemented
vii. Resource enhancement measures
Habitat restoration and rehabilitation
Coral propagation and mangrove planting
Fisheries Refugia
Tiger prawn Refugia at Kuala Baram, Sarawak and Lobster Refugia at Tanjung Leman, Johor


PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES
B. Current regulatory and governance frameworks to implement conservation goals effectively.
i. Governance
National Management Plans
10 Fisheries Management Areas
Country adopt regional regulation and management measures
FAO Code of Conduct for Responsible Fisheries; International Plans of Action - IUU fishing, Fishing Capacity & Sharks; Technical Measures - regulating the types of fishing gear, specifying minimum mesh sizes for nets; Spatial & Temporal Restrictions - establishing open/closed fishing seasons/areas, including the designation of MPAs; MCS implementing systems to ensure compliance; Effort Regulation - limiting the number of fishing vessels or fishing effort; Bycatch Reduction - measures to minimize the capture of unwanted species and reduce environmental impact.
Periodically revise regulation or management measures
As needed
Main agency in the country responsible to formulate the management measure of pelagic resources
DOF Malaysia and DOF Sabah


PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES
B. Current regulatory and governance frameworks to implement conservation goals effectively.
i. Governance
Country has fishers association
Persatuan Nelayan Kebangsaan (NEKMAT), Persatuan Nelayan Negeri Sarawak (PENESA), Sarawak Fishing Vessels Association (SFVA), Sarawak Fishing Kotak Association (SFKA), Persatuan Kelayan Kapal Komersial Kota Kinabalu (purse seine and trawler), Persatuan Nelayan Kawasan Kota Kinabalu, Persatuan Nelayan Kawasan Kudat, Persatuan Pemilik Kapal Komersil Kudat (purse seine and trawler)
Country adopting precautionary approach
through fisheries management measures
Country has MCS system
Multi agencies collaboration


PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES
B. Current regulatory and governance frameworks to implement conservation goals effectively.
ii. Rights-Based Management
Co-management with fishing communities, especially for small-scale (artisanal/traditional) pelagic fisheries.
Sarawak (Miri Sibuti Coral Reef National Park, Luconia Shoals National Park, Talang Satang National Park) and Sabah (Kampung Bavang Jamal-Kudat, Kampung Buah Pandai-Kota Belud & Kampung Tambisan - Lahad Datu)
iii. Adaptive Management
Incorporating new data & scientific advice into dynamic decision-making.
Collaboration with FRI and universities


PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES
B. Current regulatory and governance frameworks to implement conservation goals effectively.
iv. Traceability and Market Based Tools
Catch documentation schemes
For the purpose to export to the EU/US/Turkeye
Trade restrictions on IUU (illegal, unreported, unregulated) products
CITES
v. Capacity Building and Stakeholder Engagement
Train local managers and fishers in data collection and stock assessment
National and regional training programs
Engagement with fishers to enhance compliance
Stakeholder consultations and Industry Consultative Councils (MPI)
Inclusive governance involving governments, NGOs, industry, and communities
Co-management for Rafugia and EAFM


PART 2: CURRENT CONSERVATION EFFORTS & MANAGEMENT STRATEGIES
B. Current regulatory and governance frameworks to implement conservation goals effectively.
List of pelagic fish group/ species that have their own management plans
TUNA
SMALL PELAGIC
LARGE PELAGIC


PART 3: CHALLENGES IN IMPLEMENTATION OF CURREN
CONSERVATION AND MANAGEMENT STRATEGIES
1. IUU (illegal, unreported, unregulated) fishing - encroachment by local and foreign fishing vessels
2. Lack of Monitoring, Control, and Surveillance (MCS) - budget and capacity constraint
3. Limited capacity - lack of assets and personnel in stock assessment, enforcement etc.
4. Limited capability - lack of expertise and training in stock assessment, enforcement etc.
5. Lack of compliance among fishers - open access mentality to cover the operational cost


PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION
EFFORTS & MANAGEMENT OF PELAGIC
1. Introduction of more sustainable fishing gears - consistently introduce alternative gear to replace trawl net at certain zone such as fish trap and hook and lines
2. Protecting ecosystem services, not just target species - Total Economic Value (TEV) study for coastal ecosystem, CSR with corporate entities
3. Train local managers and fishers in data collection and stock assessment - national and regional training
4. Engagement with fishers to enhance compliance - conduct more stakeholder consultations and industry consultative councils (MPI)
5. Inclusive governance involving governments, NGOs, industry and communities - Expansion of co-management initiatives to other areas
6. Considering socioeconomic of fishers in formulation of management measures - Matching Grant initiatives
7. Deployment of artificial reef - Peninsular Malaysia RM37 millions, Sarawak RM20 millions, Sabah RM12 millions in 13th Malaysian Plan (RMK13)
8. Adopting artificial intelligence (AI) technology in data collection - Data Collection Camera Program at selected landing sites


PART 5: SUCCESS STORY
Mainstreaming Artificial Reefs into the Ecosystem Approach to Fisheries Management (EAFM)
Artificial reefs in Sarawak have been successfully integrated into the EAFM, moving from standalone projects to strategic management tools. When combined with trawl exclusion zones, gear restrictions, and fishing effort controls, they improved habitat complexity, increased fish abundance and diversity, and stabilised small-scale fisheries catches. Local fishers' involvement in site selection, monitoring, and compliance strengthened stewardship and reduced conflicts. This demonstrates that reefs deliver ecological, fisheries, and socio-economic benefits only when embedded within a coordinated EAFM framework.


TERIMA KASIH
THANK YOU

RTCon Conservation Effort & Management

Strategies of Pelagic Fisheries in SEA Region

DOF Sabah

Port Dickson, Negeri Sembilan
6-8 Jan 2026

"KUALITI TERBAIK TONGGAK KECEMERLANGAN KAMI" SABAH MAJU JAYA

Marine Capture Fisheries (2024)

Total landing - 201,812 MT (46.2%)
- Pelagic (42%), Demersal (26%), trash fish (13%), squid (6%) and others (13%)

RM1,322.85 Million

26,682 fishers

13,537 vessel

2

fishdept. sabah. gov. my

Part 1: Pelagic Fisheries - Main Issue

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	1 (from local and foreign vessel/boat)
		Changes in species distribution	
		Overfishing	
		Overcapacity	
		Use of unsustainable fishing gears	2 (unregulated fishing gears specification for drift net & intensity of lights & lift nets)
		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	3 (access to the private landing site/jetty)
		Lack of capacity in data collection	4 (budget constraint)
		Lack of systematic data collection	
		Lack of regular fish stock assessment	5 (budget & expertise constraint)

3

fishdept. sabah. gov. my

Part 2: Pelagic Fisheries - current conservation effort & management strategies

a. Current conservation efforts and management strategies implemented

i. Output control: catch Limits and Quotas	Total Allowable Catches (TACs) set based on stock assessments	NO	
	Allocation of quotas among fleets or vessels	NO	
	Minimum fish size limit	NO	
	Maximum fish size limit	NO	
	Slot limit	NO	
	Catch prohibition of certain pelagic species	NO	
	Other (Please specify)	NO	

4

fishdept. sabah. gov. my

Part2: Pelagic Fisheries - current conservation effort & management strategies

a. Current conservation efforts and management strategies implemented

ii. Gear Regulations and Selectivity Improvements	Use of circle hooks		NO	
	Bycatch/ incidental reduction devices/ mitigation (e.g., Pinger, bird-scaring lines)		YES	Malaysian Acetes Effeciency Device (MAED), **Turtle Excluder Device (TED)**
	Control on gear modification (e.g., Prohibit high opening of trawl net)		YES	Prohibit high opening of trawl net (Zone B)
	Control on fishing aids in driftnets and purse seine operation (e.g., Intensity of lights, FADs, fish site identification, fish finder)		YES	Control of light intensity in certain fishing aids such as stick held dip net and light boat (MPPI) for purse seiner
	Gear marking		NO	
	Control on gear specification	Mesh size control	YES	Mesh size of anchovy purse seine net not more than 1 cm and for drift net not more than 25.4 cm
		Cod end mesh size	YES	Mesh size of trawl net not less than 38 mm
		Depth of the net	NO	
		Length of net	NO	
		Other (Please specify)	YES	Modified trawl net with high opening is limited to mesh size specification of not more than 5 meter at any portion of the net and the headrope length must not exceed 40 meter

Part2: Pelagic Fisheries - current conservation effort & management strategies

a. Current conservation efforts and management strategies implemented

iii. Fishing Effort/ Input control	Limitation of the number of fishing vessels		YES	Through licensing quota by state
	Limitation of the number of fishing gears		YES	Through licensing quota by state
	Licensing and vessel registration system		YES	Through licensing quota by state
	Control on the carrier vessel and mother boat	Size	NO	
		Numbers	NO	
	Control on horsepower of fishing vessels		YES	Limit to zonation
	Control the number of light boat		YES	Limit to zonation: Zone C purse seiner - 1 light boat, Zone C2 and C3 purse seiner - not more than 2 light boat
	Control of light usage on fishing vessel	Intensity of light	YES	Genset capacity not more than 30kW
		Color of light	NO	
		Use of underwater light	YES	Banned the usage of underwater light for Zone A and Zone B
		Other (Please specify)	NO	

Part2: Pelagic Fisheries - current conservation effort & management strategies

iv. Spatial and Temporal Closures	Marine protected areas (MPAs)	YES	84 designated MPAs, covering about 29,844 square kilometres, which is approximately 5.54% of Malaysia 538,987 square kilometre EEZ/**6 areas @ < 1M Ha (Sabah Parks)**
	Closed season	YES	Closed season for anchovies fishery in Langkawi, Kedah/**closed season for shark and rays near Tigabu Island, Kudat (May-Oct)**
	Closed area	YES	Closed area for anchovies fishery in Tanjung Dawai, Kedah/**closed area for shark and rays near Tigabu Island, Kudat**
	Other closures (Please specify)	NO	
v. Ecosystem-Based Approaches	Monitoring predator-prey dynamics	NO	
	Monitoring forage fish exploitation	NO	
	Monitoring climate-driven shifts in pelagic ecosystems	NO	
	Protecting ecosystem services, not just target species	YES	Through EAFM : Established and expand EAFM sites in Peninsular Malaysia, Sarawak and Sabah
	Other (Please specify)	NO	
vi. Monitoring, Control, and Surveillance (MCS)	Vessel Monitoring Systems (VMS)	YES	Compulsory for Zone C and Zone C2 vessels
	Automatic Identification System (AIS)	YES	Compulsory for Zone B trawlers
	e-Navigation	YES	For vessel monitoring by MCS section
	Manual logbooks	YES	Compulsory for Zone C2 vessels
	Electronic logbooks	NO	
	Onboard observers	NO	
	Port State Measures to prevent IUU fishing	YES	For C3 vessels
	Other (Please specify)	YES	Through CCTV monitoring on C3 vessels

Part2: Pelagic Fisheries - current conservation effort & management strategies

a. Current conservation efforts and management strategies implemented

vii. Resource enhancement measures	Deployment of artificial reef	YES	Throughout Malaysia/**80's, 85 location, 2535 unit of artificial reef**
	Sea Ranching, Stock Enhancement, Restocking	YES	For certain species e.g seabass, crab and tiger prawn/**sanctuary project – juveniles of seabass/crabs was release in sanctuary area**
	Habitat restoration and rehabilitation	YES	Coral propagation and mangrove planting
	Fisheries Refugia	YES	Tiger prawn Refugia at Kuala Baram, Sarawak and Lobster Refugia at Tanjung Leman, Johor
	Other (Please specify)	NO	

Part2: Pelagic Fisheries- current conservation effort & management strategies

b. Current regulatory and governance frameworks to implement conservation goals effectively.

i. Governance	National Management Plans	YES	10 Fisheries Management Areas/**3 FMA in Sabah – 2 specific FMA for spiny lobster & cockles**
	Country adopt regional regulation and management measures (e.g., FAO Code of Conduct for Responsible Fisheries)	YES	NPOA IUU, NPOA Fishing Capacity, NPOA Sharks, NPOA Sea Turtles and NPOA Dugong
	Periodically revise regulation or management measures	YES	As needed
	Main agency in the country responsible to formulate the management measure of pelagic resources (Please specify)		DOF Malaysia and **DOF Sabah**
	Country has fishers association	YES	Persatuan Nelayan Kebangsaan (NEKMAT), Persatuan Nelayan Negeri Sarawak (PENESA), Sarawak Fishing Vessels Association (SFVA), Sarawak Fishing Kotak Association (SFKA), **Persatuan Nelayan Kapal Kormersial Kota Kinabalu (Purse seine and trawler), Persatuan Nelayan Kawasan Kota Kinabalu, Persatuan Nelayan Kawasan Kudat, Persatuan Pemilik Kapal Komersil Kudat (Purse seine and trawler)**
	Country adopting precautionary approach	YES	Through fisheries management measures
	Country adopting marine spatial planning	NO	
	Country has MCS system	YES	Multi agencies collaboration

Part2: Pelagic Fisheries- current conservation effort & management strategies

b. Current regulatory and governance frameworks to implement conservation goals effectively.

ii. Rights-Based Management	Individual transferable quotas (ITQs)	NO	
	Community-based quota allocations	NO	
	Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries.	YES	Sarawak (Miri Sibuti Coral Reef National Park, Luconia Shoals National Park, Talang Satang National Park) and **Sabah (Kampung Bavang Jamal-Kudat, Kampung Buah Pandai-Kota Belud and Kampung Tambisan - Lahad Datu) – sanctuary project**
iii. Adaptive Management	Incorporating new data and scientific advice into dynamic decision-making.	YES	Collaboration with FRI and universities
	Adjusting strategies in response to climate change impacts (e.g., Shifting distributions of tuna stocks).	NO	
iv. Traceability and Market-Based Tools	Eco-certifications [(e.g., Marine Stewardship Council (MSC)]	NO	
	Catch documentation schemes	YES	For the purpose to export to the EU/US/Turkeye
	Trade restrictions on IUU (illegal, unreported, unregulated) products	YES	CITES

Part2: Pelagic Fisheries- current conservation effort & management strategies

b. Current regulatory and governance frameworks to implement conservation goals effectively.

v. Capacity Building and Stakeholder Engagement	Train local managers and fishers in data collection and stock assessment	YES	National and regional training programs
	Engagement with fishers to enhance compliance	YES	Stakeholder consultations and MPIs
	Inclusive governance involving governments, NGOs, industry and communities	YES	Co-management for Refugia and EAFM
vi. List of pelagic fish group/ species that have their own management plans		i.	Tuna
		ii.	Small pelagic
		iii.	Large pelagic

Part3: CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES

No.	Item	Top 5 challenges	Specify:
i	IUU (illegal, unreported, unregulated) fishing	1	Encroachment by foreign and local fishing vessels
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)	2	Budget and capacity constraint
vii	Financial/ budget constraint		
viii	Overlapping of jurisdiction		
ix	Limited capacity (e.g., stock assessment, enforcement)	3	Lack of assets and personnel
x	Limited capability (e.g., stock assessment, enforcement)	4	Lack of expertise and training
xi	Regulatory limitation and gaps		
xii	Lack of awareness among fishers		
xiii	Lack of compliance among fishers	5	Open access mentality to cover the operational cost
xiv	Inconsistency in governance mechanism		

Part4: Potential New Strategies In Conservation Efforts And Management Of Pelagic Fish

No.	Item	YES/ NO	Specify:
i	Introduction of more sustainable fishing gears	YES	Consistently introduce alternative gear to replace trawl net at certain zone such as fish trap and hook and lines
ii	Introduction of new fishing gear technologies	NO	
iii	Development of more efficient post harvest and processing equipment	NO	
iv	Monitoring predator-prey dynamics	NO	
v	Monitoring forage fish exploitation	NO	
vi	Monitoring climate-driven shifts in pelagic ecosystems	NO	
vii	Protecting ecosystem services, not just target species	YES	Total Economic Value (TEV) study for coastal ecosystem, CSR with corporate entities
viii	Train local managers and fishers in data collection and stock assessment	YES	National and regional training
ix	Engagement with fishers to enhance compliance	YES	Stakeholder consultations and MPIs
x	Inclusive governance involving governments, NGOs, industry, and communities.	YES	Expansion of co-management initiatives to other areas
xi	Considering socioeconomic of fishers in formulation of management measures	YES	Matching grant initiatives
xii	Deployment of artificial reef	YES	Peninsular Malaysia RM37 millions, Sarawak RM20 millions, **Sabah RM12 millions** in 13th Malaysian Plan (RMK13)
xiii	Adopting artificial intelligence (AI) technology in data collection	YES	Data Collection Camera Program at selected landing sites
xiv	Increase financial/ funding/ allocation	YES	For RMK13
xv	Establish/ strengthen co-management with communities	YES	Expansion of EAFM to other areas
xvi	Other (Please specify)	NO	

Thankyou

Ministry of Agriculture, Livestock and Irrigation
Department of Fisheries
Myanmar

The Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Myanmar

Mr. Soe Win, Assistant Director
Mr. Zaw Khaing, Assistant Director

Date: 6-8 January 2026

Venue: Port Dickson, Malaysia

Introduction

- There are four division in Department of Fisheries, Administration and Finance Division, Aquaculture Division, Research and Development Division and Fisheries Management Division.
- Fisheries statistics are collected and sent to the central office through districts/townships in the regions and states.
- The Research and Development Division conducts field surveys to obtain research data.
- The Fisheries Management Division collects the data & information on fishing vessels from the regions/states.
- The Research & Development section collects Export & Import data from ports and border gates across regions/states.
- The planning, statistics and rural development section at the central office is responsible for publishing annual fisheries statistics book.
- There are two main types of purse seines nets employed in Myanmar waters; the fish purse seine, which is used to catch pelagic fish species; and the anchovy purse seine.
- Drift net mainly target higher valued commercial pelagic fish species.

2

Part 1, Main Issues in the Fisheries of Pelagic Species of Myanmar

The questions in this section are intended to obtain information regarding pelagic fish fisheries issues in each 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	5
		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	3
		Lack of regulated/ authorised fish landing site	4
		Lack of capacity in data collection	1
		Lack of systematic data collection	
		Lack of regular fish stock assessment	2

For the main issued related to the management of pelagic recourse in Myanmar. Lack of capacity in data collection. Lack of regular fish stock assessment, lack of data collection at the fish landing sites, lack of regulated fish landing site and the last one is IUU fishing.

3

Part 2: 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.

No.	Item		YES/ NO	Specify:
i	Output control: catch Limits and Quotas	Total Allowable Catches (TACs) set based on stock	NO	
		Allocation of quotas among fleets or vessels	NO	
		Minimum fish size limit	NO	
		Maximum fish size limit	NO	
		Slot limit	NO	
		Catch prohibition of certain pelagic species	NO	
		Other (Please specify)	NO	

➢Myanmar have not to catch limits and quotas system in pelagic fishing sector, however, in the export sector, the small size fish/shrimp/crabs is limited and also the size of fishing nets and number is limited.

4

Part 2: Current conservation efforts and management strategies implemented

No.	Item			YES/ NO	Specify:
ii	Gear Regulations and Selectivity Improvements	Use of circle hooks		YES	Myanmar have no specific hook design, the fisherman can use circle hooks
		Bycatch/ incidental reduction devices/ mitigation (e.g., Pinger, bird-scaring lines)		YES	To reduce the mortality of non-target fish species, marine mammals, sea turtles, and list in CITEs , training is being provided, awareness is being raised, instructions are being issued on the DoF website, and rewards are being given for releasing them. TEDs, Mesh Size
		Control on gear modification (e.g., Prohibit high opening of trawl net)		YES	The Department of Fisheries does not allow fishing using unauthorized fishing gear
		Control on fishing aids in driftnets and purse seine operation (e.g., Intensity of lights, FADs, fish silo identification, fish finder)		YES	Protecting fish stocks by controling light intensity and avoiding overfishing by restricting Off shore purse seine fishing at night by law.
		Gear marking			
		Control on gear specification	Mesh size control	YES	
			Cod end mesh size	YES	
			Depth of the net	NO	
			Length of net	YES	1980 feet length for offshore drift net
			Other (Please specify)		

- Myanmar has not yet set a specific fishing hook design. Hook and line systems, which are banned internationally, are not allowed in Myanmar. Fisherman can use circle hooks.
- Bycatch reduction programs are being implemented in the fishing industry in Myanmar and also fishing gear design control.

5

Part 2: Current conservation efforts and management strategies implemented

iii	Fishing Effort/ Input control	Limitation of the number of fishing vessels		YES	Since 2016, no new fishing vessels have been allowed to be built.
		Limitation of the number of fishing gears		YES	limited fishing gear every off shore and inshore fishing
		Licensing and vessel registration system		YES	Must reapply for a new license once a year.
		Control on the carrier vessel and mother boat	Size	NO	
			Numbers		There is no limit on the number of inshore carrier vessels. There is a limit of one (1) carrier vessel for (10) offshore fishing vessels.
		Control on horsepower of fishing vessels		YES	The engine power used on the vessel must be submitted to the Department of Fisheries for approval.
		Control the number of light boat		NO	
		Control of light usage on fishing vessel	Intensity of light	YES	
			Color of light	NO	
			Use of underwater light	NO	
			Other (Please specify)		
iv	Spatial and Temporal Closures	Marine protected areas (MPAs)		YES	To protect biodiversity and fish stocks, MPAs have been established in areas such as the Tanintharyi Coast, the Ayeyarwady Delta, the Gulf of Mottama, and the Rakhino Coast, covoring 5% of the country's water area.
		Closed seasen		YES	Closed season are April, May & June
		Closed area		YES	Fishing is prohibited within 10 miles of the coast. Fishing prohibited area is more than 5% of offshore fishing areas.
		Other closures (Please specify)		NO	

6

Part 2: Current conservation efforts and management strategies implemented

v	Ecosystem-Based Approaches	Monitoring predator prey dynamics	NO	
		Monitoring forage fish exploitation	NO	
		Monitoring climate-driven shifts in pelagic ecosystems	NO	
		Protecting ecosystem services, not just target species	NO	
		Other (Please specify)	NO	
vi	Monitoring, Control, and Surveillance (MCS)	Vessel Monitoring Systems (VMS)	YES	Installed VMS device all of offshore vessel since 2019
		Automatic Identification System (AIS)	YES	Installed AIS device some inshore and offshore vessel
		e-Navigation	YES	Sonar, Radar
		Manual logbooks	YES	Offshore fishing vessels must use the full manual logbook
		Electronic logbooks	NO	
		Onboard observers	NO	
		Port State Measures to prevent IUU fishing	YES	Myanmar has been a member of PSMA since 2010.
		Other (Please specify)	NO	
vii	Resource enchancement measures	Deployment of artificial reef	NO	
		Sea Ranching, Stock Enhancement, Restocking	YES	Replenishment or natural fish stocks by releasing native fish species from the breeding department and releasing them into the wild.
		Habitat restoration and rehabilitation	YES	Restoration of coral reefs and seagrass beds is being piloted in collaboration with villages in the Myeik District archipelago and Pathein District.
		Fisheries Refugia	NO	
		Other (Please specify)	NO	

7

Part 2 (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.

No.	Item		YES/ NO	Specify:
i	Governance	National Management Plans	NO	
		Country adopt regional regulation and management measures (e.g., FAO Code of Conduct for Responsible Fisheries)	YES	To ensure compliance with international standards and to produce high quality aquatic products, SEAFDEC and FAO's Rural Fisheries Guidelines are being implemented. National Plan of Action (NPOA)
		Periodically revise regulation or management measures	YES	Revised CSCA by Research
		Main agency in the country responsible to formulate the management measure of pelagic resources (Please specify)	YES	DoF & FFI (FFI) provide training on data collection to rural fishermen to enhance their capacity to collect data and assess the status of fish resources at the village level.)
		Country has fishers association	YES	Village-based management can be promoted and collaboration between Department of Fisheries (DoF), Myanmar Fishery Federation (MFF) and rural fishermen associations is possible.
		Country adopting precautionary approach	NO	
		Country adopting marine spatial planning	YES	To ensure systematic allocation and management of marine water use conditions.Sectoral use zones should be established for the Gulf of Mottama, Ayeyarwady Delta and Myanmar Sea water.
		Country has MCS system	YES	National Plan of Action (NPOA) 2015

8

Part 2 (B) : Current regulatory and governance frameworks to implement conservation goals effectively,

		Individual transferable quotas (ITQs)	NO	
ii	Rights Based Management	Community based quota allocations	NO	
		Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries.	YES	Establish village-level fisheries committees to monitor and monitor compliance with the law through village-based management, and manage fishing gear and closed areas at the village level. LMMAs
iii	Adaptive Management	Incorporating new data and scientific advice into dynamic decision-making	YES	CSCA by scientifice advice from Fridjof Nansen research vessel (2013, 2015, 2018)
		Adjusting strategies in response to climate change impacts (e.g., Shifting distributions of tuna stocks)	NO	
iv	Traceability and Market-Based Tools	Eco-certifications (e.g., Marine Stewardship Council (MSC))	NO	
		Catch documentation schemes	YES	Border trade CC, EU CC, US CC etc.
		Trade restrictions on IUU (illegal, unreported, unregulated) products	YES	Myanmar trades in accordance with the CITEs listed criteria. PSMA 2010
v	Capacity Building and Stakeholder Engagement	Train local managers and fishers in data collection and stock assessment	YES	DoF & FFI provide training on data collection to rural fishermen to enhance their capacity to collect data and assess the status of fish resources at the village level.
		Engagement with fishers to enhance compliance	YES	To conduct regular consultations with rural fisheries development associations to effectively implement management with the participation of villages.
		Inclusive governance involving governments, NGOs, industry, and communities	YES	LMMAs
vi	List of pelagic fish group/ species that have their own management plans		i.	Hilsa,Indian mackerel ,Indopacific mackrel,Nordic tunas species
			ii.	
			iii.	Not have pelagic species management plan.

9

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.

No.	Item	Top 5 challenges	Specify:
i	IUU (illegal, unreported, unregulated) fishing	2	IUU fishing remains a significant issue in offshore and transboundary waters
ii	Limited cooperation from fishers	4	Some small-scale fishers resist new regulations due to lack of awareness or economic pressure
iii	Limited cooperation from other stakeholders		
iv	Limited support from government		
v	Climate change and distributional shifts of species	5	Changes in pelagic fish migration patterns affect local catches
vi	Lack of Monitoring, Control, and Surveillance (MCS)	3	Limited patrol vessels and monitoring technology in remote fishing grounds.
vii	Financial/ budget constraint	1	Insufficient funding for research, enforcement, and stakeholder training
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		

10

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	YES	Promote use of selective gears to reduce bycatch.
ii	Introduction of new fishing gear technologies	NO	
iii	Development of more efficient post harvest and processing equipment	YES	Improve cold chain and processing facilities to reduce post-harvest losses.
iv	Monitoring predator-prey dynamics	NO	
v	Monitoring forage fish exploitation	NO	
vi	Monitoring climate-driven shifts in pelagic ecosystems	NO	
vii	Protecting ecosystem services, not just target species	NO	
viii	Train local managers and fishers in data collection and stock assessment	YES	Conduct workshops and field training with DOF and SEAFDEC support.
ix	Engagement with fishers to enhance compliance	YES	Strengthen community-based co-management approaches.
x	Inclusive governance involving governments, NGOs, industry, and communities	YES	Encourage multi-stakeholder platforms for policy dialogue.
xi	Considering socioeconomic of fishers in formulation of management measures	YES	Integrate livelihood impacts into regulation design.
xii	Deployment of artificial reef	NO	
xiii	Adopting artificial intelligence (AI) technology in data collection	NO	
xiv	Increase financial funding/ allocation	YES	Seek international and regional funding for fisheries management.
xv	Establish/ strengthen co-management with communities	YES	Pilot co-management projects in key fishing communities.
xvi	Other (Please specify)	YES	Enhance regional cooperation for transboundary stock management

11

Part 5: Success Stories (just briefly stated).

This section is for sharing success stories related to the management and conservation of pelagic fish in each AMS.

No.	Success story
i	Implementation of seasonal closures in the Rakhine coastal area has led to the recovery of small pelagic fish stocks and improved catches for local fishers.
ii	Licensing and vessel registration system has improved monitoring and reduced illegal fishing activities in the Ayeyarwady Delta region.
iii	Community-based co-management initiatives in Mon State have increased compliance with mesh size regulations and reduced juvenile fish catch.

12

Thank You

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Department of Agriculture
Bureau of Fisheries and Aquatic Resources
National Fisheries Research and Development Institute

PHILIPPINES: Country Presentation on the Conservation Efforts and Management Strategies of Pelagic Fisheries

January 6-8, 2026
D' Wharf Hotel and Residence, Negeri Sembilan, Port Dickson, Malaysia

Ms. KIMA KARLA H. CEDO
Chief, Capture Fisheries Policies, Program and Operations Monitoring Section

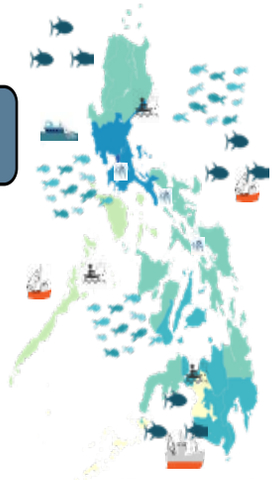
NOIMIE ROSE B. DICDIQUIN, RFT., MSc.
Science Research Specialist II
Capture Fisheries Research Development Division
Coastal Fisheries Section

OVERVIEW: PHILIPPINE FISHERIES SECTOR

COMPLEXITY OF FISHERIES MANAGEMENT FOR OUR ARCHIPELAGO

Multi-Species
(pelagics, small pelagics, demersal, reef fishes)

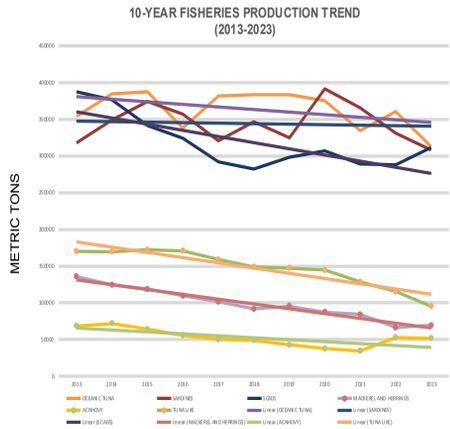
Multi-gear
(gill nets, longline, purse seine, ring net, etc.)



RESOURCES AT A GLANCE

- Coastline (length) 36,289 km. 2nd longest in the world
- Territorial Waters and EEZ 2.2 million sq. km.
- Shelf Area (depth 200m) 184,600 sq. km.
- Coral Reef Area 27,000 sq. km.
- Swamplands 246,063 ha.
- Existing Fishpond Area 253,854 ha.
- Other Inland Resources 250,000 ha.

adapted from BFAR Developing Fisheries Sector Presentation



- Fisheries production data from 2013 to 2023 show year-to-year variability across major pelagic species groups
- Small pelagic species (sardines, scads, anchovy, mackerel and herrings) display fluctuating production levels over the period
- Oceanic tuna and tuna-like species account for a substantial share of total pelagic production, with variations across years
- Several species groups exhibit changes in production levels over time, including periods of increase and decrease

Philippine Context: Pelagic Fisheries Management

- Pelagic species contribute a significant share of national marine fish production
- Managed through a multi-level governance framework, involving:
  - National agencies
  - Fisheries Management Areas (FMAs)
  - Local Government Units (LGUs)
- Management measures include:
  - Harvest strategies and reference points
  - Seasonal closures
  - Gear regulations
  - IUU fishing reduction plans
  - Monitoring, control, and surveillance (MCS)

Key management principle: Management measures are increasingly guided by best available science, stakeholder engagement, and adaptive decision-making.

PART 1: MAIN ISSUES IN THE FISHERIES OF PELAGIC SPECIES OF AMS

1. IUU (illegal, unreported, unregulated) fishing
2. Overfishing
3. Increase of Fishing Effort
4. Overcapacity
5. Use of unsustainable fishing gears

PART 2A: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

(*Current conservation efforts and management strategies implemented*)

No.	Item			YES/ NO	Specify:
i	Output control: catch Limits and Quotas		Total Allowable Catches (TACs) set based on stock	NO	
			Allocation of quotas among fleets or vessels	NO	
			Minimum fish size limit	NO	
			Maximum fish size limit	NO	
			Slot limit	NO	
			Catch prohibition of certain pelagic species	YES	during closed fishing seasons: sardines, roundscads, mackerels and herrings
			Other (Please specify)		
ii	Gear Regulations and Selectivity Improvements		Use of circle hooks	NO	
			Bycatch/ incidental reduction devices/ mitigation	YES	JTED, ongoing BRD (combination of TED and JTED)
			Control on gear modification	YES	if has existing prohibition
			Control on fishing aids in driftnets and purse seine operation	YES	Count limit of Payao per Catcher Vessel
			Gear marking	YES	
		Control on gear specification	Mesh size control	YES	3 CM
			Cod end mesh size	YES	Varies by LGU
			Depth of the net	YES	Varies by LGU
			Length of net	YES	Varies by LGU
			Other (Please specify)		

PART 2A: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

(*Current conservation efforts and management strategies implemented*)

iii	Fishing Effort/ Input control		Limitation of the number of fishing vessels	NO	
			Limitation of the number of fishing gears	NO	
			Licensing and vessel registration system	YES	Both LGUs and National Government
		Control on the carrier vessel and mother boat	Size	NO	
			Numbers	NO	
		Control on horsepower of fishing vessels		NO	
		Control the number of light boat		NO	
		Control of light usage on fishing vessel	intensity of light	YES	
			Color of light	YES	Halogen
			Use of underwater light	NO	
			Other (Please specify)		
iv	Spatial and Temporal Closures		Marine protected areas (MPAs)	YES	
			Closed season	YES	
			Closed area	YES	Strict Protection Zone
			Other closures (Please specify)		

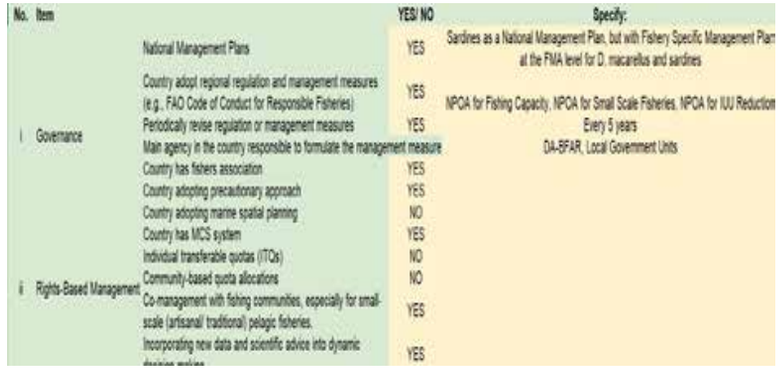
PART 2A: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

(*Current conservation efforts and management strategies implemented*)

v	Monitoring, Control, and Surveillance (MCS)	Vessel Monitoring Systems (VMS)	YES	
		Automatic Identification System (AIS)	YES	
		e-Navigation	YES	
		Manual logbooks	YES	
		Electronic logbooks	NO	
		Onboard observers	NO	
		Port State Measures to prevent IUU fishing	YES	
		Other (Please specify)		
vi	Resource enchancement measures	Deployment of artificial reef	YES	mostly local and initiated by CSOs
		Sea Ranching, Stock Enhancement, Restocking	YES	mostly project-based
		Habitat restoration and rehabilitation	YES	
		Fisheries Refugia	YES	mostly project-based

PART 2B: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

(*Current regulatory and governance frameworks to implement conservation goals effectively*)



No.	Item		YES/ NO	Specify:
i	Governance	National Management Plans	YES	Sardines as a National Management Plan, but with Fishery Specific Management Plans at the FMA level for D. macarellus and sardines
		Country adopt regional regulation and management measures (e.g., FAO Code of Conduct for Responsible Fisheries)	YES	NPOA for Fishing Capacity, NPOA for Small Scale Fisheries, NPOA for IUU Reduction
		Periodically revise regulation or management measures	YES	Every 5 years
		Main agency in the country responsible to formulate the management measure		DA-BFAR, Local Government Units
		Country has fishers association	YES	
		Country adopting precautionary approach	YES	
		Country adopting marine spatial planning	NO	
		Country has MCS system	YES	
ii	Rights-Based Management	Individual transferable quotas (ITQs)	NO	
		Community-based quota allocations	NO	
		Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries.	YES	
		Incorporating new data and scientific advice into dynamic	YES	

PART 2B: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

(*Current regulatory and governance frameworks to implement conservation goals effectively*)

iii	Adaptive management	Adjusting strategies in response to climate change impacts (e.g., Shifting distributions of tuna stocks).	NO	
iv	Traceability and Market-Based Tools	Eco-certifications	YES	For some Tuna fleets
		[(e.g., Marine Stewardship Council (MSC)]	YES	
		Catch documentation schemes	YES	
		Trade restrictions on IUU (illegal, unreported, unregulated) products	YES	
v	Capacity Building and Stakeholder Engagement	Train local managers and fishers in data collection and stock assessment	YES	for data collection only
		Engagement with fishers to enhance compliance	YES	
		Inclusive governance involving governments, NGOs, industry, and communities	YES	FMAs
vi	List of pelagic fish group/ species that have their own management plans		i. Tuna ii. Sardine iii. Mackarel Scad	

PART 3: CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES

1. ***IUU (illegal, unreported, unregulated) fishing:*** fishing within municipal waters, use of destructive gears despite being prohibited (trawl and danish seine)
2. ***Financial/ budget constraint:*** limited fund allocation for fisheries sector
3. ***Overlapping of jurisdiction:*** National vs Municipal waters
4. ***Limited capacity (e.g., stock assessment, enforcement):*** particular to Local Government enforcement and data collection
5. ***Lack of compliance among fishers:*** laws are existing and communicated to fishers but con-compliance is high

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

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	YES	
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	YES	
viii	Train local managers and fishers in data collection and stock assessment	YES	
ix	Engagement with fishers to enhance compliance	YES	
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	YES	
xiv	Increase financial funding/ allocation	YES	
xv	Establish/ strengthen co-management with communities		
xvi	Other (Please specify)	YES	Implement more dynamic measures

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

THAILAND
January 2026

Overview of Thailand

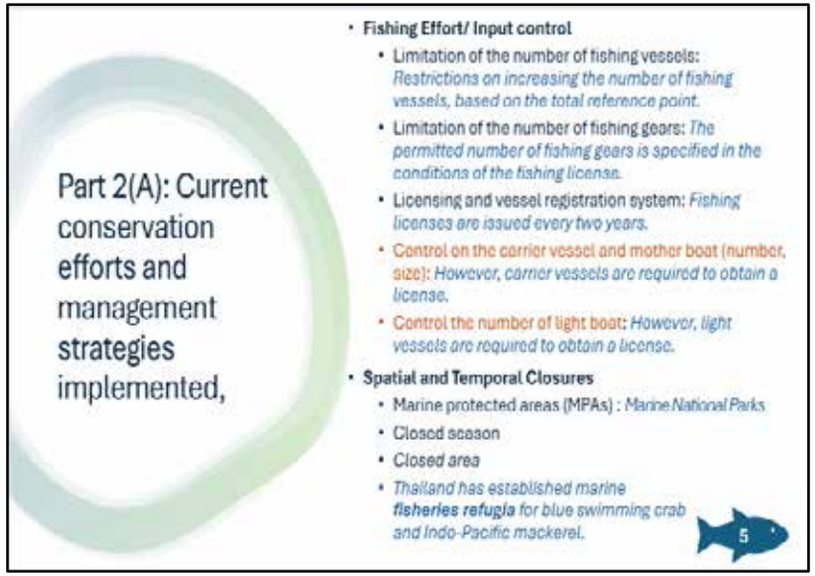
- Part 1: Main Issues in the Fisheries of Pelagic Species in Thailand
- Part 2(A): Current conservation efforts and management strategies implemented,
- Part 2(B): Current regulatory and governance frameworks to implement conservation goals effectively
- Part 3: Challenges in implementation of current conservation and management strategies,
- Part 4: Potential new strategies in conservation efforts and management of pelagic fish,
- Part 5: Success Stories

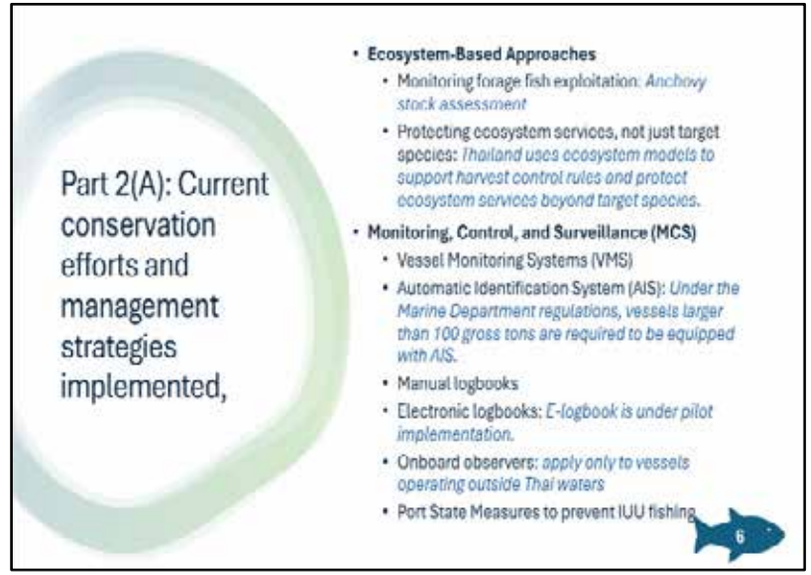
Part 1: Main Issues in the Fisheries of Pelagic Species in Thailand,

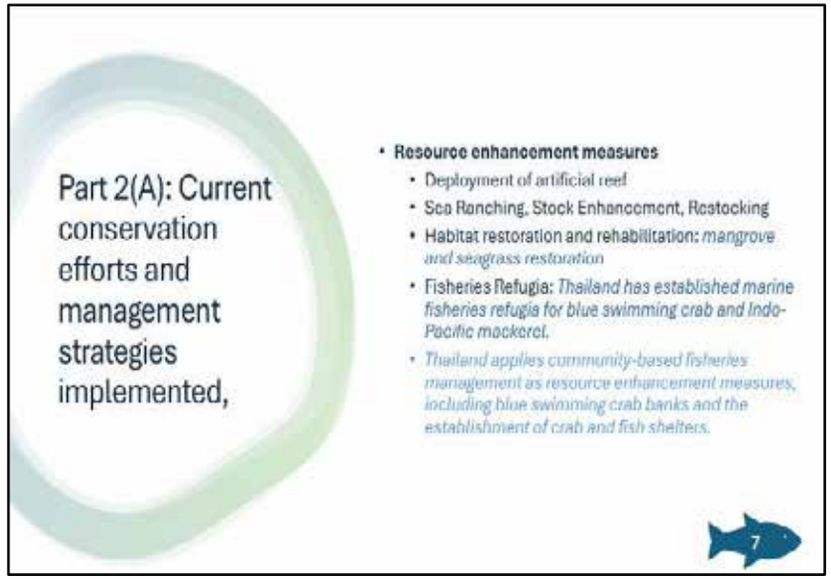
1. Overcapacity
2. Lack of data collection at fish landing sites, *Artisanal fisheries*
3. Use of unsustainable fishing gears
4. Overfishing
5. Changes in species distribution

Part 2(A): Current conservation efforts and management strategies implemented,

- **Output control: catch Limits and Quotas**
  - Total Allowable Catches (TACs) set based on stock assessments: *Annual Total Allowable Catches (TACs)*
  - Allocation of quotas among fleets or vessels: *Transfer of fishing rights is regulated*
- **Gear Regulations and Selectivity Improvements**
  - Bycatch/ Incidental reduction devices/ mitigation (e.g., Pinger, bird-scaring lines)
  - Control on gear modification (e.g., Prohibit high opening of trawl net) : *As specified in the fishing gear standards.*
  - Control on fishing aids in driftnets and purse seine operation (e.g., Intensity of lights, FADs, fish site identification, fish finder)
  - Control on gear specification : *Mesh size control, Cod end mesh size, Depth of the net, Length of net*


Part 2(A): Current conservation efforts and management strategies implemented,
• Fishing Effort/ Input control
• Limitation of the number of fishing vessels: Restrictions on increasing the number of fishing vessels, based on the total reference point.
• Limitation of the number of fishing gears: The permitted number of fishing gears is specified in the conditions of the fishing license.
• Licensing and vessel registration system: Fishing licenses are issued every two years.
• Control on the carrier vessel and mother boat (number, size): However, carrier vessels are required to obtain a license.
• Control the number of light boat: However, light vessels are required to obtain a license.
• Spatial and Temporal Closures
• Marine protected areas (MPAs) : Marine National Parks
• Closed season
• Closed area
• Thailand has established marine fisheries refugia for blue swimming crab and Indo-Pacific mackerel.
5


Part 2(A): Current conservation efforts and management strategies implemented,
• Ecosystem-Based Approaches
• Monitoring forage fish exploitation: Anchovy stock assessment
• Protecting ecosystem services, not just target species: Thailand uses ecosystem models to support harvest control rules and protect ecosystem services beyond target species.
• Monitoring, Control, and Surveillance (MCS)
• Vessel Monitoring Systems (VMS)
• Automatic Identification System (AIS): Under the Marine Department regulations, vessels larger than 100 gross tons are required to be equipped with AIS.
• Manual logbooks
• Electronic logbooks: E-logbook is under pilot implementation.
• Onboard observers: apply only to vessels operating outside Thai waters
• Port State Measures to prevent IUU fishing
6


Part 2(A): Current conservation efforts and management strategies implemented,
• Resource enhancement measures
• Deployment of artificial reef
• Sea Ranching, Stock Enhancement, Restocking
• Habitat restoration and rehabilitation: mangrove and seagrass restoration
• Fisheries Refugia: Thailand has established marine fisheries refugia for blue swimming crab and Indo-Pacific mackerel.
• Thailand applies community-based fisheries management as resource enhancement measures, including blue swimming crab banks and the establishment of crab and fish shelters.
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Part 2(B): Current regulatory and governance frameworks to implement conservation goals effectively,
• Governance
• National Management Plans
• Country adopt regional regulation and management measures
• Periodically revise regulation or management measures: A new fisheries law was enacted this year.
• Main agency in the country responsible to formulate the management measure of pelagic resources: Department of Fisheries, Ministry of Agriculture and Cooperatives
• Country has fishers association
• Country adopting precautionary approach
• Country has MCS system: monitoring: data collection, logbook, VMS Controlling: fisheries law surveillance: sea inspection, port inspection, air surveillance
8

Part 2(B): Current regulatory and governance frameworks to implement conservation goals effectively,

- **Rights-Based Management**
  - Individual transferable quotas (ITQs): *For some fishing gears, such as purse seines, Thailand permits the transfer of authorized catch quantities between vessels under regulatory control*
  - Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries: *Provincial Fisheries Committee*
- **Adaptive Management**
  - Incorporating new data and scientific advice into dynamic decision-making: *Thailand continuously uses the best available scientific information to improve fisheries management.*

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Part 2(B): Current regulatory and governance frameworks to implement conservation goals effectively,

- **Traceability and Market-Based Tools**
  - Eco-certifications (MSC)
  - Catch documentation schemes
  - Trade restrictions on IUU (illegal, unreported, unregulated) products: *traceability system*
- **Capacity Building and Stakeholder Engagement**
  - Train local managers and fishers in data collection and stock assessment: *Thailand provides the "Thai Smart Master Fisher" training to enhance fishers' capacity in data providing and sustainable fisheries management.*
  - Engagement with fishers to enhance compliance: *Thailand regularly conducts fisher stakeholder consultation meetings as part of participatory fisheries management.*
  - Inclusive governance involving governments, NGOs, industry, and communities: *National Fisheries Policy Committee (NFPC).*
- **List of pelagic fish group/ species that have their own management**: *Anchovy, Pelagic species*

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Part 3: Challenges in implementation of current conservation and management strategies,

1. Limited cooperation from fishers
2. Financial/ budget constraint
3. Limited capacity (e.g., stock assessment, enforcement)
4. Lack of Monitoring, Control, and Surveillance (MCS) : *especially in small scale*
5. Lack of awareness among fishers

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Part 4: Potential new strategies in conservation efforts and management of pelagic fish,

No.	Item
i	Introduction of more sustainable fishing gears
iii	Development of more efficient post harvest and processing equipment: Ice slurry
v	Monitoring forage fish exploitation: Anchovy stock assesment
vii	Protecting ecosystem services, not just target species
viii	Train local managers and fishers in data collection and stock assessment: "Thai Smart Master Fisher" training
ix	Engagement with fishers to enhance compliance: fisher stakeholder consultation meetings as part of participatory fisheries management.
x	Inclusive governance involving governments, NGOs, industry, and communities.: National Fisheries Policy Committee (NFPC).
xi	Considering socioeconomic of fishers in formulation of management measures: stakeholder consultations and community-based management
xii	Deployment of artificial reef

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Part 5: Success Stories

- **Output control: catch Limits and Quotas**

  Thailand conducts stock assessments by species groups and uses MSY as a reference point to allocate allowable catch to individual fishing vessels. Based on each vessel's fishing capacity, the number of permitted fishing days is calculated and controlled through the port-in/port-out system to prevent overfishing.

- **Monitoring, Control, and Surveillance (MCS)**

  Thailand has developed fisheries monitoring, control, and surveillance systems, including mandatory fishing logbooks, port-in/port-out control, and the use of VMS, air surveillance, and fisheries patrol vessels.

- **EBFM**

  Thailand implements community-based fisheries management, including the establishment of fish shelters for aquatic species, and has designated fisheries refugia for Indo-Pacific mackerel in the eastern Gulf of Thailand.

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Thank you

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Country Presentation on the Conservation Efforts and Management Strategies of Pelagic Fisheries

January 6-8, 2026
D'Wharf Hotel and Residence, Negeri Sembilan, Port Dickson, Malaysia

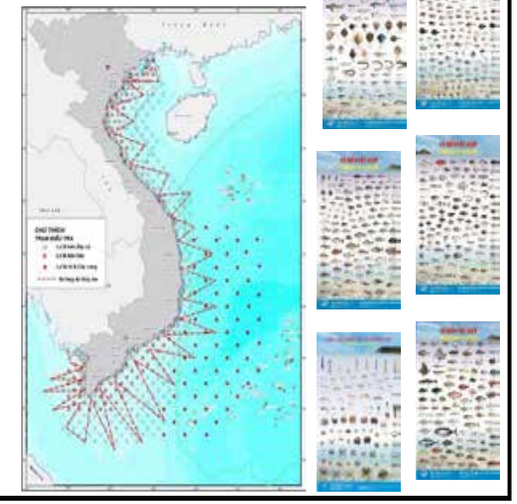
Vu Viet Ha
Research Institute for Marine Fisheries
Le Huu Tuan Anh
Department of Fisheries and Surveillance

The marine fisheries resources in Vietnamese waters

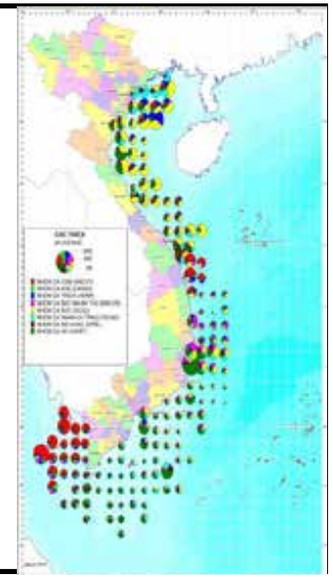
Marine Fisheries Resources of Vietnam are managed through 5 management areas: TG, CW, SE, SW and Offshore

Laws on Fisheries (2017)

- Marine Fisheries Resources Survey are conducted every five years
- Commercial Fisheries Survey are conducted annually



Targeted small pelagic fishes



Pelagic Fisheries

1. Purse seine fisheries
2. Drift gill net fisheries
3. Lift net fisheries
4. Falling net fisheries

PART 1: MAIN ISSUES IN THE FISHERIES OF PELAGIC SPECIES

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	1
		Changes in species distribution	
		Overfishing	2
		Overcapacity	
		Use of unsustainable fishing gears	3
		Increase of fishing effort	4
		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	5

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		YES	Yes, we have set quotar for each management area in period based on the stock assessment in period 2016-2020
		Allocation of quotas among fleets or vessels		YES	
		Minimum fish size limit		YES	The minimum legal size are regulated in Decree 37/2024/ND-CP
		Maximum fish size limit		NO	Not regulated yet
		Slot limit		YES	Not regulated yet
		Catch prohibition of certain pelagic species		YES	Sharks
		Other (Please specify)			
ii	Gear Regulations and Selectivity Improvements	Use of circle hooks		YES	Yes, but only applied for oceanic tuna fishery
		Bycatch/ incidental reduction devices/ mitigation (e.g., Pinger, bird-scaring lines)		YES	Yes, we have promoted the use of square mesh
		Control on gear modification (e.g., Prohibit high opening of trawl net)		YES	Not regulated yet
		Control on fishing aids in driftnets and purse seine operation (e.g., Intensity of lights, FADs, fish site identification, fish finder)		NO	
		Gear marking			
		Control on gear specification	Mesh size control	YES	Yes, It was in Circular 19/2018/TT-BNNPTNT
			Cod end mesh size	YES	Yes, It was in Circular 19/2018/TT-BNNPTNT
			Depth of the net	NO	Not regulated yet
			Length of net	YES	Not regulated yet
			Other (Please specify)		
iii	Fishing Effort/ Input control	Limitation of the number of fishing vessels		YES	Yes, based on quotar
		Limitation of the number of fishing gears			Not yet regulated
		Licensing and vessel registration system		YES	
		Control on the carrier vessel and mother boat	Size	YES	
			Numbers	YES	
		Control on horsepower of fishing vessels		NO	Not regulated on Law yet
		Control the number of light boat		NO	Not regulated on Law yet
		Control of light usage on fishing vessel	Intensity of light	NO	Not regulated on Law yet
			Color of light	NO	Not regulated on Law yet
			Use of underwater light	NO	Not regulated on Law yet
			Other (Please specify)		

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

A. Current conservation efforts and management strategies implemented

		Licensing and vessel registration system	YES	
		Control on the carrier vessel and mother boat — Size	YES	
		Control on the carrier vessel and mother boat — Numbers	YES	
iii	Fishing Effort/ Input control	Control on horsepower of fishing vessels	NO	Not regulated on Law yet
		Control the number of light boat	NO	Not regulated on Law yet
		Control of light usage on fishing vessel — Intensity of light	NO	Not regulated on Law yet
		Control of light usage on fishing vessel — Color of light	NO	Not regulated on Law yet
		Control of light usage on fishing vessel — Use of underwater light	NO	Not regulated on Law yet
		Control of light usage on fishing vessel — Other (Please specify)		
iv	Spatial and Temporal Closures	Marine protected areas (MPAs)	YES	Vietnam has 12 established MPA and 15 planning MPAs expecting to establish in 2030
		Closed season	YES	Yes, we close the fishing activities during the spawning seasons
		Closed area	YES	Yes, we have established a total of 63 closed areas along the coast
		Other closures (Please specify)	YES	Fisheries Refugia, Artificial Reef Deployment
v	Ecosystem-Based Approaches	Monitoring predator-prey dynamics	NO	
		Monitoring forage fish exploitation	NO	
		Monitoring climate-driven shifts in pelagic ecosystems	NO	
		Protecting ecosystem services, not just target species	YES	we have applied some community-based fisheries management and ecosystem based fisheries management
		Other (Please specify)		
vi	Monitoring, Control, and Surveillance (MCS)	Vessel Monitoring Systems (VMS)	YES	VMS is required for the fishing vessel from 15m and above
		Automatic Identification System (AIS)	YES	Not required but most of fishing vessel from 12m and above are installed
		e-Navigation	YES	Not required but most of fishing vessel from 12m and above are installed
		Manual logbooks	YES	Compulsory for all fishing vessel from 15m and above
		Electronic logbooks	YES	Pilot program
		Onboard observers	YES	Onboard observers have been implemented in most of Vietnamese Marine Fisheries Resources Survey Program
		Port State Measures to prevent IUU fishing	YES	Fishing vessel from 15m and above have to land their catch at designated ports. Catch Report is compulsory for the fishing vessel from 15m and above.
		Other (Please specify)		
vii	Resource enhancement measures	Deployment of artificial reef	YES	Deployed in some areas along coastal zone of Vietnam
		Sea Ranching, Stock Enhancement, Restocking	YES	These activities have been implemented annually
		Habitat restoration and rehabilitation	YES	Coral reef inhabitat has been implemented
		Fisheries Refugia	YES	Some fisheries refugia have been established at provincial level. RIMF has proposed a toral of 52 fisheries refugia but the government has not yet approved
		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	YES	Yes, for whole fisheries
		Country adopt regional regulation and management measures (e.g., FAO Code of Conduct for Responsible Fisheries)		
		Periodically review regulation or management measures	YES	Every five years
		Main agency in the country responsible to formulate the management measure of pelagic resources (Please specify)		Department of Fisheries and Surveillance under the Ministry of Agriculture and Environment
		Country has fishers association	YES	Two levels: National level and Provincial level
		Country adopting precautionary approach	NO	
		Country adopting marine spatial planning	YES	
		Country has MCS system	YES	Yes, these tasks are carried out by the Department of Fisheries Surveillance
ii	Rights-Based Management	Individual transferable quotas (ITQs)	NO	
		Community-based quota allocations	NO	
		Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries.	YES	
iii	Adaptive Management	Incorporating new data and scientific advice into dynamic decision-making	YES	Fisheries management plan will be revised every 5 years
		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))	YES	We are doing FIP for BSC, RSC, Trawl fisheries, Skipjack Tuna Purse Seine Fishery and Oceanic Tuna Handline Fishery
		Catch documentation schemes	YES	Yes, Applies for the fishing vessel >= 12m
		Trade restrictions on IUU (illegal, unreported, unregulated) products	YES	Catch report and catch certification are applied for the product of fishing vessel >12m.
v	Capacity Building and Stakeholder Engagement	Train local managers and fishers in data collection and stock assessment	YES	Conducted upon request, not on a regular basis
		Engagement with fishers to enhance compliance	YES	
		Inclusive governance involving governments, NGOs, industry, and communities	YES	
vi	List of pelagic fish group/ species that have their own management plans	i		Agregated pelagic species such as: small pelagic fishes, large pelagic fishes
		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	1	Vietnam are now trying our best to withdraw the yellow card of EU
ii	Limited cooperation from fishers	3	Fishers are still violating the Fisheries Law, particularly by fishing in closed areas and using small mesh sizes.
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	2	Lact of budget supporting for data collection
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	5	
xiii	Lack of compliance among fishers	4	
xiv	Inconsistency in governance mechanism		

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

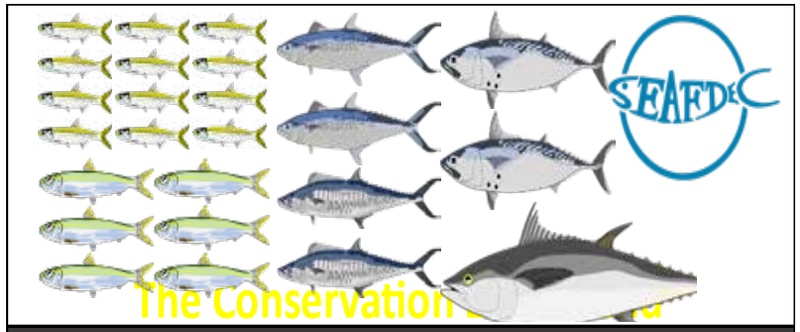
This section aims to obtain input regarding strategies and approaches that will be taken by AMS in the management and conservation of pelagic fisheries in the future. Select YES for the related strategies in your country, and provide specific details.

*Can choose more than one

No.	Item	YES/ NO	Specify:
i	Introduction of more sustainable fishing gears	YES	
ii	Introduction of new fishing gear technologies	YES	
iii	Development of more efficient post harvest and processing equipment	YES	
iv	Monitoring predator-prey dynamics	NO	
v	Monitoring forage fish exploitation	NO	
vi	Monitoring climate-driven shifts in pelagic ecosystems	NO	
vii	Protecting ecosystem services, not just target species	YES	
viii	Train local managers and fishers in data collection and stock assessment	YES	
ix	Engagement with fishers to enhance compliance	YES	
x	Inclusive governance involving governments, NGOs, industry, and communities.	YES	
xi	Considering socioeconomic of fishers in formulation of management measures	YES	
xii	Deployment of artificial reef	YES	
xiii	Adopting artificial intelligence (AI) technology in data collection	NO	
xiv	Increase financial/ funding/ allocation		
xv	Establish/ strengthen co-management with communities	YES	
xvi	Other (Please specify)		

Thanks for your attention...

Research Institute for Marine Fisheries
Add: 224 Le Lai Street, Ngo Quyen District, Hai Phong City
Website: rimf.org.vn; email: vhs@rimf.org.vn



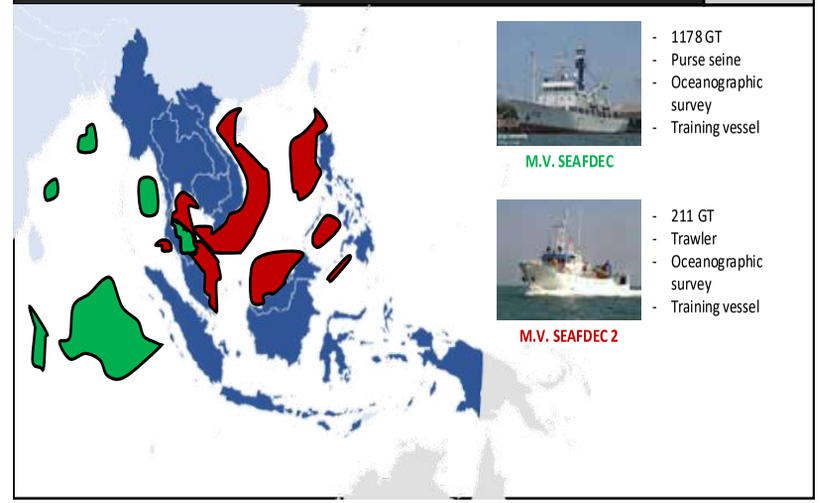
The Conservation [illegible] d

Management Strategies of Pelagic Fisheries:

What we've done here in TD

Supapong Pattarapongpan
Fishery Oceanographer, SEAFDEC/TD

SEAFDEC/TD's survey areas 2



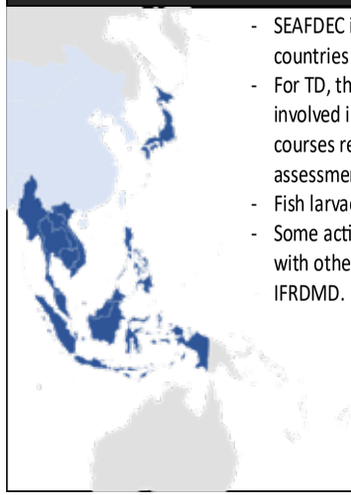
M.V. SEAFDEC

- 1178 GT
- Purse seine
- Oceanographic survey
- Training vessel

M.V. SEAFDEC 2

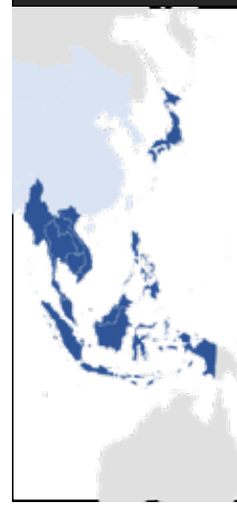
- 211 GT
- Trawler
- Oceanographic survey
- Training vessel

SEAFDEC and Fishery Management 3



- SEAFDEC is working under the recommendations from member countries and other partner organizations.
- For TD, the fishery management and conservation were involved in the activities in the form of the regional training courses related to fishery resources identification, fish stock assessment and management, and other related aspects.
- Fish larvae, fishery refugia, and socio-economic aspects.
- Some activities, such as fish stock assessment, was cooperated with other SEAFDSEC departments, such as MFRDMD and IFRDMD.

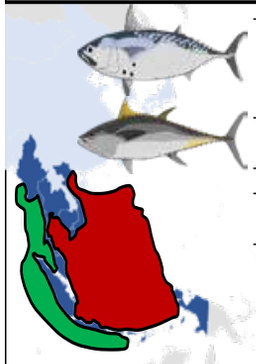
SEAFDEC and Fishery Management 4



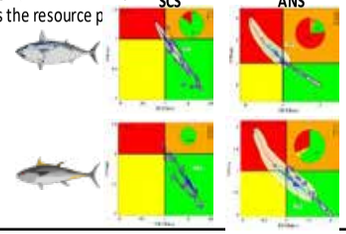
- Fish stock assessment
  - Neritic tuna and seer fish
  - Sulu and Sulawesi Seas
  - Several regional training courses
  - Scientific Echosounder, EK80.
- Regional Fishery Management
  - Indo-Pacic Mackerel(*Rastrelliger brachysoma*) Genetic Identification and Management
  - The Regional Seminar on the Progress of Fish Stock Assessment in SEAFDEC Member Countries
- Fishery Refugia
  - Refugia Site Identification
  - Fish Larvae Identification
  - EAFM

Fish Stock Assessment 5

Neritic Tuna Stock Assessment (SCS and ANS)



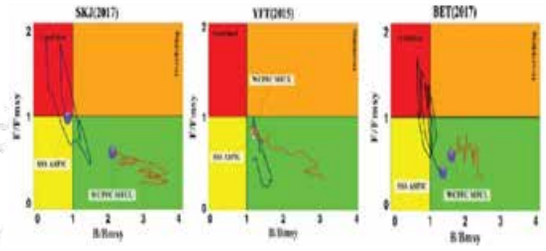
- SEAFDEC conducted the stock assessment of 4 species (kawakawa, *Euthynnus affinis*, longtail tuna, *Thunnus tonggol*, narrow-barred Spanish mackerel, *Scomberomorus commerson*, and Indo-Pacific king mackerel, *Scomberomorus guttatus*).
- RPOA-Neritic Tuna and the Scientific Working Group on Neritic Tuna were established under the SEAFDEC and ASEAN Mechanism.
- Collaboration between SEAFDEC/TD, SEAFDEC/MFRDMD, and working group.
- Latest result of stock assessment of kawakawa (*Euthynnus affinis*), longtail tuna (*Thunnus tonggol*) from workshop in 2020 indicated as follows;
- Dr. Tom Nishida was the resource p



Fish Stock Assessment 6

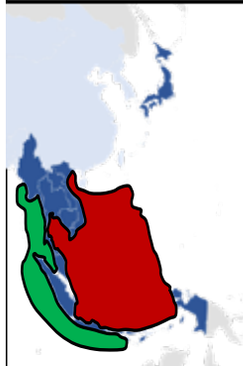
Sulu and Sulawesi Seas

- The Stock assessment was conducted for 3 transboundary species, Yellowfin Tuna (*Thunnus albacares*), Bigeye Tuna (*Thunnus obesus*), and Skipjack Tuna (*Katsuwonus pelamis*) in Sulu Sulawesi Seas.
- Incorporation with SEAFDEC/TD and working group.
- The results of the assessment up to 2017 was publicized and indicated as follow;



Fish Stock Assessment 7

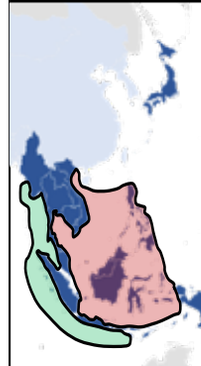
Regional Training Courses on Stock Assessment and Related Topics



- The Regional Training Course on Stock Assessment
  - Level 1:Basic of Fisheries Biology, 29 Jan – 5 Feb 2016
  - Level 2: Fish Stock Assessment, 21 – 30 Mar 2016
- The Regional Training Course on Fish Population Dynamics and Fisheries Management Using R-statistical Program
  - Fish Population Dynamics and Statistics, 13-17 Dec 2021
  - Fish Stock Assessment and Ecological Models, 8-12 Aug 2022.
- The Regional Training Course on Data Collection and Bio-Statistics for Fishery (Back-to-Back)
  - 3-5 Aug 2023
  - 6-10 Aug 2023.
- The Online Regional Training on Research Cruise Planning for Marine Resources and Oceanography (2-4 Sep 2024).

Fish Stock Assessment 8

M.V. SEAFDEC 2 Equipped with EK80



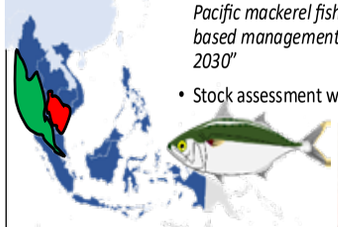
- SEAFDEC/TD has been conducting surveys on marine fishery resources in Southeast Asia for sustainable management through the use of the research vessel M.V. SEAFDEC 2.
- With support from the JTF VI-II, the EK80 system was installed on M.V. SEAFDEC 2.
- The EK80 system was envisaged to be highly beneficial in gathering information during marine fishery resource surveys.
- Various activities have been conducted using EK80, including;
  - Capacity Building on Hydroacoustic Survey for AMSs (7-15 Oct 2024)
  - Fisheries Acoustic Survey in the West Coast of Peninsular Malaysia for Pelagic Fish Stock Assessment (9-19 Sep 2025).



Regional Fishery Management

9

Indo-Pacic Mackerel(*Rastrelliger brachysoma*) Genetic Identification and Management

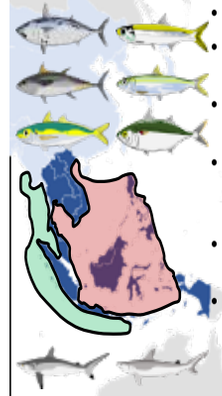


- Several capacity-building activities were provided to Member Countries, i.e. data collection, larvae identification, and DNA analysis, both in GOT and ANS.
- ASEAN adopted the Regional Action Plan, which aims to serve as a guide for the countries in implementing the actions to achieve "*Sustainable Indo-Pacific mackerel fisheries in the Gulf of Thailand sub-region through science-based management for shared benefit to other ASEAN Member States by 2030*"
- Stock assessment was conducted by the national level.

Regional Fishery Management

10

The Regional Seminar on the Progress of Fish Stock Assessment in SEAFDEC Member Countries



- Launched in 2024.
- The activity aimed to update the status of stock assessment in member countries.
- Participants involved: Brunei, Cambodia, Indonesia, Lao, Malaysia, Philippines, Thailand, and Viet Nam.
- The activity suggested the list of sensitive species from five (5) sub-regional sectors: 1) Gulf of Thailand, 2) Andaman Sea, 3) Sulu and Sulawesi Seas, 4) South China Sea, and 5) Mekong River System.
- A total of 17 species were involved, including elasmobranchs, marine fish, crustaceans, and inland species.
- The meeting also provided the most up-to-date stock assessment methods and management measures, including the way forward on the future activities conducted by SEAFDEC/TD.

Fishery Refugia

11

Refugia Sites for Pelagic Species

- Fishery Refugia is the fishery management approach with the community support to protect certain species within one or more selected habitats in each fishing ground.
- Incorporation of SEAFDEC, UNEP, and GEF.
- Several refugia sites were established around SEAFDEC MCs areas, such as Cambodia (4), Indonesia (2), Malaysia (2), Philippines (3), Thailand (2), and Viet Nam (4).
- For pelagic species, the focused species included short mackerel (*Rastrelliger brachysoma*) and the tuna group (tribe Thunnini)

Fishery Refugia

12

Fish Larvae

- As an important part of the activity, fish larvae identification is also essential to identify the proper refugia area.
- The presence and abundance of different fish larva species can provide information on the quality of the habitat and the presence of any environmental stressors.
- It can be used to guide management decisions aimed at conserving and restoring these habitats.
- The Regional Training Course on Larval Fish Identification and Fish Early Life History Science was organized from 16 to 27 November 2022.

Fishery Refugia

13

Ecosystem Approach for Fisheries Management (EAFM)

- SEAFDEC/TD has initiated the implementation of the EAFM concept to ASMs since the early 2000s.
- Various regional training courses have been implemented, where SEAFDEC member countries, namely Indonesia, the Philippines, and Malaysia where implemented.
- The focus also included a small pelagic fish species, which proposed and managed by Malaysia since 2007 (SEAFDEC, 2022).

Conclusions and Way Forward

14

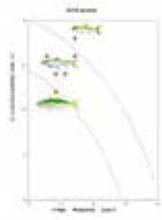
- SEAFDEC/TD has implemented the activities related to pelagic fishery resources management from various perspectives.
- From the resource identification, assessment, and management, SEAFDEC have established the workflow and resource management framework and mechanism in Southeast Asia.
- SEAFDEC is also moving forward to observe the possible methods to monitor and manage the pelagic fishery resources towards climate uncertainties.

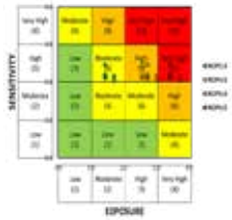
Conclusions and Way Forward

15

The monitoring of the impact of climate change on fishery resources

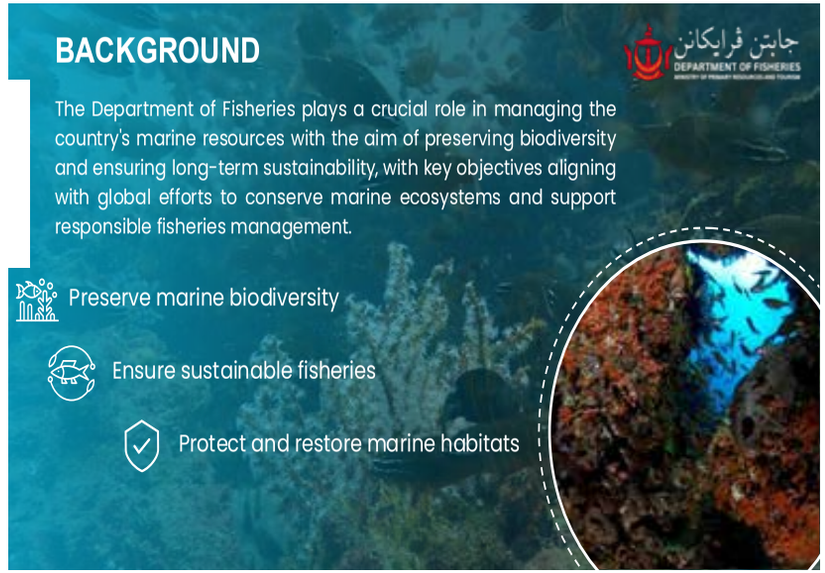
- This five-year project aimed to implement the risk analysis methods to identify and prioritize the vulnerable fishery resource species towards the changing of fishery and climate conditions.
- Productivity-Susceptibility Analysis (PSA) and Exposure-Sensitivity Framework (ESF).
- **NOW IN PROGRESS**

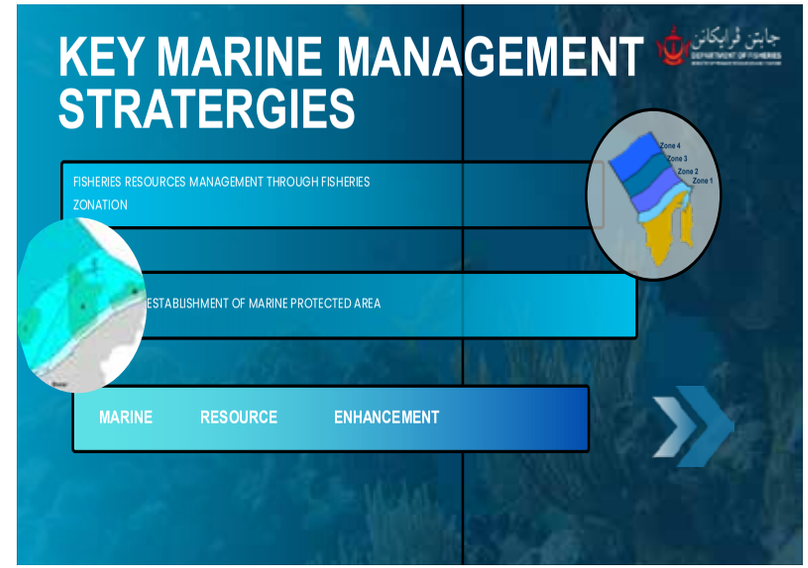





جابتن ڤرايكانن
DEPARTMENT OF FISHERIES
BRUNEI DARUSSALAM COUNTRY REPORT:
SUCCESS STORY ON CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES OF PELAGIC FISHERIES RESOURCES IN SOUTHEAST ASIA
The Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia
6 - 8 January 2026
Port Dickson, Malaysia


جابتن ڤرايكانن
DEPARTMENT OF FISHERIES
MARINE ECOSYSTEM MANAGEMENT INITIATIVES: DEPLOYMENT OF ARTIFICIAL REEFS


BACKGROUND
جابتن ڤرايكانن
DEPARTMENT OF FISHERIES
The Department of Fisheries plays a crucial role in managing the country's marine resources with the aim of preserving biodiversity and ensuring long-term sustainability, with key objectives aligning with global efforts to conserve marine ecosystems and support responsible fisheries management.
Preserve marine biodiversity
Ensure sustainable fisheries
Protect and restore marine habitats


KEY MARINE MANAGEMENT STRATERGIES
جابتن ڤرايكانن
DEPARTMENT OF FISHERIES
FISHERIES RESOURCES MANAGEMENT THROUGH FISHERIES ZONATION
ESTABLISHMENT OF MARINE PROTECTED AREA
MARINE
RESOURCE
ENHANCEMENT

MARINE RESOURCE ENHANCEMENT

MONTHLY CORAL REEF MONITORING AND MANAGEMENT PROGRAMME: 6,653 TOTAL IMAGES COLLECTED FROM 13 SITES

ARTIFICIAL REEF DEPLOYMENT

ARTIFICIAL REEFS DEPLOYMENT

- Creation of alternative fishing ground outside of MPA
- Feeding and breeding ground for juvenile fishes
- promoting coral reef conservation and protection from illegal fishing

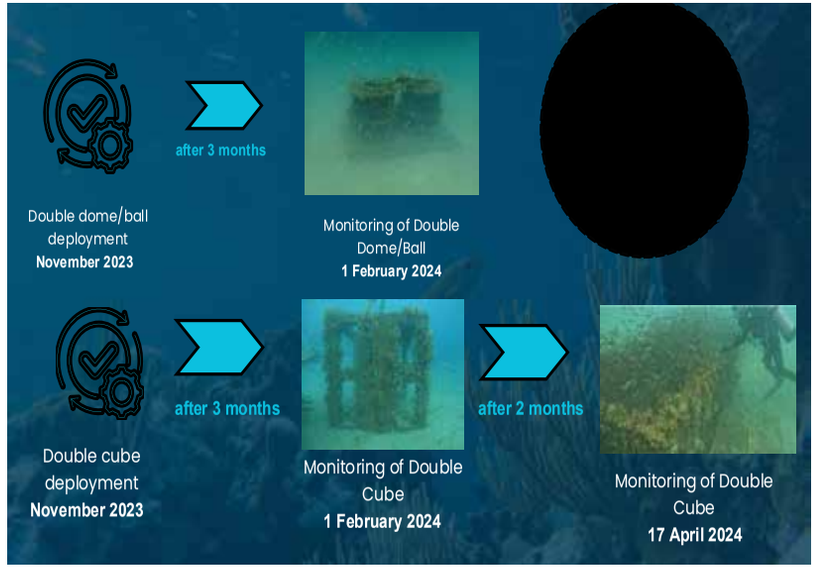
BENEFITS

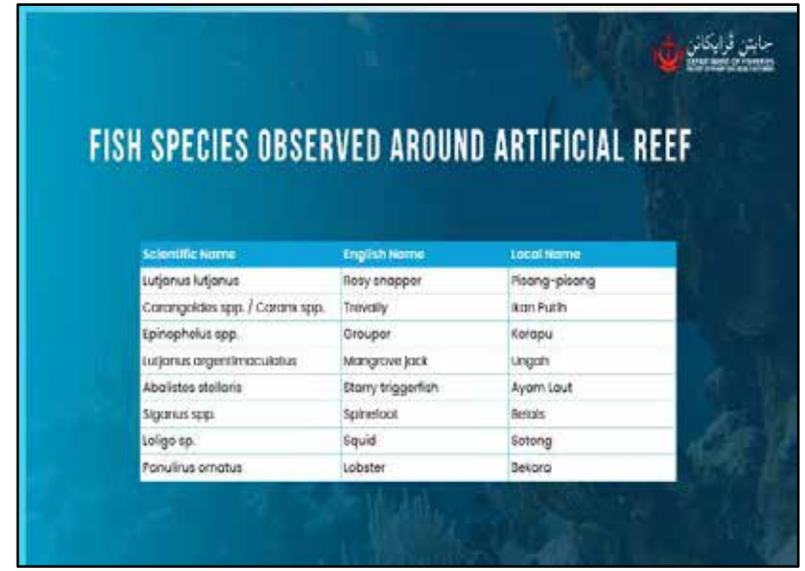
- Increased biodiversity and coral cover
- Enhanced fish stocks and food security
- protection of livelihood for small scale fishers
- Eco-tourism opportunities (e.g., diving sites)

MILESTONES:

1408 units of ARs have been deployed in Zone 1 - Zone 3 since 2020- 2023

226 Units of AR will be deployed in 2026 from Zone 1 - Zone 3


Double dome/ball deployment
November 2023
after 3 months
Monitoring of Double Dome/Ball
1 February 2024
Double cube deployment
November 2023
after 3 months
Monitoring of Double Cube
1 February 2024
after 2 months
Monitoring of Double Cube
17 April 2024


FISH SPECIES OBSERVED AROUND ARTIFICIAL REEF
Scientific Name | English Name | Local Name
Lutjanus lutjanus | Rosy snapper | Pisang-pisang
Caranginoides spp. / Carana spp. | Trevally | Ikan Putih
Epinephelus spp. | Grouper | Kerapu
Lutjanus argentimaculatus | Mangrove jack | Ungah
Abalistes stellaris | Starry triggerfish | Ayam Laut
Siganus spp. | Spinefoot | Belais
Loligo sp. | Squid | Sotong
Panulirus ornatus | Lobster | Bekora


MILESTONES:
1408 units of ARs have been deployed in Zone 1 - Zone 3 since 2020- 2023
226 Units of AR will be deployed in 2026 from Zone 2 - Zone 4
UPCOMING PLAN : +1000 ARTIFICIAL REEFS BY 2029


THANK YOU!
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capture@fisheries.gov.bn
www.fisheries.gov.bn
DEPARTMENT OF FISHERIES
Ministry of Primary Resources and Tourism
Muara Fisheries Complex
Simpang 28753, Jalan Peranginan Pantai Serasa,
Muara BT1728, Brunei Darussalam

Regional Technical Consultation on the Conservation Effort and Management Strategies of Pelagic Fisheries Resources in Southeast Asia

Success Stories Related to The Management And Conservation of Pelagic Fish In Cambodia

Dr. CHEA Tharith
Marine Fisheries Research and Development Institute (MaFReDI)
Mr. LENG Syvann
Department of Fisheries Conservation, Fisheries Administration (FiA)
6–8 January 2026
Port Dickson, Malaysia

Introduction

Cambodia has made notable progress in transitioning from open-access fisheries toward a structured, multi-layered management system for pelagic species. Despite persistent challenges including IUU fishing, limited data, and capacity constraints the country has successfully **institutionalized several science-based, participatory, and regulatory measures** that are now operational across marine and coastal fisheries.

This success is anchored in **three interlinked pillars**:

- **Species-specific management plans** for key pelagic stocks (*Rastrelliger* spp., *Portunus pelagicus*, and *Encrasicholina heteroloba*), including catch limits, size regulations, and seasonal closures;
- **Community-based co-management** through the legally recognized **Community Fisheries (CFi)** system, which enables local stewardship, quota allocation, and compliance;
- **Monitoring, Control, and Surveillance (MCS) framework**, including VMS, logbooks, licensing, and Port State Measures to combat IUU fishing.

Together, these elements reflect a **deliberate and nationally owned shift** toward **adaptive, inclusive, and ecosystem-conscious fisheries governance** marking Cambodia's emergence as a proactive actor in sustainable pelagic fisheries management in the Gulf of Thailand region.

Below are three clear success narratives drawn explicitly from the document:

1. Adoption of Science-Based Output Controls for Key Pelagic Species
Success: Cambodia has begun implementing species-specific management plans for three priority pelagic species:

- *Rastrelliger* spp. (mackerel),
- *Portunus pelagicus* (blue swimming crab),
- *Encrasicholina heteroloba* (a small pelagic forage fish).

These include:

- Total Allowable Catches (TACs) based on stock assessments (even if limited),
- Minimum and maximum size limits,
- Closed seasons for short mackerel from January -March and blue swimming crab from May to July),
- In Kep Province, Cambodia, there is a closed season (temporary fishing ban) for the blue swimming crab (*Portunus pelagicus*) typically enforced from May to June each year. This measure is implemented by the Fisheries Administration (FiA).
- Catch prohibitions for vulnerable stocks.

This reflects a deliberate shift toward data -driven, species-specific fisheries management, aligning with international best practices.

Results Length-based indicators (LBIs) of *Rastrelliger kanagurta*

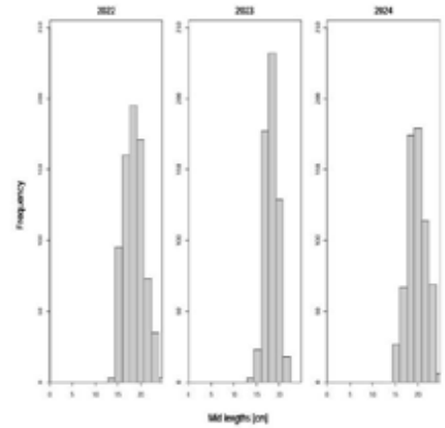


Figure 1: Uploaded length-frequency distributions for each year. The bin size affects the binning of the data and thus the distributions in this graph. A good bin size is as small as possible while at the same time large enough to reduce the noise in the data.

In Table 1. The table also lists the reference point, indicator ratio, expected value and property for each indicator. Note t hat the indicator Lmean is listed twice as it can be compared to two different reference points: Lopt and LF=M. These indicator ratios and expected values for each indicator are used for the stock status classification in Table 3 and Figure 2. The indic ators have different properties (last column in Table 1), indicating either whether the stock is likely to show signs of depletion regarding larger or immature individuals, or whether the stock is likely to be harvested optimally (optimal yield and MSY).

Table 1: Description of all length-based indicators (LBIs).

Indicator	Description	Ref. point	Indicator ratio	Exp. value	Property
$L_{max5\%}$	Mean length of the largest 5% of individuals in the catch	L_{inf}	$L_{max5\%}/L_{inf}$	> 0.8	Conservation (large individuals)
$L_{95\%}$	95% percentile of length distribution	L_{inf}	$L_{95\%}/L_{inf}$	> 0.8	Conservation (large individuals)
P_{mega}	Proportion of fish larger than optimal harvest length (L_{opt}) + 15%	0.3	P_{mega}	> 0.3	Conservation (large individuals)
$L_{25\%}$	25% percentile of the length distribution	L_{mat}	$L_{25\%}/L_{mat}$	> 1	Conservation (immature)
L_c	Length at 50% modal abundance	L_{mat}	L_c/L_{mat}	> 1	Conservation (immature)
L_{mean}	Mean length of individuals > L_c	L_{opt}	L_{mean}/L_{opt}	≈ 1	Optimal yield
L_{maxy}	Length class with maximum biomass in catch	L_{opt}	L_{maxy}/L_{opt}	≈ 1	Optimal yield
L_{mean}	Mean length of individuals > L_c	$L_{F=M}$	$L_{mean}/L_{F=M}$	≤ 1	MSY

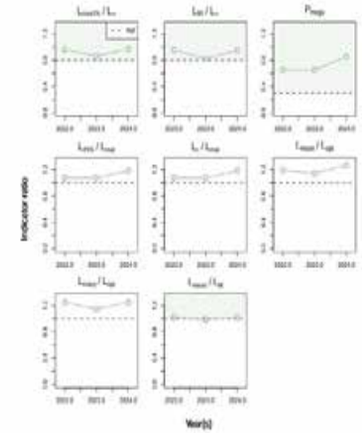


Figure 2: Estimated length-based indicator relative to reference levels as a point for each year. The expected values for each LBI ratio are represented as dashed horizontal lines (ideally, the indicator ratios are equal or close to the expected values, e.g. Lmean/Lopt is equal or close to 1. The further the points/lines are from the expected values of the various indicator ratios, the more evidence of overfishing.Whenever the graph includes a greenish area the horizontal line represents a limit reference point, circles than a target reference point and any value above the limit reference point (i.e. in the greenish area) is considered desirable.

Length-based spawning potential ratio (LBSPR) of *Rastrelliger kanagurta*

The life-history parameters required for LBSPR were set to the values presented in Table 1.

Table 1: Parameter values used.

binSize	lengthUnit	MK	M	K	Linf	Lm50	Lm95	a	b
1.5	cm	1.5075	1.23	0.8	24.3	15.6	17.2	0.04	2.51

(F/M) are provided in Table 2. The estimated 95% confidence interval for each parameter is provided in brackets. If the uploaded data spans several years, the table contains multiple rows and each row contains the estimates for the specific year

Table 2: Results of the LBSPR method.

Year	SPR [%]	$L_{p50\%}$	$L_{p95\%}$	F/M
2022	0.66 (0.55 - 0.76)	17.22 (16.33 - 18.11)	20.39 (19.07 - 21.71)	0.78 (0.33 - 1.23)
2023	0.45 (0.36 - 0.55)	18.23 (17.52 - 18.94)	20.89 (19.89 - 21.89)	4.04 (2.14 - 5.94)
2024	0.76 (0.69 - 0.83)	18.91 (18.25 - 19.57)	22.06 (21.11 - 23.01)	0.8 (0.38 - 1.22)

Figure 2 shows the estimated spawning potential ratio (SPR) value in relation to the SPR reference points. The estimated SPR is indicated by the dashed line with the SPR value next to the dashed line. The colored areas indicate the SPR reference points. The red area/line indicates the proportion of SPR below the limit reference point; the green area/line indicates the proportion above the limit and below the target reference point; and the the yellow area indicates the proportion above the target reference point. Note, that when the assessment is done for multiple years, only the last year of the assessment is shown in this graph.

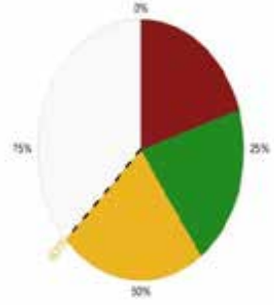


Figure 2: Estimated spawning potential ratio (SPR) value in relation to the SPR reference points.

Figure 3 presents the provided maturity information (black line), as well as the estimated selectivity information (colored lines). The curves indicate the proportion of the stock that is mature or vulnerable to the gear (y axis) at a given length (x axis).

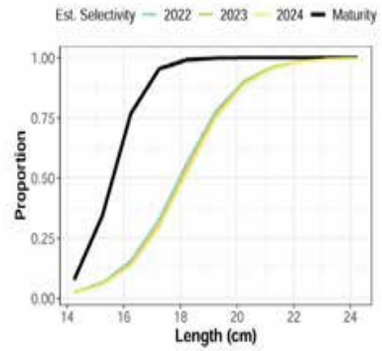


Figure 3. Provided maturity information and estimated selectivity information. The curves indicate the proportion of the stock that is mature or vulnerable to the gear (y axis) at a given length (x axis).

Small pelagic stocks in Cambodian were **sustainably exploited during 2022–2024**, based on length-based indicators and **LBSPR** analyses. Fishing mortality was **close to target reference points**, indicating **adequate spawning potential**. Length-based, single-species assessments are **practical tools under data-limited conditions**, while **improved catch - effort and biological data with standardized reporting** are essential for stronger future management.

2. Expansion of Community-Based Co-Management via Community Fisheries (CFi)

Success: Cambodia has institutionalized co-management with fishing communities through its Community Fisheries (CFi) system, which:

- Supports community-based quota allocations,
- Enables local stewardship of pelagic resources, especially in small-scale and artisanal fisheries,
- Enhances compliance and governance through inclusive participation of fishers, NGOs, and government.

This model has strengthened local ownership and reduced open-access pressure, contributing to more sustainable pelagic fisheries.

3. Installation of Integrated Monitoring, Control, and Surveillance (MCS) Tools

Success: Cambodia has scaled up a multi-component MCS system, including:

- Vessel Monitoring Systems (VMS),
- Electronic and manual logbooks,
- Onboard observers,
- Port State Measures to block IUU-caught fish,
- Licensing and vessel registration.

Challenges

- Increasing destructive fishing gears
- Limited law enforcement
- Limited budget and human resource
- Lack of collaboration from fishers
- Limited Monitoring, Control, and Surveillance (MCS) coverage

Way Forward for Pelagic Fisheries

Cambodia's future strategies focuse on **scaling up proven approaches**, **addressing key implementation gaps**. The main directions include:

1.Strengthen Science-Based Management
- ✓ Promote stock assessments for key species (*Rastrelliger* spp., *Portunus pelagicus*, *Encrasicholina heteroloba*).
- ✓ Monitor forage fish, predator–prey dynamics, and climate-driven ecosystem shifts.

2.Enhance Monitoring, Control, and Surveillance (MCS)
- ✓ Broaden coverage of VMS, electronic logbooks, and observer programs especially for small-scale fisheries.
- ✓ Reinforce Port State Measures to combat IUU fishing.

3.Deepen Community Co-Management
- ✓ Strengthen the **Community Fisheries (CFi)** system with community-based quota allocations and local enforcement.
- ✓ Improve fisher engagement to boost compliance and incorporate socioeconomic needs into regulations.

4. Promote Sustainable Fishing Technologies
- ✓ Introduce **more selective and eco-friendly gears** (e.g., circle hooks, regulated mesh sizes).
- ✓ Regulate fishing aids (e.g., lights, FADs) and explore **AI for data collection and management**

Way Forward for Pelagic Fisheries (*Continue*)

5. Invest in Post-Harvest and Ecosystem Resilience
- ✓ Upgrade post-harvest and processing systems to reduce losses and add value.
- ✓ Expand **artificial reefs, fisheries refugia, and habitat restoration** to support stock recovery.

6. Build Capacity and Funding Secure
- ✓ Train local managers and fishers in data collection and stock assessment (with FAO support).
- ✓ Increase **national budget allocation** to overcome financial constraints (#5 challenge).

7. Adopt Ecosystem-Based and Adaptive Governance
- ✓ Move beyond single-species management to **protect ecosystem services**.
- ✓ Apply **adaptive management** by integrating new scientific advice and climate considerations into policy.

Way Forward for Pelagic Fisheries (*Continue*)

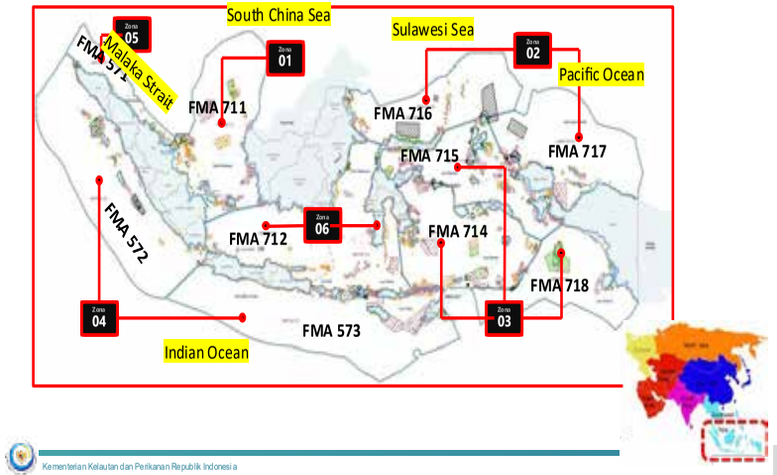
8. **Improve data systems**: Strengthen routine collection of **catch, effort, and biological data** with standardized protocols nationwide.
9. **Enhance indicators**: Combine length-based indicators with **catch-based and effort-based indicators** for more robust stock status evaluation.
10. **Capacity building**: Provide regular training on LBIs, LBSPR, TropFishR, and data management for national and provincial staff.
11. **Management integration**: Incorporate stock assessment indicators into **harvest control rules**, licensing, and effort management decisions.
12. **Regional collaboration**: Promote technical support and knowledge exchange with **SEAFDEC and regional partners** for methodology improvement and harmonization

THANK YOU FOR YOUR ATTENTION

Fisheries Management Plans (FMPs) of Lemuru (*Bali Sardinella*)

Directorate General of Capture Fisheries
Ministry of Marine Affairs and Fisheries
Indonesia

Fisheris Managements Area (FMA) In Indonesia



The Development of Fisheries Management Plans(FMP) in Indonesia

Legal basis	Fisheries Management Plan Based on Fisheries Management Areas (FMA-Based FMP)	Fisheries Management Plan Based on Species
1. Law No 45 of 2009 on the Amendment to Law No 31 of 2004 on Fisheries 2. Government Regulation No 27 of 2021 3. Presidential Regulation No 12 of 2025 on the National Medium-Term Development Plan (RPJMN) for 2025–2029. 4. Minister of Marine Affairs and Fisheries Regulation No 22 of 2021 on Fisheries Management Plan and Fisheries Management Institution in FMA	1. FMA 571 → Decree of the Minister of Marine Affairs and Fisheries (MoMAF) No 75 / 2016 2. FMA 572 → Decree of the MoMAF No 76 2016 3. FMA 573 → Decree of the MoMAF No 77 2016 4. FMA 711 → Decree of the MoMAF No 78 2016 5. FMA 712 → Decree of the MoMAF No 79 2016 6. FMA 713 → Decree of the MoMAF No 80 2016 7. FMA 714 → Decree of the MoMAF No 81 2016 8. FMA 715 → Decree of the MoMAF No 82 2016 9. FMA 716 → Decree of the MoMAF No 83 2016 10.FMA 717 → Decree of the MoMAF No 84 2016 11.FMA 71 8→ Decree of the MoMAF No 54 2014	1. Eel → Decree of the MoMAF No 118-2021 2. Tuna, Skipjack, and Frigate Tuna → Decree of the MoMAF No 121-2021 3. Snapper and Grouper → Decree of the MoMAF No 123- 2021 4. Snapper and Grouper → Decree of the MoMAF No 123 - 2021 **5. Lemuru (Bali Sardinella) → Decree of the MoMAF No 198-2023** 6. Flying Fish →Decree of the MoMAF No 76-2024

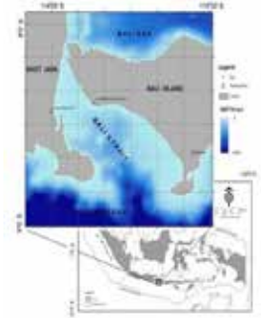
Background

Lemuru (*Sardinella Lemuru*)

Source: Yayasan Padmi Yasa Mandiri, 2022

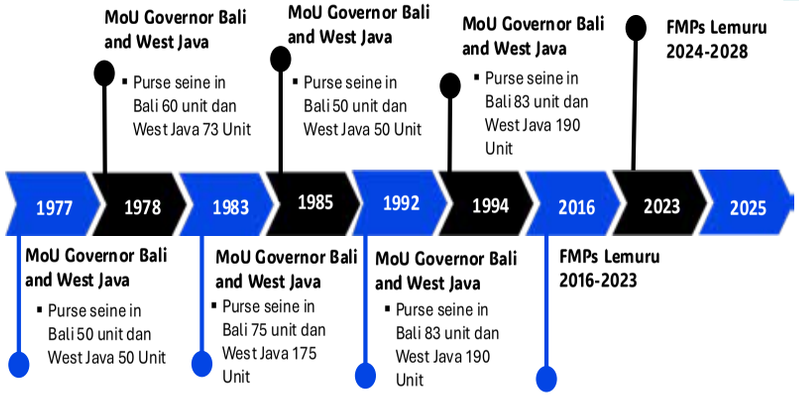
Taksonomi

Kingdom	: Animalia
Filum	: Chordata
Kelas	: Actinopterygii
Subkelas	: Neopterygii
Ordo	: Clupeiformes
Famili	: Clupeidae
Genus	: Sardinella
Spesies	: **Sardinella lemuru** (Bleeker, 1853).



Lemuru (Bali Sardine) is one of the small pelagic fish species from the family Clupeidae that is highly important and economically valuable in Indonesia, particularly in the Bali Strait within Fisheries Management Area (FMA) 573.

Roadmap Management of Lemuru Fisheries in the Bali Strait



Fisheries Management Plan (FMP) for Lemuru (Bali Sardinella)

Decree of the MoMAF No. 68 / 2016 → No. 198 / 2023

Point	2016	2023
Legal Basis	Decree of the MMAF No. 29/2012	Decree of the MMAF No. 22/2021, Government Regulation No. 11/2023 (PIT)
Scientific Approach	descriptive; no stock assessment	Scientific based (model cMSY+ & BSM, MSY=37.500 ton/yrs)
Indikator of action plan	general	measurable indicators size limit≥16.6 cm; ≥ 90% (total catch), fisher participation +50%
Institutional	DJPT & Local Government	DJPT, DJPDSPKP, BPPSDMKP, UPP WPPNRI573 (inter-provincial coordination)

Legal Basis
2023: The legal basis was strengthened with Government Regulation No. 11 of 2023 on Measured Fishing (quota- PIT). This reflects a shift toward a more modern, measurable, and nationally integrated fisheries management system.

Scientific Approach
2023: Management has become science-based, applying cMSY+ and Biomass State Model (BSM) methods, with an estimated Maximum Sustainable Yield (MSY). This represents a significant improvement in the use of data and scientific models as the basis for decision-making.

Indicator of Action Plan
2023: The action plan is supported by clear and measurable indicators, including: (A minimum fish size limit of ≥ 16.6 cm ; Catch compliance of ≥ 90% of total catch, and An increase in fisher participation of more than 50%.
These indicators demonstrate the establishment of clear, monitorable, and evaluable performance targets.

Institutional Arrangements
2023: Institutional arrangements have been strengthened through the involvement of multiple entities, including DJPT, DJPDSPKP, BPPSDMKP, and the Fisheries Management Institution of WPPNRI 573 (LPP WPPNRI 573), with a strong emphasis on inter-provincial coordination. This reflects a more collaborative and integrated fisheries governance framework.

Outline of Fisheris Managements Plans

Status of Fisheries

A. Fishery Resources
Includes resource estimation, production, CPUE,
B. Fishery Resource Environment
Covers habitat conditions, oceanographic, Marine Protected Area
C. Socio-Economic Aspects
Includes the number of fishers, fish processing units, and other
D. Fisheries Governance
Includes fisher organizations and other institutional or regulatory aspects

Strategic Plan

A. Issues
Problems in the management of lemuru (Bali sardine)
B. Objectives
To address and resolve the identified problems
C. Targets
Indicators used to measure the achievement of the objectives
D. Action Plan
Action plans designed to resolve the identified problems

Status of Lemuru Fisheries

Estimation of Stock Potential

	Stock Potency(ton/yrs)		MSY	TAC	
	Small Pelagic	Lemuru	Lemuru	Pelagis kecil	Lemuru
FMA- 573	624.366*	155.997**		437.056	109.198**
Bali Strait	N/A	N/A	37.500*		26.250**

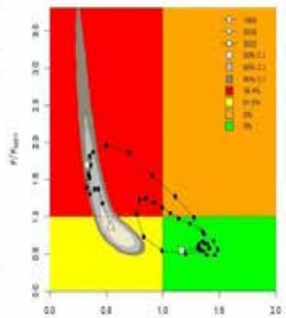
Sources: Decree of the MoMAF No 198-2023

* Decree of the MoMAF No 19 / 2022.
**estmated by BRIN 2023

Status of Lemuru Fisheries

Stock status of Lemuru using the cMSY+ and BSM Methods in the Bali Strait

Parameter	Simbol	Satuan	Point estimate	95% confident levels	
				lower	upper
Maximum Sustainable Yield	MSY	ton	37.500	33.500	41.900
Kematian karena penangkapan relatif	(F/F_{MSY})		0,87	0,61	3,40
Biomass relatif	(B/B_{MSY})		0,54	0,26	0,74
Biomass MSY	B_{MSY}	ton	78.300	65.200	94.000
Daya dukung	K	ton	166.000	141.000	197.000



Sources: Decree of the MoMAF No 198-2023

Status of Lemuru Fisheries

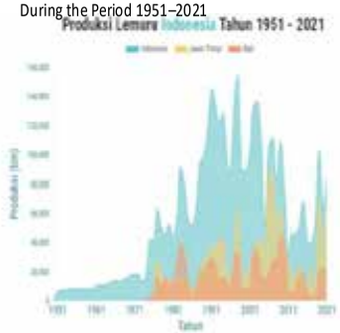
Results of effort allocation (number of trips) using JTB calculations from cMSY+

Parameters	Estimation
MSY	37.500 tones/yrs
TAC/quota	26.250 tones/yrs
CPUE ref.	5,69 tones/trips
Effort (number of trip)	4.614 trips

Sources: Decree of the MoMAF No 198-2023

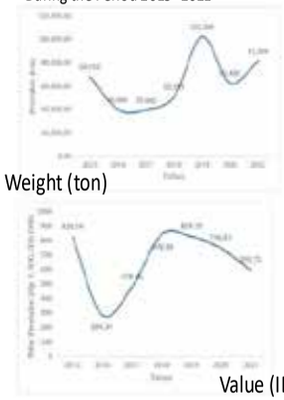
Status of Lemuru Fisheries

Catch Production lemuru in Indonesia
During the Period 1951–2021



Sources: Decree of the MoMAF No 198-2023

Catch Production lemuru in Indonesia
During the Period 2015–2021

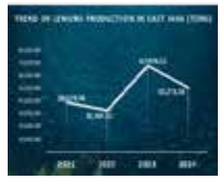


Weight (ton)

Value (IDR)

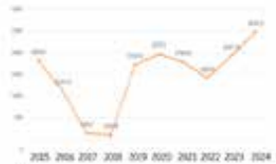
Status of Lemuru Fisheries

Catch Production lemuru in East Java 2021-2024



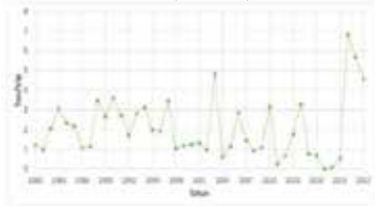
Sources:
DKP West java, 2025

Catch Production lemuru in Bali 2015-2024



Sources:
DKP bali, 2025

CPUE Lemuru in Bali Strait (1980-2022)



Sources: Decree of the MoMAF No 198-2023

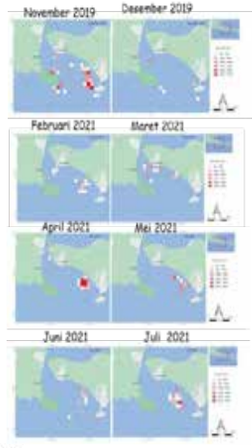
Status of Lemuru Fisheries

Fishing grounds

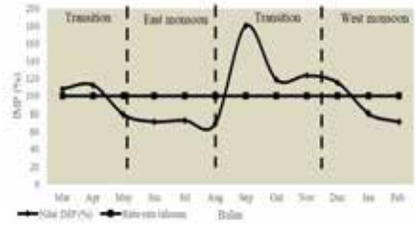
1. Karang Ente, Tanjung Pasir, Ujung Angguk;
2. Sembulungan, Anyir, Watu Layar, Sekeben, Senggrong, Klosot, Prepat, Lampu Kelip, Kapal pecah;
3. Teluk Pang-pang;
4. Blimbing Sari, Bomo;
5. Candi Kesuma, Pengambengan, Perancak, Kayu Gede DPI
6. Bukit, Seseh, Jimbaran, Pemancar, Uluwatu;
7. Grajagan, Pancer, Watu loro (Samudera Hindia), Puger; dan
8. Prigi

Sources Wudianto and Wujdi (2014) and Sartimbul et al. 2023

Status of Lemuru Fisheries



Distribution of Fishing Ground of Small Pelagic Purse Seine Vessels in the Bali Strait Waters during November–December 2019 and February–July 2021

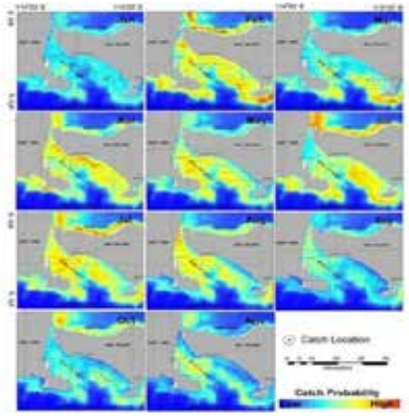


The highest lemuru fishing season occurs during Sept –November, while the lowest season occurs during Juni - Juli.

Sources: Decree of the MoMAF No 198-2023

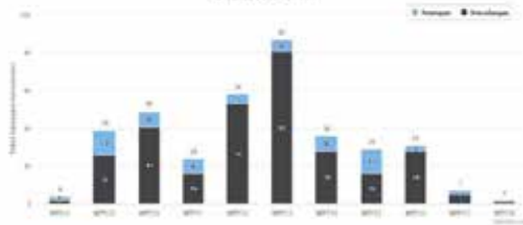
Status of Lemuru Fisheries

The probability of Lemuru production based on spatial distribution of Chlorophyll in the Bali Strait



Sources: Decree of the MoMAF No 198-2023

Status of Lemuru Fisheries



There are **49 (forty-nine) Marine Protected Areas (MPAs)** within **FMA (WPPNRI) 573:**

- **8 (eight) designated areas**
- **41 (forty-one) proposed areas**.

MPAs related to *lemuru* in the **Bali Strait** include **27 (twenty-seven)**, comprising:

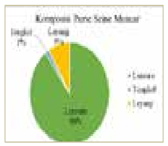
- **22** in **East Java Province**, consisting of **21 proposed areas** and **1 designated area**, and
- **5** in **Bali Province**, consisting of **3 (three) proposed areas** and **2 (two) designated areas**.

Sources: Decree of the MoMAF No 198-2023

Status of Lemuru Fisheries

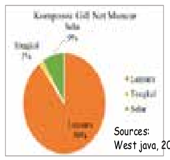
Composition of Catches from Purse Seine and Gillnet in West Java

1.Purse seine



Sources:
West java, 2025

2. Gill net



Sources:
West java, 2025

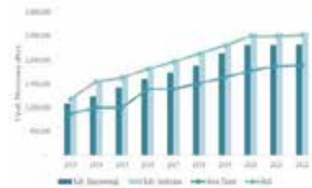
Status of Lemuru Fisheries

Number of Fisherman's

Provinsi	Kabupaten	Jumlah Nelayan (2021)
Jawa Timur	Banyuwangi	16.472
	Blitar	1.330
	Jember	8.752
	Lumajang	1.705
	Malang	11.568
	Pacitan	9.359
	Sidoarjo	16
	Trenggalek	4.337

Provinsi	Kabupaten	Jumlah Nelayan (2021)
	Tulungagung	2.983
Bali	Badung	2.413
	Buleleng	15
	Gianyar	798
	Jembrana	9.113
	Karangasem	10.267
	Klungkung	1.557
	Kota Denpasar	3.675

Sumber: BPS 2022



Development of the Provincial Minimum Wage(UMP) in East Java and Bali, and the Regency Minimum Wage (UMK) in Banyuwangi and Jembrana, 2013–2022.

Sources: Decree of the MoMAF No 198-2023

Status of Lemuru Fisheries

Lemuru Fish Processing Units in Banyuwangi Regency and Jembrana Regency freezing, processing, fish flouring

Nama Perusahaan	Jenis Usaha
CV Gigi Samudra Nusantara	Pembekuan Ikan
PT Fila Multi Agro Tbk	Penyimpanan Ikan
UD Sumber Dingin	Pembekuan Ikan
CV Hasil Laut	Pembekuan Ikan
CV Surya Jaya	Pembekuan Ikan
CV Bij Sewar	Penyimpanan Ikan
CV Bintang Minatama	Pembekuan Ikan

Nama Perusahaan	Jenis Usaha
PT Sari Laut	Pengolahan Ikan
PT Muncar	Pengolahan Ikan. Penyimpanan Ikan
CV Surya Blambangan Kencana	Pembekuan Ikan. Penyimpanan. Pengolahan Ikan
PT Aria Prima Inter Makmur	Pengolahan Ikan
PT Sumber Yalasamudra	Pengolahan Ikan

Nama Perusahaan	Jenis Usaha
PT Maya Muncar	Pengolahan Ikan
PT Sarifood Industry	Tepung Ikan
UD Sinar Muncar	Pembekuan Ikan
UD Adikarya	Pembekuan Ikan
CV Pacific Harvest	Pengolahan Ikan
CV Sumber Asia Trading Company	Pengolahan Ikan
CV Selat Bali	Pembekuan Ikan

Nama Perusahaan	Jenis Usaha
PT Istana Cipta Sembada	Pembekuan Ikan, Udang, dan Gurita
PT Perfect International Food	Pengolahan Ikan
UD Istana Putra	Pembekuan Ikan
PT Blambangan Food Packers Indonesia	Pengolahan Ikan
CV Indo Jaya Perkasa	Pengolahan Ikan
UD Pada Indah	Pembekuan Ikan
UD Kencil Indra Muncar	Pembekuan Ikan

Sources: Decree of the MoMAF No 198-2023

FMPs - Strategic Plan

Strategic Plans

Fish Resources

ISSUE	TARGET	ACTION PLAN
There remains a high proportion of lemuru catches that are below biologically appropriate catch size-length of m aturity (Lm).	Increasing the catch proportion of lemuru for Lm (>16.6 cm)	Study of open closed system and law enforcement
Degradation of *lemuru* fish stocks caused by overfishing	An increase in the lemuru stock, as indicated by stable Catch Per Unit Effort (CPUE)	Quota based of Lemuru

Strategic Plans

Fish Resource Environment

ISSUE	TARGET	ACTION PLAN
Limited comprehensive information on critical habitats and the life cycle of lemuru fish resources.	Providing comprehensive scientific information on the lemuru life cycle	Scientific study of the lemuru life cycle.
	Enhancing protection of ecosystems critical to lemuru	Expanding MPA areas.
No mitigation efforts related to climate change on lemuru fisheries.	Increasing fisher participation (≥60%) in oceanographic data utilization	Publishing fishing ground to fishermen.
	Generating climate change data and models to support lemuru management	Capacity building to mitigate climate change.

Strategic Plans

Social and Economic Aspects

ISSUE	TARGET	ACTION PLAN
Limited alternative livelihoods for fishermen and lemuru fish processing workers	Facilitating alternative livelihoods for fishermen, crew members, and PU workers	Capacity building for alternative livelihoods
The existence of conflicts among fishermen	Reducing conflicts between fishermen by up to 80%	Law enforcement regulations on fishing zones
Shortage of fish (raw materials) at the Fish Processing Unit during the lean season	Providing policies and solutions for raw material shortages at PU	supply chain analysis of lemuru
	Increasing the availability of lemuru raw materials from fishing areas	MoU between Processing Unit and fisher comunity

Strategic Plans

Fisheries Governance

ISSUE	TARGET	ACTION PLAN
The MoU between provinces in the Bali Strait has not yet been implemented	Establishing and implementing MoUs	Renewing the MoU between East Java and Bali Provinces
The continued existence of unlicensed fishing vessels	Increase in the number of licensed vessels	Conducting effective monitoring and facilitating the licensing process for lemuru fishing vessels to ensure compliance with fisheries management regulations
There lack of compliance among fishermen and business operators in reporting their catches of lemuru fish	Improving catch reporting	Socialization of UPI, fishermen, and ports to support Lemuru data collection
	Increasing the active participation of fishermen and UPI	establishment of a lemuru fishers association or fishing units, along with a catch reporting mechanism.
The low level of participation of stakeholders in the management of lemuru	Organizing stakeholder meetings	Implementing regular management of lemuru fisheries on a periodic basis

Indonesian Fisheries Moving Toward Global Sustainability Standards

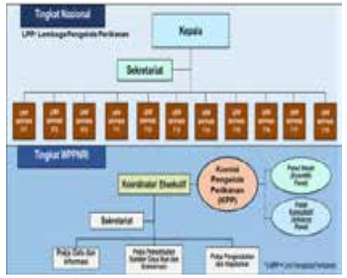
Progress MSC Certification of Lemuru in Bali Strait

Recommendations of the Lemuru Pre-Assessment MSC (Sept 2024)

1. Conduct operational **data** collection on lemuru fishing activities (fisheries logbooks) at the fisher level, covering total catch and species composition.
2. Enhance the collection of **data** and information related to bycatch species and interactions with Endangered, Threatened, and Protected (**ETP**) species to improve understanding of impacts on bycatch and ETP stocks.
3. Develop fishing strategies and **harvest control rules** for the lemuru species to reduce exploitation levels as recruitment impairment thresholds are approached.
4. Formulate mitigation strategies to reduce the impacts of fishing activities on **bycatch** and interactions with ETP species.
5. **Monitoring dan evalated the existing Fisheries Management Plan** (FMPs/RPP) to ensure its effective implementation and continuity in the development of fishing strategies and catch control measures.
6. Strengthen fisheries **Monitoring, Control, And Compliance** within the assessment area to ensure that prohibited and destructive fishing practices are not conducted, thereby ensuring the long-term sustainability of lemuru habitats.
7. Establish a lemuru **fisheries management** forum in the Bali Strait involving the central government to enhance consultation opportunities and provide a stronger cooperation platform, particularly between the Provinces of East Java and Bali.

Action in 2025

Fisheries Management Council(FMC) or LPP WPPNRI



MoMAF Decre 22/2021

1. Indonesia has established a fisheries management Councils structure with a mandate to coordinate fisheries management across Fisheries Management Areas of the Republic of Indonesia (WPPNRI). This institution is responsible for formulating proposals for fisheries management policies and the implementation.
2. The institution is multi-sectoral. They are representatives from the central and provincial governments, researchers, academics, non-governmental organizations, fisher associations, and the private sector,
3. To strengthen collaborative management of the Sardinella lemuru fishery in Bali, the Fisheries Management Council (FMC–LPP WPPNRI) established a co-management task force (gugus tugas khusus).
4. This task force Including central and provincial governments, research institutions, universities in Bali and East Java, and non-governmental organizations to support collaborative decision-making and sustainable fisheries management.

Scientific Panel UPP WPPNRI 573 - June 2025

The Fisheries Management Council of FMAs (UPP WPPNRI) 573 facilitated a meeting involving the Provincial Government of East Java, of Bali, researchers, and academics, which resulted in the following agreements:

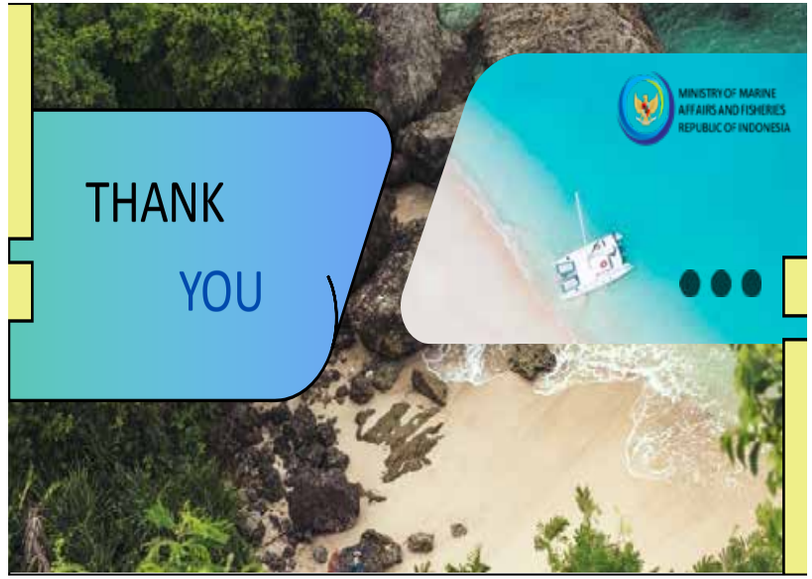
1. The two provinces agreed to strengthen the Memorandum of Understanding (MoU) through the calculation of the Maximum Sustainable Yield (MSY) for Sardinella lemuru, which will serve as the basis for determining the number of fishing vessels allocated to each province.
2. Given that lemuru catches in the Bali Strait have exceeded the Total Allowable Catch (TAC) (base on Lemuru Fisheries Management Plan) both provinces agreed to maintain a status quo by temporarily refraining from issuing new fishing vessel licenses.
3. Scientific Panel will be re-estimate stock potential and determine fishing quotas for lemuru in the Bali Strait. The panel will comprise representatives from Udayana University (Bali), Brawijaya University (East Java), the National Research and Innovation Agency (BRIN), the Directorate of Fish Resources Management, and the provincial governments of Bali and East Java, and will be responsible for data collection, processing, and analysis.

Scientific Panel UPP WPPNRI 573 – September 2025

1. The Governments of East Java and Bali will not issue new fishing vessel licenses for the lemuru fishery.
2. The Fishery Management Council of FMAs 573 (UPP WPPNRI 573) will facilitate the development of a Memorandum of Understanding (MoU) between the Governments of Bali and East Java.
3. Strengthening lemuru data collection through the following measures:Establishing monitoring and evaluation locations in East Java at Muncar Fishing Port, Banyuwangi, and in Bali at Pengambengan Nusantara Fishing Port (PPN Pengambengan).Proposing an additional monitoring location at Brak Fishing Port, Banyuwangi Regency.
4. Recommending the development of a Harvest Strategy (HS) and Harvest Control Rules (HCR) for the lemuru fishery

Annual Meeting UPP WPPNRI 573 – December 2025

1. To strengthen fisheries data, provincial governments within WPPNRI 573 will evaluate the 141 capture fisheries data collection sites identified and submitted by the Central Government.
2. UPP WPPNRI provide dashboard https://wppnri-573.web.app to integrated, and coordinating data and information. This platform serves and shared information about:
   a) regulations, annual work plan, and activity reports;
   b) data and information
   c) outputs of the Scientific Panel such as research findings, scientific reports, and event schedules;
   d) contributions from the Consultative Panel and KKP development partners; and
   e) information related to fisheries catch quotas.


THANK
YOU
MINISTRY OF MARINE
AFFAIRS AND FISHERIES
REPUBLIC OF INDONESIA

SUCCESS STORY

Mainstreaming Artificial Reefs into the Ecosystem Approach to Fisheries Management (EAFM) in Sarawak, Malaysia

Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Resources in Southeast Asia, 6-8 January 2026

Background of EAFM in Malaysia

- The current scenario of fisheries in Malaysia creates an urgent need for a policy framework on sustainable fisheries management in Malaysia through EAFM.
- EAFM initiatives in Malaysia are an integral part of the country's participation in the Coral Triangle Initiative (CTI) Project in 2012.
- In Malaysia, Sabah located within the CTI region — was the first state to adopt the EAFM. The successful implementation in Sabah subsequently provided the foundation for the expansion of EAFM to other states, including Sarawak.
- In Sarawak, EAFM projects are implemented through a combination of fisheries management and conservation interventions, including the strategic deployment of artificial reefs.
- Three established EAFM sites are located in Lawas, Mukah and Sematan. The deployment of artificial reefs has not been limited to these areas but has also been implemented throughout Sarawak waters by both the federal and state governments.

Data of artificial reefs projectfrom 1984 - 2025

202,166 Units deployed

Coverage area **1,617.25 ha**

91 Sites

15 Types

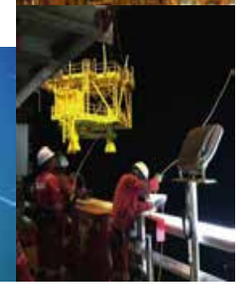
Types of artificial reefs in Sarawak

Sosioeconomic study on artificial reefs

- Research findings clearly indicate that artificial reefs generate substantial socio-economic benefits for coastal fishing communities.
- Most respondents not only accepted the presence of artificial reefs in their fishing grounds but actively supported further deployment, reflecting strong community buy-in.
- The installation of artificial reefs has been associated with sustained year-on-year increases in fish catch and fishing income.
- The socioeconomic impact studies shows **an overall income increase of approximately 25% among fishers**, reinforcing the role of artificial reefs as an effective fisheries enhancement and livelihood-support tool.

CSR Project: Rigs to Reefs

- Sarawak made history by being the first state in Malaysia to transform oil rig structures into artificial reefs in 2004.
- A decommissioned oil rig structure of 'Baram 8' was donated by Petronas under the 'rigs to reefs' program.
- This project also involve the cooperation between JPLS, Petronas, Sarawak Shell Berhad and Sarawak Tourism Board.
- In 2017, Petronas and JPLS deployed another 2 decommissioned oil rig structures of 'DANA' and 'D30' in Miri and Bintulu waters.



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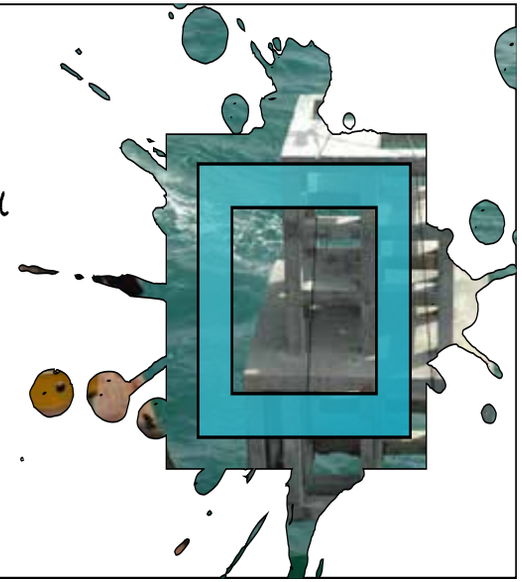

SABAH
Land Area 72,500km²
Coastline ± 1700km
Fishing ground 92,217km²
Surrounded by 3 seas
South China Sea, Sulu Sea & Celebes sea
Island & Bay
Natural sheltered area
± 400 Island
fishdept.sabah.gov.my

Fisheries Profile 2023
PCC (2023) 45.48kg
BOT (2023) RM494.6M
GDP (2023) 14.7%
GDP (2023) 3.0%
SSR (2023) 100%
fishdept.sabah.gov.my

Success Stories Conservation Effort & Management Strategies of Pelagic Fisheries in SEA Region
DOF Sabah
Port Dickson
6-8 Jan 2026
"KUALITI TERBAIK TONGGAK KECEMERLANGAN KAMI"
SABAH MAJU JAYA

Biodiversity
Located in Coral Triangle Initiative (CTI)
Epicentre of Marine Biodiversity
4 species of tuna oceanic
4 species of tuna neritic
Coral Reef in Malaysia – > 75% in Sabah
West Coast Sabah - 240 sp (Liuang etal 2015)
East Coast Sabah – 382 sp (Waheed Z. 2016)
Mangrove in Malaysia – > 60% in Sabah
fishdept.sabah.gov.my

Artificial reef project in Sabah

- Started in the 80's
- 85 location in Sabah
- 2535 unit of artificial reef deployed

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Why Artificial reef?

- Increased fishing pressure – coastal areas
- To prevent encroachment
- To replenish resources
- Benefitted to the coastal communities

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Artificial reef project in Sabah – (2021-2025)

Year	Location	Unit	Budget (RM) Million
2021	6	107	1.4
2022	6	159	1.6
2023	7	200	1.7
2024	5	160	1.8
2025	8	300	3.4
Total	32	926	9.9

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Artificial reef project in Sabah

Video presentation

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Thank you
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Ministry of Agriculture, Livestock and Irrigation

Department of Fisheries

The Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Resources in Myanmar

Presented by

Soe Win , Assistant Director

Zaw Khaing , Assistant Director

Date: 6– 8 Jan 2026

Venue : Port Dickson , Malaysia

Contents

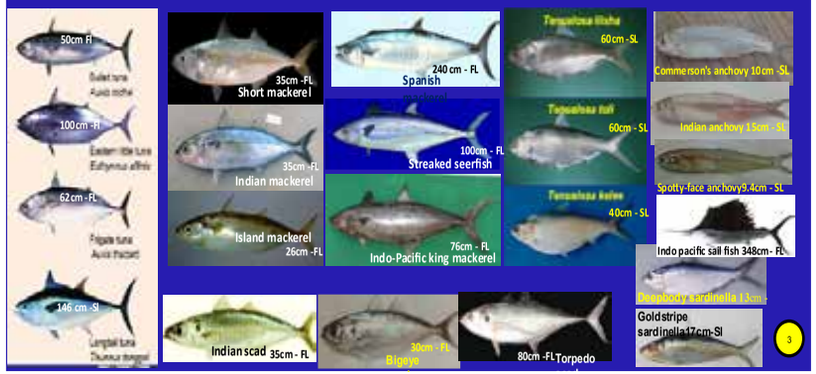
- Introduction
- Fisheries Management Measure
- Fisheries conservation
- Challenges

2

Introduction

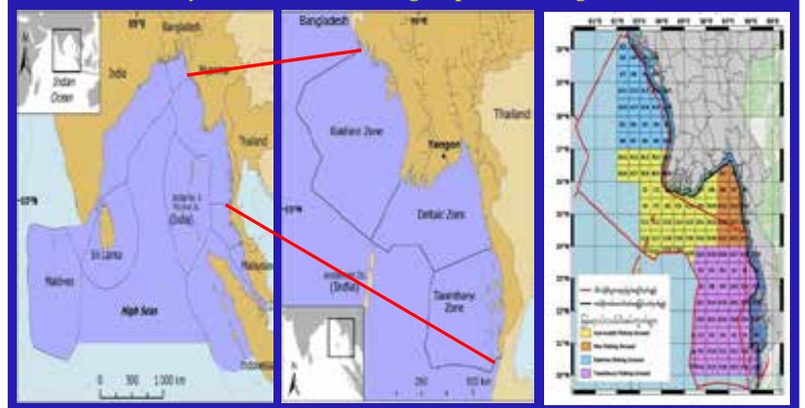
PELAGIC TARGET SPECIES FOUND IN MYANMAR WATER

(a) Myanmar found neritic tuna/nearshore 5 species, mackerel 3 species, seer fish 4 species ,scad 7 species, anchovy 4 species, Sardine 6 species, 6 marlin species and 3 Hilsa are major species.



3

Myanmar EEZ and Pelagic Species fishing areas

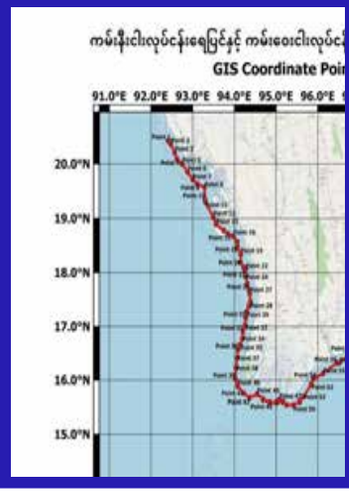


Myanmar is demarcated 4 fishing ground- local vessel have to operate fishing one or two adjacent fishing grounds

- (Inner shoreline) In-shore : No more fishing 50 HP engine, 40 feet , length
- (shoreline outside) Off shore : More than fishing 50 HP engine, 40 feet , length ,
- Mesh Sized Measures::Closed Mesh sized for trawl and stow net – not less than 2 inches (Fish) 1.5 inches (shrimp), For Drift Net not less than 4 inches.
- In 2004 close foreign vessel. Measure fishing days at the sea, Inspection and law enforcement .

4

Revised the inshore fishing area



Coastal Management Plan

Reliable data
&
Proper management

5

Measure to Control Fishing Capacity

- Inspection and law enforcement
- Closed Season
- Measure fishing days at the sea
- Closed Species – Shrimps (lobster) bearded eggs, endanger species
- Measured Mesh size and number of gear

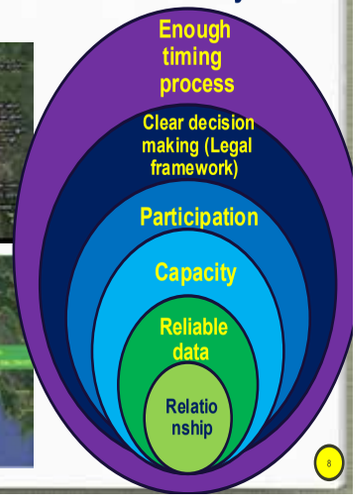
6

Measure to Control Overfishing and Enhance Fishing Capacity

- Every Off-shore fishing vessels are prohibited from fishing less than 10 nautical miles from shore. Identified nursery areas are protected to ensure survival of juveniles of commercially important fish species.
- Closed season for all fishing grounds in Myanmar
  - ➢In 2014, June, July, August, allowed for 50 % of operating vessels
  - ➢In 2015, June, July, August, allowed for 40 % of operating vessels
  - ➢In 2016, June, July, August, allowed for 40 % of operating vessels
  - ➢In 2017, May, June, July, allowed for 30 % of operating vessels
  - ➢From 2018 to until now, disallowed all of fishing operating vessels in closed season (April, May & June in 2024)

7

Current status of the Co management and Locally Managemen Areas LMMA and Fish Conservation Zone in Myanmar



8

Hilsa Fish Conservation Zone in Myanmar

DoF are working with other relevant Ministries , Universities and NGO to develop technologies to monitor and enforce MPAs to ensure continuous fish stocking in Myanmar water.Research on the spawning seasonality of hilsa in Myanmar indicates one main spawning peak in September - October (particularly September).

Ayawaddy dalta Zone

Mon Coastal Zone

Rakhine Coastal Zone

Myanmar DoF were banned 17 safety zones to protect Hilsa species female and Larvae in 2022. Namely,Ayawaddy region area, Mon state and Rakhine state . During the close season ,the local Dof and NGO provided food to joint patrols with community . And providing alternative job by hilsa fishermen in Myanmar's close season period. and local level. According to SDG 14 target , only 5% of all Myanmar 's water were protected .

9

Issuing Boats Registration and Fishing Licensing System in Myanmar

- Fishing Boat Registration must be renew every year.
- Now a day, shall not allow to build the new building boats for purpose of fishing. Only can repair for damage boat.
- Markings and color coding must be needed according to the place of license Issue.
- Shall not keep or use explosive substances, poisons, chemicals, prohibited fishing gears and other substances.
- License (implement) fee According to the type of fishing gear and number used.

Description	Place of Licence Issue	Word color on Line Color of Hull
Off Shore Fishing Vessel	Taninthayi	White
	Head Office/Ayeyarwaddy/Mon	White
	Rakhing	White
Off Shore Carrier	Local Carrier	Red

10

Port Monitoring System for Fishing Vessels Before Departure

- When Fishing vessels want to go-out to the fishing ground, have to apply the sailing order to the DOF.
- The members of OSS (One Stop Service) inspect the fishing vessels just before depart to the fishing ground-

(1) Fishing License
(2) Fisherman Registration Card.
(3) National Registration Card .
(4) Vessel Registration Certificate.
(5) Life Saving Appliance (LSA)
(6) Navigation Certificate.
(7) Mesh size of Fishing Net.
(8) Fishing log book
(9) Communication equipment
(10) Vessel Monitoring Device

11

Vessel Monitoring System Implementation for MCS

Main, Sub-station & Co-management

VMS Main Control Center (1)	Nay Pyi Taw
VMS Sub-Station (5)	Yangon
	Pathein
	Sittwe
	Mawlamyine
	Myeik
Co-Management on MCS (3)	Navy, Maritime Police Force, Costal Guard Force

The installation of the Vessel Monitoring System (VMS) commenced in 2019, coinciding with the start of the 2019-2020 fishing season. Installation began on September 1st, and by January 31st, 2020, all carrier vessels engaged in off-shore fishing were equipped with VMS equipment.

12

Challenges

Discuss challenges and opportunities to get reliable data

Problem :

1. Direct export to neighboring countries. (eg. Tanintharyi – Thailand, and Rakhine – Bengladish)
2. Use carrier vessel . IUU fishing also in-shore and off-shore fishing
3. To collect and analysis the fishery data the real base line data every year (Catch and Effort) State ,District , Township and lack of systematic data collection. Need to do technical skill for analyze. Lack of technology access to local community.
4. Study scientific, publish internationally – stock status, feeding pattern, gonad maturity , etc.
5. Strongly participation of Policy maker concentration
6. But, still difficult to implement in all coastal area because of country situation.

Conclusion

Negotiation of key indicator is expected to become a sustainable fisheries. Myanmar is preparing to implement regional indicators.

Myanmar concludes by saying that our country should work together cooperation with the AMS to protect the conservation of pelagic species. Thank you .

13

Thank you So Much

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Department of Agriculture
Bureau of Fisheries and Aquatic Resources
National Fisheries Research and Development Institute

PHILIPPINES: Country Presentation on the Conservation Efforts and Management Strategies of Pelagic Fisheries

January 6-8, 2026
D' Wharf Hotel and Residence, Negeri Sembilan, Port Dickson, Malaysia

Ms. KIMA KARLA H. CEDO
Chief, Capture Fisheries Policies, Program and Operations Monitoring Section

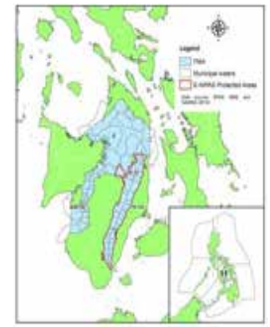
NOIMIE ROSE B. DICDIQUIN, RFT., MSc.
Science Research Specialist II
Capture Fisheries Research Development Division
Coastal Fisheries Section

PART 5: SUCCESS STORIES

Applying Science-Based Tools to Strengthen Pelagic Fisheries Management in FMA 11 (Philippines)

Context:

- FMA 11 covers major pelagic fishing grounds in the central Philippines, including the Visayan Sea and Guimaras Strait
- These areas are highly productive but experience intense fishing pressure and persistent IUU fishing
- Management required standardized, transparent, and science-based tools to guide decision-making across multiple LGUs



Applying Science-Based Tools to Strengthen Pelagic Fisheries Management in FMA 11 (Philippines)

Description of the Success Story

- Applied scientific reference points, harvest control rules, and fisheries modeling to support evidence-based management
- Used these tools in the development of Fishery Management Plans (FMPs) and an FMA-wide harvest strategy
- Implemented the IUU Fishing Index and Threat Assessment Tool (IFIT) to assess the level, distribution, and drivers of IUU fishing

Applying Science-Based Tools to Strengthen Pelagic Fisheries Management in FMA 11 (Philippines)

Description of the Success Story

- Complemented IFIT results with fisheries production data and gear profiling
- Integrated analytical outputs were translated into Fishery Management Plans and IUU Fishing Reduction Plans

Science shows that targeted measures rather than drastic changes can meaningfully address key IUU risks.

Challenges Encountered and Measures Taken

Challenges Encountered	Measures Taken
Limited visibility on the spatial distribution and drivers of IUU fishing across LGUs	Adoption of the IUU Fishing Index and Threat Assessment Tool (IFIT) as a standardized and participatory assessment tool
Widespread use of fine-meshed and prohibited fishing gears	Integration of multiple data sources, including IFIT results, fisheries production data, and gear profiling, to identify priority risks and target interventions
Need to convert complex analytical results into practical management actions	Conduct of multi-agency and stakeholder workshops to translate assessment and analysis into Fishery Management Plans (FMPs) and IUU Fishing Reduction Plans

Way Forward and Future Plans

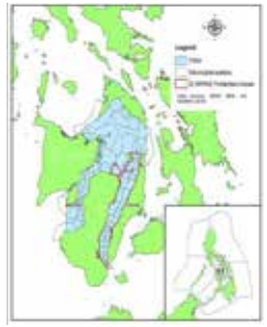
- Continue refining the use of reference points, fisheries modeling, and IFIT
- Expand IFIT application to remaining LGUs and conduct periodic reassessments
- Strengthen monitoring, evaluation, and reporting systems
- Further integrate science-based assessments into FMP implementation and enforcement strategies
- Sustain coordination among national agencies, LGUs, and stakeholders to support adaptive pelagic fisheries management

PART 5: SUCCESS STORIES

Adaptive Closed Fishing Season Based on Recent Scientific Evidence in FMA 4

Introduction

- Fisheries Management Area 4 covers the East Sulu Sea, Basilan Strait, and Sibugay Bay
- Supports a nationally significant sardine fishery, critical for:
  a. Food security
  b. Employment and industry value chains
- A closed fishing season has been implemented for over a decade
- In the most recent period, the closure was set from December 1 to March 1, as defined under BAC 255
- After more than 10 years of implementation, sufficient data became available to reassess the effectiveness of the existing closure period

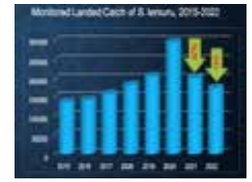


Adaptive Closed Fishing Season Based on Recent Scientific Evidence in FMA 4

Description of the Success Story

After 12 years of implementation, NSAP data shows:

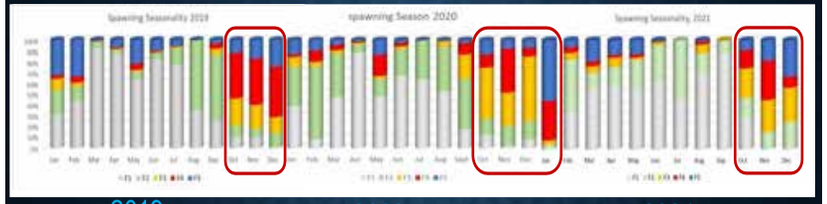
Fishing pressure is high and continues to increase , resulting to decreased catch in 2021-2022 and as projected if fishing effort will continue



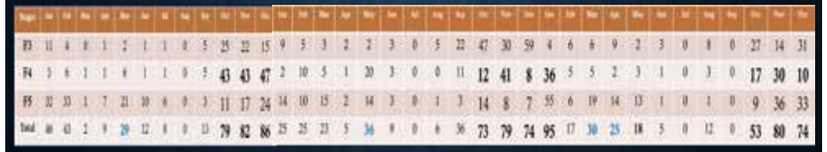
Catches of juvenile sardines for the last 6 years is at 53%, breaching the proposed limit reference point of 50%.

Highest peak of spawning is not protected by the seasonal closure.

Highest peak of spawning is not protected by the seasonal closure.



2019 2020 2021



- Multi-year data confirms that the peak season of spawning for sardines in East Sulu Sea is from October to January.

Highest peak of spawning is not protected by the seasonal closure.

- The highest peak of spawning happens in November. This is the same month when the spawning sardines shows the highest Gonado-Somatic Index (GSI), i.e. when they have the biggest gonads, most number and better quality of eggs.

Scientific review used to **inform adjustment of the closure period**

The experience in FMA 4 shows that long-term closures benefit from periodic scientific review, allowing management to fine-tune timing so that protection aligns more closely with biological reality.

Way Forward and Future Plans

- Continued monitoring using:
  - NSAP data
  - Size structure and juvenile catch indicators
  - Spawning and reproductive indices
- Periodic review of closure timing based on updated scientific evidence
- Sustained coordination with industry and stakeholders to support compliance
- Use of FMA 4 as a platform for adaptive, evidence-informed decision-making


DEPARTMENT OF AGRICULTURE
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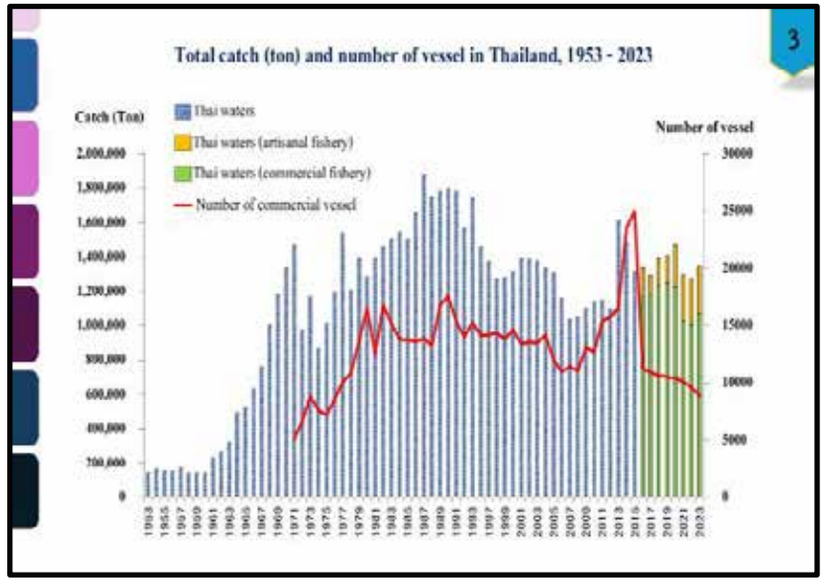
Output control: catch Limits and Quotas
in Thailand
1

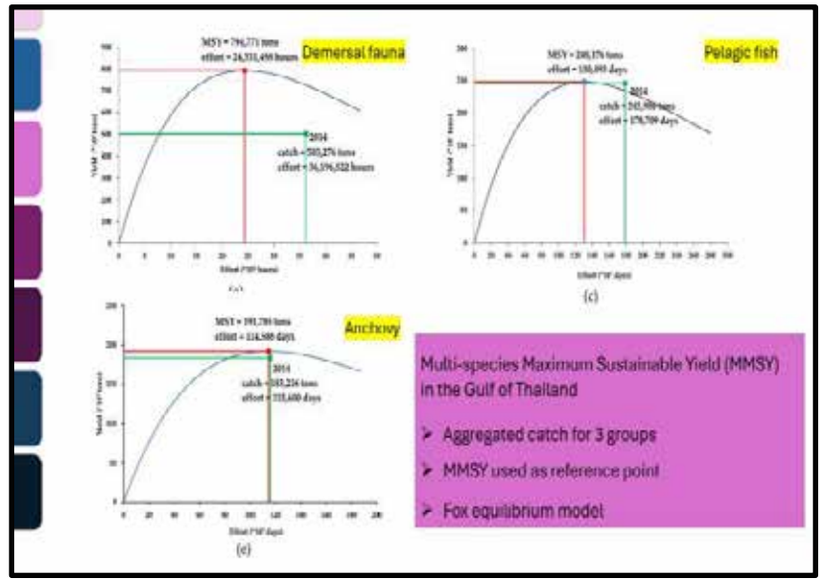
Outline
Introduction
The Nation's Fisheries
Current fisheries management in Thailand
Current MMSY assessment model
Current management measures
New approaches to assessing and managing Thailand fisheries
Re-estimating MMSY using dynamic model
Indicator single species assessment
Ecosystem analyses and indicators
Future fisheries management in Thailand
Fisheries Management Plan and Harvest Strategy
2

Introduction
1
Southeast Asian country
Located between two oceans
Population: 66 million
Land area: 513,120 sq.km.
Maritime area: 350,000 sq.km.
Coastline: 2,815 km.
Total fisheries production: 2.4 million ton
THAILAND
ANDAMAN SEA

Introduction : The Nation's Fisheries
2
Fisheries in Thailand
Culture fisheries (42%)
Capture fisheries (58%)
Aquaculture
- Shrimp
- Shellfish
- Finfish
Artisanal fisheries (20%)
Commercial fisheries (80%)
Artisanal vessel
Commercial vessel
- Local & domestic consumption
- <10 gross tons, household labor
- 50,000 vessels
- Export & domestic consumption
- ≥10 gross tons, 5-40 crew/vessel
- 8,900 commercial fishing vessels


3
Total catch (ton) and number of vessel in Thailand, 1953 - 2023
Catch (Ton)
Number of vessel
Thai waters
Thai waters (artisanal fishery)
Thai waters (commercial fishery)
Number of commercial vessel


4
Fishing Gear
Trawl
Otter board trawl, Pair trawl, Beam trawl
Purse seine
Purse seine, Anchovy purse seine
Falling net
Anchovy falling nets
Squid falling nets
Lift net
Anchovy lift net
Pomfret lift net
Trap
Squid trap, Octopus trap, Crab trap, Fish trap
Dredge
Short-necked clam dredge, Blood clam dredge, Other calm dredge, Sea cucumber dredge
Gill net
Fish gill net, Shrimp trammel net, Crab gill net, Other gill net
Hook and line
Handline, Longline
Others
Krill push net, Red frog crab lift net


Demersal fauna
Pelagic fish
Anchovy
(c)
(e)
Multi-species Maximum Sustainable Yield (MMSY) in the Gulf of Thailand
Aggregated catch for 3 groups
MMSY used as reference point
Fox equilibrium model

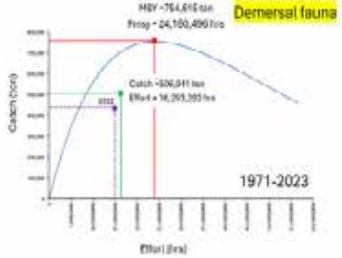

5
Conceptual Framework
Thailand has made efforts to improve fisheries management to achieve sustainability by setting catch limits (TAC)—specifically, the Maximum Sustainable Yield (MSY) for multiple aquatic species—and by restricting fishing effort through gear limitations.
Thailand is located in the tropical zone, which contributes to its high biodiversity in ecosystems. A wide variety of fishing gear is used, allowing the capture of aquatic animals in many sizes and species. Fishing is a crucial occupation for both livelihood and the economy, which contributes to the complex socio-cultural dynamics of the Gulf of Thailand.

Port-in and Port-out Control Center

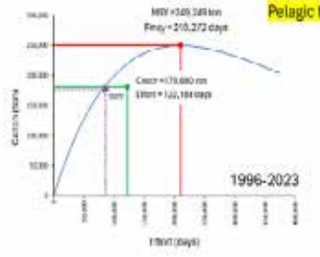
Current fisheries management in Thailand

10

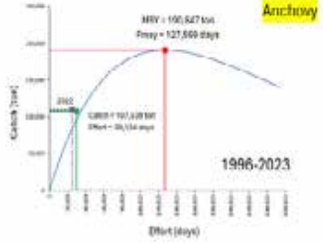
Demersal fauna



Pelagic fish



Anchovy



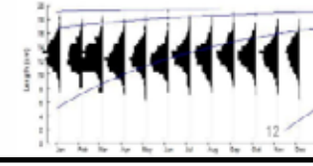
Multi-species Maximum Sustainable Yield (MMSY) in the Gulf of Thailand

- Aggregated catch for 3 groups
- MMSY used as reference point
- Fox equilibrium model

11

MSY of selected species in the Gulf of Thailand in 2024 using length-based Thompson & Bell model

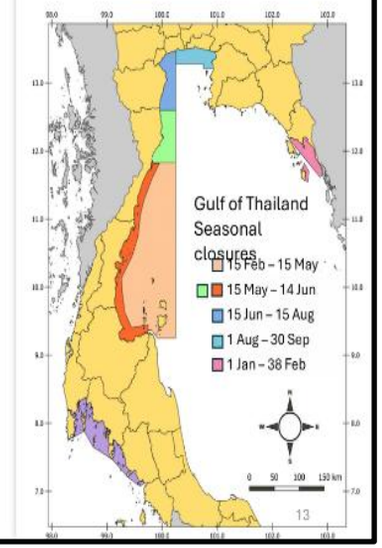
- 17 species selected for MSY and fishing effort assessment
  - 9 species fished under MSY
  - 4 species fished at MSY
  - 4 species fished over MSY
- In term of fishing effort, the results were consistent with group of species assessment
- Single species MSY used as monitoring, not used for fisheries management

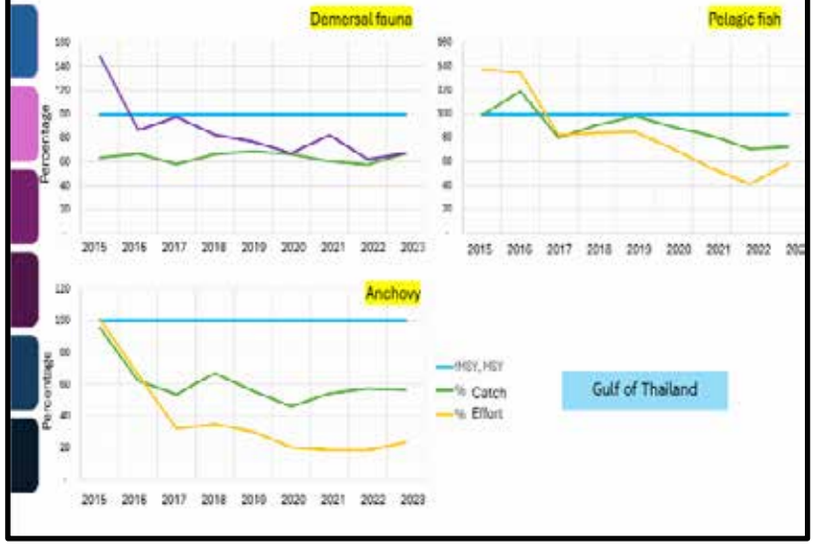


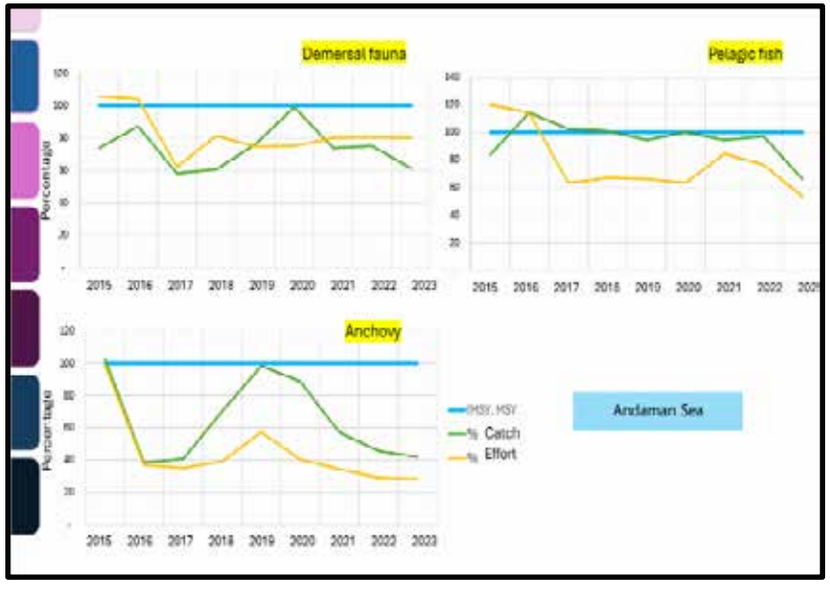
12

Current management

- TAC set based on MMSY
- Fishing day limitations
- Seasonal area closures
- Permanent closures e.g. inshore coastal artisanal zone
- Mesh size limitations
- Fishing gear control e.g. push net ban and length/number of fishing gear limitations







New approaches to assessing and managing of Thailand fisheries

17

New approaches to assessing and managing the Gulf of Thailand fisheries

Combining

(i) Re-estimating MMSY using dynamic model

(ii) Indicator single species assessment

(iii) Ecosystem analyses and indicators

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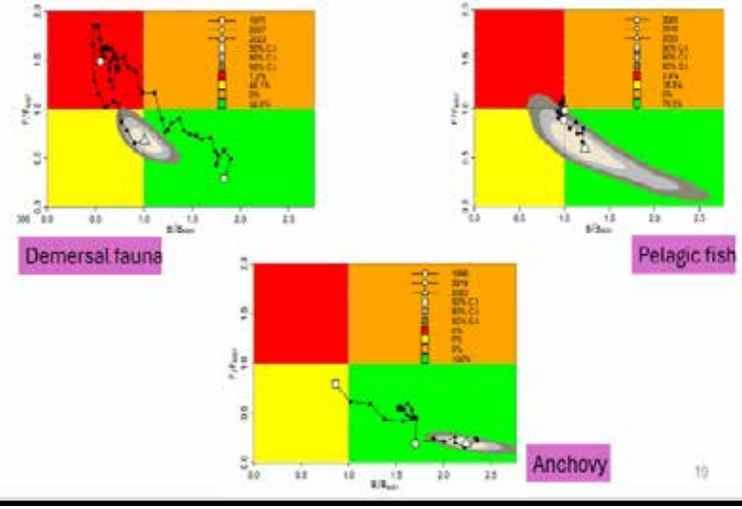
Re-estimating MMSY in the Gulf of Thailand using dynamic model



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Indicator species

Species/species group	B/B0
Snapper	Below 20%
Catfish	Below 20%
Sharks	Below 20%
Rays	Below 20%
Croakers	Below 10%
Grouper	Above 20%
Scads	Below 10%
Largehead hairtail	Above 20%
Black pomfret	Above 20%
Threadfin bream	Below 10%
Bigeye	Below 10%
Indian mackerel	Below 20%
Short mackerel	Above 20%
Swimming crab	Above 20%
Lizardfish	Above 20%
Cuttlefish	Below 20%
Squid	Above 20%
Non-penaeid shrimp	Above 20%

- A set of species that reflect the fishery based on:
  - inherent vulnerability, current risk, ecological importance and management importance
- Can assess status of each species and compare against a reference point
  - e.g. current biomass (B) / virgin biomass (B0), LB-SPR, YPR
- Can track trends in these species over time

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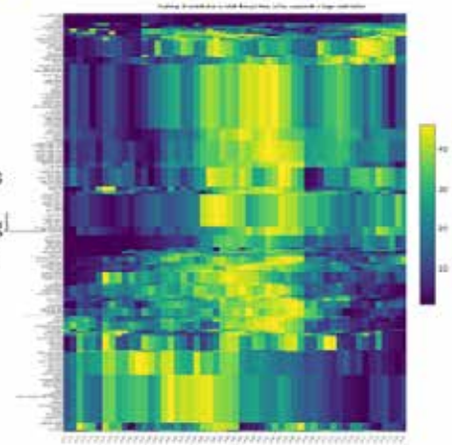
Context-system change through time

- Heatmap of contribution to catch through time
- Understand how management influences catch & system signals
- Switches in the pattern coinciding with management or fleet change and reflects decision's or technological etc. influence



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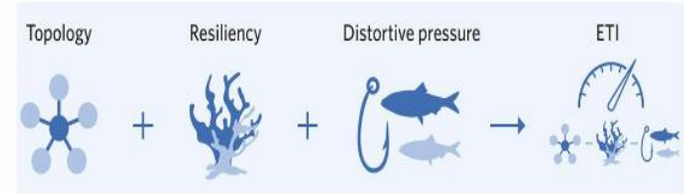
Ecosystem Traits Index (ETI)

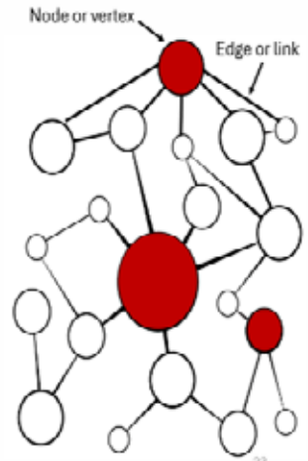


Source: www.lenfestocean.org/-/media/assets/extranets/lenfest/ebfm_es_march2024.pdf

22

Topology

- Ecosystem significant species
  - Highly connected (often predators)
  - Species supporting the web structurally (often key prey)
- Identification of hub species helps to prioritize management focus
- Preliminary list of hub species
  - Sharks
  - Coastal tunas
  - Benthos
  - Large zooplankton



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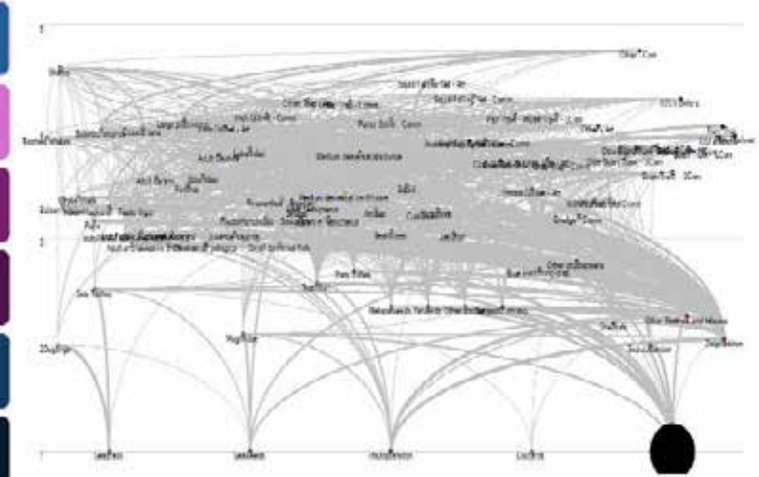
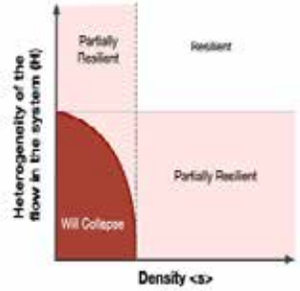


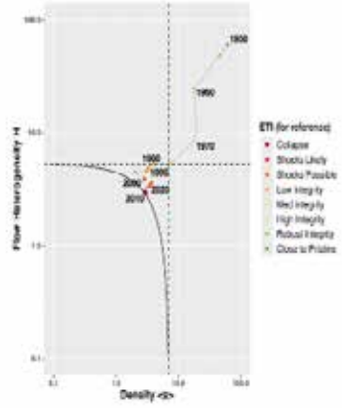
Resilience

Heterogeneity of flow
The variance across species of the number of food-web links, each weighted by its strength



Density of connections
The ratio of the actual direct links between species compared to the maximum if all species were

Gulf of Thailand (1950-2023) in 10 years intervals



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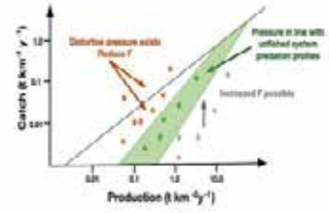
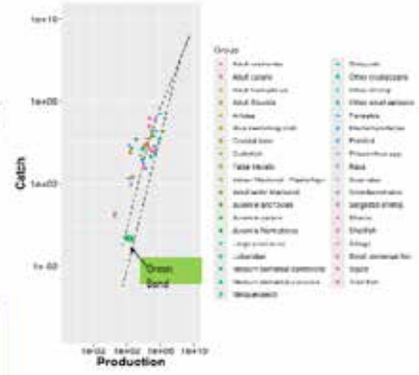
Distortive pressure



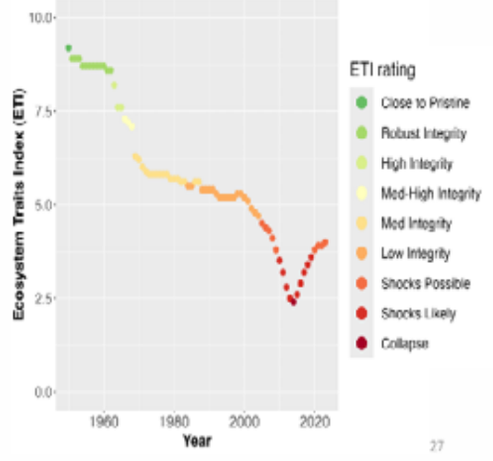


- Species that should have increased or decreased catch identified
- These can be considered in management decision making

~56% under distortive pressure (above Green Band)
~38% within Green Band
~5% below Green Band

Ecosystem Traits Index (ETI) in the Gulf of Thailand

- Catch increased but the ecosystem became more fragile
  - ETI green to red dots
- 2015 new fisheries reforms introduced
- But what is the desired fishery?



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Future fisheries management in Thailand

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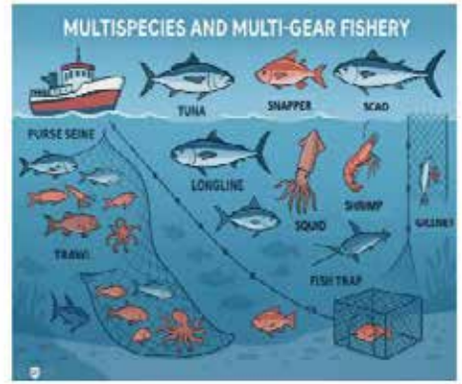
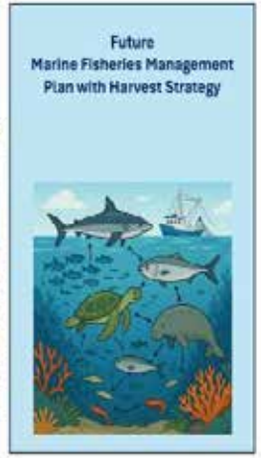
Future management

- Multi species, multi gear fishery
- MMSY overall system
- Single species assessment of selected indicator species
- Ecosystem indicator
- Development of a new FMP by combining MMSY, single species, and ecosystem indicators through the use of harvest control rules



Thailand's Marine Fisheries Management Plan



THANK YOU

The Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia

January 6-8, 2026

D' Wharf Hotel and Residence, Negeri Sembilan, Port Dickson, Malaysia

Country Presentation
Success stories related to the management and conservation of pelagic fish in Vietnam

Vu Viet Ha
Research Institute for Marine Fisheries
Le Huu Tuan Anh
Department of Fisheries and Surveillance

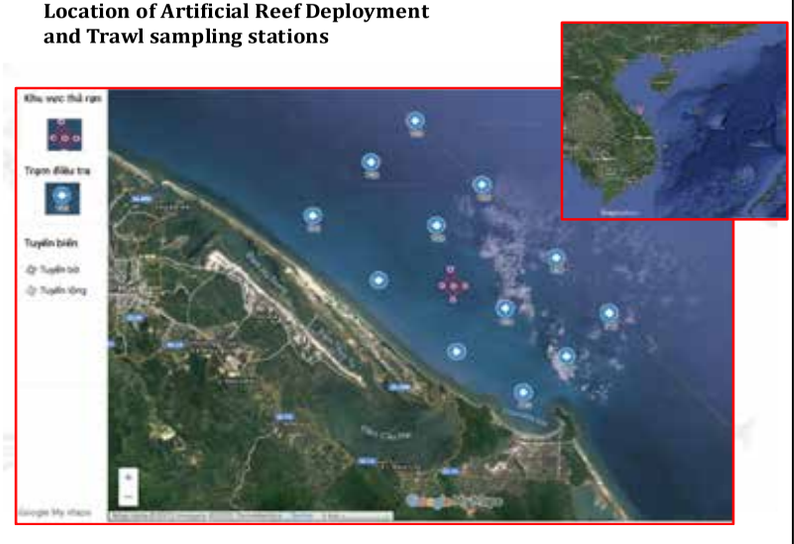
Background and Rationale

- Marine fisheries resources in Vietnam have shown a significant decline in recent decades
- Key drivers include overfishing, and habitat degradation
- Declining trends are reflected in reduced stock abundance, smaller size of commercially important species, and lower recruitment
- These challenges pose serious concerns for sustainable fisheries management
- Artificial reef deployment was therefore proposed as a management measure to restore habitats and support fisheries resource recovery

Background and Rationale

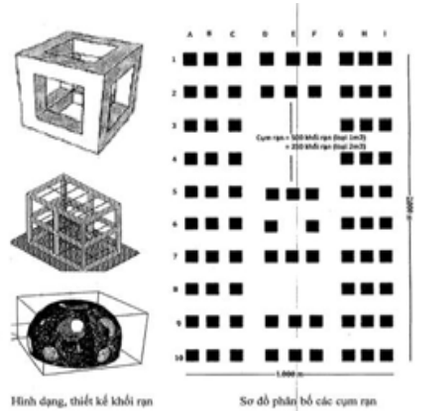
- To evaluate the positive impacts of artificial reef (AR) deployment on fisheries resource recovery, independent fisheries surveys using bottom trawl nets were conducted both before and after reef deployment.
- The sampling stations were designed to cover the artificial reef deployment area and the adjacent waters.

Location of Artificial Reef Deployment and Trawl sampling stations



Artificial Reef Design and Deployment Plan

- Artificial reef blocks were constructed from concrete with dimensions of 2.0 m × 2.0 m
- A total of 174 blocks were deployed
- The deployment covered an area of approximately 1.5 km^2



Hình 4. Hình dạng, thiết kế khối rạn và sơ đồ phân bố các cụm rạn trong khu vực thả rạn nhân tạo

Marine Fisheries Resources Surveys

Before AR Deployment: June 2022
- Vessel: TH-90021-TS (400CV)
- Fishing Gear: Bottom Trawl
- Mesh-size at codend: 2a= 20mm
- Headrope: 42m
- Footrope: 48m

After AR Deployment: July 2025
- Vessel : TTH-40298-TS (240CV)
- Fishing Gear: Bottom Trawl
- Mesh-size at codend: 2a= 20mm
- Headrope: 16m
- Footrope: 20m

- **Objectives of the surveys:**

To assess the current status and temporal changes of fisheries resources before and after the deployment of AR, including:

– Species richness

– Density and biomass of marine fisheries resources

– Density of early life stages

– Frequency of occurrence of commercially important species

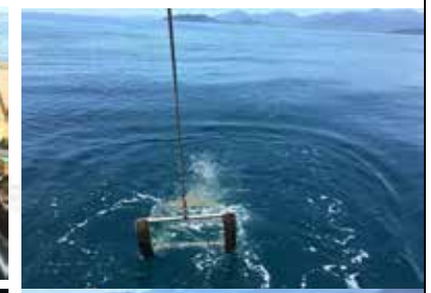
– Size ranges of commercially important species

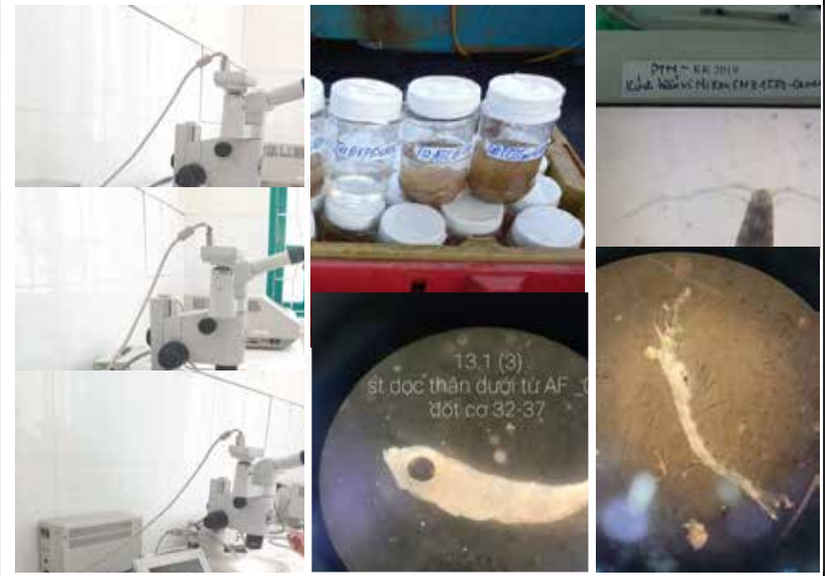
- **Methods:**

– Marine fisheries resource surveys using bottom trawl nets

– Biological sampling of commercially important species

– Sampling of ichthyoplankton, shrimp larvae, and paralarvae using plankton nets



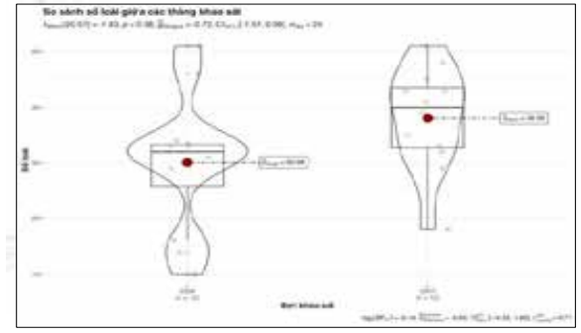


Results

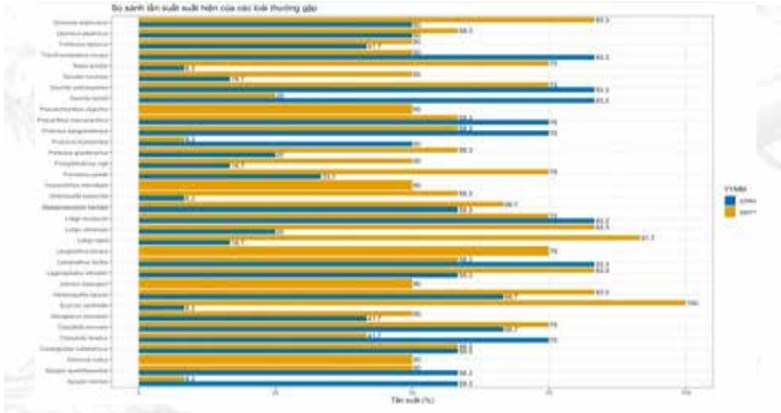
Species Richness

	YYMM	NClass	NOrder	NFamily	NSpecies
1	2206	6	16	49	115
2	2507	6	17	59	137

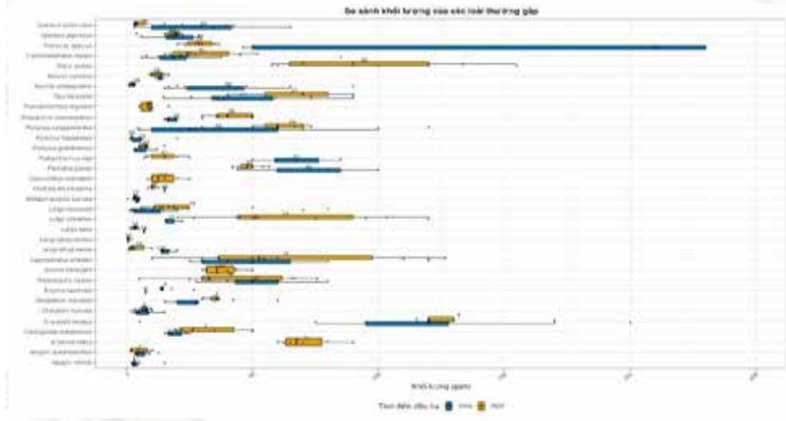
	YYMM	Cephalopods	Crustacean	Fishes	Molluscs
1	2206	12	25	77	1
2	2507	11	34	88	4



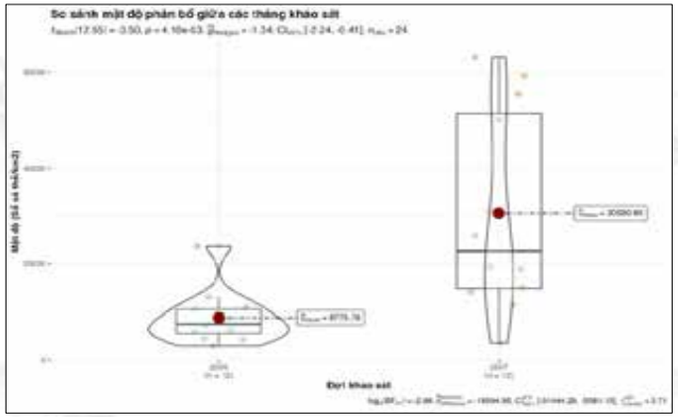
Frequency of occurrence of commercially important species



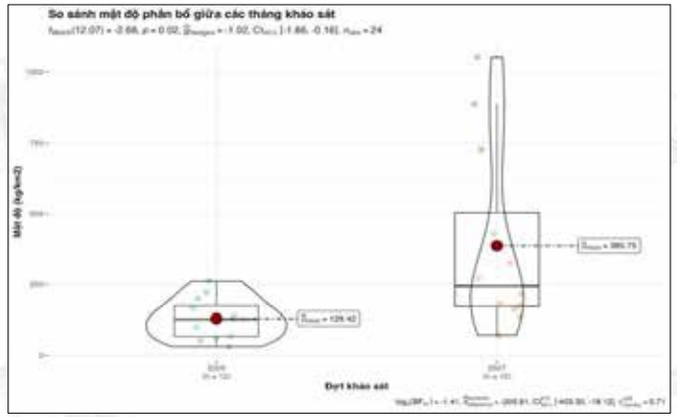
Size range of commercially importance species



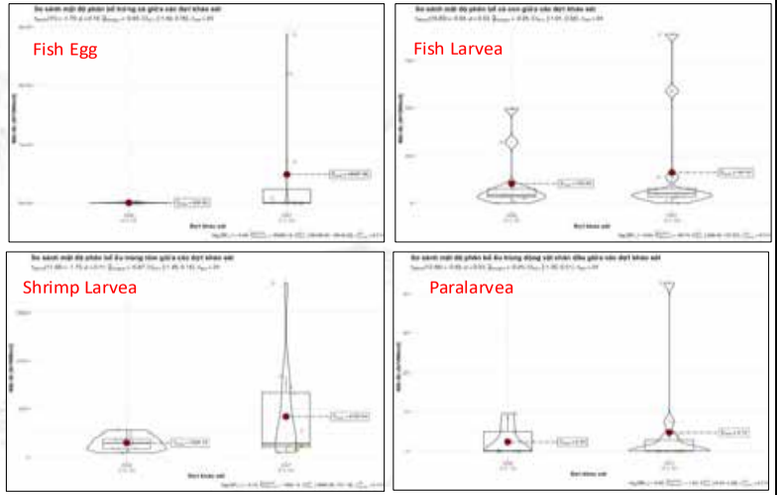
Density of fisheries resources (N/km2)



Biomass (kg/km2)



Density of fisheries resources during early life stages



In summaries

No.	Indicator	Trend	Interpretation
1	Species richness	+	Increase
2	Biomass of fisheries resources (CPUA, kg/km²)	+++	Strong increase
3	Density of fisheries resources (NPUA, N/km²)	+++	Strong increase
4	Frequency of occurrence of species in the survey area	++	Increase
5	Average size of commonly occurring species	+ / –	Increase / Decrease
6	Species diversity at early life stages	+	Increase
7	Distribution density of fish juveniles	++	High increase
8	Distribution density of shrimp juveniles	++	High increase
9	Distribution density of benthic invertebrate juveniles	+	Increase

Conclusion

- The results indicate that artificial reef deployment has had a positive effect on the recovery of marine fisheries resources in the study area.
- Improvements were observed in species richness, resource density and biomass, size structure of commercially important species, and the abundance of early life stages. These findings suggest that artificial reefs can play an effective role in enhancing habitat quality and supporting fisheries resource restoration when combined with appropriate management measures.
- Vietnam's experience demonstrates the importance of science-based monitoring and long-term assessment in evaluating conservation effectiveness and provides useful lessons for sustainable pelagic fisheries management

Thank for your attention!

TECHNICAL DISCUSSION ON CONSERVATION MEASURES AND MANAGEMENT STRATEGIES

CONSERVATION MEASURES AND MANAGEMENT STRATEGIES OF AMS

Objective:

- To obtain and compile the information on the **current conservation efforts and management strategies** of pelagic species conducted by AMSs- PART 1, 2
- To analyse the **gaps in the conservation efforts and management strategies** of pelagic species in AMSs countries- PART 2 AND PART 3
- To obtain and compile **potential strategies** for better conservation efforts and management of pelagic species- PART 4

PART 1: MAIN ISSUES IN THE FISHERIES OF PELAGIC SPECIES OF AMS

i	IUU (illegal, unreported, unregulated) fishing
ii	Changes in species distribution
iii	Overfishing
iv	Overcapacity
v	Use of unsustainable fishing gears
vi	Increase of fishing effort
vii	Lack of management and conservation measures
viii	Lack of data collection at fish landing sites
ix	Lack of regulated/ authorised fish landing site
x	Lack of capacity in data collection
xi	Lack of systematic data collection
xii	Lack of regular fish stock assessment

PART 1: MAIN ISSUES IN THE FISHERIES OF PELAGIC SPECIES OF AMS

	Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Thailand	Vietnam
i	4	1	1	1	5	1		1
ii							5	
iii		2				2	4	2
iv						4	1	
v		3		2		5	3	3
vi		4				3		4
vii	5		5					
viii			2		3		2	
ix	2			3	4			
x	3		3	4				
xi	3				1			
xii	1	5	4	5	2			5

PART 1: MAIN ISSUES IN THE FISHERIES OF PELAGIC SPECIES OF AMS

1	IUU (illegal, unreported, unregulated) fishing
2	Lack of regular fish stock assessment
3	Use of unsustainable fishing gears
4	Overfishing
5	Lack of data collection at fish landing sites

Unreported catches and unlicensed fishing vessels.

Stock assessment based on project -Constraint in Budget & expertise

unregulated fishing gear specification for drift net & intensity of light for stick held dip net & lift net

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

A. Current conservation efforts and management strategies implemented

B. Current regulatory and governance frameworks to implement conservation goals effectively.

A. CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES IMPLEMENTED

1. OUTPUT CONTROLS: 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 / endangered species	Others
Brunei	X	X	X	X	X	/ (sharks)	
Cambodia	/	/	/	/	/ (pilot)	/	
Indonesia	/	/	X	X	X	/ (sawfish, rays,sharks)	
Malaysia	/ (tuna in Indian Ocean)	/ (tuna in Indian ocean)	X	X	X	/(sawfish, rays,sharks)	
Myanmar	X	X	X	X	N/A	/ (Sharks)	
Philippines	X	X	X	X	X	/ (sharks)	
Thailand	/	/	X	X	X	X	
Vietnam	/	/	/	X	/	/ (sharks)	

A. CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES IMPLEMENTED

2. GEAR REGULATIONS AND SELECTIVITY

IMPROVEMENTS	Use of circle hooks	Bycatch/ incidental reduction devices/ mitigation	Control on gear modification	Control on fishing aids in driftnets and purse seine operation	Gear Marking	Control on Gear Specification
Brunei	X	X	X	X	X	/ (mesh size, codend mesh size, length of net)
Cambodia	/	/	/	/	/	/ (all)
Indonesia	/	/	/	/	X	/ (all)
Malaysia	X	/	/	/	X	/ (mesh size, codend mesh size, specification)
Myanmar	X	/	/	/	N/A	/(mesh size, codend mesh size, length of net)
Philippines	X	/	/	/	/	/ (all)
Thailand	X	/	/	/	X	/ (all)
Vietnam	/	/	/	X	N/A	/ (mesh size, codend mesh size, length of net)

A. CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES IMPLEMENTED

3. FISHING EFFORT/ INPUT CONTROL

	Limitation of the number of fishing vessels	Limitation of the number of fishing gears and accessories	Licensing and vessel registration system	Control on the carrier vessel and mother boat	Control on horsepower of fishing vessels	Control the number of light boat	Control of light usage on fishing vessel
Brunei	/	/	/	/	/	X	/ (intensity, color)
Cambodia	/	/	/	X	/	X	x
Indonesia	/	/	/	/	/	/	/ (all)
Malaysia	/	/ (anchovy)	/	/ (tuna in Indian ocean)	/	/	/ (intensity, use)
Myanmar	/	/	/	Size X No. /	/	/	/ (intensity)
Philippines	X	X	/	X	X	X	/ (intensity, color)
							Other (Restriction

A. CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES IMPLEMENTED

4. SPATIAL AND TEMPORAL CLOSURE

	Marine Protected Area (MPA)	Closed Season	Closed Area	Other Closure
Brunei	/	X	X	x
Cambodia	/	/	/	/ (Habitat restoration closures, Community-led temporary closures)
Indonesia	/	X	X	Spatial and temporal for Tuna
Malaysia	/	/	/	X
Myanmar	/	/	/	/ (Locally managed Marine Areas (LMMAs)
Philippines	/	/	/	
Thailand	/	/	/	
				/ Fisheries Refugia, Artifical

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

5. 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
Brunei	X	/ CORAL REEF)	X	/ (MPA)	
Cambodia	X	X	X	/	/ Habitat restoration and enhancement, Artificial reefs and Fish Aggregating Devices (FADs)
Indonesia	X	X	X	/ (EAFM)	
Malaysia	X	X	X	/ (EAFM)	X
Myanmar	X	N/A	X	X	X
Philippines	X	/	X	/	

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

6. MONITORING, CONTROL, AND SURVEILLANCE

(MCS)	Vessel Monitoring Systems (VMS)	Automatic Identification System (AIS)	e-Navigation	Manual logbooks	Electronic logbooks	Onboard observers	Port State Measures	Other
Brunei	X	/	X	X	X (AIS,PIPo)	X	X	
Cambodia	/	/	X	/	/	/	/	Community-based
Indonesia	/	/	X	/	/	x	/	
Malaysia	/	/	/	/	x	X	/	cctv
Myanmar	/	/	/	/	X	X	/	x
Philippines	/	/	/	/	x	x	/	
Thailand	/	/	X	/	/ (pilot)	/ (oversea vessel)	/	
Vietnam	/	/	/	/	/ (pilot)	/	/	

PART 2: CURRENT CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES

7. RESOURCE ENHANCEMENT MEASURES

	Deployment of artificial reef	Sea Ranching, Stock Enhancement, Restocking	Habitat restoration and rehabilitation	Fisheries Refugia	Other
Brunei	/	/	/	X	
Cambodia	/	/	/	/	/(Mangrove-friendly aquaculture practices, Community-based habitat protection)
Indonesia	/	/	/	/	
Malaysia	/	/	/	/	X
Myanmar	X	/	/	X	X
Philippines	/	/	/	/	
					blue swimming

CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES (conducted by >75% AMSs)

Output control: catch Limits and Quotas
- Catch prohibition of certain pelagic species

Gear Regulations and Selectivity Improvements
- Bycatch/ incidental reduction devices/ mitigation
- Control on gear modification
- Control on fishing aids in driftnets and purse seine operation
- Control on gear specification (100%)

Fishing Effort/ Input control
- Limitation of the number of fishing vessels
- Limitation of the number of fishing gears
- Licensing and vessel registration system (100%)
- Control of light usage on fishing vessel

Spatial and Temporal Closures
- Marine protected areas (MPAs) (100%)

Ecosystem-Based Approaches
- Protecting ecosystem services, not just target species

Monitoring, Control, and Surveillance (MCS)
- Vessel Monitoring Systems (VMS)
- Automatic Identification System (AIS) (100%)
- Manual logbooks
- Port State Measures to prevent IUU fishing

Resource enhancement measures
- Deployment of artificial reef
- Sea Ranching, Stock Enhancement, Restocking
- Habitat restoration and rehabilitation (100%)
- Fisheries Refugia

Strategies mostly implemented by AMS

CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES (conducted by >50% AMSs)

Output control: catch Limits and Quotas
- Total Allowable Catches (TACs) set based on stock assessments
- Allocation of quotas among fleets or vessels

~~**Gear Regulations and Selectivity Improvements**~~
- ~~Control on fishing aids in driftnets and purse seine operation~~
- ~~Use of circle hooks~~

Fishing Effort/ Input control
- Control on the carrier vessel and mother boat
- Control on horsepower of fishing vessels
- ~~Control of light usage on fishing vessel~~

Monitoring, Control, and Surveillance (MCS)
- e-Navigation
- Electronic logbooks
- ~~Onboard observers~~

~~**Resource enhancement measures**~~
- ~~Fisheries Refugia~~

moderately implemented strategies by AMS

CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES (conducted by <50% AMSs)

Output control: catch Limits and Quotas
- Minimum fish size limit
- Maximum fish size limit
- Slot limit

Gear Regulations and Selectivity Improvements
- Use of circle hooks
- Gear marking

Fishing Effort/ Input control
- ~~Control on the carrier vessel and mother boat~~
- Control the number of light boat

Ecosystem-Based Approaches
- Monitoring predator-prey dynamics (0%)
- Monitoring forage fish exploitation
- Monitoring climate-driven shifts in pelagic ecosystems (0%)

Monitoring, Control, and Surveillance (MCS)
- ~~Electronic logbooks~~
- Onboard observers

Gaps: conservation efforts and management strategies should be considered in the future
-need for technology/financial support
-need better data/stock assessment

B. CURRENT REGULATORY AND GOVERNANCE FRAMEWORKS TO IMPLEMENT CONSERVATION GOALS EFFECTIVELY.

1. GOVERNANCE

	National Management Plans	Adopt regional regulation and management measures	Periodically revise regulation or management measures	Main agency in the country responsible to formulate the management measure of pelagic resources (Please specify)
Brunei	/	/	X	Department of Fisheries
Cambodia	/	/	/	Fisheries Administration of Ministry of Agriculture, Forestry and Fishery
Indonesia	/	/	/	DG of Capture Fisheries, MMAF, in collaboration with National Research and Innovation Agency
Malaysia	/	/	/	DOF Malaysia and DOF Sabah
Myanmar	/	/	/	DOF of Myanmar & FFI
Philippines	/	/	/	DA-BFAR, Local Government Units, National Fisheries Research and Development Institute
Thailand	/	/	/	Department of Fisheries, Ministry of Agriculture and Cooperatives

B. CURRENT REGULATORY AND GOVERNANCE FRAMEWORKS TO IMPLEMENT CONSERVATION GOALS EFFECTIVELY.

1. GOVERNANCE (cont)

	Country has fishers association	Country adopting precautionary approach	Country adopting marine spatial planning	Country has MCS system
Brunei	X	X	X	/ (Multiagency)
Cambodia	/	/	X	/
Indonesia	/	/	/	/
Malaysia	/	/	X	/ (Multiagency)
Myanmar	/	X	/	/
Philippines	/	/	X	/
Thailand	/	/	X	/
Vietnam	/	X	/	/

B. CURRENT REGULATORY AND GOVERNANCE FRAMEWORKS TO IMPLEMENT CONSERVATION GOALS EFFECTIVELY.

2. RIGHTS-BASED MANAGEMENT

	Individual transferable quotas (ITQs)	Community-based quota allocations	Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries.
Brunei	X	X	X
Cambodia	X	/	/ (Community Fisheries (CFi) system)
Indonesia	X	X	/
Malaysia	X	X	/
Myanmar	X	X	/ (village-level fisheries committees)
Philippines	X	X	/
Thailand	/	X	/
Vietnam	X	X	/

B. CURRENT REGULATORY AND GOVERNANCE FRAMEWORKS TO IMPLEMENT CONSERVATION GOALS EFFECTIVELY.

3. ADAPTIVE MANAGEMENT

	Incorporating new data and scientific advice into dynamic decision-making.	Adjusting strategies in response to climate change impacts
Brunei	/	X
Cambodia	/	/ (pilot)
Indonesia	/	X
Malaysia	/	X
Myanmar	/	X
Philippines	/	X
Thailand	/	X
Vietnam	/	/

B. CURRENT REGULATORY AND GOVERNANCE FRAMEWORKS TO IMPLEMENT CONSERVATION GOALS EFFECTIVELY.

4. TRACEABILITY AND MARKET-BASED TOOLS

	Eco-certifications [(e.g., Marine Stewardship Council (MSC)]	Catch documentation schemes	Trade restrictions on IUU (illegal, unreported, unregulated) products
Brunei	X	/	/
Cambodia	X	X	/
Indonesia	/	/	/
Malaysia	X	/	/
Myanmar	X	/	/
Philippines	/	/	/
Thailand	/	/	/
Vietnam	/	/	/

B. CURRENT REGULATORY AND GOVERNANCE FRAMEWORKS TO IMPLEMENT CONSERVATION GOALS EFFECTIVELY.

5. 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
Brunei	X	/	/
Cambodia	/	/	/
Indonesia	/	/	/
Malaysia	/	/	/
Myanmar	/	/	/
Philippines	/	/	/
Thailand	/	/	/
Vietnam	/	/	/

REGULATORY AND GOVERNANCE FRAMEWORKS (conducted by >75% AMSs)

Governance
- National Management Plans
- adopt regional regulation and management measures
- Periodically revise regulation or management measures
- Country has fishers association
- Country has MCS system

Right-Based Management
- Co-management with fishing communities, especially for small-scale (artisanal/ traditional) pelagic fisheries.

Adaptive Management
- Incorporating new data and scientific advice into dynamic decision-making.

Traceability and Market-Based Tools
- Catch documentation schemes
- Trade restrictions on IUU (illegal, unreported, unregulated) products

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

Most common by AMS

REGULATORY AND GOVERNANCE FRAMEWORKS

>50%

Governance
- Country adopting precautionary approach

Traceability and Market-Based Tools
- Eco-certifications
- [(e.g., Marine Stewardship Council (MSC)]

<50%

Governance
- Country adopting marine spatial planning

Right-Based Management
- Individual transferable quotas (ITQs)
- Community-based quota allocations

Adaptive Management
- Adjusting strategies in response to climate change impacts (0%)

Gaps: Improvement of regulatory and governance frameworks
-need better data/stock assessment

PART 3: CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES

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 3: CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES

	Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Thailand	Vietnam
i			1	1	2	1		1
ii					4		1	3
iii								
iv								
v					5			
vi	2	1	4	2	3		4	
vii		5	2		1	2	2	2
viii	5		5			3		
ix		3		3		4	3	
x	3			4				
xi	1	4						
xii			3				5	5
xiii	4	2		5		5		4
xiv								

PART 3: CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES

1	Financial/ budget constraint
2	Lack of Monitoring, Control, and Surveillance (MCS)
3	IUU (illegal, unreported, unregulated) fishing
4	Lack of compliance among fishers
5	Limited capacity (e.g., stock assessment, enforcement)
5	~~Limited cooperation from fishers~~

Crucial for many AMS

MCS system exists but coverage is limited, particularly for small-scale, inland, and nearshore fisheries.

Human resources and technical capacity remain limited for science-based management

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

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

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

	Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Thailand	Vietnam
i	/	/	/	/	/	N/A	/	/
ii	/	/	/			N/A		/
iii	/	/	N/A		/	/	/	/
iv	/	/				N/A		
v	/	/				N/A	/	
vi	/	/				N/A		
vii	/	/		/		/	/	/
viii	/	/	/	/	/	/	/	/
ix	/	/	/	/	/	N/A	/	/
x	/	/	/	/	/	N/A	/	/
xi	/	/	/	/	/	N/A	/	/
xii	/	/	/	/		N/A	/	/
xiii	/	/	/	/		/		/
xiv	/	/	/	/	/	/		

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

- 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
- Considering **socioeconomic of fishers** in formulation of management measures

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

- Establish/ strengthen **co-management** with communities
- Introduction of more **sustainable fishing gears**
- Development of more efficient **post harvest and processing equipment**

THANK YOU

REGIONAL RECOMMENDATIONS ON THE FUTURE DIRECTION OF PELAGIC FISHERIES

1.

Report of the Forty-eighth Meeting of the Program Committee of the Southeast Asian Fisheries Development Center

3–5 November 2025

Langkawi, Malaysia

3.1.1 Strategy I: Securing the sustainability of fisheries to contribute to food security, poverty alleviation and livelihood of people in the region

Future activities should emphasize **integrating digital data platforms** and **strengthening capacity building** to support the ASEAN Member States (AMSs) that continue to face challenges in collecting and harmonizing fishery statistics data. He highlighted the importance of interagency coordination at the national level, particularly among research, enforcement, and policy authorities.

INTEGRATION OF DATA: interagency coordination at the national level, particularly among research, enforcement, and policy authorities

Brunei: at the moment, no integration. in future, maybe integration between department as Brunei is moving towards digitalization

Cambodia - Data upload online, to Fish Stat. MaFREDi (research institute) and Fisheries Administration has good integration of data

Indonesia ; clean and clear data is very important. Integration plan between National level, local level, universities, partner (NGO) and stakeholder.

Malaysia: Akta Perkongsian Data. At moment, no integration, manually exchange.

CAPACITY BUILDING PROGRAM

Programmes focus on **practical skills, regional consistency, and immediate applicability**, particularly for data-limited small pelagic fisheries.

Taking into consideration:

1. Gaps in conservation effort and management strategies
2. Challenges
3. Potential new strategies

- AMS to identify:
- Which programmes **already exist nationally**
- Which ones **require regional support**
- Which **2–3 programmes should be prioritised** in the next 3 years

CONSERVATION EFFORTS AND MANAGEMENT STRATEGIES (conducted by <50% AMSs)

Output control: catch Limits and Quotas
- Minimum fish size limit
- Maximum fish size limit
- Slot limit

Gear Regulations and Selectivity Improvements
- Gear marking

Fishing Effort/ Input control
- Control on the carrier vessel and mother boat
- Control the number of light boat

Ecosystem-Based Approaches
- Monitoring predator-prey dynamics (0%)
- Monitoring forage fish exploitation
- Monitoring climate-driven shifts in pelagic ecosystems (0%)

Monitoring, Control, and Surveillance (MCS)
- Electronic logbooks

Gaps: conservation efforts and management strategies should be considered in the future
-need for technology/financial support
-need better data/stock assessment

REGULATORY AND GOVERNANCE FRAMEWORKS

>50%

Governance
- Country adopting precautionary approach

Traceability and Market-Based Tools
- Eco-certifications
- [(e.g., Marine Stewardship Council (MSC)]

<50%

Governance
- Country adopting marine spatial planning

Right-Based Management
- Individual transferable quotas (ITQs)
- Community-based quota allocations

Adaptive Management
- Adjusting strategies in response to climate change impacts (0%)

Gaps: Improvement of regulatory and governance frameworks
-need better data/stock assessment

PART 3: CHALLENGES IN IMPLEMENTATION OF CURRENT CONSERVATION AND MANAGEMENT STRATEGIES

1	Financial/ budget constraint	Crucial for many AMS
2	Lack of Monitoring, Control, and Surveillance (MCS)	
3	IUU (illegal, unreported, unregulated) fishing	
4	Limited capacity (e.g., stock assessment, enforcement)	Human resources and technical capacity remain limited for science-based management
5	Lack of compliance among fishers	

MCS system exists but coverage is limited, particularly for small-scale, inland, and nearshore fisheries.

PART 4: POTENTIAL NEW STRATEGIES IN CONSERVATION EFFORTS AND MANAGEMENT OF PELAGIC FISH

- 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
- Considering **socioeconomic of fishers** in formulation of management measures
- Establish/ strengthen **co-management** with communities
- Introduction of more **sustainable fishing gears**
- Development of more efficient **post harvest and processing equipment**

CAPACITY BUILDING PROGRAM

A. STOCK ASSESSMENT

No.	Programme Title	Technical Focus	Target Participants	Format	Key Outputs / Deliverables	Suggested Timeframe
1	ASEAN Small Pelagic Stock Assessment Training course	• Data-limited methods (LBB, LBSPR, CMSY, SPM, Length Based indicator, TropFish-R) • Length-frequency analysis, uncertainty & precautionary reference points • Reproductive biology • Gear selectivity • Mapping fishing ground	Fisheries scientists, research officers, fisheries officer	Regional workshop + hands-on exercises	Trained national focal points; pilot assessments for priority species	Short-term

CAPACITY BUILDING PROGRAM

A. STOCK ASSESSMENT

No.	Programme Title	Technical Focus	Target Participants	Format	Key Outputs / Deliverables	Suggested Timeframe
2	ASEAN Small Pelagic Stock Assessment Training course	• Standardization method of fishing effort • Ecosystem Traits Index • Ecopath and Ecosim • Harvest Control Rules (HCR) design tool • Method Evaluation for Risk assessment for data limited fisheries • Ecological Index	Fisheries scientists, research officers, Fisheries Officer	Regional workshop + hands-on exercises	Trained national focal points; pilot assessments for priority species	Short-term

CAPACITY BUILDING PROGRAM

A. STOCK ASSESSMENT

No.	Programme Title	Technical Focus	Target Participants	Format	Key Outputs / Deliverables	Suggested Timeframe
3	Biological Sampling & Life-History Data Training	Standardised sampling protocols (length, maturity, age), sampling design	Field enumerators, researchers, Fisheries Officer	Training + field-based practicum	ASEAN sampling protocols; improved biological datasets	Short-term
4	Regional Training on Co management and socio-economics	-Co-management -Supply Chain of Fisheries Resources -Socioeconomic related to fisheries management and policy (*indicators*)	Fisheries scientists, research officers, Fisheries Officer	Regional workshop + hands-on exercises	Trained national focal points; pilot assessments for priority species	Short-term
5	National/regional Training for stock assessment	Stock assessment	Uni student, Fishers, Communities	Workshop + hands-on exercises	Trained related stakeholeders (fishers, locals)	Short terms

CAPACITY BUILDING PROGRAM

B. DATA ANALYSIS & MANAGEMENT

No.	Programme Title	Technical Focus	Target Participants	Format	Key Outputs / Deliverables	Suggested Timeframe
1	ASEAN Fisheries Data Analytics & Visualization Training	Data cleaning, time-series analysis, visualization (R, QGIS), dashboard and AI	Data analysts, scientists Fisheries Officer	Hands-on regional training	Standard analysis scripts; improved national reporting	Short-term
2	Regional Fisheries Database & Interoperability Programme	Database design, metadata standards, data governance	Fisheries IT & data officers	Technical workshops + peer learning	Agreed data standards; roadmap for regional database	Short tem

CAPACITY BUILDING PROGRAM

B. DATA ANALYSIS & MANAGEMENT

No.	Programme Title	Technical Focus	Target Participants	Format	Key Outputs / Deliverables	Suggested Timeframe
3	Science-to-Policy Translation Programme	Translating stock assessments , socioeconomic, ecological into management advice; HCRs, -Regulatory Impact Assessment Indicator -Marine Spatial Planning	Scientists & managers	Joint workshops	Policy briefs; improved uptake of science	Short term

2. OUR DIRECTION

OUR TASK 2024-2026

1. IMPLEMENTATION STATUS OF THE RPOA-CAPACITY, FISHING CAPACITY PROFILES, FISHING EFFORT AND STOCK STATUS IN ASEAN MEMBER STATES (AMSS) AND ASSESSMENT OF FISHING CAPACITY
2. COMPILATION AND ENHANCEMENT OF RELEVANT EXISTING FISHERIES INFORMATION SYSTEMS/MECHANISMS
3. HARMONIZATION OF INDICATORS FOR SUSTAINABLE PELAGIC FISHERIES IN SOUTHEAST ASIA
4. CONSERVATION AND MANAGEMENT STRATEGIES OF PELAGIC FISHERIES

WHATS NEXT?- STOP AT RTC?

-Future Directions?

ASEAN REGIONAL ROADMAP FOR PELAGIC FISHERIES (2026–2035)

Vision

Sustainable, resilient, and well-managed pelagic fisheries in ASEAN through coordinated regional action, science-based management, and effective monitoring.

-To ensure the long-term sustainability, resilience, and equitable use of pelagic fishery resources in ASEAN waters through coordinated regional management, strengthened scientific capacity, and effective monitoring and compliance.

- **Strategic Pillars**
- Regional Governance & Coordination
- Science, Stock Assessment & Data
- Monitoring, Control & Surveillance (MCS)
- Capacity Building & Technology
- Socio-economic Sustainability

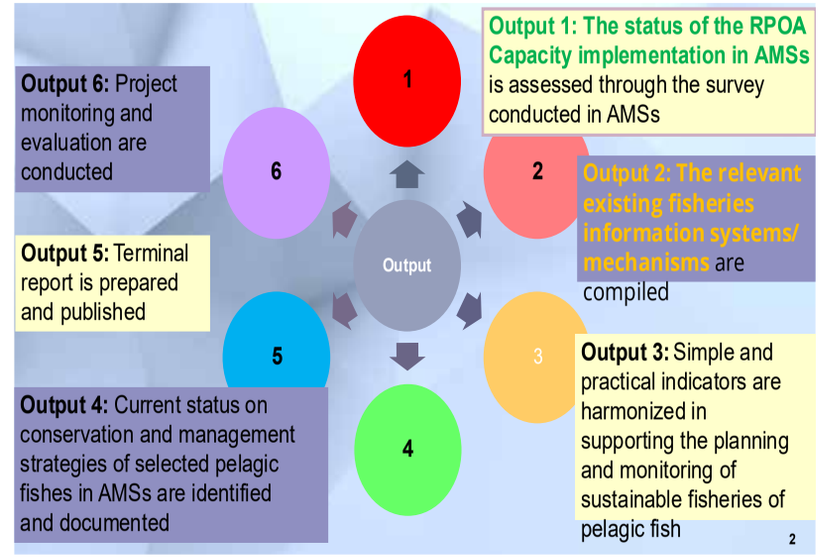
RECOMMENDATION ON THE FUTURE DIRECTION OF PELAGIC FISHERIES (2026 –2035)

PHASE 1: FOUNDATION (2026–2027)	PHASE 2: INTEGRATION & PILOTS (2028–2030)	PHASE 3: CONSOLIDATION (2031–2035)
Objective: Build common ground and technical capacity 1. **Strengthen** Scientific Working Group on Stock Assessment for neritic tunas in the Southeast Asian waters "SWG-Neritic tunas" 2. Agree on 3–5 priority pelagic species/indicator 3. Conduct regional stock assessment & MCS training	**Objective:** Implement joint regional actions 1. Conduct regional / sub-regional stock assessments 2. Pilot regional data-sharing mechanisms	**Objective:** Institutionalise and adapt 1. Regular regional/national stock assessments 2. Integrate climate & ecosystem indicators 3. Monitor socio-economic impact
Key Outputs: ✓Trained national focal points ✓Agreed data standards ✓Regional baseline understanding	**Key Outputs:** ✓Regional assessment reports	**Key Outputs:** ✓Regional ssessment reports ✓Climate-responsive management

THANK YOU

The Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Resources in Southeast Asia
6 – 8 January 2026
Port Dickson, Malaysia

WAY FORWARD OF THE PROJECT



Overall Progress & Workplan

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Outputs 1: The status of the implementation of RPOA -Capacity in AMSs is assessed through the survey conducted in AMSs								
Activity 1: Management and Assessment of Fishing Capacity								
Sub-Activity 1.1: Workshop for Developing Questionnaire for Management and Assessment of Fishing Capacity	X							
Sub-Activity 1.2: Regional Hybrid Kick-Off Meeting and Finalization of the Questionnaire		X						
Sub-Activity 1.3: Regional Technical Consultation (RTC) on Fishing Capacity Profiles and Implementation Status of the RPOA-Capacity in the Asian Region			X					
Sub-Activity 1.4: Workshop on the Analysis of the Regional Fishing Capacity Questionnaire				X				

3

Overall Workplan

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 2: The relevant existing fisheries information systems and mechanisms are compiled and enhanced								
Activity 2: Compilation and Enhancement of Relevant Existing Fisheries Information System / Mechanisms								
Sub-Activity 2.1: Workshop for developing questionnaires on the current status of existing fisheries statistics and information or relevant system in AMSs		X						
Sub-Activity 2.2: The Regional Technical Consultation (RTC) on Current Status of the Regional Fisheries Information or Mechanism in the Asian Region				X				
Sub-Activity 2.3: Workshop on the Assessment of Regional Fisheries Information/Mechanism Questionnaire					X			

4

Overall Workplan

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 3: Simple and practical indicators are standardized in supporting the planning and monitoring of sustainable fisheries of pelagic fish								
Activity 3. Standardization of Simple and Practical Fisheries Indicators								
Sub-Activity 3.1: Regional Technical Consultation on the Harmonization of Simple and Practical Indicators for Sustainable Pelagic Fisheries in Southeast Asia						X		

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Overall Progress & Workplan

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 4: The current status on conservation and management strategies of selected pelagic fishes in AMSs are identified and documented								
Activity 4: Compilation and Assessment of Management Strategies of Selected Pelagic Species								
Sub-Activity 4.1: Workshop for Developing Questionnaire on the Conservation Efforts and Management Strategies in AMSs					X			
Sub-Activity 4.2: Regional Technical Consultation (RTC) on Conservation Efforts and Management Strategies of Selected Pelagic Fisheries Resources in AMSs							X	
Sub-Activity 4.3: Workshop on the Analysis of Regional Management Strategies of Selected Pelagic Fisheries Resources in AMSs Questionnaire							X	

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Overall Progress & Workplan

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 5: Terminal report is prepared and published								
Activity 5: Compilation and publication of the terminal report								
Sub-Activity 5.1: Workshop on Compilation information for the success stories in AMSs							X	
Sub-Activity 5.2: Workshop on Compilation information for the draft of the terminal report							X	
Sub-Activity 5.3: Workshop on Harmonization of the draft of the terminal report							X	
Sub-Activity 5.4: Workshop on Finalization of terminal report								X

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Overall Progress & Workplan

	2024		2025				2026	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 6: Project monitoring and evaluation are conducted								
Activity 6: Project monitoring and evaluation								
Sub-Activity 6.1: Midterm Review and Evaluation Meeting				X				
Sub-Activity 6.2: Project terminal review and evaluation workshop								X

8

Way Forward for the Project Activities

Sub-Activity	Expected Output	Proposed Date
4.3: Workshop on the Analysis of Regional Management Strategies of Selected Pelagic Fisheries Resources in AMSs Questionnaire	Management strategies of selected pelagic fisheries resources in AMSs are analyzed and summaries.	Feb 2026
5.1 Compilation information for the success stories for AMSs	Success stories for AMSs were compiled.	Feb 2026
5.2. Compilation information for the draft of the terminal report	Draft terminal report was compiled.	March 2026
5.3. Harmonization of the draft of terminal report	Draft terminal report was harmonized.	March 2026
5.4 Finalization of terminal report.	Terminal report has finalized and published.	April 2026
6.2 Project terminal review and evaluation workshop	Project terminal review and evaluation workshop has been conducted.	April 2026

Way Forward for Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Resources in Southeast Asia

Update the conservation measures and management strategies – 30 January 2026

Publish Report of the Regional Technical Consultation on the Conservation Efforts and Management Strategies of Pelagic Resources in Southeast Asia

Publish Regional Recommendations on the Future Direction of Pelagic Fisheries

Terima Kasih

Thank You

ANNEX 29

CLOSING REMARKS

The Regional Technical Consultation (RTC) on The Conservation Effort and Management Strategies of Pelagic Fisheries Resources in Southeast Asia,
6-8 January 2026
Port Dickson, Negeri Sembilan, Malaysia.

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

السَّلَامُ عَلَيْكُمْ وَ رَحْمَةُ اللهِ وَبَرَكَاتُهُ

A very good morning.

Our Distinguished Resource Person, Assoc. Prof. Dr. Rumeaida Mat Piah from University Malaysia Terengganu

Ms. Pattaratjit Kaewnuratchadason, Policy and Program Coordinator of SEAFDEC

Ms. Mazalina Ali, Project Coordinator for the Regional Project of Fishing Capacity and also the Special Departmental Coordinator of SEAFDEC/MFRDMD

Dr. Supapong Pattarapongpan, SEAFDEC Training Department

Representative from Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, The Philippines, Thailand, Viet Nam.

Representatives from the Department of Fisheries Sabah, Fisheries Research Institute Kg. Acheh Perak, FRI Batu Maung Penang, FRI Bintawa Sarawak, Department of Marine Fisheries Sarawak, as well as officers and staffs from SEAFDEC/MFRDMD.

Ladies and gentlemen,

Today is the last day of our Regional Technical Consultation Workshop on Conservation Efforts and Management Strategies of Pelagic Fisheries Resources in Southeast Asia, under the project of "Implementation and Assessment of the ASEAN Regional Plan of Action (RPOA) for Management of Fishing Capacity. I think we have already archived the objectives of this workshop.

This workshop became a platform for us to discuss on conservation challenges facing our region, examined management measures currently in place, and shared experiences, success stories and best practices from across Southeast Asia. Our discussions clearly demonstrate both the complexity of the issues we face and the potential management strategies to address them.

Southeast Asia is one of the world's most biologically diverse regions, yet it is also among the most vulnerable to environmental pressures. We have identified the top five dominant issues

for conservation effort in our region; Illegal, unreported, unregulated fishing (IUU), used of unsustainable fishing gears, lack of regular fish stock assessment, overfishing and lack of regulated or authorised fish landing sites. In this context, the importance of science-based management, effective policy frameworks, and strong regional collaboration cannot be overstated. We have also discussed the gaps, challenges, potential new strategies in conservation efforts and management strategies, and the recommendation programs for future direction of Pelagic Fisheries.

The outcomes of this consultation should not be seen as the end of our efforts, but as a foundation for continued action. The recommendations, shared lessons, and networks established here, and continued cooperation are essential to ensure that our conservation and management measures will give a lasting impact.

Ladies and gentlemen,

I would like to express my sincere appreciation to our resource person Associate Professor Dr. Rumeaida Mat Piah from Universiti Malaysia Terengganu for hard working in summarising the information given by member countries, representatives from the AMSs for your interesting and informative presentation and your active participation with the spirit of collaboration, which have been key to the success of this workshop.

My appreciation also to the members of workshop secretariat and officers of MFRDMD for their tireless effort to ensure this workshop is held as scheduled.
I on behave of MFRDMD apologize for any shortcoming occurred during this workshop. See you in the next workshop and safe journey home.

With that, I officially declare the meeting is closed. Thank you very much.

APPENDIX

Meeting images photographed by Mr. Noredzuan Hakimi Ghani

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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 Vietnam.

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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