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REPORT ON THE CURRENT STATUS OF THE REGIONAL FISHERIES INFORMATION SYSTEMS/ MECHANISM IN AMSs

JULY 2025

SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER (SEAFDEC)
MARINE FISHERY RESOURCES DEVELOPMENT AND MANAGEMENT DEPARTMENT (MFRDMD)

IMPLEMENTATION AND ASSESSMENT OF THE ASEAN REGIONAL PLAN OF ACTION FOR MANAGEMENT OF FISHING CAPACITY:

Report on The Current Status of the Regional Fisheries Information Systems/Mechanisms in AMSs

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ABBREVIATION & ACRONYMS

AN-IUU	ASEAN Network on Illegal, Unregulated and Unreported fishing
AMS	ASEAN Member States
ASEAN	Association of Southeast Asian Nations
BDNSW	Brunei Darussalam National Single Window
CPUE	Catch Per Unit Effort
DOF	Department of Fisheries
DOSM	Department of Statistics (Malaysia)
e.g.	Exempli gratia (for example)
eACDS	Electronic ASEAN Catch Documentation System
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FiA	Fisheries Administration
FeLIS	Fishing Vessel Electronic Licensing System (Philippines)
FSW	Fisheries Single Windows
GT	Gross Tonnage
GRT	Gross Register Tonnage
FCMAS	Fish Catch Monitoring Assessment Survey
IOTC	The Indian Ocean Tuna Commission
IDM	Import Movement Document
IUU	Illegal, Unreported, and Unregulated
JAIF	Japan ASEAN Integration Fund
KPASM	Kajian Penggunaan Agromakanan Segar (Malaysia)
LKIM	Fisheries Development Authority/ Lembaga Kemajuan Ikan Malaysia (Malaysia)
LOA	Length Overall
LOV	Landings of Vessel
MCPD	Marine Catch Purchase Documents (Thailand)
MFRDD	Marine Fisheries Research and Development Division (Thailand)
MFRDMD	Marine Fishery Resources Development and Management Department
MFVR	Malaysia Fishing Vessel Record
MMAF	Ministry of Marine Affairs and Fisheries
MPABD	Maritime and Port Authority of Brunei Darussalam
MSY	Maximum Sustainable Yield
PS	Processing Statement
PPS	Processing Statement System
PSM	Port State Measures
RFVR	Regional Fishing Vessels Record
RPM	Revolutions per Minute
RPOA	Regional Plan of Action
RTC	Regional Technical Consultation
SEAFDEC	Southeast Asian Fisheries Development Center
SENDI	*Laporan Banci Sosioekonomi Nelayan dan Data Isi Rumah* (Malaysia)
SIUP	Fisheries Business License (Indonesia)
SMPP	Sistem Maklumat Perangkaan Perikanan (Malaysia)
TFCC	Thai Flagged Catch Certificate
VMS	Vessel Monitoring System

GLOSSARY

TERM	DEFINITION
Bycatch	Refers to the unintended capture of non-target species while fishing for a specific type of fish or seafood.
Commercial	A commercial fishing vessel is a boat or ship that is used to catch fish and other seafood for sale and profit, rather than for personal use or recreation.
Discard	Refers to the portion of the catch that is thrown back into the sea—either dead or alive—instead of being landed or kept.
Economic value of fish resources	Refers to the worth or benefit that fish resource provides in terms of money or other measurable economic gain. Example, market value, commercial value, subsistence value, Ecological and indirect economi value, recreational value.
Fishing gears per vessel	Refers to the number or types of fishing gear that are used onboard a single fishing vessel.
Fishing vessel	A fishing vessel is a type of boat or ship that is specifically used for catching fish in the sea.
Fishing vessel by type	Refer to classifying fishing boats or ships based on the type of fishing gear they use to catch fish or other seafood.
International fishers	Refers to people who are employed in a country other than their country of origin.
Licensed	Has been approved formally by the relevant authority. Example; the number of fishing vessels licensed is the number of fishing vessels approved by the authority to fished in certain area.
Local fishers	Refers to employees who are citizens of a particular country.
Pelagic fish"	Refers to fish that live in the pelagic zone of the ocean, which means they inhabit the open water column, not near the bottom (benthic zone) or the shore (coastal areas). These fish are typically found in the midwater or surface layers of the sea.
Recreational	Recreational fishing (also known as sport fishing) is fishing done primarily for enjoyment, relaxation, or competition, rather than for commercial purposes or to obtain food for survival.
Small-scale	A small-scale fishing vessel refers to a relatively small boat or ship used for fishing, typically operated by individuals, families, or small crews and are often manually powered or use small engines. They're commonly used in coastal or inland waters, not far from shore. These vessels are often part of artisanal or traditional fisheries.
Supply chain of the landing	Refers to the entire process and flow of fish and seafood from the moment they are caught (landed) at the dock or port, all the way to the final consumer.
Unlicensed	Has not been approved formally by the relevant authority.

EXECUTIVE SUMMARY

Strong fisheries information systems and effective management mechanisms are vital for balancing sustainable resource use with the socio-economic needs of fishing communities. Systematic data collection and utilization enhance transparency, support evidence-based policymaking, and contribute to the long-term sustainability of fisheries. A comprehensive review of the fisheries information systems and mechanisms across all ASEAN Member States (AMSs) has been completed. The findings shared in this report provide a solid foundation for strengthening ASEAN collaboration and guiding future strategies that promote responsible fisheries management and ensure the sustainability of regional fishery resources.

General information in marine capture fisheries

All nine (9) AMSs collect formal fishing and effort data for licensed vessels, only Indonesia and Thailand conduct data collection to unlicensed vessels. Similar gaps are observed in records of vessel types and fishing gears. Although registration and licensing procedures vary across countries, all AMSs maintain records of fishing gears used by licensed vessels except in Singapore where regulations stipulate that each vessel may operate only a single gear type. Overall, the region demonstrates strong data systems for licensed fleets but continues to face limitations in documenting unlicensed fishing activities.

Across AMSs, **purse seiners** are the most dominant fishing vessels in pelagic fish production, reported by six AMSs (Brunei Darussalam, Indonesia, Malaysia, Myanmar, Thailand and Viet Nam). Effort data indicate that **the number of trips per month and the number of days per trip** are the most commonly recorded effort types. Indonesia, Malaysia, Thailand, and Viet Nam record a wide range of effort data across their dominant gear types. Philippines provides data but clarifies that it applies only to commercial and municipal vessels. Indonesia consistently records the widest set of effort variables across all gear categories.

Most AMSs record vessel identification markings, tracking systems, and reporting systems. More specialized technical details such as propeller type, speed on trials, and hull conversion year are generally not captured. Cooling and fish-hold capacity are recorded by all AMSs except Philippines and Singapore. In addition, information on navigation and fish-tracking devices is available for all AMSs except Myanmar and Singapore.

In terms of data collection, all AMSs except Cambodia obtain the information on commercial landings from **government fish landing ports**. Cambodia records their marine landings for both commercial and small-scale fisheries from private fish landing ports. Government enumerators and fishers' records are the most commonly used sources. **Monthly data collection** is common in all AMSs, except in Philippines where data collection is conducted daily for both commercial and small-scale fisheries. Across AMSs, data collection is generally comprehensive, with landings documented according to fishing gear, vessel type, and fishing area for both commercial and small-scale fisheries.

National fisher records are most commonly categorized by fishing gear, vessel size (excluding Brunei Darussalam), fishing zone or area (also excluding Brunei Darussalam), gender, and age. Ownership status is also documented by all AMSs except Philippines. In contrast, data on foreign fishers remain limited, with only Brunei Darussalam, Malaysia, Myanmar, and Thailand reporting figures based on fishing gear, vessel size, and fishing zones or areas.

Inland and recreational fisheries

Inland fisheries data, including the number of fishers is available for Cambodia, Indonesia, Malaysia, Myanmar, and Thailand. At present, Brunei Darussalam, Philippines, and Viet Nam do not record landings from inland fisheries; however, the number of inland fishers is available for the Philippines. No information for inland fisheries is reported from Singapore.

Information on recreational fisheries in AMSs is still scarce. Data on both marine and freshwater recreational fisheries are available only in Malaysia, while Brunei Darussalam records the number of marine recreational fishers by fishing gear type.

Fisheries Trade and Value Chain

AMSs have extensive information on the import and export of fisheries commodities. Data are primarily collected through customs declaration, import/export permits. AMSs also implement specific documentation procedures, guidelines, or schemes to regulate the trade of fishery commodities. All AMSs (except Viet Nam) have comprehensive information on fishery products, commodities, and supply chains. Fresh, chilled (whole), preserved, salted, and dried products are the most commonly reported across the region. Additional commodities include seaweed, aquatic plants, and ornamental fish. Furthermore, all AMS (except Malaysia and Viet Nam) track the national marketing and distribution of these products by location and volume.

No fisheries trade and value chain information is available from Singapore.

Fisheries Information System/Mechanisms

All AMSs, except Singapore, maintain fisheries statistics and information systems. Systematic fish landing data collection is conducted nationally across all AMSs. These information systems are centralized in every country except Philippines and Singapore. Indonesia, Malaysia, Myanmar, the Philippines, and Thailand declare public sharing of information, with fisheries statistical databases and websites readily accessible, most commonly through the respective Departments of Fisheries. Brunei Darussalam provides some data for public access, though more detailed information requires a formal request. In contrast, Cambodia and Viet Nam do not publicly share landing data, which are available only upon request.

All AMSs maintain mechanisms for sharing data with regional and international bodies, including the Food and Agriculture Organization (FAO) and the Southeast Asian Fisheries Development Center (SEAFDEC).

Conclusion and Recommendations

From the feedback received, it can be concluded that most AMSs maintain national fisheries information systems for marine capture fisheries. Landing data, vessel characteristics, and fishing effort are widely recorded for commercial fisheries. In addition, CPUE and economic data are reported in most countries. Data-sharing mechanisms with regional and international bodies (e.g., FAO, SEAFDEC) are established across all AMSs. Some countries have also developed advanced digital systems, such as Thailand's *Fisheries Single Window* and Indonesia's traceability initiatives.

On the other hand, several data gaps remain. Information on unlicensed vessels, small-scale fisheries, inland fisheries, and recreational fisheries is still limited. Coverage of environmental parameters, discards, and bycatch is incomplete, despite their importance for resource management. Limited compatibility with regional and global databases has also been observed, alongside variability in data accessibility and comprehensiveness across AMSs.

To strengthen fisheries management and regional cooperation, the gaps in data coverage, integration, standardization, and accessibility must be addressed. Recommended actions include expanding data coverage to include small-scale, inland, and recreational fisheries, improving the collection and integration of environmental and ecosystem-related data, standardizing reporting on bycatch, discards, and fish life stages and enhancing public accessibility and transparency of fisheries information systems.

INTRODUCTION

Fisheries information systems and mechanisms encompass the processes of collecting, managing, and disseminating data on fisheries. The collection of reliable data forms the foundation for informed decision-making, where management authorities must ensure that information is properly analysed, effectively disseminated, and appropriately applied in policy and planning processes (FAO, 1997).

Effective fisheries management depends on accurate information and well-defined mechanisms that balance resource conservation with the needs of fishing communities. For example, Regulation (EU) 2017/1004 establishes rules for the collection, management, and use of biological, environmental, technical, and socioeconomic data to support fisheries sector management (EUR-Lex, 2017).

Fisheries information refers to data and knowledge collected on various aspects of fisheries, including biological information, catch and effort data, socioeconomic data, environmental information, and legal and institutional frameworks. Fisheries mechanisms are the structures and processes used to manage and utilize this information. These include data collection systems, data management and analysis tools, decision-making and governance mechanisms, and reporting and communication platforms (FAO, 1997; National Research Council, 2000).

In line with the Resolution and Plan of Action for the ASEAN Region Towards 2030, Malaysia, in collaboration with the Southeast Asian Fisheries Development Center/Marine Fishery Resources Development and Management Department (SEAFDEC/MFRDMD), is leading the *Implementation and Assessment of the ASEAN Regional Plan of Action for the Management of Fishing Capacity* project. Running from April 2024 to March 2026, the project is supported by the Japan-ASEAN Integration Fund (JAIF) and involves government agencies responsible for fisheries management across ASEAN Member States (AMSs), excluding Lao PDR.

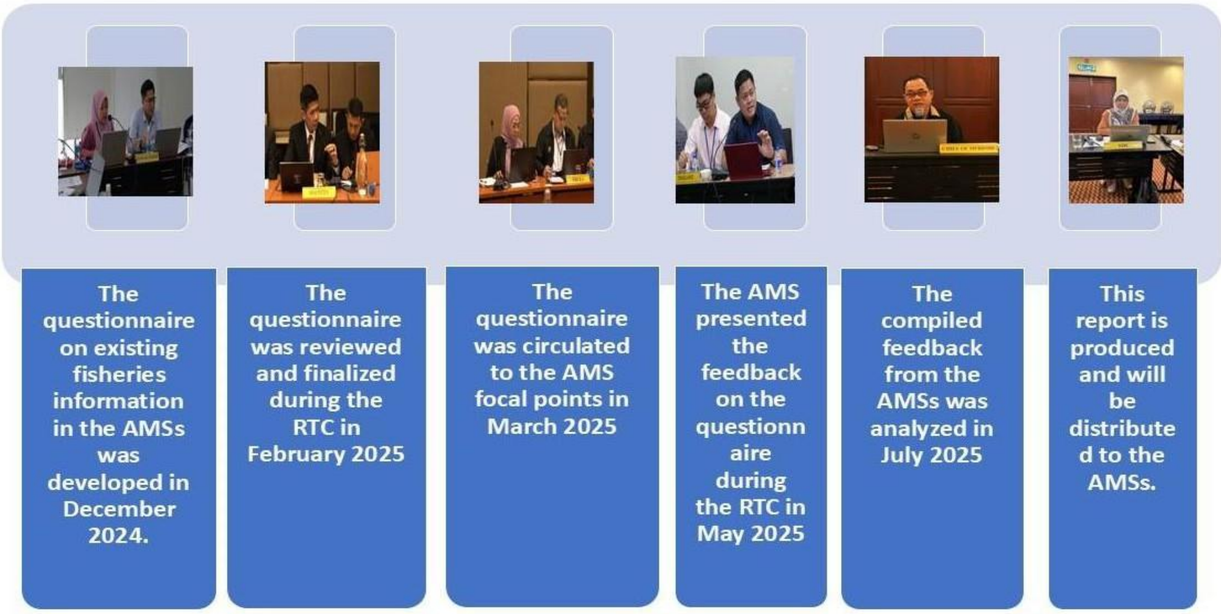
The primary objective of the project is to strengthen ASEAN cooperation and enhance regional fisheries information systems by implementing the Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity) in selected pelagic fisheries. This initiative aims to promote sustainable resource management and environmental well-being across the region.

The project comprises six key outputs representing its direct results. For the **second output**: *compilation and enhancement of relevant existing fisheries information systems and mechanisms,* SEAFDEC/MFRDMD adopted a questionnaire-based approach.

This process began with the development of initial questionnaires during the Workshop for Developing Questionnaire on the Current Status of Existing Fisheries Statistics and Information or Relevant Systems in AMSs, held in 24 -26 December 2024 in Kelantan. The questionnaire was designed to gather information on existing fisheries information systems and mechanisms across all AMSs, identifying current practices and gaps that could be addressed in future initiatives.

Following this, the questionnaire was finalized during the Regional Technical Consultation (RTC) held on 25–27 February 2025 in Kuala Lumpur and subsequently distributed to the focal points of the nine (9) AMSs in March. In May, seven (7) AMS representative (Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Thailand, and Viet Nam) presented their feedback on the questionnaire during the RTC on the Current Status of Regional Fisheries Information Systems/Mechanism, convened on 28–30 May 2025 at TAMU Hotel & Suites, Kuala Lumpur.

All feedback received from the nine AMSs, namely Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam were compiled and analysed during the Workshop on the Assessment of the Regional Fisheries Information/Mechanism Questionnaire, held on 17–18 July 2025 in Cherating, Pahang.



The findings from this analysis have been documented in this report. This report presents a comprehensive analysis of the existing fisheries information systems and mechanisms across AMSs. It serves as a valuable resource for enhancing ASEAN cooperation and guiding future strategies to promote responsible fisheries management and sustainability in the region. This questionnaire aims to obtain information related to the existing fisheries information systems or mechanisms in all AMSs. The outcomes of this project provide insights into current systems and mechanisms while identifying gaps that can be addressed in future initiatives.

CHAPTER 1

GENERAL INFORMATION IN MARINE CAPTURE FISHERIES

GENERAL INFORMATION IN MARINE CAPTURE FISHERIES

1.1 FISHING EFFORTS

Fishing effort in capture fisheries is generally defined as the amount of fishing gear of a specific type deployed on fishing ground(s) over a given period of time (e.g., the duration of a fishing operation, fishing activity, or fishing trip) (FAO, 2022).

All nine (9) AMSs maintain formal data on fishing effort for licensed fishing vessels; however, information on unlicensed fishing vessels is generally lacking, with the exception of Indonesia and Thailand (**Table 1**).

A similar pattern was observed in the availability of information on licensed fishing vessels by type and on fishing gears. Fishing vessels engaged in commercial and small-scale fisheries in Brunei Darussalam are registered with the Maritime and Port Authority of Brunei Darussalam. Fisheries Administration (FiA) of Cambodia regulates the fishing vessel registration and licensing. Fishing vessels in Myanmar must be registered with the Department of Fisheries (DOF), whereas in Malaysia all fishing vessels are required to be both registered and licensed by the DOF Malaysia. Singapore currently has 17 licensed fishing vessels operating in inshore fisheries. All AMSs maintain records of the fishing gears used by each licensed vessel, except in Singapore where regulations stipulate that each fishing vessel is licensed to use only one type of fishing gear.

Table 1. The information on fishing effort recorded in marine capture fisheries

State	**Fishing vessel**		**Fishing vessel by type**		**Fishing gears per vessel**		**Each type of fishing gears for that year**	
	L	U	L	U	L	U	L	U
Brunei DS	✓	✗	✓	✗	✓	✗	✓	✗
Cambodia	✓	✗	✓	✗	✓	✗	✓	✗
Indonesia	✓	✓	✓	✓	✓	✓	✓	✓
Malaysia	✓	✗	✓	✗	✓	✗	✓	✗
Myanmar	✓	✗	✓	✗	✓	✗	✓	✗
Philippines	✓	✗	✓	✗	✓	✗	✓	✗
Singapore	✓	✗	✓	✗	✗	✗	✓	✗
Thailand	✓	✓	✓	✓	✓	✓	✓	✓
Viet Nam	✓	✗	✓	✗	✓	✗	✓	✗

Note: L=licensed, U=unlicensed

All AMSs reported the three dominant fishing vessel types for pelagic fish production (**Table 2**). **Purse seine** is the most dominant fishing vessel type among AMSs, reported by Brunei Darussalam, Indonesia, Malaysia, Myanmar, Thailand, and Viet Nam. Singapore listed only gill netter as the fishing vessel type contributing to pelagic fish production.

The fishing effort data recorded during operations in AMSs is categorized according to the most dominant, second dominant, and third dominant fishing vessel types in each country (**Tables 3a**, **3b**, and **3c**). **The number of trips per month** and **the number of days per trip** are the most commonly recorded fishing effort indicators among AMSs. Countries such as Indonesia, Malaysia, Thailand, and Viet Nam document the widest range of effort types. In contrast, Philippines marked "YES" for all data categories but clarified that this applies only to commercial vessels and is not specific to the three dominant gear types.

Table 3b focuses on the second most used gear type in each country (e.g., gillnets, hook and lines, handlines), and assesses the same effort indicators as **Table 3a**. Some countries, such as Indonesia and Thailand continue to record a broad range of effort data. Philippines again demonstrates comprehensive data recording, though this applies only to small-scale municipal vessels.

Table 3c presenting the third most common fishing gear (e.g., trawlers, ring nets, falling nets) and the same effort indicators. In Malaysia, the number of hooks for trawlers were recorded only for C3 vessels. Overall, only a few countries collect detailed effort data at this level, while Indonesia remains consistent in recording most data types across all gear categories.

Table 2. The three most dominant types of fishing vessels on pelagic fish production

	Most dominant	**Second dominant**	**Third dominant**
Brunei DS	Purse Seine	Pole and Line	Drift Gill Net
Cambodia	Bottom/midwater trawl	Gill /drift net	Anchovy seine net
Indonesia	Purse Seine	Hook and Lines	Gillnet
Malaysia	Purse Seine	Drift Net	Trawler
Myanmar	Purse Seine	Gillnetter (Drift)	Long Line
Philippines	Tuna Purse Seine	Tuna Handline	Ringnet
Singapore	Gill netter	-	-
Thailand	Purse Seine	Gillnet	Pair trawl
Viet Nam	Purse seine	Gill net	Falling net

Table 3a. Type of fishing effort/s recorded during fishing operation for each fishing gear (the most dominant fishing vessel)

	Brunei DS	**Cambodia**	**Indonesia**	**Malaysia**	**Myanmar**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**
	Purse Seine	Bottom/ midwater trawl	Purse Seine	Purse Seine	Purse Seine	Tuna Purse Seine	Gill net	Purse Seine	Purse Seine
Trips per month	✅	✅	✅	✅	✅	* Philippines answered YES FOR ALL for COMMERCIAL VESSELS (Not According to the Three Types of Fishing Vessels)	N/A	✅	✅
Days per trip	✅	✅	✅	✅	✅		N/A	✅	✅
Hour per trip	✅	✅	✅	❌	❌		N/A	✅	❌
Haul per days	❌	❌	✅	❌	❌		N/A	✅	✅
Haul per hour	❌	❌	✅	❌	❌		N/A	✅	✅
Hour of fishing operation per day	❌	❌	✅	❌	❌		N/A	✅	❌
The number of traps per boat	❌	❌	❌	❌	❌		N/A	❌	❌
Trap setting	❌	❌	❌	❌	❌		N/A	❌	❌
Hour of trap submerged in the water (soaking time)	❌	❌	❌	❌	❌		N/A	❌	❌
The number of hooks	❌	❌	❌	❌	❌		N/A	❌	❌
Hook setting	❌	❌	❌	❌	❌		N/A	❌	❌

Table 3b. Type of fishing effort/s recorded during fishing operation for each fishing gear (second dominant fishing vessel)

	Brunei DS	**Cambodia**	**Indonesia**	**Malaysia**	**Myanmar**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**
	Pole and Line	Gill /drift net	Hook and Lines	Drift Net	Gillnetter (Drift)	Tuna Handline	-	Gill net	Gill net
Trips per month	✓	✓	✓	✓	✓	* Philippines answered YES FOR ALL for COMMERCIAL VESSELS (Not According to the Three Types of Fishing Vessels)	N/A	✓	✓
Days per trip	✓	✓	✓	✓	✓		N/A	✓	✓
Hour per trip	✓	✓	✓	✗	✗		N/A	✓	✗
Haul per days	✗	✗	✓	✗	✗		N/A	✓	✓
Haul per hour	✗	✗	✓	✗	✗		N/A	✓	✓
Hour of fishing operation per day	✗	✗	✓	✗	✗		N/A	✓	✗
The number of traps per boat	✗	✗	✗	✗	✗		N/A	✗	✗
Trap setting	✗	✗	✗	✗	✗		N/A	✗	✗
Hour of trap submerged in the water (soaking time)	✗	✗	✗	✗	✗		N/A	✗	✗
The number of hooks	✓	✗	✓	✗	✗		N/A	✗	✗
Hook setting	✗	✗	✓	✗	✗		N/A	✗	✗

Table 3c. Type of fishing effort/s recorded during fishing operation for each fishing gear (third dominant fishing vessel)

	Brunei DS	**Cambodia**	**Indonesia**	**Malaysia**	**Myanmar**	**Philippines**	**Singapore**	**Thailand**	**Viet Nam**
	Drift Gill Net	Anchovy seine net	Gillnet	Trawler	Long Line	Ring net	-	Pair trawl	Falling net
Trips per month	✓	✓	✓	✓	✓	* Philippines answered YES FOR ALL for COMMERCIAL VESSELS (Not According to the Three Types of Fishing Vessels)	N/A	✓	✓
Days per trip	✗	✓	✓	✓	✓		N/A	✓	✓
Hour per trip	✓	✓	✓	✗	✗		N/A	✓	✗
Haul per days	✗	✗	✓	✗	✗		N/A	✓	✓
Haul per hour	✗	✗	✓	✗	✗		N/A	✓	✓
Hour of fishing operation per day	✓	✗	✓	✗	✗		N/A	✓	✗
The number of traps per boat	✗	✗	✗	✗	✗		N/A	✗	✗
Trap setting	✗	✗	✗	✗	✗		N/A	✗	✗
Hour of trap submerged in the water (soaking time)	✗	✗	✗	✗	✗		N/A	✗	✗
The number of hooks	✗	✗	✗	✓	✓		N/A	✗	✗
Hook setting	✗	✗	✗	✗	✗		N/A	✗	✗

1.2 VESSEL CHARACTERISTICS

This section describes the sources of information on vessel characteristics recorded by AMSs. Brunei Darussalam shares that this information is obtained from the Maritime and Port Authority of Brunei Darussalam. Philippines shares that information for commercial vessels is obtained from the FeLIS system, while the information for small-scale vessels is obtained from the Boat_R system.

For commercial vessels, the material of construction and engine horsepower (total engines) are recorded by all AMSs (**Table 4a**). Some technical characteristics are recorded only by a few AMSs. Data on details such as propeller type, revolutions per minute (RPM), trial speed, and hull conversion year are generally not documented.

All AMSs record vessel identification markings and vessel monitoring/tracking (VMS) systems for commercial vessels. In Malaysia, only Zone B and Zone C/C2 commercial vessels are required to be equipped with vessel tracking/monitoring systems. Cambodia reports that 60% of commercial fishing vessels are fitted with vessel reporting systems, in contrast to Thailand, where information on vessel reporting systems is not recorded.

AMSs record information on cooling systems, typically noting the use of cool boxes filled with ice. Capacity of fish storage is recorded by most AMSs such as Brunei Darussalam, Cambodia, Indonesia, Myanmar and Viet Nam. Navigation device information is maintained by AMSs (excluding Myanmar and Singapore), while fish-tracking devices are recorded by Brunei Darussalam, Indonesia, Malaysia, Philippines, and Viet Nam.

Table 4b shows similar characteristics, but the data pertains to small-scale vessels, which are typically less mechanized and not always formally registered. Compared to commercial vessels, data collection for small-scale vessels is far less comprehensive, especially in engine and propulsion details, monitoring and reporting systems, and storage and capacity details.

The most commonly recorded characteristics are material, length, and engine horsepower, all of which are fairly well documented. Vessel identification markings are captured by most, except Thailand, which shares that vessel marking is not compulsory for small-scale vessels. Furthermore, no AMSs record electronic equipment (e.g., navigation, tracking devices). Finally, only Brunei Darussalam and Cambodia document the type and capacity of fish storage inside small-scale vessels.

Table 4a. Vessel characteristics (Commercial vessels)

	Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
Material	✓	✓	✓	✓	✓	✓	✓	✓	✓
Length Overall (LOA)	✓	✗	✓	✗	✓	✓	✓	✓	✓
Length	✓	✓	✓	✓	✓	✗	✓	✓	✓
Overall breadth	✓	✗	✓	✓	✓	✓	✓	✓	✓
Body Depth	✓	✗	✓	✓	✓	✓	✓	✓	✓
Gross registered tonnage (GRT)/ gross tonnage (GT)	✓	✗	✓	✓	✓	✓	✓	✓	✗
Year built	✓	✗	✓	✗	✓	✓	✗	✓	✓
Country in which built	✓	✗	✗	✓	✓	✗	✗	✗	✓
Hull conversion - year	✗	✗	✗	✗	✓	✗	✗	✗	✓
Propulsive engine	✓	✓	✗	✓	✓	✓	✗	✓	✓
Type of Fuel (coal, oil, petrol/gasoline)	✓	✓	✗	✓	✓	✗	✓	✗	✓
Capacity fuel bankers	✓	✓	✗	✓	✓	✓	✗	✗	✗
Horse Power (total all engines)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Type of propeller(s)	✓	✗	✗	✓	✗	✗	✗	✗	N/A
Propeller, revolutions per minute (RPM)	✓	✗	✗	✗	✗	✗	✗	✗	N/A
Speed on trials (knots)	✓	✗	✗	✗	✓	✗	✗	✗	✓
Changes in propulsive engine	✗	✗	✗	✗	✓	✗	✗	✗	✓
Vessel identification marking	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vessel reporting system	✓	✓	✓	✓	✓	✓	✓	✗	✓
Vessel tracking/monitoring system	✓	✓	✓	✓	✓	✓	✓	✓	✓
Type of fish storage/hold	✓	✓	✓	✓	✓	✗	✗	✓	✓
Capacity of fish storage	✓	✓	✓	✗	✓	✗	✗	✗	✓
Navigation device	✓	✓	✓	✓	✗	✓	✗	✓	✓
Fish tracking device	✓	✗	✓	✓	✗	✓	✗	✗	✓

Table 4b. Vessel characteristics (Small scale vessels)

	Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
Material	✓	✓	✓	✓	✓	✓	N/A	✓	✓
Length Overall (LOA)	✗	✗	✗	✗	✓	✓	N/A	✓	✓
Length	✓	✓	✓	✓	✓	✓	N/A	✓	✓
Overall breadth	✓	✗	✓	✓	✓	✓	N/A	✓	✗
Body Depth	✗	✗	✓	✗	✓	✓	N/A	✓	✗
Gross registered tonnage (GRT)/ gross tonnage (GT)	✗	✗	✓	✓	✓	✓	N/A	✓	✗
Year built	✗	✗	✓	✗	✓	✓	N/A	✓	✗
Country in which built	✗	✗	✓	✓	✓	✓	N/A	✗	✗
Hull conversion - year	✗	✗	✗	✗	✗	✗	N/A	✗	✗
Propulsive engine	✓	✓	✗	✓	✗	✗	N/A	✓	✓
Type of fuel (coal, oil, petrol/gasoline)	✓	✓	✗	✓	✗	✗	N/A	✗	✓
Capacity fuel bankers	✓	✓	✗	✗	✗	✓	N/A	✗	N/A
Horse Power (total all engines)	✓	✓	✓	✓	✓	✓	N/A	✓	✓
Type of propeller(s)	✓	✗	✗	✓	✗	✗	N/A	✗	N/A
Propeller, revolutions per minute (RPM)	✗	✗	✗	✗	✗	✗	N/A	✗	N/A
Speed on trials (knots)	✗	✗	✗	✗	✗	✗	N/A	✗	N/A
Changes in propulsive engine	✗	✗	✗	✗	✗	✗	N/A	✗	✗
Vessel identification marking	✓	✓	✓	✓	✓	✓	N/A	✗	✓
Vessel reporting system	✗	✗	✗	✗	✗	✓	N/A	✗	✓
Vessel tracking/monitoring system	✗	✗	✗	✗	✗	✗	N/A	✗	✗
Type of fish storage/hold	✓	✓	✗	✗	✗	✗	N/A	✗	✗
Capacity of fish storage	✓	✓	✗	✗	✗	✗	N/A	✗	N/A
Navigation device	✓	✗	✓	✓	✗	✗	N/A	✗	✗
Fish tracking device	✓	✗	✗	✗	✗	✗	N/A	✗	✗

1.3 LANDING DATA: TYPES, LOCATIONS, AND COLLECTION METHODS

Location of data collection

This section presents the types, locations, and collection methods for landing data of pelagic marine resources. As shown in **Table 5**, information on marine landings is recorded at various locations. All AMSs except Cambodia obtain information on commercial landings from government fish landing ports. In contrast, Cambodia records its marine landing data for both commercial and small-scale fisheries from private fish landing ports.

In Thailand, there is no catch landing activity at private individual ports for commercial or small-scale vessels. In Indonesia, in addition to government and private fish landing ports, the data is also collected from other locations, such as fish stalls. Cambodia and Indonesia record the landing at individual stalls (village landing). Singapore only collects information on commercial landing from the government fish landing port, given that the country only has 17 licensed fishing vessels for inshore fishing.

With respect to recreational fisheries, Malaysia is the sole country that has recorded landings via individual private fish landing ports, using sampling, though these records are still underreported.

Table 5. Location of data collection

	Government fish landing port			Private fish landing port - Company			Private fish landing port - Individual		
	C	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**
Brunei DS	✓	✓	✗	✗	✗	✗	✗	✓	✗
Cambodia	✗	✗	✗	✓	✓	✗	✓	✓	✗
Indonesia	✓	✓	✗	✓	✓	✗	✓	✓	✗
Malaysia	✓	✓	✗	✓	✓	✗	✓	✓	✓
Myanmar	✓	✓	✗	✗	✓	✗	✗	✓	✗
Philippines	✓	✓	✗	✓	✓	✗	✓	✓	✗
Singapore	✓	✗	✗	✗	✗	✗	✗	✗	✗
Thailand	✓	✓	✗	✓	✓	✗	✗	✗	✗
Viet Nam	✓	✗	✗	✗	✗	✗	✓	✓	✗

Remarks: C= commercial fisheries, S= small scale fisheries, R= recreational fisheries
*Commercial: Government fish landing port (Government-linked Company)
*Small scale including Government fish landing port (Public slipways)
*Private fish landing port – individual (Houses along the coast e.g. water village)
*Others: fish stall

Source of Marine Landing Data

Government enumerators and fishers' records (with the exception of Singapore) are the most commonly used sources (**Table 6**). Brunei Darussalam shares that landing data from commercial fisheries is obtained from an electronic catch reporting system, with the Electronic Catch Documentation System (ECDS) currently under development. For small-scale fisheries, fisheries officers/personnel will conduct visits to slipways and fish markets) to collect data. In addition, the landing data is also recorded through online platforms (e.g. WhatsApp).

Indonesia and Thailand similarly utilize electronic catch reporting systems to collect data for both commercial and small-scale fisheries, and both are currently developing their Electronic Catch Documentation and Traceability Systems. In Malaysia, electronic Catch Reporting System or *Sistem Maklumat Perangkaan Perikanan (SMPP)* is used. Malaysia reports a broader range of data sources, including government enumerators, fisheries officers or personnel, fishers' records, and electronic catch reporting systems. In Philippines, fishers' records such as catch logbooks or sales receipts are used for data collection in the commercial fisheries sector, particularly for large-scale operations.

For recreational fisheries, Malaysia obtains the information from four sources: government enumerators, fisheries officers/personnel, fishers' records, and an electronic catch reporting system. However, these records are still underreported.

Table 6. Source of marine landing data

	Enumerator-private			Enumerator-government			Fisheries officer/personnel			Fisher's record (catch log book/ sales receipt)			Electronic catch reporting system		
	C	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**
Brunei DS	✗	✗	✗	✓	✗	✗	✓	✓	✗	✓	✗	✗	✓	✗	✗
Cambodia	✓	✗	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗
Indonesia	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗
Malaysia	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Myanmar	✗	✗	✗	✓	✓	✗	✓	✗	✗	✓	✓	✗	✗	✗	✗
Philippines	✗	✗	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✗	✗	✗
Singapore	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Thailand	✓	✓	✗	✓	✓	✗	✗	✗	✗	✓	✓	✗	✓	✓	✗
Viet Nam	✓	✓	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗

Remarks: C= commercial fisheries, S= small scale fisheries, R= recreational fisheries

Method of data collection

Methods of data collection are divided into two categories: collecting data from all landings or using subsampling (for example, through stratified sampling). The feedback from all AMSs is presented in **Table 7**. Brunei Darussalam, Indonesia, Malaysia, Myanmar, Singapore and Thailand record the commercial catch data from all landings. It should be noted that Brunei Darussalam has only one designated landing port for commercial fisheries. Malaysia records all landings for commercial, small-scale, and recreational fisheries, where all landings are recorded via Landings of Vessel (LOV) form for C2 vessels, and logbook for C3 vessels, and sampling for other vessels.

The subsampling method is used by all AMSs except Brunei Darussalam and Singapore for commercial fisheries. Cambodia uses the Fish Catch Monitoring Assessment Survey (FCMAS) to collect data for commercial and small-scale fisheries. In Thailand, catch data from small-scale fisheries is collected via subsampling**.** This information is received only from small-scale fishing vessels that intend to sell their catch to the fish buyer at port.

Table 7. Method of data collection

	From all landing			Subsampling (e.g. Stratified Random Sampling)		
	C	**S**	**R**	**C**	**S**	**R**
Brunei DS	✓	✗	✗	✗	✓	✗
Cambodia	✗	✗	✗	✓	✓	✗
Indonesia	✓	✓	✗	✓	✓	✗
Malaysia	✓	✗	✗	✓	✓	✓
Myanmar	✓	✓	✗	✓	✗	✗
Philippines	✗	✗	✗	✓	✓	✗
Singapore	✓	N/A	✗	✗	N/A	✗
Thailand	✓	✓	✗	✓	✓	✗
Viet Nam	✗	✗	✗	✓	✓	✗

Remarks: C= commercial fisheries, S= small scale fisheries, R= recreational fisheries, N/A= Not Available

Type of landing data recorded

Local and English names are commonly used across all AMSs for both commercial and small-scale fisheries. Brunei Darussalam, Indonesia, Myanmar, Philippines, and Thailand record landings up to the species level (**Table 8**). Thailand also records the landings using Thai common names. Viet Nam records oceanic tuna at the species level, while other fish are recorded only by local names. Malaysia's enumerators primarily record landings using local names; however, sharks, rays, and tuna are exceptions and are recorded at the species level**.** Researchers subsequently assist in identifying species-level names for mandatory reporting to the FAO and regional bodies.

Table 8. Type of landing data recorded

	Species name			Genus name			Local name			English/common name			Fish group			Category		
	C	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**
Brunei DS	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗
Cambodia	✗	✗	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗
Indonesia	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗
Malaysia	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Myanmar	✓	✓	✗	✗	✗	✗	✓	✓	✗	✓	✓	✗	✓	✗	✗	✓	✗	✗
Philippines	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✗	✗	✗
Singapore	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗
Thailand	✓	✓	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗	✓	✓	✗	✓	✓	✗
Viet Nam	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗	✓	✓	✗	✓	✓	✗

Remarks: C= commercial fisheries, S= small scale fisheries, R= recreational fisheries

Frequency of recording landing data

Monthly data recording is common across all AMSs, except for Philippines, which declares that data collection is conducted daily for both commercial and small-scale fisheries (**Table 9**). Specifically, in Philippines, collection is conducted for 2 days, followed by a day of rest, and then continues with another 2 days of collection.

Indonesia reports an extensive frequency of data collection, ranging from daily to annually and also occasionally. In Malaysia, current landing data collection is conducted monthly, while annual data collection is designated for the 2024 Agricultural Census for commercial and small-scale fisheries.

In addition to regular collection, Cambodia, Indonesia, Myanmar, and Viet Nam reportedly conduct occasional landing data collection, which is typically project-based and related to research activities.

Table 9. The frequency of landing data recording

	Daily			Weekly			Monthly			Annually			Occasionally		
	C	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**
Brunei DS	✓	✓	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗
Cambodia	✗	✗	✗	✓	✗	✗	✓	✓	✗	✓	✗	✗	✓	✗	✗
Indonesia	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗
Malaysia	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✗	✗	✗	✗
Myanmar	✓	✓	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗
Philippines	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Singapore	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗
Thailand	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✗	✗	✗
Viet Nam	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗	✓	✓	✗

Remarks: C= commercial fisheries, S= small scale fisheries, R= recreational fisheries

Recording of landing data by fishing gear, fishing vessels size and fishing area

Most AMSs demonstrate a comprehensive approach to data collection, with landings recorded based on fishing gear, vessel type, and fishing area for both commercial and small-scale fisheries (**Table 10**).

In contrast, small-scale fisheries in Brunei Darussalam and Viet Nam are documented solely by fishing gear. Thailand notes that landings from commercial fisheries are recorded by fishing gear and vessel type but are not categorized by fishing area. Singapore does not record landings by fishing gear, vessel type, or fishing area because of the country's small fisheries landscape.

Table 10. Landing data by fishing gear, fishing vessels size and fishing area

	Fishing gear			Fishing vessels size (GRT/GT/length)			Fishing area		
	C	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**
Brunei DS	✓	✓	✗	✓	✗	✗	✓	✗	✗
Cambodia	✓	✓	✗	✓	✓	✗	✓	✓	✗
Indonesia	✓	✓	✗	✓	✓	✗	✓	✓	✗
Malaysia	✓	✓	✓	✓	✓	✓	✓	✓	✓
Myanmar	✓	✓	✗	✓	✓	✗	✓	✓	✗
Philippines	✓	✓	✗	✓	✓	✗	✓	✓	✗
Singapore	✗	✗	✗	✗	✗	✗	✗	✗	✗
Thailand	✓	✓	✗	✓	✓	✗	✗	✗	✗
Viet Nam	✓	✓	✗	✓	✗	✗	✓	✗	✗

Remarks: C= commercial fisheries, S= small scale fisheries, R= recreational fisheries

Recording of landing data by size and category

In this section, size is classified into three categories: length, weight, and size grade (small, medium, large). As shown in **Table 11**, most AMSs collect comprehensive size data, although methods and scope vary. Brunei Darussalam and Indonesia collect length and weight data for both commercial and small-scale fisheries through random sampling. Cambodia collects landing data only by size grade, specifically for mackerel and blue swimming crab. Malaysia records landings using all three size categories across all fisheries. However, length data is obtained only through research activities, and size grading is limited to certain species. Myanmar records weight; however, it records length for research purposes only. Philippines and Viet Nam also record landing size by length and weight, with Viet Nam noting that such data is species-specific and project-dependent. Thailand reportedly records landings based solely on weight.

In Malaysia, data on the length and weight of fish from commercial and small-scale fisheries are collected solely through research activities. Total weight is also collected for statistical purposes. In contrast, size grading (grade of fish) is done at jetties for the purpose of selling by fishermen and vessel owners.

Table 11. Recording of landing data by size

	Length			Weight			Grade of size (e.g., small, medium, large)		
	C	**S**	**R**	**C**	**S**	**R**	**C**	**S**	**R**
Brunei DS	✓	✓	✗	✓	✓	✗	✓	✓	✗
Cambodia	✗	✗	✗	✗	✗	✗	✓	✓	✗
Indonesia	✓	✓	✗	✓	✓	✗	✓	✓	✗
Malaysia	✓	✓	✗	✓	✓	✓	✓	✓	✗
Myanmar	✓	✗	✗	✓	✗	✗	✗	✗	✗
Philippines	✓	✓	✗	✓	✓	✗	✗	✗	✗
Singapore	✗	✗	✗	✗	✗	✗	✗	✗	✗
Thailand	✗	✗	✗	✓	✓	✗	✗	✗	✗
Viet Nam	✓	✓	✗	✓	✓	✗	✗	✗	✗

Remarks: C= commercial fisheries, S= small scale fisheries, R= recreational fisheries

Table 12 presents how AMSs record landing data based on commercial and trash fish categories. All AMSs, except Singapore, record commercial fish landings for both commercial and small-scale fisheries. Trash fish landings are recorded only for commercial fisheries by all AMSs, except Philippines, which does not record trash fish landings for any fishery sector.

Table 12. The landing of fish by category

	Commercial fish			Trash fish		
	C	**S**	**R**	**C**	**S**	**R**
Brunei DS	✓	✓	✗	✓	✗	✗
Cambodia	✓	✓	✗	✓	✓	✗
Indonesia	✓	✓	✗	✓	✓	✗
Malaysia	✓	✓	✓	✓	✓	✗
Myanmar	✓	✓	✗	✓	✗	✗
Philippines	✓	✓	✗	✗	✗	✗
Singapore	✓	✗	✗	✓	✗	✗
Thailand	✓	✓	✗	✓	✓	✗
Viet Nam	✓	✓	✗	✓	✓	✗

Remarks: C= commercial fisheries, S= small scale fisheries, R= recreational fisheries

1.4 EMPLOYMENT IN MARINE CAPTURE FISHERIES

Employment status

National fisher records are most commonly categorized by fishing gear, gender, and age. They are also categorized by vessel size and fishing zone or area, with both categories being exceptions for Brunei Darussalam (**Table 13**). Ownership status is also documented by all AMSs except Philippines. In contrast, data on foreign fishers remains limited, with only Brunei Darussalam, Malaysia, Myanmar, and Thailand reporting figures based on fishing gear, vessel size, and fishing zones or areas.

Regarding the number of personnel by fisheries sector (**Table 14**), all AMSs report the number of national onboard crew, while Brunei Darussalam, Malaysia, Myanmar, and Thailand also provided the number of foreign crew. The information for personnel working in fishing ports and fish processing facilities is still lacking in most AMSs. In Malaysia, personnel records for fishing ports and fish processing facilities fall under the responsibility of various local agencies. Income information is collected by Malaysia Fisheries Development Authority (LKIM) under the *Laporan Banci Sosioekonomi Nelayan dan Data Isi Rumah* (SENDI) and was collected during the 2024 Agriculture Census.

Table 15 shows the AMSs that have recorded fisher income. Cambodia, Malaysia, and Thailand are the countries that currently record the income of national fishers. Malaysia records the income of its national fishers through the Department of Statistics Malaysia (DOSM).

Table 13. The type of data recorded for employment status

AMS	Fishing gear			Fishing vessels (by size)			Fishing zone/area			Gender			Age			Ethnicity			Marital status			Employment status			Fisher category			Ownership status		
	N	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**
Brunei DS	✓	✓	✗	✗	✓	✗	✗	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗
Cambodia	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗
Indonesia	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗
Malaysia	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✗	✗	✓	✗	✗	✓	✓	✗	✗	✗	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗
Myanmar	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗	✓	✗	✗
Philippines	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Singapore	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗
Thailand	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗	✗	✗	✗	✓	✓	✗	✓	✓	✗	✓	✓	✗
Viet Nam	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗

Remarks: N= National, I=Foreign, U=Unspecified

Table 14. The number of personnel according to fisheries section

	Onboard (crew)			Fishing port			Fish processing facility		
	N	**I**	**U**	**N**	**I**	**U**	**N**	**I**	**U**
Brunei DS	✓	✓	✗	✗	✓	✗	✓	✓	✗
Cambodia	✓	✗	✗	✓	✗	✗	✓	✗	✗
Indonesia	✓	✗	✗	✓	✗	✗	✓	✗	✗
Malaysia	✓	✓	✗	✓	✓	✗	✓	✓	✗
Myanmar	✓	✓	✗	✓	✗	✗	✓	✗	✗
Philippines	✓	✗	✗	✗	✗	✗	✗	✗	✗
Singapore	✓	✗	✗	✗	✗	✗	✗	✗	✗
Thailand	✓	✓	✗	✗	✗	✗	✗	✗	✗
Viet Nam	✓	✗	✗	✗	✗	✗	✗	✗	✗

Remarks: N= National, I=Foreign, U=Unspecified

Table 15. Demographic information

	Income		
	N	**I**	**U**
Brunei DS	✗	✗	✗
Cambodia	✓	✗	✗
Indonesia	✗	✗	✗
Malaysia	✓	✗	✗
Myanmar	✗	✗	✗
Philippines	✗	✗	✗
Singapore	✗	✗	✗
Thailand	✓	✗	✗
Viet Nam	✗	✗	✗

Remarks: N= National, I=Foreign, U=Unspecified

1.5 ADDITIONAL INFORMATION

This section highlights additional information recorded by AMSs beyond catch and effort data (**Table 16**). No information is available from Singapore.

All AMSs, except Malaysia, report Catch Per Unit Effort (CPUE) for landings. Myanmar provides CPUE data specifically for the Yangon Region. Thailand presents CPUE estimates derived from research vessel assessments, which are used to estimate Maximum Sustainable Yield (MSY) as a reference point for fisheries management. The economic value of fisheries resources is calculated by all AMSs, with the exception of Indonesia

With regard to environmental data, Cambodia, Indonesia, and Philippines do not record any such information. In most AMSs, environmental data collection remains limited. In Malaysia, the Department of Environment collects environmental data, while Myanmar obtains this information through the Department of Meteorology and Hydrology and the Department of Marine Administration. Thailand and Viet Nam maintain more comprehensive environmental data, which they primarily gather through fishery-independent surveys and project-based initiatives. The data was collected by research vessels with multi-parameter probe.

The amount of bycatch is recorded by all AMSs except Brunei Darussalam and Indonesia, while the amount of discard is only recorded by Cambodia through the FCMAS/logbook system.

Brunei Darussalam, Indonesia, Myanmar, and Thailand have information available regarding the supply chain of landings. The mechanism of the supply chain in Indonesia, Myanmar, and Thailand is illustrated in **Figures 1**, **2**, and **3**, respectively. In Indonesia, the supply chain mechanism or National Fish Traceability and Logistic System is called STELINA. Myanmar established Product Movement Document as part of Catch Flow System. The information for supply chain mechanism in Thailand can be accessed via the Thai Flagged Catch Certificate (TFCC) system.

Myanmar, Thailand, and Viet Nam record information on the distribution of fish by life stages (e.g., larva, juvenile, adult). Viet Nam uses the Fishery Independent Survey (e.g., Ichthyoplankton Survey) to obtain information on the distribution of fish by life stages. Thailand mentions that marine fish biological data is collected from survey and research using a research vessel covering the Thai waters. For fish larvae, the Bongo plankton net is used. The otter board trawl is used to collect juvenile and adult fish in each station. The landing data is collected from a fishing vessel at the fishing port by Marine Fisheries Research and Development Division (MFRDD) of Thailand.

Table 16: Additional information

		Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
State presenting the Catch Per Unit Effort (CPUE) of the landing		✓	✓	✓	✗	✓	✓	N/A	✓	✓
State calculates the economic value of the fish resources		✓	✓	✗	✓	✓	✓	N/A	✓	✓
State recorded the amount of bycatch landed		✗	✓	✗	✓	✓	✓	N/A	✓	✓
The state recorded the amount of 'discard'.		✗	✓	✗	✗	✗	✗	N/A	✗	✗
If yes, please mention the method of data collection		✗	FCMAS/ Logbook	✗	✗	✗	✗	N/A	✗	✗
State recorded the environmental data	pH	✓	✗	✗	✓	✗	✗	N/A	✓	✓
	Salinity (PSU)	✓	✗	✗	✓	✗	✗	N/A	✓	✓
	Temperature (°C)	✓	✗	✗	✓	✓	✗	N/A	✓	✓
	Type of sediment	✗	✗	✗	✓	✓	✗	N/A	✓	✓
	Depth (m)	✗	✗	✗	✓	✓	✗	N/A	✓	✓
	Conductivity (µS/cm)	✗	✗	✗	✓	✗	✗	N/A	✓	✓
	Total dissolved solids (mg/L)	✗	✗	✗	✓	✗	✗	N/A	✗	✓
	Total dissolved oxygen (mg/L)	✓	✗	✗	✓	✗	✗	N/A	✓	✓
	Water current	✗	✗	✗	✓	✓	✗	N/A	✓	✓
	Wind speed	✗	✗	✗	✓	✓	✗	N/A	✗	✓
	Climate change related data	✗	✗	✗	✓	✓	✗	N/A	✓	N/A
State recorded the supply chain of the landings (e.g., main producer to the consumer)		✓	✗	✓	✗	✓	✗	N/A	✓	✗
State recorded the distribution of the fish by life stages (e.g., larva, juvenile, adult)		✗	✗	✗	✗	✓	✗	N/A	✓	✓

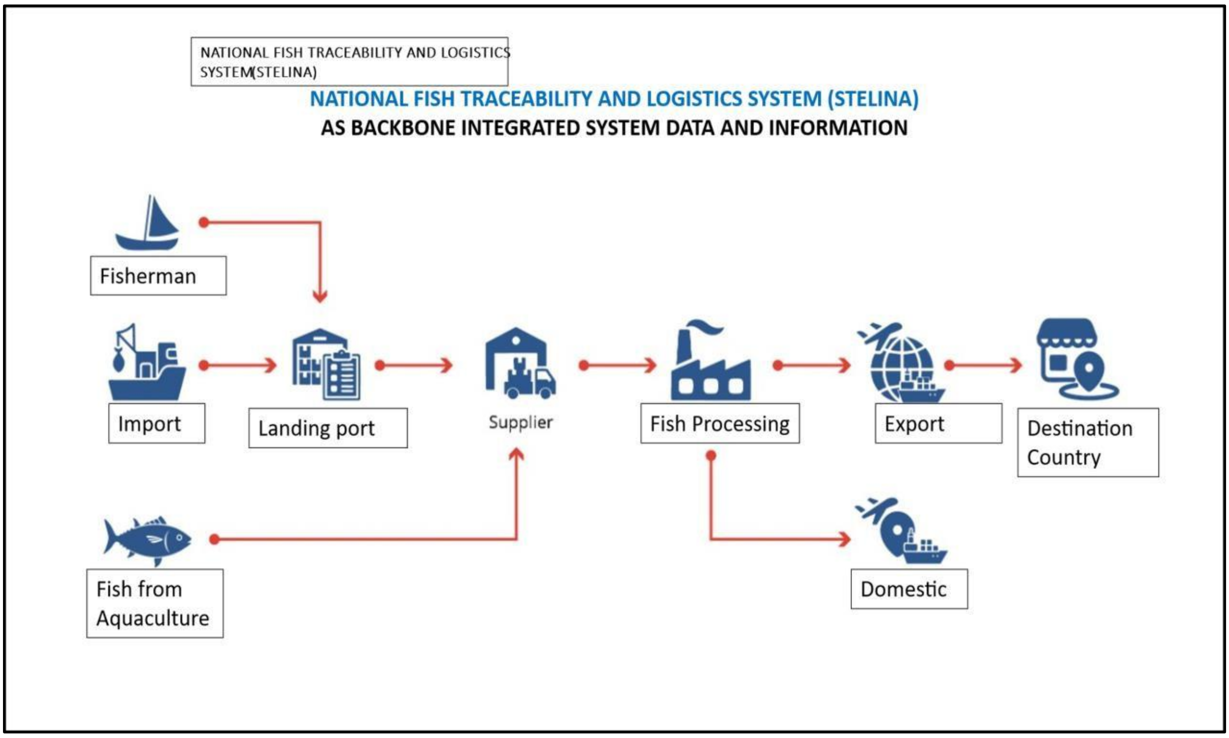


Figure 1. Supply chain mechanism in Indonesia, called STELINA

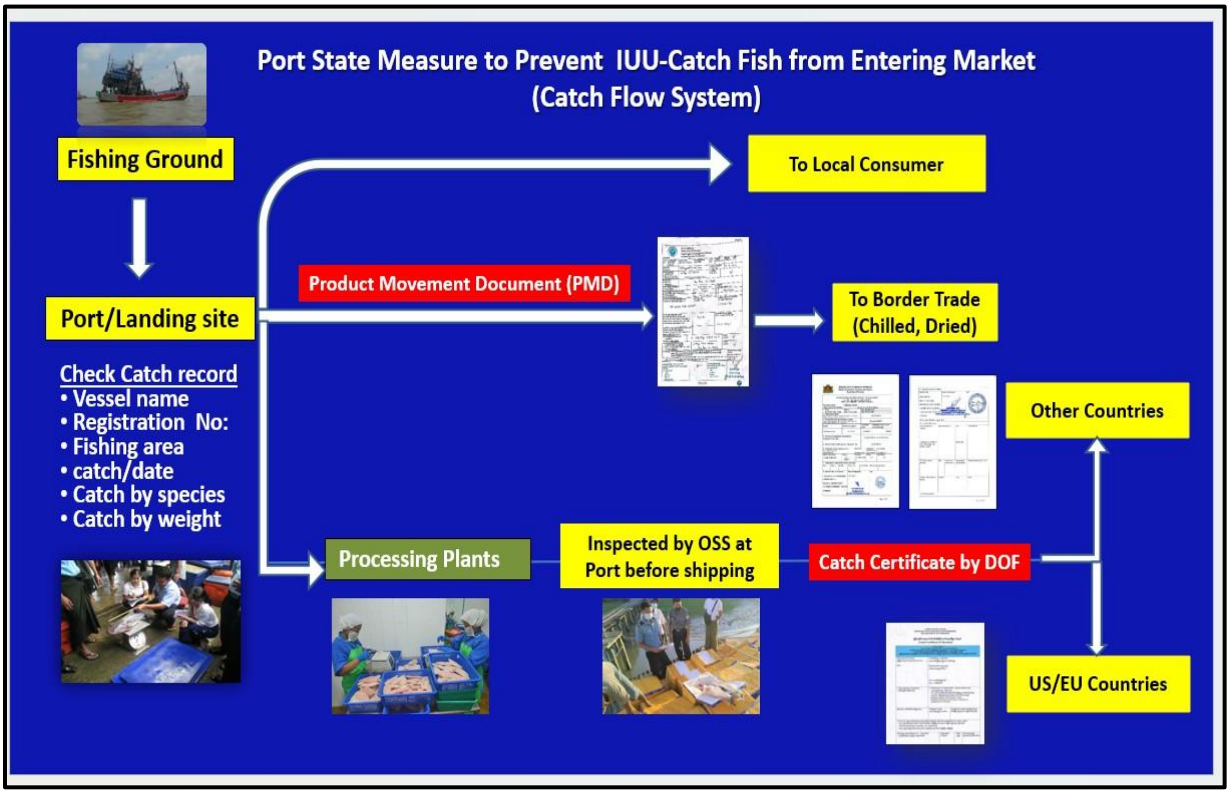
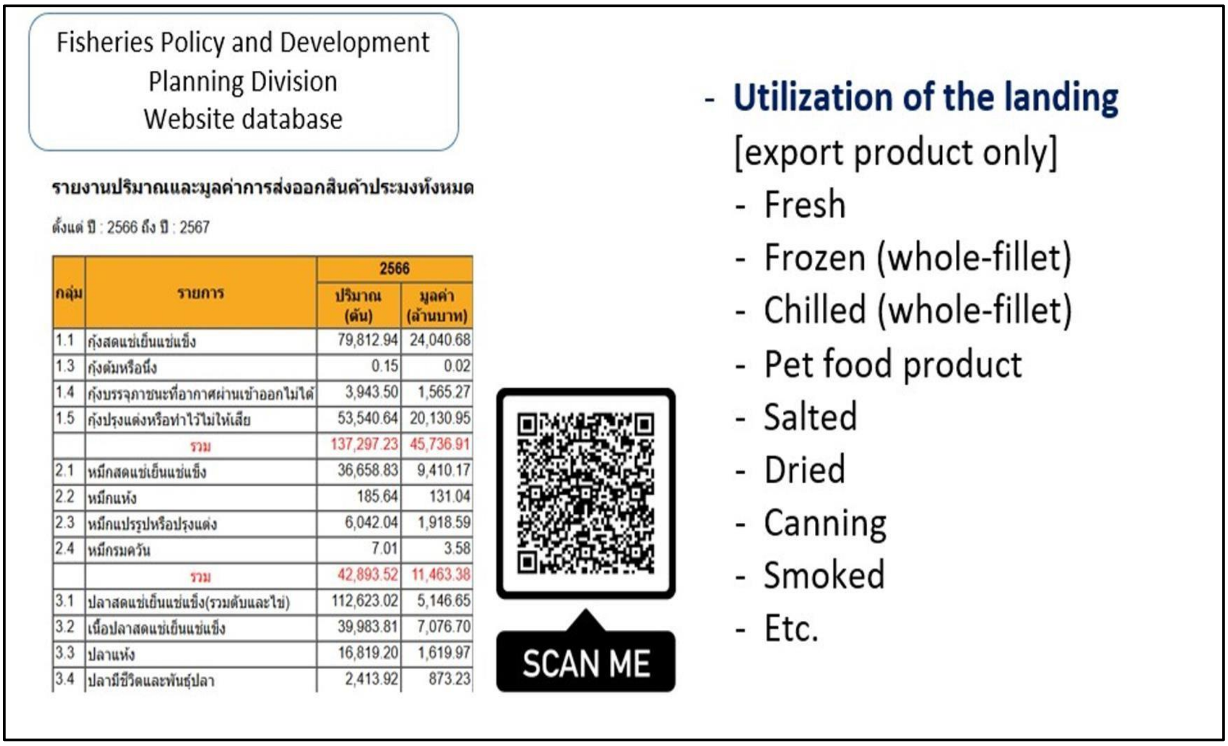


Figure 2. Supply chain mechanism in Myanmar



กลุ่ม	รายการ	2566	
		ปริมาณ (ตัน)	มูลค่า (ล้านบาท)
1.1	กุ้งสดแช่เย็นแช่แข็ง	79,812.94	24,040.68
1.3	กุ้งต้มหรือนึ่ง	0.15	0.02
1.4	กุ้งบรรจุภาชนะที่อากาศผ่านเข้าออกไม่ได้	3,943.50	1,565.27
1.5	กุ้งปรุงแต่งหรือทำไว้ไม่ให้เสีย	53,540.64	20,130.95
	รวม	137,297.23	45,736.91
2.1	หมึกสดแช่เย็นแช่แข็ง	36,658.83	9,410.17
2.2	หมึกแห้ง	185.64	131.04
2.3	หมึกแปรรูปหรือปรุงแต่ง	6,042.04	1,918.59
2.4	หมึกรมควัน	7.01	3.58
	รวม	42,893.52	11,463.38
3.1	ปลาสดแช่เย็นแช่แข็ง(รวมตับและไข่)	112,623.02	5,146.65
3.2	เนื้อปลาสดแช่เย็นแช่แข็ง	39,983.81	7,076.70
3.3	ปลาแห้ง	16,819.20	1,619.97
3.4	ปลามีชีวิตและพันธุ์ปลา	2,413.92	873.23

Figure 3. Supply chain mechanism in Thailand

CHAPTER 2

INLAND AND RECREATIONAL FISHERIES

INLAND AND RECREATIONAL FISHERIES

2.1 INLAND FISHERIES

Data on inland fisheries, including the number of fishers (**Table 17**), is available for Cambodia, Indonesia, Malaysia, Myanmar, and Thailand. Brunei Darussalam and Viet Nam do not currently record landings from inland fisheries. Philippines only record the number of inland fishers. No information on inland fisheries is available from Singapore.

Regarding the method of data recording, Cambodia, Indonesia, and Myanmar record the landings at the species level, whereas Malaysia and Thailand record the landing using local names. Inland fisheries data categorized by water bodies is documented in Cambodia, Indonesia, Myanmar, Malaysia, and Thailand. However, the availability of data based on fishing vessels and fishing gear varies across AMSs.

Regarding the value of landings, wholesale price is recorded by Cambodia, Indonesia, Malaysia, and Thailand. Retail price is available in Cambodia, Malaysia, and Thailand.

2.2 RECREATIONAL FISHERIES

Recreational fisheries data remains scarce across AMSs. **Table 18** indicates that Malaysia is the only country with available information for both marine and freshwater recreational fisheries. In contrast, Brunei Darussalam's collection is limited to recording the number of marine recreational fishers based on fishing gear.

Table 17. Inland fisheries

Criteria		Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
State recorded the landing from inland fisheries		✗	✓	✓	✓	✓	✗	N/A	✓	✗
State recorded the landing by	Species name	✗	✓	✓	✗	✓	✗	N/A	✗	✗
	Local name	✗	✓	✓	✓	✓	✗	N/A	✓	✗
	English name/common nam	✗	✓	✓	✓	✓	✗	N/A	✗	✗
	Water bodies (e.g.: Rivers, lakes, dams)	✗	✓	✓	✓	✓	✗	N/A	✓	✗
	Fishing vessels	✗	✓	✓	✗	✓	✗	N/A	✗	✗
	Fishing gears	✗	✓	✓	✗	✓	✗	N/A	✓ (Gillnet, fish trap, harpoon)	✗
State recorded the values of landings by species based on	Wholesale price	✗	✓	✓	✓	✗	✗	N/A	✓	✗
	Retail price	✗	✓	✗	✓	✗	✗	N/A	✓	✗
State recorded the number of fishers involved in inland fisheries		✗	✓	✓	✓	✓	✓	N/A	✓	✗

Table 18. Recreational fisheries

		Brunei DS		Cambodia		Indonesia		Malaysia		Myanmar		Philippines		Singapore		Thailand		Viet Nam	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
State recorded the number of recreational fishers		✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
State recorded the catch from recreational fishers		✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
If yes, state recorded the catch by	Area	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	Water bodies	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	Fishing gear	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	Species name	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	Genus name	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	Local name	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	Common name/English name	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

Remarks: M= Marine, F= Freshwater

CHAPTER 3

FISHERIES TRADE AND VALUE CHAIN

FISHERIES TRADE AND VALUE CHAIN

3.1 IMPORT AND EXPORTS

All AMSs (with no information available from Singapore) maintain extensive information regarding the import and exports of fisheries commodities (**Table 19**).

All AMSs record the total value of fishery commodities that are exported and imported. However, Myanmar does not record export commodities by region, and Viet Nam does not record either import or export commodities by region.

Data collection methods generally include customs declarations and import and export permits. Malaysia specifically shares that the country collects data through customs and the e-*PermitIkan* system.

All AMSs (with no information is available from Singapore) also have specific documentation procedures, guidelines, or schemes for the export and import of fishery commodities.

In Brunei Darussalam, import and export statistical information can be obtained from the Royal Customs and Excise Department (RCED). This data is consolidated through the Brunei Darussalam National Single Window (BDNSW), which was developed to streamline international trade by providing an online hub for companies to submit standardized trade documents for import, export, and customs clearance.

Thailand employs distinct, integrated systems to manage the import and export of fisheries commodities, ensuring comprehensive traceability. For domestically caught fish from Thai Flagged Vessels, the Thai Flagged Catch Certificate (TFCC) system covers the entire supply chain—from landing and purchasing to processing and the issuance of the Catch Certificate—by linking directly to vessel data from the "Fishing Info" and "E-license" systems. For imported fish and foreign trade, the central hub is the Fisheries Single Windows (FSW) system, which integrates data from multiple agencies via the Processing Statement System (PPS); this process covers activities such as seeking import permission and fish transfer to processing plants. The PPS facilitates the linking of information on import/export permits between the Department of Fisheries (DOF), the Customs Department, and the Marine Department, ultimately enabling the issuance of the Processing Statement.

Table 19. Import and export of fishery commodities in AMSs

		Brunei DS		Cambodia		Indonesia		Malaysia		Myanmar		Philippines		Singapore		Thailand		Viet Nam	
		I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E
State recorded the total value of fishery commodities that has been exported/imported		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓
State recorded the export/ import commodities by	Country	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓
	Region	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✗	✗
	Resource composition (e.g., live, frozen, chilled.)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓
	Values	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓
Method of data collection		N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓
State has specific documentation procedure/guideline/scheme in export/import of fishery commodities		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓
State recorded the method of transportation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓

Note: I = Import; E = Export, N/A= Not Available

3.2 FISHERIES PRODUCT/COMMODITIES/ SUPPLY CHAIN

All AMSs, with the exception of Viet Nam, have comprehensive information on fishery products, commodities, and supply chains (**Table 20**). No information is available from Singapore. Indonesia reports the full range of fishery products and commodities, followed by Myanmar, Thailand, Brunei Darussalam and Cambodia. Viet Nam does not record the utilization of the fisheries products/commodities.

Live products are recorded only in Indonesia, Malaysia, Myanmar, and Philippines. Fresh, chilled (whole), preserved, salted, and dried products are the most commonly documented across AMSs. Additional commodities recorded include seaweed, aquatic plants, and ornamental fish.

Information on fisheries products and commodities in Malaysia is based on the Agricultural Census 2024 and *Kajian Penggunaan Agromakanan Segar* (KPASM). The data indicates that ornamental fish and aquatic plants are utilized for one of two purposes: export or local ornamental activity.

The national marketing and distribution of these products (supply chain) are tracked based on location and volume by all AMSs, with the exception of Malaysia and Viet Nam.

Table 20. Fisheries product/ commodity/ supply chain

		Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
State recorded the utilization of the landing		✓	✓	✓	✓	✓	✓	N/A	✓	✗
If yes, state recorded the utilization/product (fish, squid, crustaceans, shrimps, prawns and other aquatic invertebrates:	Live	✗	✗	✓	✓	✓	✓	N/A	✗	✗
	Fresh	✓	✓	✓	✓	✓	✓	N/A	✓	✗
	Frozen-whole	✓	✓	✓	✓	✓	✗	N/A	✓	✗
	Chilled- whole	✓	✓	✓	✓	✓	✓	N/A	✓	✗
	Frozen-fillet	✓	✓	✓	✗	✓	✗	N/A	✓	✗
	Chilled- fillet	✓	✓	✓	✗	✓	✗	N/A	✓	✗
	Processes as fish meal for non-human consumption	✗	✓	✓	✗	✓	✗	N/A	✓	✗
	Processes as fish oil	✗	✗	✓	✗	✓	✗	N/A	✗	✗
	Processes as liver oil	✗	✗	✓	✗	✓	✗	N/A	✗	✗
	Prepared/preserved	✓	✓	✓	✗	✓	✗	N/A	✓	✗
	Salted	✓	✓	✓	✗	✓	✗	N/A	✓	✗
	Dried	✓	✓	✓	✗	✓	✗	N/A	✓	✗
	Other, specify:	✗	✗	✓	✗	✓	✗	N/A	✓	✗
Other commodities (marine and freshwater) of the state also include:	Seaweed	✗	✗	✓	✗	✓	✓	N/A	✓	✗
	Ornamental Fish	✓	✗	✓	✓	✓	✗	N/A	✓	✗
	Aquatic plants	✓	✗	✓	✓	✗	✗	N/A	✗	✗
State recorded the product was marketed/distributed nationally based on	Location	✓	✓	✓	✗	✓	✓	N/A	✓	✗
	Volume	✓	✓	✓	✗	✓	✓	N/A	✓	✗

CHAPTER 4

FISHERIES INFORMATION SYSTEM/MECHANISMS

FISHERIES INFORMATION SYSTEM/MECHANISMS

As shown in **Table 21**, all AMSs have fisheries statistics and information systems except for Singapore. Singapore's fisheries landscape is small, therefore there is no integrated system or database in place for systematically collecting, analysing and monitoring fisheries-related trends and information. Currently, only high-level information such as overall production volumes and price trends is being analysed. There is no dedicated statistical database or website developed specifically for compiling and presenting fisheries data in Singapore.

All AMSs have systematic fish landing data collection nationally. The information systems in these countries are centralized, with the exceptions of Philippines and Singapore. In terms of collaboration between fishers and government personnel in the data collection process, Brunei Darussalam and Philippines are still working toward better cooperation. Furthermore, Brunei Darussalam and Singapore do not have systematic analysis of landing data in place.

Cambodia, Singapore and Viet Nam do not publicly share landing data, requiring access to be made by request. Similarly, Brunei Darussalam has some data available for public access, but in-depth data requires a formal request. In contrast, Indonesia, Malaysia, Myanmar, Philippines, and Thailand declare the public sharing of information. For these countries, fisheries statistical databases and websites are easily accessed by the public, with data mostly published on the official website of the Department of Fisheries of the respective AMSs.

All AMSs have mechanisms for sharing data with regional and international bodies. Thailand shares fisheries data through several regional and international platforms. For example, the country shares the National White List of fishing vessels with the SEAFDEC Regional Fishing Vessels Record (RFVR) and the FAO Global Record, shares details of IUU (Illegal, Unreported, and Unregulated) fishing activity that occurs within Thai waters with the AN-IUU (ASEAN Network on IUU) Interactive Platform for surveillance purposes, and shares national fisheries statistics with the FAO FishStat database. Singapore shares its fisheries data through statistical returns submitted to the FAO and SEAFDEC.

Regarding the compatibility of national systems with regional or global fisheries databases to enable smooth data exchange, only Brunei Darussalam, Malaysia, and Thailand reported having such compatibility. These countries followed the prepared template and adopted the electronic ASEAN Catch Documentation Scheme (eACDS) system.

Regarding the sharing of stock status information with regional and international bodies, all AMSs responded positively, except Malaysia and Singapore. These efforts are primarily directed toward regional organizations such as SEAFDEC.

Table 21. Fisheries information systems/ mechanisms in AMSs

	Brunei DS	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
State has fisheries statistics and information system	✓	✓	✓	✓	✓	✓	✗	✓	✓
State has systematic fish landing data collection nationally	✓	✓	✓	✓	✓	✓	✓	✓	✓
State has centralized information systems	✓	✓	✓	✓	✓	✗	✗	✓	✓
State has collaboration between fishers and government personnel in data collection process	✗	✓	✓	✓	✓	✗	✓	✓	✓
State develops systematic analysis of landing data	✗	✓	✓	✓	✓	✓	✗	✓	✓
State publicly shares the information on the landing data	✗	✗	✓	✓	✓	✓	✗	✓	✗
Fisheries statistical database/ website is easily access by public	✗	✗	✓	✓	✓	✓	✗	✓	✗
State has mechanisms for sharing data with regional and international bodies	✓	✓	✓	✓	✓	✓	✓	✓	✓
State ensures the system is compatible with other regional or global fisheries databases, ensuring smooth data exchange	✓	✗	✗	✓	✗	✗	✗	✓	✗
State share stock status of the resources with regional and international bodies	✓	✓	✓	✗	✓	✓	✗	✓	✓

CHAPTER 5

CONCLUSION AND RECOMMENDATION

CONCLUSION AND RECOMMENDATION

CONCLUSION

This report examined the current status of fisheries data collection, management, and dissemination mechanisms across ASEAN Member States (AMSs), focusing on marine and inland fisheries, recreational fisheries, and trade-related data. The outcomes of this project provide valuable insight into the information systems and mechanisms currently in place and highlight gaps that can be addressed in the future.

The summary of feedback is as follows:

Marine Capture Fisheries

- **Fishing Effort & Vessel Characteristics:** Most AMSs have comprehensive data on fishing effort for licensed vessels but lack data for unlicensed ones. Data on vessel characteristics is generally well-documented for commercial vessels but is limited for small-scale vessels.

- **Landing Data**: Landings are typically recorded by fishing gear, vessel size, fishing area, and species name (or local names). Data collection occurs mainly at government landing ports, with some AMSs also utilizing private ports or village stalls. Subsampling is a common collection method.

- **Data by Size and Fish Categories**: Collection of length, weight, and size grade data is inconsistent and often species-dependent. While most AMSs record commercial fish landings, data on trash fish is significantly more limited.

- **Employment**: Information on national fishers is widely available (categorized by gear, vessel, zone, gender, and age). However, data on foreign fishers is scarce, reported by only a few AMSs.

Additional Data

- **CPUE & MSY**: All AMSs, report Catch Per Unit Effort (CPUE), with Thailand specifically using this data to estimate Maximum Sustainable Yield (MSY).

- **Environmental Data**: Only a few AMSs, such as Malaysia, Thailand and Viet Nam, collect detailed environmental data. This data is primarily gathered through research activities and by external agencies (e.g., the Department of Environment).

- **Bycatch & Discards**: Bycatch data is collected by most AMSs, but discard data remains more limited.

- **Supply Chain & Life Stage Data**: Supply chain information is recorded in several AMSs. Data on fish life stages (which is mostly sourced from research activities) is available in Myanmar, Thailand, and Viet Nam.

Inland and Recreational Fisheries

- **Inland Fisheries**: Data on inland fisheries is available in Cambodia, Indonesia, Myanmar, Malaysia, and Thailand. Landing data is recorded either by species or local name, but the coverage of vessel and gear types varies across the countries.

- **Recreational Fisheries**: Data for this sector is significantly limited; only Malaysia and Brunei Darussalam provide any level of information.

Trade and Value Chain

- **Imports & Exports**: All AMSs (no information is available from Singapore) maintain detailed trade information. Thailand distinguishes itself by having a robust digital traceability system that integrates customs and fisheries data for efficient tracking.

- **Fishery Products & Commodities**: All AMSs, except Viet Nam, have comprehensive records of fishery products (including live, fresh, salted, and ornamental products) and corresponding supply chain distribution data.

Information Systems and Data Sharing

- **System Availability**: All AMSs, except Singapore, have fisheries statistics systems. These systems are typically centralized, with the exceptions being the Philippines and Singapore.

- **Public Access**: Data accessibility varies: it is **publicly available** in some AMSs (e.g., **Indonesia and Thailand**). Other countries have restrictions, such as **Cambodia and Viet Nam** (requires a request) and **Brunei Darussalam** (some public data, but **in-depth data requires a formal request**).

- **Regional/Global Compatibility**: Only Brunei Darussalam, Malaysia and Thailand report having system compatibility with regional or global fisheries databases. However, most AMSs share stock status data with organizations like SEAFDEC and FAO

From all feedback, it can be concluded that most AMSs have established national fisheries information systems for marine capture fisheries. Data collection is generally strong for the commercial sector: landing data, vessel characteristics, and fishing effort are widely recorded. Furthermore, Catch Per Unit Effort (CPUE) and economic data are reported in most countries. All AMSs have mechanisms for data sharing with regional and international bodies (e.g., FAO, SEAFDEC), and some countries, such as Thailand (with its Fisheries Single Window) and Indonesia (with its traceability efforts), have developed advanced digital systems.

However, several significant data limitations remain. Information is particularly scarce for unlicensed vessels, small-scale fisheries, inland fisheries, and recreational fisheries. Incomplete coverage of environmental, discard, and bycatch data also needs to be taken into consideration, as these parameters are crucial for effective resource management. Finally, limited system compatibility with regional/global databases was observed, along with considerable variability in data accessibility and comprehensiveness across the AMSs.

RECOMMENDATIONS

While the foundation of fisheries information systems and mechanisms in AMSs is in place, they are not yet fully sufficient. To improve fisheries management and regional cooperation, critical gaps in data coverage, integration, standardization, and accessibility must be addressed.

To strengthen the effectiveness and regional harmonization of fisheries information systems and mechanisms, the following recommendations are proposed:

1. Expand Data Coverage to Address Key Gaps, Including Small-Scale, Inland, and Recreational Fisheries

- Develop standardized data collection frameworks for small-scale and inland fisheries, explicitly including unlicensed vessels and informal sectors.
- Promote the inclusion of recreational fisheries data, particularly in countries where such information is currently absent (e.g., Brunei Darussalam, Viet Nam, Singapore).
- Encourage species-level identification in data collection across all gear types and water bodies.

2. Improve Collection and Integration of Environmental and Ecosystem Data

- Integrate environmental indicators (e.g., water quality, habitat status) into national fisheries information systems.
- Promote collaboration between fisheries agencies and environmental departments to ensure consistent, seamless data sharing.
- Expand fishery-independent surveys and project-based research into routine, sustained monitoring activities

3. Standardize Reporting on Bycatch, Discards, and Fish Life Stages

- Develop regional protocols to systematically collect data on bycatch and discards, including species composition and volume.
- Promote recording of biological data by life stages (larvae, juveniles, adults) to support ecosystem-based fisheries management.
- Encourage the adoption of electronic logbooks and observer programs for more accurate and timely discard and bycatch reporting.

4. Strengthen Public Accessibility and Transparency

- Promote the **public dissemination** of fisheries statistics through dedicated **national portals or dashboards**.
- Encourage the **regular publication** of fisheries reports in **user-friendly formats** to effectively engage policymakers, researchers, and the public

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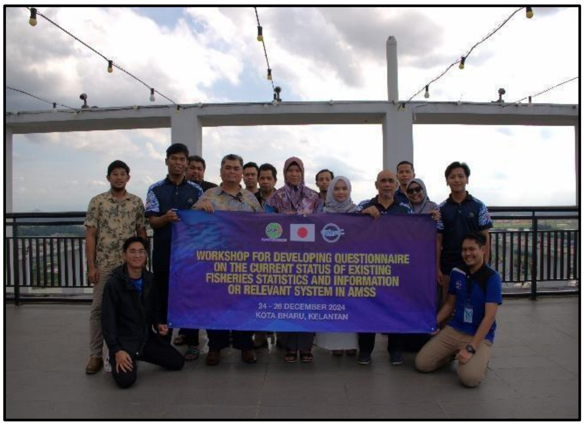
APPENDIX

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



Regional Technical Consultation (RTC) on Current Status of Regional Fisheries Information Systems/Mechanism in the Asian Region, 28-30 May 2025, at Tamu Hotel, Kuala Lumpur

Workshop on the Assessment of Regional Fisheries Information Systems/Mechanisms Questionnaire, 17-18 July 2025, at Holiday Resort Cherating, Pahang

Southeast Asian Fisheries Development Center (SEAFDEC)

What is SEAFDEC?

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

Vision

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

Mission

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

i Research and development in fisheries, aquaculture, post-harvest, processing, and marketing of fish and fisheries products, socio-economy and ecosystem to provide reliable scientific data and information.

ii Formulation and provision of policy guidelines based on the available scientific data and information, local knowledge, regional consultations and prevailing international measures.

iii Technology transfer and capacity building to enhance the capacity of Member Countries in the application of technologies, and implementation of fisheries policies and management tools for the sustainable utilization of fishery resources and aquaculture.

iv Monitoring and evaluation of the implementation of the regional fisheries policies and management frameworks adopted under the ASEAN-SEAFDEC collaborative mechanism, and the emerging international fisheries-related issues including their impacts on fisheries, food security and socio-economics of the region.

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