Study and Review Needs of Monitor, Control, and Surveillance (MCS) Implementation and Capacity Building in Thailand.

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Sustainable Management of Fisheries, Marine Living Resources and their Habitats in the Bay of Bengal Region for the Benefit of Coastal States and Communities (BOBLME II) Project

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EXECUTIVE SUMMARY

This study was part of the Bay of Bengal Large Marine Ecosystem Phase II (BOBLME II) Project, with additional co-funding from the IW Project. There were two main objectives: (1) to assess the needs for implementing Monitoring, Control, and Surveillance (MCS) measures in Thailand to combat Illegal, Unreported, and Unregulated (IUU) fishing, and (2) to identify capacity building needs for enhancing the knowledge and skills of Department of Fisheries (DOF) personnel involved in MCS operations. The McKinsey 7s Framework was applied as a conceptual framework to analyze gaps in order to identify development needs of systems and personnel related to MCS. Data collection from documents, in-depth interviews, and structured questionnaires was used to gather information from executive staff and staff involved with the MCS. The components of the McKinsey 7S Framework are divided into two main categories: Hard Elements, which include strategy, structure, and systems; and Soft Elements, which include shared values, style, staff, and skills.

NEEDS FOR MONITOR CONTROL AND SURVEILLANCE (MCS) IMPLEMENTATION TO COMBAT IUU FISHING IN THAILAND

To strengthen the efficiency of Monitoring, Control, and Surveillance (MCS) operations in Thailand, it is necessary to consider aspects of organizational management, personnel development, and systems and operations, as follows:

Organization Management

1) Develop Thailand's Monitoring, Control, and Surveillance (MCS) Plan.
2) Emphasize proactive operations, including budget procurement to support activities, development or improvement of work models focusing on efficiency, task distribution, and integration of related functions.
3) Develop financial management skills, including budget prioritization, allocation, suitability, and techniques for effective budget management and disbursement.
4) Enhance supervisors' knowledge and skills in system thinking, enabling them to guide staff effectively and ensure accurate and efficient work direction.
5) Develop a system for building morale and motivation among staff.
6) Improve systems for transparency and accountability to ensure the organization can manage responsibilities without interference, instill staff confidence, and minimize conflicts with local fishers.

Staff Development

1) Develop a career progression plan to enhance morale and motivation among personnel.
2) Regularly and systematically review and enhance the knowledge and skills (reskill/upskill) of personnel in key areas such as language proficiency, information technology, and relevant legal frameworks.

3) Enhance the capacity of both new and existing personnel by fostering knowledge and understanding of the roles and significance of the MCS (Monitoring, Control, and Surveillance) system, including the provision of specialized training programs aligned with the agency's mandates.

System and Operation Development

1) Enhance the Fishing Info system's capacity and speed to improve operational efficiency.
2) Integrate related systems along the operational chain, such as linking the VMS system with Fishing Info and TFCC system, connecting the PPS system with TFCC system, and linking the Health Certification system with other relevant systems.
3) Improve the efficiency of big data utilization by applying technology for real-time data analysis to enable effective fisheries resource management, as well as using technology to verify the accuracy of electronic documents, thereby increasing speed and work efficiency.
4) Support collaboration between internal and external agencies involved with MCS, including establishing data connectivity to ensure that overall MCS operations are accurate, precise, and more efficient.
5) Establish a centralized coordination center (Help Desk) to support operations and facilitate collaboration among agencies involved with MCS.

CAPACITY BUILDING NEEDS OF DOF STAFF FOR MCS

Agencies involved in Monitoring, Control, and Surveillance (MCS) operations can be categorized into two primary groups:

1) Core agencies with direct mandates related to MCS functions, and
2) Supporting agencies that provide technical, administrative, or strategic support to MCS implementation.

The core agencies responsible for monitoring activities are the Fisheries Development Policy and Planning Division and the Marine Fisheries Research and Development Division. The agencies with primary responsibility for control measures consist of the Fisheries Resources Management and Measures Determination Division and the Legal Affairs Division. Meanwhile, the agencies leading surveillance efforts include the Fish Quarantine and Fishing Vessels Inspection Division, the Fishing and Fleets Management Division, and the Fishing Control and Surveillance Division. The supporting agencies include the Fisheries Foreign Affairs Division, Fish Inspection and Quality Control Division, Fisheries Commodity Standard System and Traceability Division, Aquatic Animal Feed Research and Development Division, and the Information and Communication Technology Center.

This study categorizes personnel development into three areas: Core Competencies, Functional Competencies, and Management Competencies. The results of the gap analysis indicate that each group of agencies has distinct needs for personnel development in different areas (**Table A**). However, when considering the overall picture, it is evident that agencies involved in MCS-related functions have an urgent need to develop the following competencies:

- **Core competencies** include patience, humility, enthusiasm, openness, sincerity, honesty, accountability, expertise, and flexibility. These are essential qualities for maintaining a peaceful work environment, promoting collaboration, and ensuring transparency and integrity in work processes.

- **Functional competencies** required include self-confidence, communication, motivation, negotiation skills, and consultation. These are crucial for fostering initiative, responsibility, and effective teamwork.
- **Management competencies** include change management skills, which are critical to an organization's ability to adapt to emerging challenges. MCS-related work, in particular, requires continuous adaptation within a dynamic context shaped by both national and international policies and regulations.

Different approaches to promote and support motivation among personnel involved in MCS may be required depending on the nature of their work (**Table B**). However, overall, the development or improvement of **career progression systems**, **organizational care and protection mechanisms**, and **knowledge support systems** relevant to the work are essential. These elements can help enhance the efficiency of MCS-related personnel. In addition, creating a positive work environment plays a crucial role in achieving success and supporting the organization's effective operations. A positive work atmosphere includes promoting **collaborative working**, **building mutual understanding and trust**, and **supporting continuous learning and development** among personnel.

TABLE A PRIORITY LEVELS FOR THE DEVELOPMENT OF CORE COMPETENCIES, FUNCTIONAL COMPETENCIES, AND MANAGEMENT COMPETENCIES OF DOF STAFF

COMPETENCIES		DIVISION/AGENCIES INVOLVED IN			
		MONITOR	CONTROL	SURVEILLANCE	SUPPORTING
CORE	Service mind				
	Enthusiasm	**		**	**
	Patience	***		**	**
	Humility	**	***		
	Professional conviction	**			**
	Persistence in duties			**	*
	Work dedication				**
	Team work				
	Team interaction	**			**
	Openness and sincerity	***			**
	Goals sharing				**
	Clear structure and workflow	**			**
	Integrity				
	Honesty				***
	Accountability	***			**
	Responsibility				
	Expertise	***			
	Flexibility	***		***	

TABLE A (CONT.)

COMPETENCIES		DIVISION/AGENCIES INVOLVED IN			
		MONITOR	CONTROL	SURVEILLANCE	SUPPORTING
FUNCTIONAL	Self confidence	**		**	**
	Communication and motivation	**		**	
	Coordination	**			
	Planning	**			**
	Follow up	**			**
	Negotiation	***	***	**	**
	Consultation	**		**	
MANAGEMENT	Decision making and problem solving	**		**	
	Change management	**		***	***
	Performance management	*		**	**
	Coaching	**			

Notes: *** refers to high urgency ** refers to moderate urgency and * refers to low urgency

TABLE B PRIORITY LEVELS FOR ENHANCING AND SUPPORTING MOTIVATION FACTORS

Issues		DIVISION/AGENCIES INVOLVED IN			
		Monitor	Control	Surveillance	Supporting
STAFF	Career progress	**		**	**
	Recognition/awards			**	***
	Organizational protection	**	***		**
	Job allocation	**			**
	Task-based manpower allocation	**			**
	Job-relevant knowledge	**		**	**
STYLE	Supportive environment for self-development	**	***		**
	Goal-oriented work environment	**	**		***
	Positive internal relations			***	

Notes: *** refers to high urgency ** refers to moderate urgency and * refers to low urgency

INTRODUCTION

01

INTRODUCTION

The Southeast Asian Fisheries Development Center (SEAFDEC) is an autonomous intergovernmental body established as a regional treaty organization in 1967. SEAFDEC currently comprises 11 Member Countries: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. At its establishment, SEAFDEC focused on maximizing fishery production to meet the demand of an increasing population of the region. Later on, SEAFDEC shifted toward achieving sustainable production from fisheries and aquaculture to contribute to food security. During the Special Meeting of the SEAFDEC Council, held in conjunction with the 50th Anniversary of SEAFDEC, the SEAFDEC Council adopted the "Resolution on the Future of SEAFDEC" with the 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".

SEAFDEC together with the Bay of Bengal Programme Inter-Governmental Organization (BOBP-IGO) and International Union for Conservation of Nature (IUCN), will be executing the Sustainable management of fisheries, marine living resources, and their habitats in the Bay of Bengal region for the benefit of coastal states and communities (BOBLME II) project, an initiative of the Food and Agriculture Organization of the United Nations (FAO) and the Global Environment Facility (GEF), being implemented in seven countries, comprising Bangladesh, India, Indonesia, Malaysia, Maldives, Sri Lanka, and Thailand. SEAFDEC as an Executing Agency (EA) will be leading the Southeast Asia sub-regional coordination, technical advice, and capacity building on related fishery issues under components 1 (Sustainable Management of Fisheries), 3 (Management of coastal and marine pollution to improve ecosystem health), and 5 (Regional mechanism for planning, coordination and monitoring of the BOBLME) which are being implemented from 2024 to 2028. The project's main objective is to contribute to the sustainable management of fisheries, marine living resources, and their habitats in the Bay of Bengal region, to reduce environmental stress; and to improve environmental status for the benefit of coastal states and communities.

In Thailand, since April 2015, when the European Commission, through DG Mare (Directorate-General of Maritime Affairs and Fisheries: DG Mare), issued a yellow card warning, Thailand was identified as a country at risk of non-cooperation in combating Illegal, Unreported, and Unregulated (IUU) fishing under EU regulations. To address this issue, Thailand implemented the **Thailand National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing 2015 – 2019** (Thailand NPOA-IUU). As part of this action plan, Thailand undertook significant improvements and developments in areas such as:

- **Legislation**: include the Fisheries Ordinance of 2015 and its amendment in 2017.
- **Fisheries resource and management**: This includes implementing Thailand's Fisheries Management Plan (FMP), controlling the number of fishing vessels and establishing measures to control fishing vessels, and establishing coordinated workflows among relevant agencies, as well as utilizing electronic data management and licensing systems (E-license).
- **Law enforcement**: This encompasses prosecution against illegal fishing vessels.
- **Traceability systems**: An electronic system for end-to-end supply chain traceability has been developed, including the Thai Flagged Catch Certification System (TFCC), an import traceability

system (Processing Statement and PSM Link System: PPS) that connects three systems: the Processing Statement Endorsement (PSE), and the Port State Measure (PSM), linked through the Fisheries Single Window (FSW).

- **Labor management in the fisheries sector**
- **Monitor Control and Surveillance (MCS)**. (Department of Fisheries, 2019; Fish Quarantine and Fishing Vessels Inspection Division, 2024)

In fisheries, Monitor Control and Surveillance (MCS) serves as a tool to implement plans, strategies, or operations to achieve effective fishery management goals (Flewwelling, 1995). In Thailand, the MCS system has been developed since 2015 with initiatives including the establishment of the Fisheries Monitoring Centre (FMC) and Port IN-Port Out Control Center (PIPO), mandating fishing vessels to maintain logbooks, integrating government agencies to inspect fishing vessels at sea, and requiring Thai vessels with licenses to fish outside Thai waters to install the Electronic Reporting System/Electronic Monitoring System (ERS/EM).

Since the reform of fisheries management in 2015, marine fisheries production has remained essential to Thailand's fisheries sector. From 2015 to 2023, marine fisheries capture volumes ranged between 1.27–1.47 million tons (53–56% of total catch), valued between 50,900–70,537 million THB. Overall, Thailand's marine fisheries capture volumes remain below the reference levels used for fishery management, namely, the Maximum Sustainable Yield (MSY) and Total Allowable Catch (TAC), which range between 1.57–1.62 million tons and 1.47–1.55 million tons, respectively (Fisheries Development Policy and Planning Division, 2024).

Over the past decade, Thailand has continuously developed the MCS system and enhanced the capacity of personnel involved, with national and international support, to improve operational effectiveness and meet sustainable fishery management goals. This study aims to analyze the needs for MCS implementation and identify capacity-building needs to enhance the knowledge of Department of Fisheries officers in Thailand on MCS to combat IUU fishing. This will benefit future planning for human resources and MCS system development, ultimately supporting the country's fisheries management.

OBJECTIVES

- Study and review the needs for Monitor Control and Surveillance (MCS) implementation to combat IUU Fishing in Thailand
- Identify capacity building needs to enhance the knowledge on MCS to combat IUU fishing for the fisheries officer of the Department of Fisheries Thailand

METHODOLOGY

DATA COLLECTION

The data used in this study consists of two types: primary and secondary data. The methods for data collection were as follows:

Secondary data collection

Secondary data were gathered through documentary research, including academic literature, research reports, journals, articles, and information on projects/activities attended by the Department of Fisheries staff related to Monitoring, Control, and Surveillance (MCS). This also included operational documents and assessment reports of relevant agencies. The purpose was to study the structure, system, and strategy of MCS in Thailand and to use this information as a framework for developing a structured questionnaire.

Primary data collection

In this study, primary data collection was conducted through in-depth interviews and group interviews to gather information related to the structure and systems involved in MCS operations. Additionally, preliminary information regarding the needs for both system development and knowledge enhancement to improve operational efficiency was also collected. Furthermore, structured questionnaires were used to collect quantitative data for analyzing the gap in needs among personnel involved in MCS-related work.

Relevant agencies were divided into two main groups: core agencies with direct mandates related to MCS functions and supporting agencies that provide technical, administrative, or strategic support to MCS implementation. These include:

1) Core agencies

- Fisheries Development Policy and Planning Division
- Marine Fisheries Research and Development Division
- Fisheries Resources Management and Measures Determination Division
- Legal Affairs Division
- Fish Quarantine and Fishing Vessels Inspection Division
- Fishing and Fleets Management Division

- Fishing Control and Surveillance Division

2) Supporting Agencies

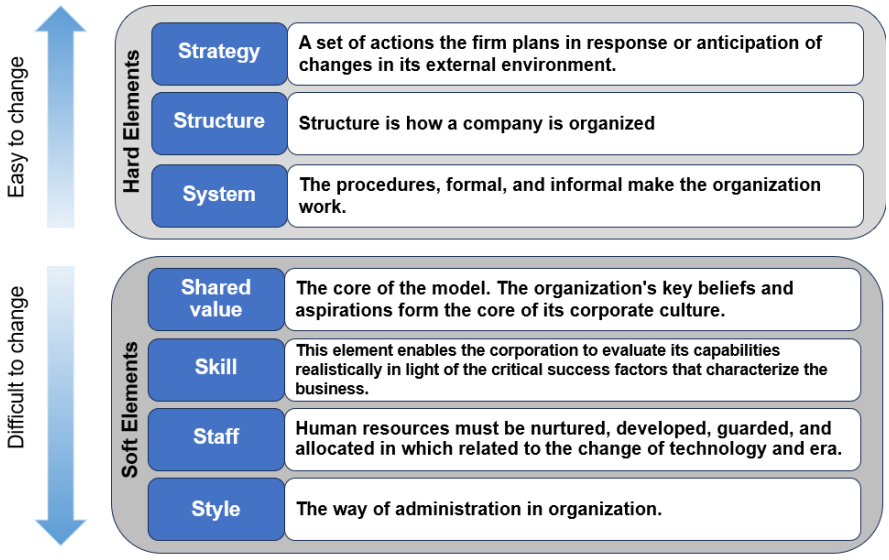
- Fisheries Foreign Affairs Division
- Fish Inspection and Quality Control Division
- Fisheries Commodity Standard System and Traceability Division
- Aquatic Animal Feed Research and Development Division
- Information and Communication Technology Center

The target group of this study included personnel from three levels within the Department of Fisheries: division directors, section heads, and operational-level staff in both central and regional offices. For operational-level staff, interviews were conducted with at least three individuals per agency. The number of interviewees for in-depth interviews were determined by data saturation and data sufficiency for effective analysis (Onwuegbuzie and Leech, 2007; Sutheewasinnon and Pasunon, 2016).

DATA ANALYSIS

This study employed the 7S's of McKinsey Framework as a conceptual framework for analyzing the components of the current MCS management system. The 7S's of McKinsey include two main elements: hard elements, which are more difficult to change (strategy, structure, and systems), and soft elements, which are more flexible to change (shared values, skills, staff, and style) (Figure 01)

FIGURE 01 ELEMENTS OF 7S'S MCKINSEY



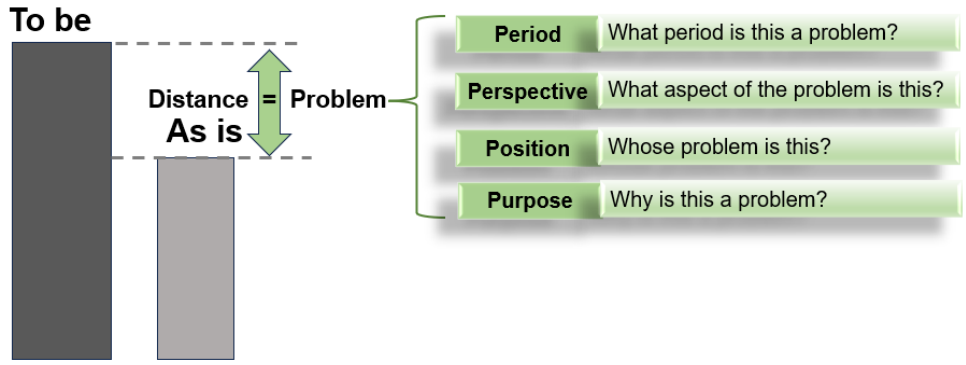
Source: Adapted from Hori (2013)

A gap analysis of strategy, structure, and systems within MCS management will be conducted by comparing international principles with Thailand's current MCS management approach. The findings were presented in a focus group discussion to establish a development roadmap for strategy, structure, and systems in Thailand's MCS management.

For the analysis of staff development needs, four key components under the McKinsey 7S framework; shared Values, skills, staff, and style, were examined using the "As is/To be" model

(Figure 02) to analyze challenges in MCS-related operations. In-depth interviews with target groups across three levels helped in generate a set of structured questions for collecting quantitative data through questionnaires.

FIGURE 2 AS IS/TO BE FRAMEWORK FOR PROBLEM ANALYSIS



Source: Adapted from Hori (2013)

The quantitative data collection aimed to assess the priority of staff development needs for MCS-related tasks. Personnel conducted a self-assessment of their needs (Desire), current state (Actual), and the importance (Important) of MCS-related tasks. These scores then be calculated to derive the urgency score (Table 01), which will guide the development of personnel competencies in MCS operations to effectively combat IUU fishing.

TABLE 01 EXAMPLE OF URGENCY SCORE CALCULATION

DETAILS	DESIRE (D)	ACTUAL (A)	IMPORTANT (I)	URGENT (U)=(D-A)*I
DETAIL 1	5	4	5	5
DETAIL 2	5	3	5	10
DETAIL 3	4	2	4	8
DETAIL 4	5	2	4	12
DETAIL 5	4	1	5	15

Note: Please give a score between 1-5 (A score of 5 indicates the highest level of importance, desire, or current state, whereas a score of 1 indicates the lowest)

Scoring classification criteria

1. Actual Score is classified into three levels: low (a score ranging from 1 to 3, or not exceeding 60%), moderate (a score of 4, or between 61 and 80%) and high (a score of 5, or exceeding 80 %).
2. Urgency Score is classified into two levels: not urgent (a score of 0 or below) and urgent (a score greater than 0).

Prioritization process for competency development and support for motivation factors

The process for determining the urgency of competency development and support for motivation factors involves the following steps:

1. Data Screening for Urgency Ranking

   1.1 A gap in perceived urgency between executive staff and operational staff greater than 10 percent, and a proportion of respondents who rated the actual condition as low exceeding 20 percent.

   1.2 A gap in perceived urgency of less than 1 percent, and a proportion of respondents who rated the issue as urgent exceeding 30 percent.
2. Criteria for Ranking Urgency

   The criteria used to prioritize competency development and the enhancement of motivation-supporting factors are detailed as follows:

LEVELS OF URGENCY	Criteria for consideration
HIGH URGENCY	The gap value is the highest, along with the highest proportion of respondents who rated the actual condition as being at a low level or, a gap value less than 1%, with the proportion of respondents who perceive the issue as urgent exceeding 50%.
MODERATE URGENCY	The gap value ranks second highest, along with the second highest proportion of respondents who rated the actual condition as being at a low level or a low gap value and a high proportion of respondents who rated the actual condition as being at a low level, or a high gap value and a low proportion of respondents who rated the actual condition as being at a low level, or a gap value of less than 1 percent, with the proportion of respondents perceiving the issue as urgent ranging from more than 30% but less than 50 %.
LOW URGENCY	The lowest gap value, along with the lowest proportion of respondents who rated the actual condition as being at a low level.

BACKGROUND ON THE FISHERIES INDUSTRY IN THAILAND

02

BACKGROUND ON THE FISHERIES INDUSTRY IN THAILAND

The fisheries sector is also an important part of Thailand's economic development and plays a significant as a global food producer. In the past 5 years (2018-2022), Thailand has also been one of the top 20 countries in the world with the highest production of aquatic animals from capture fisheries and aquaculture (FAO, 2024b). The value of imports and exports of aquatic products is 4,370 USD millions and 5,766 USD millions, accounting for 2.3 percent and 3 percent of the total import and export value, respectively. Thailand has a net export income of 1,396 USD millions. The total number of fishermen and farmers involved in production is 668,300 people, with 19 percent and 81 percent of the employment in the primary sector (FAO, 2025).

The trade of aquatic products is still importance for Thailand. In 2024, the import value of aquatic animal products was 158,416 million baht, increased by 0.6 percent from 2023. The most aquatic animal products imported in Thailand came from APEC countries, followed by ASEAN 10, and BIMSTEC, accounting for 49.6 percent, 18.3 percent and 11 percent of total import value, respectively. The top ten countries from which Thailand imports the most aquatic animal products are China (11.4 percent), Norway (7.9 percent), India (6.6 percent), Vietnam (6.6 percent), Taiwan (6.4 percent), South Korea (6 percent), Japan (5.5 percent), Myanmar (5 percent), Indonesia (5 percent) and Micronesia (5 percent), respectively. The top three imported aquatic products by volume were: fresh, chilled and frozen tuna (39.8 percent), fresh, chilled and frozen fish (whole) (32.2 percent), and fresh, chilled and frozen cephalopods (6.6 percent) (Fisheries Development Policy and Planning Division, 2025).

In term of exports in 2024, the export value of aquatic animal products was 315,316 million baht, increased by 14.3 percent from 2023. Between 2007 and 2024, APEC consistently served as the leading export market for Thai fishery products, with its share ranging from 52.3% to 56.5% of total export value. NAFTA followed as the second-largest market, accounting for 18.1% to 25.9% of total export value during the same timeframe. It is noteworthy that the export value of Thai aquatic animal products to ASEAN countries has shown an increasing trend since 2007, rising from 3.4% to 7.0% in 2024. In contrast, exports to the EU have declined, with their share dropping from 9.1% in 2007 to 4.5% in 2024. The United States is Thailand's most important export market for fishery products, accounting for 21.2% of total export value. This is followed by Japan (15.5%), China (9.3%), Australia (5.1%), Canada (3.5%), Italy (2.7%), the United Arab Emirates (2.4%), South Korea (2.4%), the Libyan Arab Jamahiriya (2.3%), and Saudi Arabia (2.3%). As for the types of fishery products exported, the top five categories were: canned tuna (34.3%), fresh, canned pet food (11.6%), fresh, chilled and frozen shrimp (9.3%), prepared or preserved shrimp (8%), and processed seafood products (5.3%), respectively. (Fisheries Development Policy and Planning Division, 2025)

In 2023, Thailand produced a total of 2.46 million tons of aquatic animals, with a total value of 175,157 million baht. Marine capture fisheries contributed 1.35 million tons, valued at 70,537 million baht. Inland capture fisheries produced 0.11 million tons, worth 7,134 million baht. Coastal aquaculture yielded 0.54 million tons, with a value of 69,225 million baht, while freshwater aquaculture accounted for 0.42 million tons, valued at 28,260 million baht. Marine capture fisheries had the highest production share, accounting for 54.8 percent of the total aquatic animal production. Most of the marine catch came from the Gulf of Thailand (75.7 percent), compared to the Andaman Sea (24.3 percent). When classified by type of fishing operation, 79 percent of the marine catch was obtained through commercial fishing, while 21 percent came from small-scale fishing. In terms of fishing gear, the highest proportion of marine catch was obtained using trawl nets, accounting for 37.6 percent of the total marine catch. This was followed by purse seines at 30.7 percent, gillnets at 15.4 percent, falling nets at 8.1 percent, traps at 2.3 percent, other types of gear at 2.5 percent,

hooks and lines at 2 percent, dredges at 0.7 percent, and lift nets at 0.6 percent. The utilization of marine aquatic animals can be categorized into three main purposes. About 80.2 percent of marine production was used for human consumption, comprised of fresh consumption (43.1 percent) and processed products (37.1 percent), while the remaining 19.8 percent was used for non-food purposes, such as pet foods, fishmeal and fish oil (Fisheries Development Policy and Planning Division, 2024).

DEVELOPMENT OF MCS SYSTEM IN THAILAND BY DEPARTMENT OF FISHERY

03

MCS STRATEGY OF THAILAND

Thailand has systematically developed a Monitoring, Control, and Surveillance (MCS) Strategy for fisheries, which serves as a key tool for enforcing fisheries laws, preventing Illegal, Unreported, and Unregulated (IUU) fishing, and promoting the sustainable use of marine resources. This is achieved through the integration of inter-agency cooperation, the use of information technology, capacity building of personnel, and inclusive participation of stakeholders at all levels. Thailand has established regulations, programs, and policies to support the implementation of the MCS system, as detailed below.

THE ROYAL ORDINANCE ON FISHERIES B.E. 2558 (2015) AND ITS AMENDMENTS

The primary legislation governing fisheries in Thailand is the Royal Ordinance on Fisheries B.E. 2558 (2015) and its amendments, including the Royal Ordinance on Fisheries (No. 2) B.E. 2560 (2017), along with various subordinate regulations. These laws aim to enable effective and timely fisheries management in response to dynamic circumstances. The main objective of the Royal Ordinance is to regulate fisheries activities both within Thailand and in general waters, prevent illegal fishing, and preserve the marine environment in accordance with internationally accepted rules, standards, and principles. It also aims to safeguard the welfare of fishers and prevent illegal labor in the fisheries sector (Thai Government Gazette, 2015a; 2017). The objectives of the Royal Ordinance are as follows:

- To manage fisheries and conserve aquatic resources based on the principles of good governance, with accurate and comprehensive data collection and management.
- To protect, assist, and support small-scale fisheries and local fishing communities.
- To fulfill international obligations related to the conservation and management of aquatic resources.
- To establish measures to prevent, deter, and eliminate illegal fishing and the use of illegal labor in the fisheries sector.
- To apply the best available scientific evidence for managing aquatic resources in ways that support sustainable economic, social, and environmental development, aligned with ecosystem balance and the precautionary principle, in order to maintain or restore fish stocks to levels capable of producing maximum sustainable yield.
- To prevent and eliminate overfishing and overcapacity, and to ensure fishing activities do not compromise the sustainability of aquatic resources.
- To implement the measures stipulated in this Ordinance in a systematic manner.
- To promote cooperation with other States, the private sector, and international organizations in order to achieve the objectives set forth in the Ordinance.

- To protect the working conditions and welfare of labor in the fisheries sector.
- To establish an effective Monitoring, Control, and Surveillance (MCS) system for fisheries operations.
- To develop an efficient traceability system that allows the tracking of aquatic animals and aquatic products from catch to consumer.
- To define proportionate and appropriate administrative and criminal penalties to prevent violations.

This legislation is based on relevant international laws and agreements, including:

- The United Nations Convention on the Law of the Sea (UNCLOS) of 1982
- The 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement - UNFSA)
- The 2009 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA)
- The Code of Conduct for Responsible Fisheries (1995)

In addition, Thailand has other relevant laws related to fisheries, including:

- The Thai Vessel Act B.E. 2481 (1938)
- The Act on Fisheries Rights in the Thai Fisheries Zone B.E. 2482 (1939)
- The Fish Market Organization Act B.E. 2496 (1953)
- The Marine and Coastal Resources Management Promotion Act B.E. 2558 (2015);
- The Wildlife Conservation and Protection Act B.E. 2562 (2019)

THAILAND'S MARINE FISHERIES MANAGEMENT PLANS

In 2015, the Ministry of Agriculture and Cooperatives, through the Department of Fisheries, in collaboration with the Command Center for Combating Illegal Fishing (CCCIF), developed the *Marine Fisheries Management Plan of Thailand 2015–2019* (FMP). This plan outlined comprehensive approaches to addressing the country's marine fisheries issues, including overfishing, excessive fishing capacity, and illegal, unreported, and unregulated (IUU) fishing. The plan also detailed management measures and operational actions for transforming Thailand's open-access fisheries system into one based on controlled access.

The objectives of the FMP were to reduce fishing capacity and fishing effort to a level aligned with or close to the Maximum Sustainable Yield (MSY) and to curb IUU fishing to a manageable level. This was to be achieved through the strengthening of the Monitoring, Control, and Surveillance (MCS) system by means of institutional restructuring, increased resource and capacity support, and improvements to the licensing and vessel registration systems. The FMP is reviewed annually, with progress reported in relation to its stated objectives and a comprehensive evaluation conducted every two years (*Thai Government Gazette, 2015b*). Subsequently, the Department of Fisheries implemented the *Marine Fisheries Management Plan 2020–2022*, with the aim of restoring fishery resources in Thai waters to a level that achieves MSY and expanding sustainable fisheries into deep-sea and distant waters. Other key goals included eliminating IUU fishing, restoring aquatic habitats and ecosystems, improving the livelihoods of small-scale and coastal fishing communities, and enhancing fisheries management capacity.

The plan introduced significant measures, such as:

- Effort control through the establishment of the Total Allowable Effort (TAE);
- Licensing systems and incentive mechanisms (e.g., vessel buyback programs);
- Area-based management for specific fisheries (e.g., shellfish);
- Initiation of Fisheries Improvement Projects (FIPs) for certain fishery types;
- Revision of the National Plan of Action to Prevent, Deter, and Eliminate IUU Fishing (NPOA-IUU);
- Strengthening responsibilities of coastal states, flag states, and port states;
- Enhancing traceability systems;
- Integration of regional and international MCS networks;
- Habitat restoration and biodiversity conservation through cooperation with the Department of Marine and Coastal Resources;
- Adoption of the FAO's *Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries* to improve the well-being of small-scale fishers and coastal communities. (*Department of Fisheries, 2020*)

Most recently, the Department of Fisheries formulated the *Fisheries Management Policy and Plan 2023–2027*, comprising four main policy areas:

- Development of fisheries within Thai waters;
- Promotion, development, and resolution of issues in fisheries beyond Thai waters;
- Development of national aquaculture;
- Development of the country's fisheries-related industries.

Marine fisheries are included under the first policy area and emphasize the efficient utilization of fishery resources, eradication of IUU fishing, and sustaining catch levels at the MSY. The plan also aims to improve the livelihoods of fishers, expedite the systematization of fisheries management, and ensure conservation and restoration of fisheries resources and ecosystems to maintain long-term production potential. It also promotes career development and capacity building among fishers (Department of Fisheries, 2023). The 2023–2027 Plan is currently under consideration by the Cabinet for approval.

THAILAND'S NATIONAL PLAN OF ACTION TO PREVENT, DETER, AND ELIMINATE IUU FISHING (NPOA-IUU)

In 2015, Thailand introduced its first National Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated (IUU) Fishing (NPOA–IUU) 2015–2019, which was approved by the Cabinet and officially announced in the Royal Thai Government Gazette. This plan was developed under the principles and provisions of the International Plan of Action to Prevent, Deter, and Eliminate IUU Fishing (IPOA–IUU) by the Food and Agriculture Organization of the United Nations (FAO). It also reflects the Regional Plan of Action (RPOA) to promote responsible fishing practices and eliminate IUU fishing in Southeast Asia.

Thailand's NPOA–IUU outlines strategies across five key dimensions:

- All State Responsibilities
- Flag State Responsibilities
- Coastal State Responsibilities
- Port State Measures
- Internationally Agreed Market-Related Measures

The NPOA–IUU applies to all marine fishing activities conducted both within Thai waters and beyond, including in other countries' Exclusive Economic Zones (EEZs) and on the high seas. It emphasizes compliance with national laws, policies, and fisheries regulations, as well as relevant international instruments and legally binding agreements.

To operationalize the plan, Thailand developed a detailed implementation framework that includes Key Performance Indicators (KPIs), operational manuals, relevant legislation and policies, responsible agencies, and a timeline for implementation of measures and management actions.

To build upon and update the original 2015–2019 plan, Thailand developed NPOA–IUU No. 2 (2021) to ensure relevance and responsiveness to current fisheries conditions. The new plan maintains the same five-dimensional structure as set out in the IPOA–IUU:

- All State Responsibilities
- Flag State Responsibilities
- Coastal State Measures
- Port State Measures
- Internationally Agreed Market-Related Measures

After the 2016–2019 implementation period, Thailand's fisheries sector underwent significant changes under the Royal Ordinance on Fisheries, B.E. 2558 (2015) and its amendments. These legal reforms provided a robust framework for fisheries governance and enforcement. Under this framework, various agencies have made tangible progress in implementing integrated IUU-related measures. The Department of Fisheries regularly reports on Thailand's efforts to the FAO every two years via the Code of Conduct for Responsible Fisheries (CCRF) questionnaire. The FAO then compiles these responses into global reports for dissemination and benchmarking (Thai Government Gazette, 2015b).

FISHERIES MONITORING, CONTROL, AND SURVEILLANCE (MCS) ACTION PLAN

Thailand does not currently have a dedicated national MCS plan. However, MCS-related activities are integrated into several key fisheries management policies and plans, including:

- The Fisheries Management Policy and Plan (2023–2027)
- The National Marine Fisheries Management Plan (2020–2022)
- The National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (NPOA–IUU) — both the 1st version (2015–2019) and the 2nd version (2021)

The details are as follows:

1. Fisheries Management Policy and Plan (2023–2027)

MCS components are included under Strategy 2: Sustainable Fisheries Resource Management and Utilization, which aims to reduce illegal fishing, enhance traceability across the supply chain, and improve the overall effectiveness of fisheries governance.

Relevant Strategies and Key Activities:

Strategy 1: Utilization of fisheries resources based on reference points

- Monitor resource use based on MSY (Maximum Sustainable Yield), ensuring annual harvest remains within MSY
- Allocate and monitor fishing days in accordance with authorized limits
- Remove fishing vessels from the system to reduce excess fishing capacity
- Ensure fishing gears comply with legal standards
- Implement spatial management for certain aquatic species
- Consolidate fishing licenses

Strategy 2: Enhance the MCS system and legal framework to prevent IUU fishing

- Monitor and control fishing vessel operations in accordance with laws
- Strengthen MCS operations in line with NPOA–IUU (2nd version)
- Improve electronic monitoring systems for fisheries beyond national waters
- Update the national IUU vessel database
- Raise awareness and empower local fishing communities to prevent IUU fishing
- Enhance officer capacity in MCS operations and electronic systems
- Review regulations of Coastal States, Port States, and relevant RFMOs
- Update Thailand’s laws to align with changes in regional and international frameworks

2. National Marine Fisheries Management Plan (2020–2022)

MCS-related activities fall under the following objectives:

Objective 1: Restore fisheries resources to achieve MSY in Thai waters

- Emphasis on regulating fishing effort to maintain resource sustainability

Objective 2: Achieve IUU-free fisheries

- Strengthen and upgrade the MCS system
- Improve traceability systems
- Promote international and regional cooperation to combat IUU fishing

Thailand's MCS initiatives are also embedded in the NPOA–IUU, particularly under its role as:

- A Coastal State
- A Flag State
- A Port State

- And as a party engaged in international trade

These roles require multi-agency collaboration to ensure the implementation of MCS and enforcement of laws.

KEY AGENCIES INVOLVED IN MCS IN THAILAND

- Department of Fisheries (DOF) – Main authority responsible for fisheries inspection, control, monitoring, and enforcement.
- Marine Police Division – Responsible for enforcement and patrol at sea.
- Royal Thai Police – Supports enforcement in maritime-related criminal cases.
- Harbor Department – Oversees vessel traffic and maritime operations.
- Customs Department – Inspects imported/exported fisheries products and enforces trade-related IUU measures.

STRUCTURE AND SYSTEM OF DEPARTMENT OF FISHERY RELATED TO MCS

STRUCTURE AND SYSTEM OF THE DOF RELATED TO MCS

The Department of Fisheries (DOF) is a governmental agency that was established on September 21, 1926, originally named the “Aquatic Animal Conservation Department.” Its primary responsibilities included overseeing and promoting the expansion of aquatic animal harvesting for both domestic consumption and international trade. The department was also in charge of designating fishing zones and seasons permitted under the Royal Act on Water Tax, R.S. 120. It was renamed to the Department of Fisheries in 1954 and has continued to operate under this name to the present day.

In 2016, following the enactment of the Royal Ordinance on Fisheries B.E. 2558 (2015), the Department of Fisheries underwent a structural reorganization, expanding from 14 units to 24 units. A total of ten new divisions have been established, consisting of six main divisions as follows:

1) Fisheries Resources Management and Measures Determination Division
2) Fishing and Fleets Management Division
3) Fish Quarantine and Inspection Division
4) Aquatic Animal Feed Research and Development Division
5) Aquatic Animal Health Research and Development Division
6) Fisheries Commodity Standard System and Traceability Division

And four supporting divisions, as follows:

1) Policy and Strategy Division
2) Royal Fisheries Initiated Projects and Special Activities Division
3) Legal Affairs Division
4) Bangkok Fisheries Provincial Office.

TABLE 02 CORE AND SUPPORTING AGENCIES OF DOF RELATED TO MCS

Key responsibilities related to MCS	Core agencies	Supporting agencies
MONITORING (M)	Fisheries Development Policy and Planning Division (M1)	Fisheries Foreign Affairs Division (SUP1) Fish Inspection and Quality Control Division (SUP2) Fisheries Commodity Standard System and Traceability Division (SUP3) Aquatic Animal Feed Research and Development Division (SUP4) Information and Communication Technology Center (SUP5)
	Marine Fisheries Research and Development Division (M2)	
CONTROL (C)	Fisheries Resources Management and Measures Determination Division (C1)	
	Legal Affairs Division (C2)	
SURVEILLANCE (S)	Fish Quarantine and Fishing Vessels Inspection Division (S1)	
	Fishing and Fleets Management Division (S2)	
	Fishing Control and Surveillance Division (S3)	

Remark: The word in parentheses will be used in Figure 3-5.

In 2020, the Department of Fisheries underwent another organizational restructuring, particularly adjusting the structure of departments related to MCS. As part of this restructuring, the responsibility for fishing vessel inspections (PIPO operations) was transferred from the Fishing and Fleets Management Division to the Fish Quarantine and Inspection Division. The division was subsequently renamed to the Fish Quarantine and Fishing Vessels Inspection Division. Most other divisions underwent name changes to align with the Office of the Civil Service Commission (OCSC) guidelines. The overall structure was reorganized into four clusters: Policy and Administration Cluster, Fisheries Resource Management Cluster, Aquaculture Research and Development Cluster, and Fisheries Industry Development and Traceability Cluster. Each cluster is overseen by a Deputy Director-General. The Fisheries Resource Management Cluster consists of six key divisions:

- Inland Fisheries Research and Development Division
- Marine Fisheries Research and Development Division
- Fishing Control and Surveillance Division
- Fisheries Resources Management and Measures Determination Division
- Fishing and Fleets Management Division
- Fish Quarantine and Fishing Vessels Inspection Division

Currently, the Department of Fisheries' units involved in MCS include seven core divisions and five support divisions as shown in **Table 02**.

The restructuring of the Department of Fisheries has led to the development of systems to support operations related to MCS as mandated by law. Since 2016, the systems associated with MCS have been continuously developed and improved with the participation of stakeholders involved in the fisheries sector, such as fishing operators, associations related to fisheries, and exporters. The systems related to MCS (**Figure 03**) are as follows:

1) Fishing info/e-PIPO system: This system, overseen by the Division of Fish Quarantine and Fishing Vessels Inspection under the Department of Fisheries, is used to record and verify information on Thai fishing vessels that report their arrivals and departures at fishing ports to the Port In – Port Out Controlling Center (PIPO). The system links data from various databases, checks and processes the information, and provides it to PIPO officers. The system is integrated with the following information systems:

- **The Thai Vessel Registration Database System (e-285):** This is a system developed by the Marine Department. It is used to verify the accuracy of vessel registration data, vessel licenses, and ship inspection certificates.
- **The Electronic Fishing License System (e-license):** The system, managed by the Fisheries Resource Management and Measures Determination Division of the Department of Fisheries, enables employers and fishing vessel owners to apply for various types of fishing licenses electronically. Licenses available through the system include: commercial fishing licenses, artisanal fishing licenses, licenses for fishing operations outside Thai waters, registration of fish carriers or fish storage vessels, and registration as a fishing port. The e-license system is integrated with other systems as follows:
    - connected to the Fishing Info system for vessel port-in/port-out notifications,
    - linked with the Vessel Monitoring System (VMS) for checking fishing licenses,
    - Additionally, it is connected to systems used for at-sea inspections, port inspections, the preparation of the Logbook (LB), traceability verifications, and the issuance of Catch Certificates (CC).
- **The migrant Crew Book Issuance System (Sea Book):** The system, managed by the Fisheries Resource Management and Measures Determination Division of the Department of Fisheries, is used for issuing official documentation for migrant workers employed on fishing vessels in Thailand. This system records the background information of migrant crew members and ensures that their employment complies with legal regulations.
- **The Vessel Monitoring System (VMS):** The system, managed by the Fishing and Fleets Management Division of the Department of Fisheries, is a system developed to track the real-time location of fishing vessels via satellite. Its purpose is to regulate fishing activities within Thai waters and prevent illegal fishing practices. To support this system, the Department of Fisheries has established the Fisheries Monitoring Centre (FMC), which serves as the main agency responsible for monitoring, tracking, and overseeing the fishing operations of both fishing vessels and fishing support vessels through the VMS.
- **The Common Risk Assessment System:** This is an automated system developed by the Division of Fish Quarantine and Fishing Vessels Inspection under the Department of Fisheries. The system helps authorities prioritize inspections and enhance the monitoring of fishing activities. It is designed to assess the risk levels of Thai fishing vessels. The risk levels are categorized into three levels: Normal, Under Surveillance, and High Risk. Risk classification is based on several conditions, including:

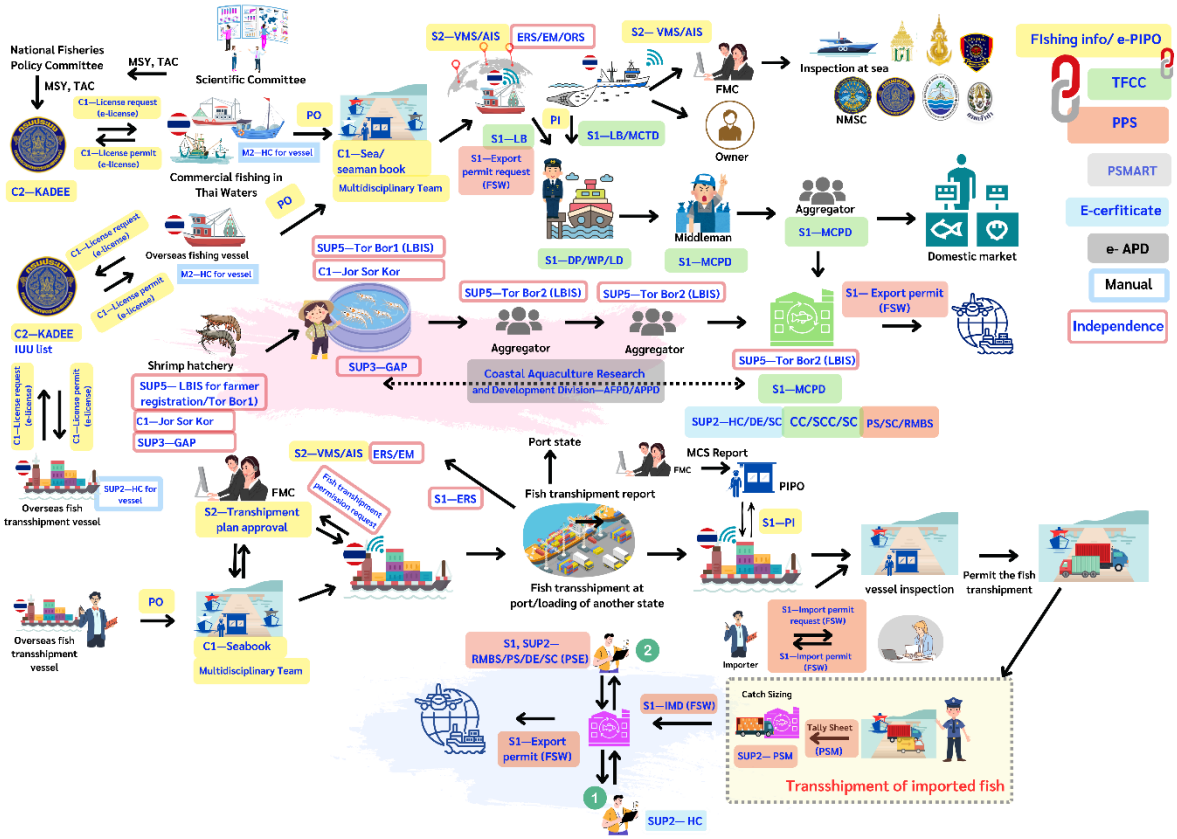
- Comparison between fishing coordinates from the VMS data and the data recorded in the logbook (LB),
- Discrepancies in reported fish weights between the Logbook (LB) and the Landing Declaration (LD),
- Missing or delayed VMS signals, and
- The legal history of the vessel owner or operator.

- **The Fishery Law/KADEE Database System:** This system, developed by the Fishery Law Division of the Department of Fisheries, is used for recording, searching, and reporting fishery-related legal cases. This system is linked with several other databases, including:
  - The Marine Department's Vessel Registration Database,
  - The Common Risk Assessment Database (in e-PIPO),
  - The Electronic Fishing License Database (in e-License),
  - The Situation Image Database of the National Maritime Enforcement Center, and
  - The Prosecution Case Results Database.

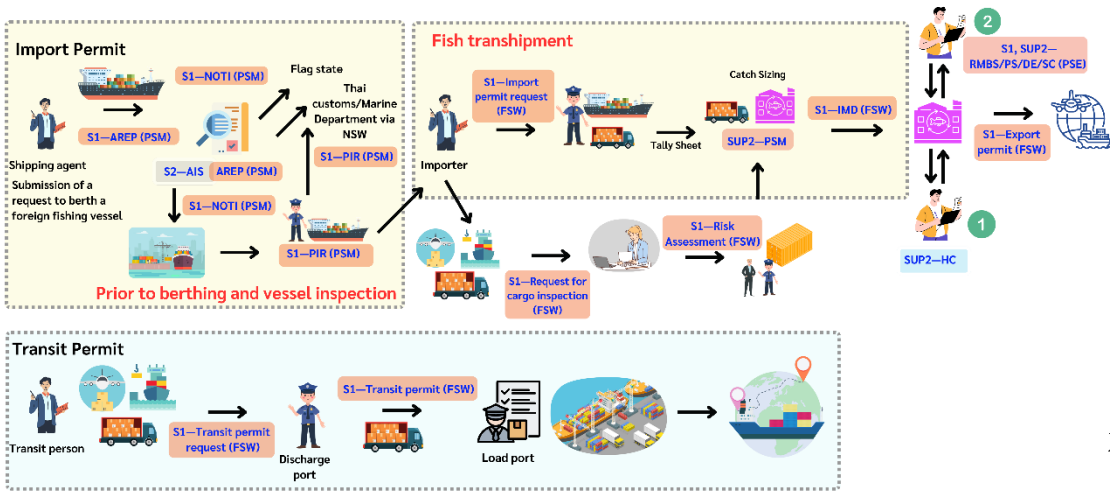
  This integration helps streamline the monitoring and enforcement of fishery laws, ensuring a more efficient response to illegal fishing activities.

FIGURE 03 SYSTEMS AND OPERATIONS RELATED TO MCS IN THAILAND

a. Inspection and control procedures for Thai vessels and fishery products produced in Thailand



b. Inspection and control procedures for foreign fishing vessels and fishery products



M1, Fisheries Development Policy and Planning Division; M2,Marine Fisheries Research and Development Division; C1, Fisheries Resources Management and Measures Determination Division; C2, Legal Affairs Division; S1, Fish Quarantine and Fishing Vessels Inspection Division; S2, Fishing and Fleets Management Division; S3,Fishing Control and Surveillance Division; SUP1, Fisheries Foreign Affairs Division; SUP2, Fish Inspection and Quality Control Division; SUP3, Fisheries Commodity Standard System and Traceability Division; SUP4, Aquatic Animal Feed Research and Development Division; SUP5, Information and Communication Technology Center

2) Thai Flagged Catch Certification System (TFCC): This system, managed by the Division of Fish Quarantine and Fishing Vessels Inspection under the Department of Fisheries, is a traceability system for aquatic animals caught by Thai fishing vessels. The system consists of eight integrated sub-systems: Port In-Port Out Recording System, Landing Declaration (LD), Weighing at Port (WP), Fishing Logbook System (LB), Marine Catch Transshipment Document (MCTD), Audit at Port (AP) – inspection of aquatic animals at fishing ports, Marine Catch Purchase Document (MCPD), and Catch Certification System (CC). The TFCC system links all sub-systems and automatically verifies key information, such as consistency in reported catch volumes across the LB, LD, WP, and MCPD systems. It also integrates with other systems, such as E-License through the Fishing Info/e-PIPO system, to check the consistency between the reported catch species and the type of fishing gear used. For seafood products intended for export that originate from Thai-flagged fishing vessels, a Catch Certificate (CC) or Simplified Catch Certificate (SCC) is required as part of the export application process.

3) Imported Aquatic Animal Traceability System: This system, called the **Processing Statement and PSM Link System (PPS)**, is overseen by the Division of Fish Quarantine and Fishing Vessels Inspection under the Department of Fisheries. It is designed to trace the origin and processing of imported aquatic animals. There are three sub-systems as follows:

- **Fisheries Single Window (FSW)** – This system is managed by the Division of Fish Quarantine and Fishing Vessels Inspection under the Department of Fisheries. It was developed to facilitate data exchange with the Customs Department through the National Single Window (NSW) system. It serves as a channel for applying for import, transit, and export permits for aquatic animals and aquatic animal products. The system also issues the Imported Aquatic Animal Movement Document (IMD).
- **Port State Measures System (PSM)** – This system, managed by the Division of Fish Quarantine and Fishing Vessels Inspection under the Department of Fisheries, is used to inspect and authorize foreign fishing vessels to berth at Thai ports, as well as to regulate transshipment of aquatic animals. Vessel owners or shipping agents are required to submit an AREP (Advance Request for Port Entry) through the E-PSM system. Thailand's inspection and control process for foreign fishing vessels and their aquatic products consists of three main procedures: pre-port entry process, inspection process at the fishing port, and transshipment control process
- **Processing Statement Endorsement System (PSE) –** This system is managed by the Fish Inspection and Quality Control Division of the Department of Fisheries. It is designed to control production and issue certifications for fishery products exported using imported raw materials. For production control, the system verifies the initial quantity of imported aquatic raw materials using data from the IMD (from the FSW system), CC/SCC, and the quantity of Raw Materials Balance Stock for Import no.1 (RMBS1). Based on this information, the system issues the following types of certificates: Processing Statement (PS) – certifying the production or processing of aquatic products, Declaration (DE) – certifying storage of imported aquatic products without further processing, Self-Certification (SC) – used for export purposes. For raw materials derived from aquaculture in Thailand, the Aquaculture Product Purchasing Document (APPD) or the Movement Document (MD) data is used to issue the Self-Certification (SC) for export.

4) Control and Monitoring System for Thai Fishing Vessels Operating outside Thai Waters:

This system is managed by the Fisheries Monitoring Center (FMC) under the Division of Fishing and Fleets Management, Department of Fisheries. It is designed to monitor Thai fishing vessels

that operate outside Thai waters, including fishing and transshipment vessels. These vessels are required to install multiple systems for monitoring and compliance as follows:

- Vessel Monitoring System (VMS) and Automatic Identification System (AIS) – to track vessel routes and monitor fishing behavior,
- Electronic Monitoring System (EM) – using Closed-Circuit Television (CCTV) to monitor fishing activities and transshipment of aquatic animals,
- Electronic Reporting System (ERS) – for communication and reporting, such as fishing activity reports, transshipment notifications, and transshipment reports, and
- Observer Reporting System (ORS) – a system through which onboard observers report fishing operations of the vessels.

These systems ensure transparency, legal compliance, and traceability for Thai fishing vessels operating beyond national jurisdiction.

5) Port State Measures Analysis and Reporting Tool (PSMART): This system is used to assess risk by analyzing the routes and behaviors of foreign fishing vessels and transshipment vessels. The system generates an AREP Analysis Report, which serves as supporting documentation for issuing a Notification to Fishing Vessel Following a Request to Enter Port (NOTI), authorizing the vessel's entry into port.

6) Establishment Certification Request System (E-Certificate): This system is managed by the Fish Inspection and Quality Control Division under the Department of Fisheries. It is used for requesting the inspection and certification of establishments as well as the registration and certification of fishery products. Entrepreneurs who wish to export fishery products are required to obtain a Health Certificate (HC), which certifies the hygiene standards of their establishments.

7) Aquatic Animal Purchasing Documents (E-APD): This application is managed by the Coastal Aquaculture Research and Development Division under the Department of Fisheries. While it may not be directly part of the MCS operations, it plays a role in the traceability system to verify the origin of raw materials used in exported aquatic animals or products, helping prevent the misuse of product origin claims. The system is specifically designed for marine shrimp farmers and registered fisheries operators (registered under form Tor Bor2 with the Department of Fisheries). It enables the issuance of: Aquaculture Fry Purchasing Document (AFPD) – for the purchase of shrimp post-larvae, Aquaculture Product Purchasing Document (APPD) – for tracking the purchase of aquaculture products. For other freshwater and coastal aquatic animals (excluding marine shrimp), farmers and operators must apply for Movement Document (MD) or Fry Movement Document (FMD) through the Aqua MD system.

8) Other Systems: The Department of Fisheries also operates other electronic systems that may not be directly related to MCS but support traceability mechanisms for identifying the origin of aquatic animals. These systems are currently not integrated with the aforementioned MCS-related systems. Examples include:

- **Location-Based Information System (LBIS):** a system, managed by the Information and Communication Technology Center under the Department of Fisheries, is used for recording the registration data of farmers and fisheries business operators. Fisheries Farmer Registration is categorized into three groups as follows: Aquaculture Farmer Registration – referred to as Form Tor Bor1, Fisheries Business Operator Registration – referred to as Form Tor Bor2, and Fishing Operator Registration – referred to as Form Tor Bor3. This registration is voluntary.

- **Notification System for Controlled Aquaculture Operations (Jor Sor Kor)**: This system, managed by Fisheries Resources Management and Measures Determination Division under the Department of Fisheries, is for farming operators to submit notifications of their business operations to the Department of Fisheries as required by law. Currently, it is enforced for marine shrimp farming operators to regulate marine shrimp farming.
- **Aquaculture Farm Certification Database Management Program:** The system is managed by the Fisheries Commodity Standard System and Traceability Division under the Department of Fisheries. This system is used for requesting certification of aquaculture farms according to the GAP/CoC standards and organic standards.
- **DOF Traceability System:** This is a system used to search and track the status of ongoing matters. The system links data from various systems in the Department of Fisheries such as LBIS, Aquaculture Farm Certification Database Management Program, e-APD, and FSW system.

In monitoring the status of the fishery in Thai waters, there are two main relevant agencies: the Fisheries Development Policy and Planning Division; and the Marine Fisheries Research and Development Division. The Fisheries Development Policy and Planning Division is the main agency that collects data from various sources to generate statistical information on total catch and fishing effort. The data sources used are divided into three main sections:

1) Commercial fishing: The data comes from the e-PIPO/Fishing Info and TFCC system, such as LB, LD, VMS, etc., as well as the use of species composition data (SC), and catch-per-unit-effort (CPUE) obtained from random sampling by the Marine Fisheries Research and Development Division.
2) Small-scale fishing: Data on small-scale fisheries is obtained from three sources: partial LD data from the TFCC system, species composition data (SC), and catch-per-unit-effort (CPUE) collected through random sampling by the Marine Fisheries Research and Development Division, and survey data gathered by Provincial Fisheries Offices (PFO) and Local Fishery Community Organizations (LFCO).

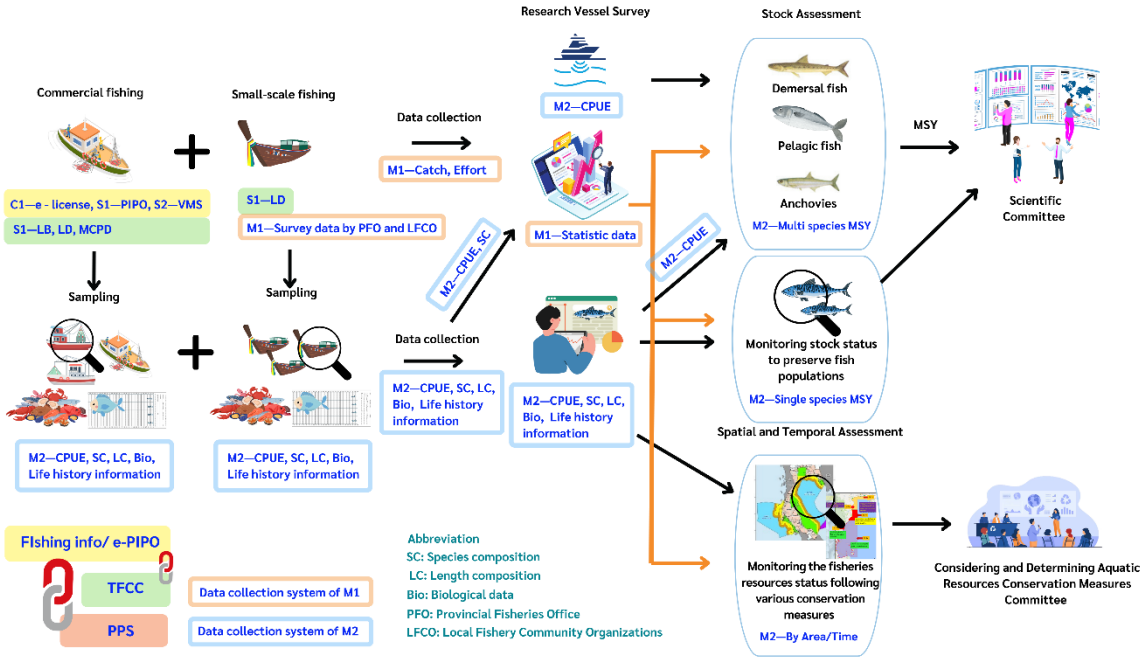
For the Marine Fisheries Research and Development Division, which is the main technical agency of the Department of Fisheries responsible for fisheries data analysis, three data sources are used as follows:

1) Sampling data: Data is collected from both commercial and small-scale fishing vessels through random sampling to obtain CPUE (Catch Per Unit of Effort), SC (Species Composition), LC (Length Composition), biological data, and life history information of key economic species. This includes fish (44 species), shrimp (9 species), crabs (3 species), squid (4 species), mollusks (7 species), and jellyfish (2 species).
2) Survey data: The primary data used is CPUE, which is collected annually by research vessels operated by the Department of Fisheries.
3) Statistical data on total catch and effort from the Fisheries Development Policy and Planning Division.

The aforementioned data are utilized to estimate the Maximum Sustainable Yield (MSY) and to assess the stock status to preserve fish population. The resulting information is submitted to the Scientific Committee to support the evaluation of MSY and the Total Allowable Catch (TAC), which is then forwarded to the National Fisheries Policy Committee for consideration in determining the TAC. This value is subsequently used to manage fisheries resources through the regulation of fishing license allocations. In addition, the Marine Fisheries Research and Development Division also uses data from fishery statistics and sampling from both commercial and small-scale fishing

vessels to monitor the state of fishery resources. These data are used to propose conservation measures through the Considering and Determining Aquatic Resources Conservation Measures Committee (**Figure 04**).

FIGURE 04 PROCESS OF MONITORING THE FISHERY STATUS IN THAI WATERS



M1, Fisheries Development Policy and Planning Division; M2,Marine Fisheries Research and Development Division; C1, Fisheries Resources Management and Measures Determination Division; S1, Fish Quarantine and Fishing Vessels Inspection Division; S2, Fishing and Fleets Management Division

CURRENT SITUATION AND CAPACITY BUILDING NEEDS OF DOF STAFF FOR MCS

04

CURRENT SITUATION OF DOF PERSONNEL IN MCS-RELATED WORK

SHARED VALUE ON THE GOALS OF THE MONITORING, CONTROL, AND SURVEILLANCE (MCS) SYSTEM IN FISHERIES

In the study of shared values, the focus is on the perception of work-related goals among personnel involved in the Monitoring, Control, and Surveillance (MCS) system. The level of perception is assessed from three perspectives: executive staff's perception of staff, staff's self-perception, and staff's perception of their peers. This evaluation is conducted within the core agencies responsible for monitoring, control, and surveillance functions. For support agencies involved in MCS-related work, the assessment is conducted at an overall level. The perception scores are categorized into three levels: Low (<60%), High (60–80%), and Very High (>80%).

In monitoring-related agencies, it was found that most staff perceived their peers' understanding of monitoring goals as low (72.7%), indicating weak internal perception. Self-perception showed a slightly more positive picture, with 45.5% of staff rating themselves at high and very high perception. Conversely, executive staff had a different view, with 72.7% rating staff's perception as high. Regarding overall MCS work goals, nearly two-thirds of the staff evaluated their peers as having low perception (63.6%), and 59.1% rated themselves the same. However, executive staff assessed staff's perception at a high level (63.6%) **(Figure 05).**

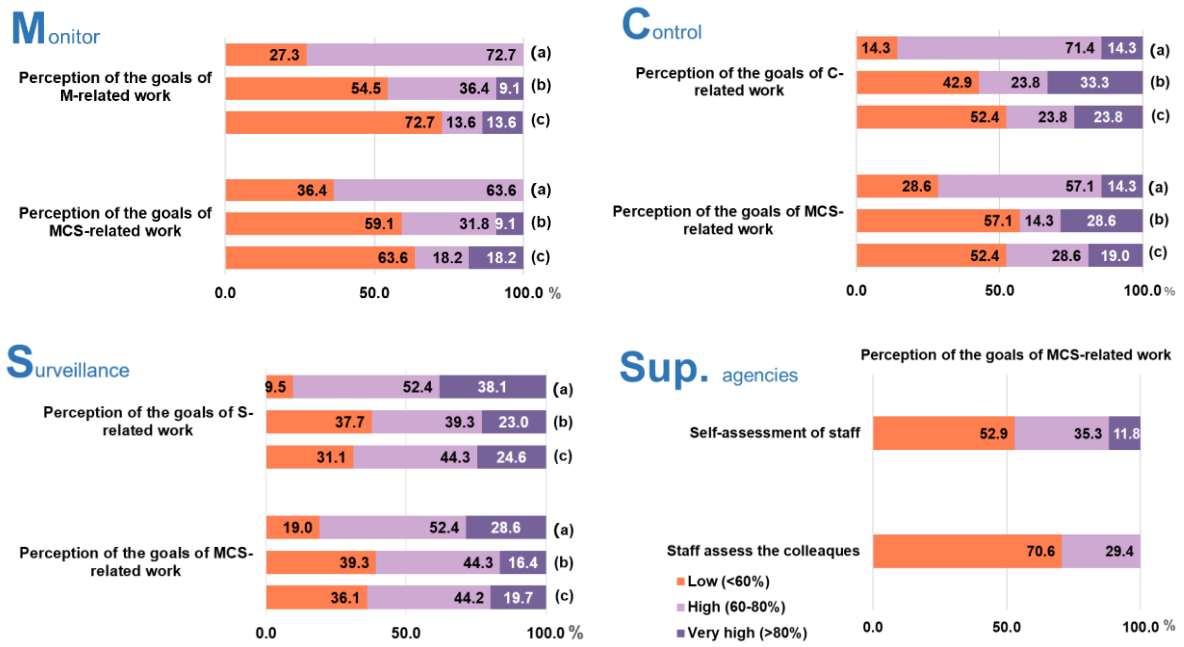
In control-related agencies, staff perception of control goals was generally low, both in peer assessments (52.4%) and self-perception (42.9%). Still, 33.3% rated themselves at the highest level, indicating that some staff are well aware of their goals. Executive staff were more optimistic, with 71.4% rating staff perception as high or very high, and only 14.3% as low—indicating a gap in perception between executive staff and staff. Regarding overall MCS work perception, 52.4% of staff rated their peers as low, and 57.1% rated themselves similarly, while 71.4% of executive staff rated perception as high or very high **(Figure 05)**.

In surveillance-related agencies, assessments by staff (both self and peers) indicated high perception of surveillance goals (44.3% and 39.3%, respectively). Executive staff gave a very positive evaluation, with 90.5% rating staff perception as high and very high and only 9.5% as low—showing strong confidence in their teams. Perception of MCS system goals showed a similar trend, with the highest proportion rated as "high" across all perspectives. Peer and self-assessments of "low" perception were similar (36.1% and 39.3%, respectively), indicating a need to improve overall understanding of the system. Executive staff continued to give positive evaluations—52.4% high and 28.6% very high, totaling 81%, which was higher than the ratings given by staff **(Figure 05)**.

In support agencies, 70.6% of staff assessed their peers' perception of MCS goals as low, reflecting internal limitations in shared goal understanding. No staff rated their peers' perception as “very high.” In self-assessments, while 52.9% rated themselves as having low perception, 11.8% and 35.3% rated themselves as having very high and high perception, respectively, indicating that some staff have a clear grasp of MCS system goals **(Figure 05)**.

Overall, there is a misalignment between executive staff’s and staff’s perception of work goal understanding in MCS, reflecting a gap that needs to be addressed at both team and organizational levels. This discrepancy also highlights issues in communication of the overall mission. It is recommended to review and communicate work goals more clearly at all levels through various channels—such as workshops to enhance understanding of MCS goals, team-based mission discussions, task assignments that require goal-oriented presentations, defining key performance indicators, developing operational manuals or summary materials to clarify each individual’s role in MCS, and hosting interdepartmental forums to present and align mission goals under MCS operations. These actions can promote shared understanding and better alignment with MCS’s ultimate goals.

FIGURE 05 SHARED VALUE ON THE GOALS OF THE MONITORING, CONTROL, AND SURVEILLANCE (MCS) SYSTEM IN FISHERIES; (A) EXECUTIVE STAFF’S PERCEPTION OF STAFF, (B) STAFF’S SELF-PERCEPTION, AND (C) STAFF’S PERCEPTION OF THEIR PEERS IN MONITOR-RELATED DIVISION, CONTROL-RELATED DIVISION, SURVEILLANCE-RELATED DIVISION, AND MCS-SUPPORTING DIVISION



SKILL ANALYSIS OF DOF PERSONNEL RELATED TO THE MCS SYSTEM IN FISHERIES

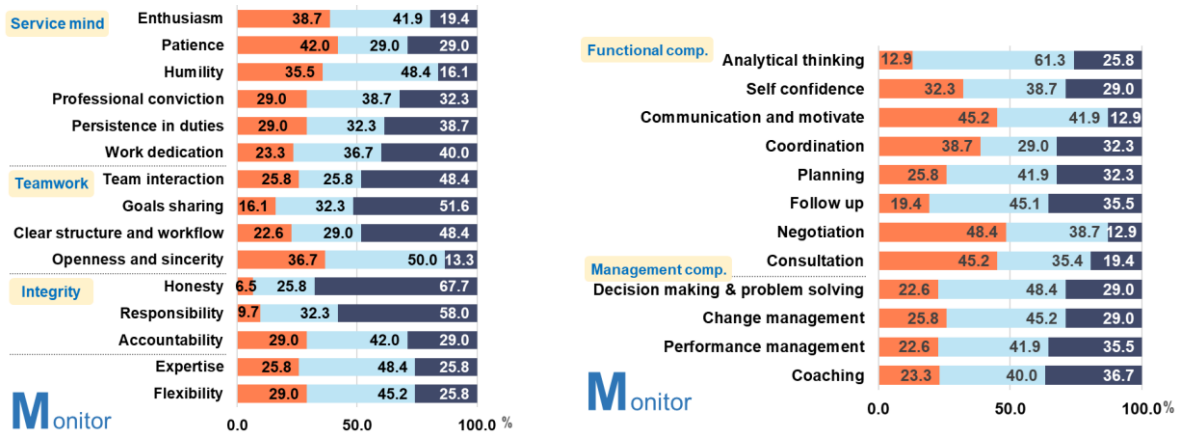
The competency analysis of personnel working in MCS-related agencies was conducted through evaluations by both executive staff and staff. The assessment covered three dimensions of competency: core competency (comprising service mind, teamwork, integrity, expertise, and flexibility), functional competency, and management competency. The levels of existing competency were categorized into three levels: low (<60%), moderate (60–80%), and high (>80%).

1) Monitor-related divisions

For core competency, staff showed strong performance in integrity, particularly in honesty and responsibility, with combined medium and high scores at 93.5% and 90.3%, respectively. The next strongest domain was teamwork, including goal sharing (83.9%), clear structure and workflow (77.4%), and team interaction (74.2%), except for openness and sincerity. The lowest-rated competency was patience (42.0%), followed by enthusiasm (38.7%), openness and sincerity (36.7%), and humility (35.5%) **(Figure 06)**.

The assessment results of functional competencies among personnel in agencies responsible for Monitoring functions revealed that the most prevalent competency currently possessed is analytical thinking (87.1% rated at medium to high levels), followed by task follow-up (80.6%). On the other hand, the functional competencies with the highest proportion of low ratings are negotiation (48.4%), followed by consultation and communication and motivation (both at 45.2%), coordination (38.7%), and self-confidence (32.3%), respectively. Regarding management competencies, personnel showed relatively similar levels across sub-competencies, ranging from 74.2% to 77.4% **(Figure 06)**.

FIGURE 06 PERCENTAGE OF PERSONAL PERCEIVING OF ACTUAL PERFORMANCE ON CORE COMPETENCY (SERVICE MIND, TEAMWORK, INTEGRITY, EXPERTISE, FLEXIBILITY), FUNCTIONAL COMPETENCY, AND MANAGEMENT COMPETENCY IN MONITOR-RELATED DIVISION.

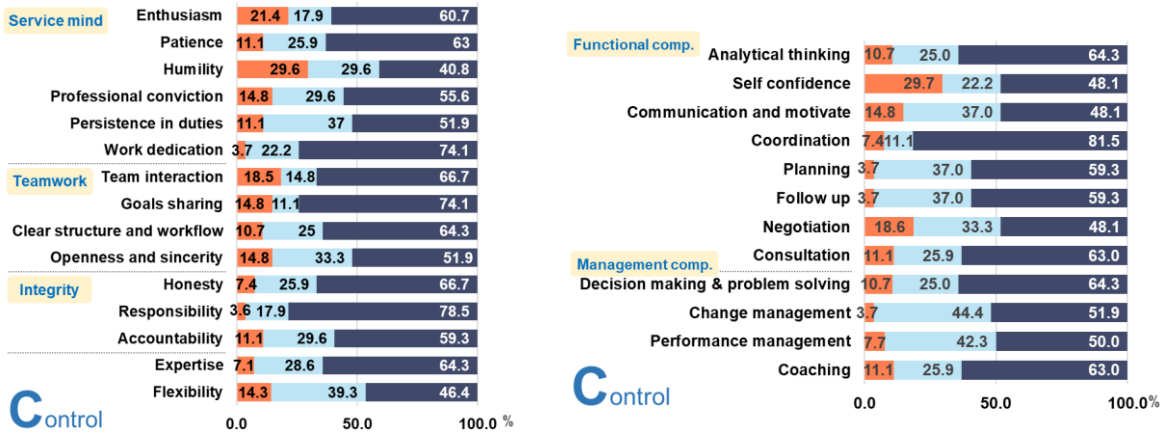


2) Control-related divisions

For core competency, responsibility was rated highest (96.4% combined medium and high), followed by work dedication (96.3%), expertise (92.9%), and honesty (92.6%). The lowest-scoring elements were humility (29.6%) and enthusiasm (21.4%) (Figure 07).

The most highly rated functional competency was coordination (81.5%), followed by analytical thinking (64.3%), consultation (63.0%), and both planning and task follow-up (59.3%). The lowest-rated functional competencies were self-confidence (29.7%) and negotiation (18.6%). As for management competencies, personnel demonstrated medium to high levels at similar rates, ranging from 88.9% to 96.3% **(Figure 07).**

FIGURE 07 PERCENTAGE OF PERSONAL PERCEIVING OF ACTUAL PERFORMANCE ON CORE COMPETENCY (SERVICE MIND, TEAMWORK, INTEGRITY, EXPERTISE, FLEXIBILITY), FUNCTIONAL COMPETENCY, AND MANAGEMENT COMPETENCY IN CONTROL-RELATED DIVISION.

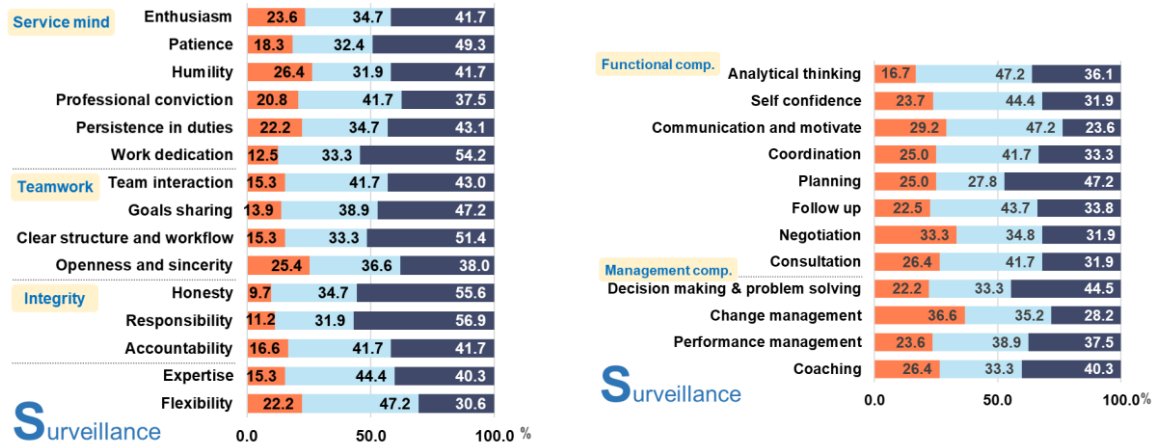


3) Surveillance-related divisions

For core competency, staff received high combined scores in honesty (90.3%), responsibility (88.8%), and work dedication (87.5%). The lowest-rated competencies were humility (26.4%), openness and sincerity (25.4%), enthusiasm (23.6%), persistence in duties, and flexibility (both 22.2%) **(Figure 08)**.

For functional competency, high ratings were found in planning (47.2%) and analytical thinking (36.1%). The lowest-rated competencies were negotiation (33.3%) and communication and motivation (29.2%). In terms of management competencies, the highest-rated sub-competency was decision making and problem solving (44.5%), followed by coaching (40.3%). The lowest-rated area was change management (36.6%) **(Figure 08)**.

FIGURE 08 PERCENTAGE OF PERSONAL PERCEIVING OF ACTUAL PERFORMANCE ON CORE COMPETENCY (SERVICE MIND, TEAMWORK, INTEGRITY, EXPERTISE, FLEXIBILITY), FUNCTIONAL COMPETENCY, AND MANAGEMENT COMPETENCY IN SURVEILLANCE-RELATED DIVISION.

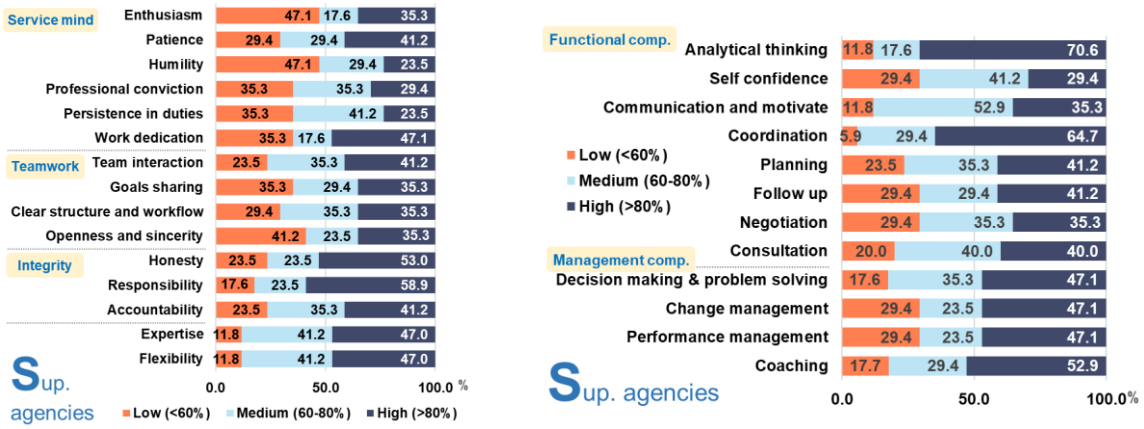


4) Supporting agencies

For core competency, staff were rated highest in expertise and flexibility (both 88.2%). The lowest-rated competencies were enthusiasm and humility (both 47.1%), followed by openness and sincerity (41.2%), professional conviction, persistence in duties, work dedication, and goal sharing (each at 35.3%) **(Figure 09)**.

The most highly rated functional competency was analytical thinking (70.6%), followed by coordination (64.7%). The lowest-rated competencies included self-confidence, task follow-up, and negotiation, all at 29.4%. Regarding management competencies, personnel ratings were relatively consistent at high levels (47.1%–52.9%). However, the most frequently low-rated competencies were change management and performance management, both at 29.4% **(Figure 09)**.

FIGURE 09 PERCENTAGE OF PERSONAL PERCEIVING OF ACTUAL PERFORMANCE ON CORE COMPETENCY (SERVICE MIND, TEAMWORK, INTEGRITY, EXPERTISE, FLEXIBILITY), FUNCTIONAL COMPETENCY, AND MANAGEMENT COMPETENCY IN MCS SUPPORTING DIVISION.



Overall, the most prominent core competencies among MCS staff were honesty and responsibility. Conversely, enthusiasm and humility received the lowest ratings. The low level of enthusiasm might be attributed to the structured, law-bound nature of MCS work, top-down organizational culture, limited staff involvement in decision-making, and lack of tangible motivation. This environment may cause staff to perceive enthusiasm as non-essential for career advancement, resulting in low engagement.

For functional competency, across MCS-related personnel, analytical thinking was the most prominent functional competency. Conversely, the lowest-rated functional competency across all agencies was negotiation, highlighting a key area for development—particularly in persuasive communication, negotiation, or conflict management. These limitations may stem from a lack of experience interacting with external stakeholders such as fishers or other agencies. In terms of management competencies, personnel across all agencies were notably strong in decision making and problem solving. However, change management consistently received the lowest ratings. This may be due to a lack of understanding or positive perspective toward change, limited involvement in change processes, and insufficient adaptive and communication skills. These areas require development through both theoretical and hands-on training in real-world scenarios moving forward.

SUPPORT PROVIDED TO STAFF AND WORKING STYLE IN THE MONITORING, CONTROL, AND SURVEILLANCE (MCS) SYSTEM IN FISHERIES

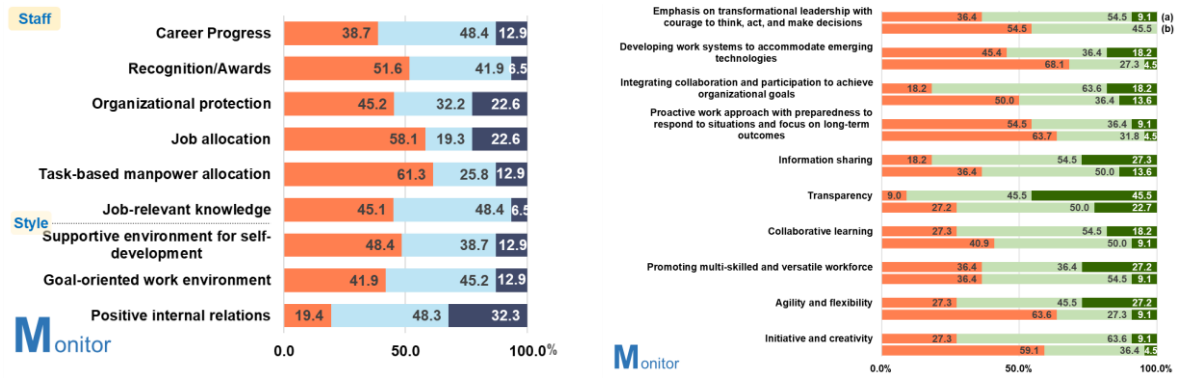
The support received by personnel and the organizational styles in the implementation of Monitoring, Control, and Surveillance (MCS) in fisheries were assessed jointly by executive staff and staff across two dimensions: **staff support and organizational style support.** The levels of support were categorized into three levels: low (<60%), medium (60–80%), and high (>80%). In addition, this study assessed the current work style of organizations in achieving the objectives of Monitoring, Control, and Surveillance (MCS) in the fisheries sector. The evaluation was conducted from the perspectives of both executive staff and staff across key agencies involved in monitoring, control, surveillance, and MCS support. The results were categorized into three levels of performance: needs Improvement, good, and very good.

1) Monitor-related divisions

For staff support, the aspect that personnel perceived the highest support for (combined medium and high levels) was career progress (61.3%), followed by job-relevant knowledge (54.9%) and organizational protection (54.8%). The issues rated as having the lowest level of support were task-based manpower allocation (61.3%), job allocation aligned with work changes (58.1%), and recognition/awards (51.6%). As for support through internal organizational styles, the aspect with the highest perceived support was positive internal relations (80.6%). Meanwhile, the areas with the lowest level of support were supportive environment for self-development (48.4%) and goal-oriented work environment (41.9%) **(Figure 10).**

For the current work style, several aspects of the work style were identified by more than half of the staff as requiring improvement, with their assessments exceeding those of the executive staff. These aspects included the development of work systems to accommodate emerging technologies (68.1%), agility and flexibility (63.6%), initiative and creativity (59.1%), emphasis on transformational leadership with courage to think, act, and make decisions (54.5%), and the integration of collaboration and participation to achieve organizational goals (50.0%) **(Figure 10).**

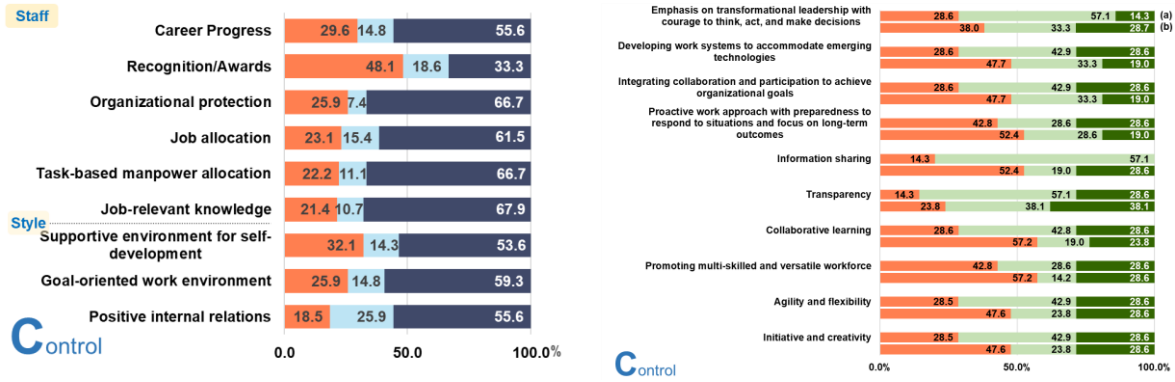
FIGURE 10 PERCENTAGE OF PERSONNEL PERCEIVING THE SUPPORT RECEIVED IN WORK RELATED TO MONITORING, CONTROL, AND SURVEILLANCE (MCS) SYSTEM IN MONITOR-RELATED DIVISION (LEFT) AND EVALUATION OF ORGANIZATIONAL WORK STYLES AIMED AT ACHIEVING THE OBJECTIVES OF MONITORING, CONTROL, AND SURVEILLANCE (MCS) OPERATIONS IN THE MONITOR-RELATED DIVISIONS (RIGHT).



2) Control-related divisions

For staff support, most personnel support items received a high level of support (over 50%), except for recognition/awards, which had the lowest level of support (48.1%). In terms of organizational style support, all items were rated similarly and above 50%, with supportive environment for self-development receiving the lowest support (32.1%) **(Figure 11)**.

FIGURE 11 PERCENTAGE OF PERSONNEL PERCEIVING THE SUPPORT RECEIVED IN WORK RELATED TO MONITORING, CONTROL, AND SURVEILLANCE (MCS) SYSTEM IN CONTROL DIVISION (LEFT) AND EVALUATION OF ORGANIZATIONAL WORK STYLES AIMED AT ACHIEVING THE OBJECTIVES OF MONITORING, CONTROL, AND SURVEILLANCE (MCS) OPERATIONS IN THE CONTROL-RELATED DIVISIONS (RIGHT).

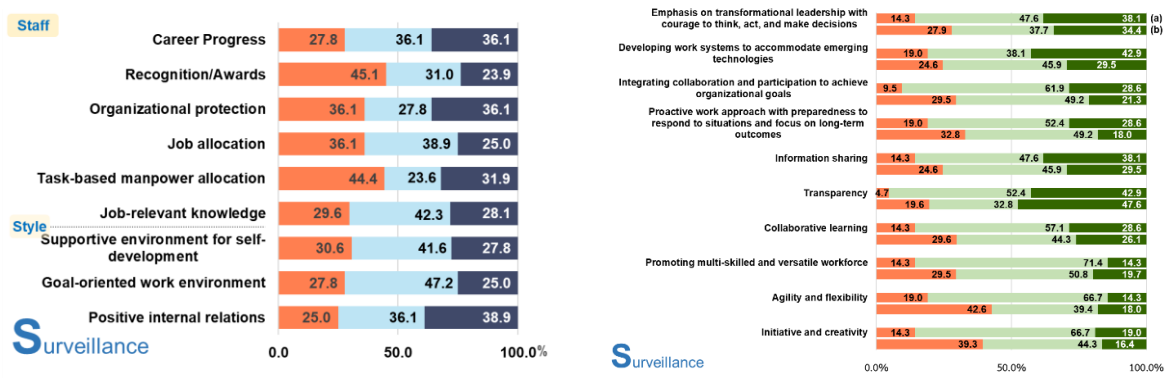


The work styles most commonly identified by the staff as needing improvement were collaborative learning (57.2%) and the promotion of a multi-skilled and versatile workforce (57.2%). These were followed by a proactive work approach with preparedness to respond to situations and a focus on long-term outcomes (52.4%), and information sharing (52.4%). Notably, the disparity in perception between executive staff and staff was particularly significant in the areas of information sharing (a 38.1% difference) and collaborative learning (a 28.6% difference) **(Figure 11)**.

3) Surveillance-related divisions

For staff support, the aspect of personnel support receiving the highest proportion of medium to high ratings was career progress (72.2%). Items receiving the lowest level of support (nearly half of respondents) were recognition/awards (45.1%) and task-based manpower allocation (44.4%). Regarding support through internal organizational styles, the levels of support were similar across items, with supportive environment for self-development rated as the lowest (30.6%) **(Figure 12)**.

FIGURE 12 PERCENTAGE OF PERSONNEL PERCEIVING THE SUPPORT RECEIVED IN WORK RELATED TO MONITORING, CONTROL, AND SURVEILLANCE (MCS) SYSTEM IN SURVEILLANCE DIVISION (LEFT) AND EVALUATION OF ORGANIZATIONAL WORK STYLES AIMED AT ACHIEVING THE OBJECTIVES OF MONITORING, CONTROL, AND SURVEILLANCE (MCS) OPERATIONS IN THE SURVEILLANCE-RELATED DIVISIONS (RIGHT).

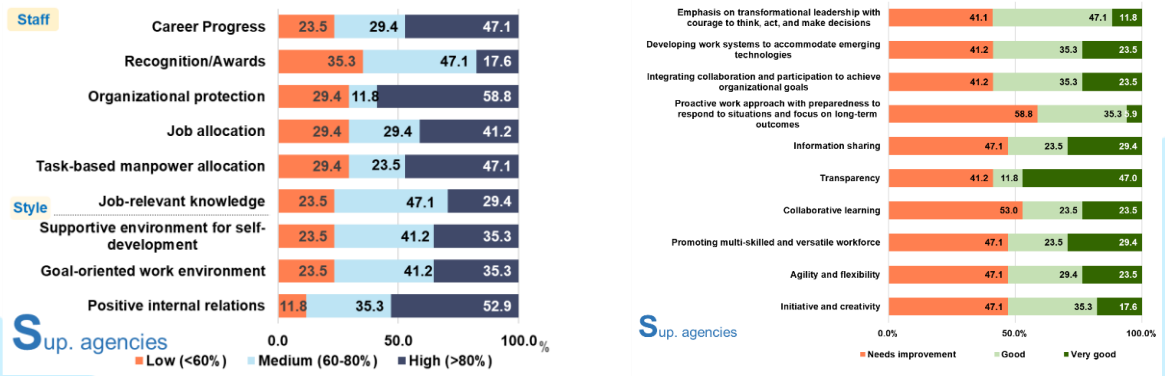


For the current work style, staff consistently reported a greater need for improvement than executive staff in the areas of agility and flexibility (42.6%), initiative and creativity (39.3%), proactive work approaches with long-term preparedness (32.8%), and the integration of collaboration and participation for organizational goals (29.5%) **(Figure 12)**.

4) Supporting agencies

For staff support, the personnel support aspect with the highest proportion of high-level ratings was organizational protection (58.8%), followed by career progress and task-based manpower allocation (47.1% each). The item receiving the least support was recognition/awards (35.3%). For support through organizational style, the most supported aspect was positive internal relations (52.9%) **(Figure 13).**

FIGURE 13 PERCENTAGE OF PERSONNEL PERCEIVING THE SUPPORT RECEIVED IN WORK RELATED TO MONITORING, CONTROL, AND SURVEILLANCE (MCS) SYSTEM IN MCS-SUPPORTING DIVISION (LEFT) AND EVALUATION OF ORGANIZATIONAL WORK STYLES AIMED AT ACHIEVING THE OBJECTIVES OF MONITORING, CONTROL, AND SURVEILLANCE (MCS) OPERATIONS IN THE MCS-SUPPORTING DIVISIONS (RIGHT).



For the current work style, both executive staff and staff jointly identified proactive work approaches (58.8%) and collaborative learning (53.0%) as the areas most in need of improvement **(Figure 13)**.

Overall, when considering the support provided to personnel involved in MCS operations, career progress was consistently the most supported issue across all agencies. On the other hand, recognition/awards and task-based manpower allocation were consistently the least supported. Lack of recognition or misalignment in manpower allocation can lead to decreased work motivation and eventually result in burnout, potentially affecting work quality or leading to resignations or internal transfers. Regarding organizational style, the least supported issue across all agencies was supportive environment for self-development. This may prevent personnel from reaching their full potential, reduce their motivation to improve, and weaken their organizational attachment, ultimately impacting the organization's development.

Across all MCS agencies, when considering the overall work style, the most commonly identified weaknesses were a lack of proactive work approaches focused on long-term outcomes and insufficient collaborative learning. These findings point to systemic issues such as the absence of clear strategic direction, inadequate communication of long-term goals, and limited engagement across organizational levels. Furthermore, the findings indicate a lack of an established culture of shared learning and the absence of supportive environments and mechanisms for staff to learn from one another through the exchange of experiences, knowledge, and lessons learned from actual operations. These deficiencies may contribute to delays and inefficiencies in organizational performance and reduce the capacity to respond effectively to emerging challenges.

Moreover, a significant concern highlighted by the study is the discrepancy between the perspectives of executive staff and staff regarding areas needing improvement. This gap suggests a misalignment in understanding, which may result from insufficient communication or a lack of awareness among executive staff of the practical constraints and challenges encountered by staff. Such disparities may lead to operational inefficiencies and undermine the effectiveness of field implementation.

CAPACITY BUILDING NEEDS OF DOF STAFF FOR MCS

This study's findings are categorized into three components: competency, motivation factors contributing to successful work performance, and strategies for work improvement. The details are outlined below.

1. COMPETENCY

The enhancement of competencies according to the needs of the Department of Fisheries (DOF) staffs for operations related to the Monitoring, Control, and Surveillance (MCS) system involves prioritizing the development of core competencies, functional competencies, and management competencies. In this study, the urgency of competency development was categorized into three levels: high urgency, moderate urgency, and low urgency.

1.1 Gap in the urgency of competency development and low existing competency level

For the Monitor-related division, the top three gaps in the perceived urgency between executive staff and operational staff regarding the development of core competencies in service mind are patience (19.5%), enthusiasm (15.4%), and professional conviction (14.5%). In terms of teamwork, the most significant gaps were identified as team interaction (31.8%) and openness and sincerity (35.9%). Other core competencies that also present perception gaps between the two groups include expertise (19.5%) and flexibility (10.5%) (**Table 03**). Regarding the core competency of integrity, although the gap in the perceived urgency between the two groups approached zero, it was found that more than 50% of both executive staff and general staff consistently identified accountability as an area requiring urgent development (**Table 03**).

TABLE 03 URGENCY PERCEPTION GAP IN COMPETENCY DEVELOPMENT AND ACTUAL PERFORMANCE EVALUATION LEVEL IN PERSPECTIVE OF STAFF AND EXECUTIVE STAFF IN MONITOR-RELATED DIVISION

Details		Perception of urgency between executive staff and staff		Proportion of respondents perceiving low existing competency level (%)
		GAP Value (%)	Alignment of perspective	
CORE	SERVICE MIND			
	Enthusiasm	15.4*	-	38.7*
	Patience	19.5*	-	42.0*
	Humility	13.6*	-	35.5*
	Professional conviction	14.5*	-	29.0*
	Persistence in duties	8.6	-	29.0*
	Work dedication	9.5	-	23.3*
	TEAMWORK			
	Team interaction	31.8*	-	25.8*
	Goals sharing	1.4	-	16.1*
	Clear structure and workflow	0.5	✓	22.6*
	Openness and sincerity	35.9*	-	36.7*
	INTEGRITY			
	Honesty	2.3	-	6.5
	Responsibility	3.6	-	9.7
	Accountability	0.4	✓✓	29.0*
	Expertise	19.5*	-	25.8*
	Flexibility	10.5*	-	29.0*
FUNCTIONAL	Analytical thinking	32.7*		12.9
	Self confidence	36.8*		32.3*
	Communication and motivation	27.7*		45.2*
	Coordination	37.7*		38.7*
	Planning	50.9*		25.8*
	Follow up	40.9*		19.4
	Negotiation	50.9*		48.4*
	Consultation	46.8*		45.2*
MANAGEMENT	Decision making and problem solving	56.8*		22.6*
	Change management	46.8*		25.8*
	Performance management	12.7*		22.6*
	Coaching	36.8*		23.3*

Notes: * GAP greater than 10% or percentage of more than 20% of respondents assessing the competency at a low level

✓✓ the GAP was close to 0, More than 50% of both executive staff and staff consistently identified the issue as requiring urgent development

✓ the GAP was close to 0, and although the proportion of executive staff and operational staff who perceived the issue as urgent was less than 50%, it still represented one of the top two highest proportions within that category.

In the area of functional competency, the most significant gap in the urgency of development between the two groups was found in planning (50.9%), negotiation (50.9%), and consultation (46.8%). These skills were also identified as having the lowest levels of proficiency, with 48.4% and 45.2% of respondents evaluating them as being at low proficiency, respectively (**Table 03**).

Regarding management competency, the largest gap in the urgency of development between the two groups was observed in decision-making and problem-solving (56.8%) and change management (46.8%). Meanwhile, respondents evaluated performance management and coaching skills as being at the lowest proficiency levels (25.8% and 23.3%, respectively) **(Table 03).**

In the Control-related division, the competencies for which executive staff and staff demonstrated differing perceptions regarding the urgency of development (GAP >10%) in the area of service mind included professional conviction (25.0%), work dedication (25.0%), persistence in duties (15.7%), and humility (13.6%). Meanwhile, the competencies with more than 20.0% of respondents assessing them as currently being at a low level were humility (29.6%) and enthusiasm (21.4%) (**Table 04**). In other core competencies, significant gaps in the urgency of development between the two groups (greater than 10%) were observed in areas such as openness and sincerity (22.9%), honesty (20%), expertise (28.6%), and flexibility (19.0%). Furthermore, there were no core competencies where more than 20% of respondents evaluated the proficiency level as being low (**Table 04**).

The skills for work where executive staff and staff have differing perspectives on the urgency of development by more than 10% include negotiation (20%), coordination (15.0%), planning (15.0%), and consultation (15.0%). The skills most frequently evaluated by respondents as being at a low level among the personnel of the organization are self-confidence (29.7%) and negotiation (28.6%).

Regarding management competencies, the area with the largest gap in urgency of development between the two groups is coaching (25.0%). However, there were no areas where more than 20% of respondents evaluated the proficiency level as being low (**Table 04**).

In the surveillance-related divisions, issues with a perceived gap of more than 10% in the urgency of developing core competencies in service excellence between executive staff and operational staff included persistence in duties (12.3%), enthusiasm (11.9%), and work dedication (11.9%) (Table 5). For the competency of patience, although the gap in urgency perception between the two groups was minimal (with a gap value close to zero), the proportion of executive staff and staff who perceived this issue as urgent ranked among the top two highest within this competency category. Meanwhile, competencies that were assessed by more than 20.0% of respondents as being at a low level were as follows: humility (26.4%), enthusiasm (23.6%), persistence in duties (20.8%), and professional conviction (20.8%) (**Table 05**).

For the core competency of teamwork, the area where there is a gap greater than 10% in the perceived urgency of development between the two groups is clear structure and workflow (28.1%). Meanwhile, 25.4% of respondents assessed openness and sincerity as a competency currently at a low level within the organization. Other core competencies where a gap greater than 10% in perceived urgency of development between the two groups was observed include accountability (11.0%), expertise (28.6%), and flexibility (19.0%). Notably, flexibility was also identified by 22.2% of respondents as a competency currently at a low level (**Table 05**)

Table 04 Urgency perception gap in competency development and actual performance evaluation level in perspective of staff and executive staff in Control-related division

Details		Perception of urgency between executive staff and staff		Proportion of respondents perceiving low existing competency level (%)
		GAP Value (%)	Alignment of perspective	
CORE	SERVICE MIND			
	Enthusiasm	4.7	-	21.4*
	Patience	5.7	-	11.1
	Humility	13.6*	-	29.6*
	Professional conviction	25.0*	-	14.8
	Persistence in duties	15.7*	-	11.1
	Work dedication	25.0*	-	3.7
	TEAMWORK			
	Team interaction	5.7	-	18.5
	Goals sharing	0.7	-	14.8
	Clear structure and workflow	9.5	-	10.7
	Openness and sincerity	22.9*	-	14.8
	INTEGRITY			
	Honesty	20.0*	-	7.4
	Responsibility	19.0*	-	3.6
	Accountability	15.7*	-	11.1
	Expertise	28.6*	-	7.1
	Flexibility	19.0*	-	14.3
FUNCTIONAL	Analytical thinking	14.3*	-	10.7
	Self confidence	1.4	-	29.7*
	Communication and motivation	5.7*	-	14.8
	Coordination	15.0*	-	7.4
	Planning	15.0*	-	3.7
	Follow up	4.3	-	3.7
	Negotiation	20.0*	-	28.6*
	Consultation	15.0*	-	11.1
MANAGEMENT	Decision making and problem solving	19.0*	-	10.7
	Change management	0.7	-	3.7
	Performance management	3.3	-	7.7
	Coaching	25.0*	-	11.1

Notes: * GAP greater than 10% or percentage of more than 20% of respondents assessing the competency at a low level

✓✓ More than 50% of both executive staff and staff consistently identified the issue as requiring urgent development

✓ the GAP was close to 0, and although the proportion of executive staff and operational staff who perceived the issue as urgent was less than 50%, it still represented one of the top two highest proportions within that category.

TABLE 05 URGENCY PERCEPTION GAP IN COMPETENCY DEVELOPMENT AND ACTUAL PERFORMANCE EVALUATION LEVEL IN PERSPECTIVE OF STAFF AND EXECUTIVE STAFF IN SURVEILLANCE-RELATED DIVISION

Details		Perception of urgency between executive staff and staff		Proportion of respondents perceiving low existing competency level (%)
		GAP Value (%)	Alignment of perspective	
CORE	SERVICE MIND			
	Enthusiasm	11.9*	-	23.6*
	Patience	0.8	✓	18.3
	Humility	4.8	-	26.4*
	Professional conviction	1.4	-	20.8*
	Persistence in duties	12.3*	-	22.2*
	Work dedication	11.9*	-	12.5
	TEAMWORK			
	Team interaction	6.6	-	15.3
	Goals sharing	6.7	-	13.9
	Clear structure and workflow	28.1*	-	15.3
	Openness and sincerity	9.4	-	25.4*
	INTEGRITY			
	Honesty	2.0	-	9.7
	Responsibility	4.2	-	11.2
	Accountability	11.0*	-	16.6
	Expertise	15.3*	-	15.3
	Flexibility	22.2*	-	22.2*
FUNCTIONAL	Analytical thinking	31.0*	-	16.7
	Self confidence	27.7*	-	23.7*
	Communication and motivation	25.4*	-	29.2*
	Coordination	24.3*	-	25.0*
	Planning	4.8	-	25.0*
	Follow up	5.0	-	22.5*
	Negotiation	15.3*	-	33.3*
	Consultation	24.8*	-	26.4*
MANAGEMENT	Decision making and problem solving	16.7*	-	22.2*
	Change management	21.3*	-	36.6*
	Performance management	20.5*	-	23.6*
	Coaching	2.5	-	26.4*

Notes: * GAP greater than 10% or percentage of more than 20% of respondents assessing the competency at a low level

✓✓ More than 50% of both executive staff and staff consistently identified the issue as requiring urgent development

✓ the GAP was close to 0, and although the proportion of executive staff and staff who perceived the issue as urgent was less than 50%, it still represented one of the top two highest proportions within that category.

TABLE 06 URGENCY PERCEPTION IN COMPETENCY DEVELOPMENT AND ACTUAL PERFORMANCE EVALUATION LEVEL IN PERSPECTIVE OF RESPONDENTS IN SUPPORTING AGENCIES

Details		Proportion of respondents perceiving of urgency (%)	Proportion of respondents perceiving low existing competency level (%)
CORE	SERVICE MIND		
	Enthusiasm	37.4	47.1*
	Patience	50.0	29.4*
	Humility	0.0	47.1*
	Professional conviction	50.0	35.3*
	Persistence in duties	37.4	35.3*
	Work dedication	62.4	35.3*
	TEAMWORK		
	Team interaction	53.0	23.5*
	Goals sharing	17.6	35.3*
	Clear structure and workflow	41.2	29.4*
	Openness and sincerity	41.2	41.2*
	INTEGRITY		
	Honesty	53.0	23.5*
	Responsibility	53.0	17.6
	Accountability	29.4	23.5*
	Expertise	41.2	11.8
	Flexibility	41.2	11.8
FUNCTIONAL	Analytical thinking	76.4	11.8
	Self confidence	64.8	29.4*
	Communication and motivation	29.4	11.8
	Coordination	41.2	5.9
	Planning	29.4	23.5*
	Follow up	17.6	29.4*
	Negotiation	41.2	29.4*
	Consultation	20.0	20.0
MANAGEMENT	Decision making and problem solving	29.4	17.6
	Change management	41.2	29.4*
	Performance management	29.4	29.4*
	Coaching	41.2	17.7

Notes: * More than 20% of respondents assessing the competency at a low level

In terms of functional competencies, the top five areas where there was a gap in the perceived urgency of development between the two groups are as follows: analytical thinking (31.0%), self-confidence (27.7%), communication and motivation (25.4%), consultation (24.8%), and coordination (24.3%). However, more than 20.0% of respondents assessed that the staff's competencies in seven areas remained at a low level. The top four areas identified were negotiation (33.3%), communication and motivation (29.2%), consultation (26.4%), and both coordination and planning (each at 25.0%) (**Table 05**).

For management competencies, the area with the largest gap in the perceived urgency for development between the two groups (GAP >10%) was change management (21.3%), which was also identified by the highest proportion of respondents as a competency currently at a low level

(36.6%). Other areas where a gap of more than 10% was observed included performance management (20.5%) and decision making and problem solving (16.7%). In addition to change management, other competencies that more than 20% of respondents evaluated as being at a low level included coaching (26.4%) and performance management (23.6%) (**Table 05**).

In the supporting agencies, the core competencies related to service mind that were perceived as most urgent for development by the respondents are, in order: work dedication (62.4%), patience (50%), and belief in the work being done (50.0%). On the other hand, the competencies that respondents assessed as currently being at a lower level are: enthusiasm and humility (both at 47.1%) (**Table 06**).

The core competency related to teamwork that respondents perceived as most urgent for development is team interaction (53%). This is followed by clear structure and workflow, and openness and sincerity (both at 41.2%). On the other hand, the competencies that were most frequently assessed as being at a low level in the current workforce are, in order: openness and sincerity (41.2%), shared goals (35.3%), and clear structure and workflow (29.4%). Other competencies that respondents identified as most urgent for development are honesty and responsibility (both at 53.0%), followed by expertise and flexibility (both at 41.2%). However, the competencies that over 20% of respondents assessed as being at a low level include honesty and accountability (both at 23.5%). (**Table 06**)

1.2 Approach to strengthening competencies

The results of prioritizing the development of core competencies, functional competencies, and management competencies reveal issues categorized as high urgency, medium urgency, and low urgency that each department should address, as shown in Table 07.

In order to enable organizational personnel to work efficiently and effectively, while being responsive to changes and the expectations of both the organization and its stakeholders, it is essential to strengthen competencies across various areas. The approaches to enhancing the capabilities of personnel involved in monitoring, control, and surveillance (MCS) of fisheries—particularly in areas requiring urgent attention—can be outlined as follows:

Core competencies

1) Patience

Enhancing the competency of patience helps personnel manage their emotions and maintain consistent performance, even under pressure, in challenging situations, or when facing various constraints. Approaches to strengthening this competency include organizing training sessions or workshops in various areas. These include mindfulness training, which enables individuals to recognize and regulate their emotions consciously; communication and empathy skill development, which promotes understanding of others' behaviors and psychological backgrounds; and stress management from workload, which equips personnel with skills in work planning, prioritization, and relaxation techniques to cope with demanding tasks. Furthermore, small group meetings should be organized to facilitate the sharing of experiences where patience was essential in the workplace.

TABLE 07 PRIORITY LEVELS FOR THE DEVELOPMENT OF CORE COMPETENCIES, FUNCTIONAL COMPETENCIES, AND MANAGEMENT COMPETENCIES OF DOF STAFF

COMPETENCIES		DIVISION/AGENCIES INVOLVED IN			
		MONITOR	CONTROL	SURVEILLANCE	SUPPORTING
CORE	Service mind				
	Enthusiasm	**		**	**
	Patience	***		**	**
	Humility	**	***		
	Professional conviction	**			**
	Persistence in duties			**	*
	Work dedication				**
	Team work				
	Team interaction	**			**
	Openness and sincerity	***			**
	Goals sharing				**
	Clear structure and workflow	**			**
	Integrity				
	Honesty				***
	Accountability	***			**
	Responsibility				
	Expertise	***			
	Flexibility	***		***	
FUNCTIONAL	Self confidence	**		**	**
	Communication and motivation	**		**	
	Coordination	**			
	Planning	**			**
	Follow up	**			**
	Negotiation	***	***	**	**
	Consultation	**		**	
MANAGEMENT	Decision making and problem solving	**		**	
	Change management	**		***	***
	Performance management	*		**	**
	Coaching	**			

Notes: *** refers to high urgency ** refers to moderate urgency and * refers to low urgency

2) Humility

When personnel recognize their self-worth within appropriate boundaries, acknowledge their mistakes, abilities, and limitations without arrogance, and are genuinely open to listening to others' opinions, they demonstrate humility. Emotional maturity that embraces the ideas that "we do not know everything" and "we can always learn from others" further supports this competency. Developing humility among personnel fosters respect for others' viewpoints, reduces tension in

communication and teamwork, and contributes to cultivating an open and collaborative organizational culture.

Enhancing the competency of humility can be achieved through learning activities based on exemplary stories, using narratives of individuals or leaders who have achieved success through humble attitudes as learning models. Group activities aimed at developing acceptance and collaborative learning skills should also be organized to encourage personnel to be receptive to diverse opinions and to accept constructive criticism. Additionally, behavioral evaluation activities can be implemented to reflect humility in the workplace. This may include the use of competency-based behavioral assessments and 360-degree feedback processes to raise personnel's awareness of their behaviors in professional settings.

3) Enthusiasm

Fostering enthusiasm among staff enables them to actively seek new knowledge, embrace change, and pay attention to detail, all of which contribute to enhanced work quality. Enthusiasm can be cultivated by supporting continuous learning, providing opportunities to engage in diverse tasks, encouraging the proposal of new ideas, and promoting participation in planning and problem-solving processes.

4) Openness and sincerity

The ability to communicate with openness and sincerity is a key behavioral competency that plays a vital role in building trust and fostering an effective organizational culture. Expressing oneself in a direct yet respectful manner, being transparent without withholding important information, and listening with impartiality contribute to the organization's capacity to adapt, develop, and operate in a transparent and collectively responsible manner.

The development of openness and sincerity as a core competency can be achieved through communication skills training that emphasizes open dialogue, as well as through informal knowledge-sharing activities that encourage personnel to express their opinions without fear of judgment or punishment. Group activities can also be designed to foster honest and constructive expression on difficult topics—such as team-related issues and conflicts—helping individuals practice direct communication in challenging situations. Furthermore, creating an atmosphere of trust and acceptance is essential in promoting a culture where individuals feel empowered to speak up constructively.

5) Honesty

The enhancement of integrity as a core competency should be a continuous process, beginning with the design of systems that encourage ethical behavior, foster motivation, and embed integrity as a fundamental organizational value. Implementing a variety of appropriate activities can significantly contribute to the long-term development of both personnel and organizational quality. One effective approach to cultivating integrity is through organizational ethics workshops, which provide practical training in ethical principles and behavior within the workplace.

6) Accountability

Accountability fosters a sense of ownership and engagement among staff, motivating them to work diligently toward achieving established goals. It also strengthens trust between colleagues and executive staff, thereby enhancing teamwork and collaboration. Clearly defining roles and objectives ensures that all personnel understand their responsibilities. Providing guidance, supporting skill development, encouraging collaboration, and recognizing accountable behavior further enhance employees' confidence in taking responsibility for their tasks. These measures collectively contribute to the cultivation of a responsible and performance-driven workforce.

7) Expertise

Having personnel with in-depth knowledge, specialized skills, and the ability to apply such knowledge appropriately is a critical asset in driving an organization toward success. The development of professional expertise aims to enhance technical and specialized competencies aligned with the organization's mission and strategic direction. This approach increases work efficiency, reduces errors, and fosters employees' confidence and sense of value in their roles. It also prepares personnel to adapt to technological and innovative changes while supporting sustainable career progression.

This competency can be developed through specialized training and seminars relevant to specific professional fields. A mentoring program, in which experienced professionals are paired with those seeking to enhance their skills, can be implemented alongside the creation of personalized learning plans and monthly progress reviews. Assigning challenging tasks also plays a key role in building expertise through hands-on experience. Moreover, knowledge-sharing platforms—such as case presentations of successful problem-solving practices—promote experiential learning. Establishing communities of practice within specific professional domains further enables continuous self-development, enhances professional competence, and empowers personnel to contribute meaningfully to organizational success.

8) Flexibility

Flexibility is an essential competency for personnel in all organizations, enabling them to respond effectively to change, adapt quickly, and maintain work performance across diverse situations. The development of this competency can be facilitated through practical workshops on change adaptation, which help individuals develop self-awareness, manage uncertainty, and cultivate a positive mindset that seeks opportunities in the midst of crises.

Additionally, scenario-based activities, such as simulations involving sudden policy shifts or unexpected budget cuts, can provide valuable practice in decision-making, planning, and communication under pressure. Job rotation is another effective method, allowing employees to experience new challenges and develop the ability to work flexibly in various roles and contexts.

Functional competencies

1) Self confidence

Staff who possess self-confidence are more likely to make sound decisions, think independently, express their ideas openly, and take responsibility for their actions. These qualities contribute to effective performance and sustained professional development. Enhancing self-confidence as a core competency increases employees' belief in their abilities, encourages them to express opinions and propose new approaches, and fosters a workplace atmosphere that supports leadership at all levels.

This competency can be strengthened through practical training workshops focused on communication and presentation skills, as well as goal-setting and progress evaluation sessions that help individuals recognize their self-worth and derive motivation from their achievements. Additionally, individual and group coaching activities on mindset and self-leadership can support the development of positive thinking and purposeful self-assessment.

2) Communication and motivation

In an era of rapid change, personnel must not only possess communication skills to convey information accurately, but also be capable of communicating in ways that influence attitudes and inspire others. Effective communication plays a crucial role in motivating colleagues, building trust and enthusiasm, and fostering collaboration within the workplace.

The development of this competency can be achieved through practical workshops on the art of public speaking and persuasion, as well as motivational speaking activities designed to inspire confidence and engagement. In addition, communication coaching using the GROW model (Goal, Reality, Options, Will) can support the development of essential skills such as questioning, listening, and responding. This approach emphasizes stimulating others to think independently and take initiative, thereby enhancing their motivation and personal drive.

3) Negotiation

Negotiation is a critical competency, particularly in situations requiring joint decision-making, resource allocation, conflict management, and teamwork. Effective negotiation fosters mutual benefits (win-win outcomes), enhances collaboration, and minimizes the potential for organizational conflict. This competency encompasses various elements including preparation and situational analysis, active listening and goal-oriented questioning, emotional regulation and conflict control, and persuasion through data and relationship management.

The development of negotiation skills can be supported through practical training workshops, such as Negotiation Games and Strategy, where participants engage in simulated negotiation scenarios—e.g., budget discussions or resource allocation. These exercises enable participants to analyze their positions, evaluate strengths and weaknesses, and aim for win-win or identify win-lose outcomes. Additional development can include role-playing based on real-world cases to help staff understand differing roles and perspectives, creative negotiation techniques, and basic psychological approaches that support effective questioning and the discovery of constructive solutions.

4) Consultation

Establishing a consultation system within agencies can enhance staff confidence in decision-making, reduce stress, and promote greater participation in work processes and teamwork. These outcomes contribute to improved work efficiency. Implementing such a system is essential for fostering a supportive work environment and strengthening organizational performance.

Management competencies

1) Change management

Building change management competency enables staff to effectively cope with complex situations and changes that may arise both internally and externally, such as changes in organizational structure, staffing, or work processes. With this competency, employees are able to maintain operational continuity, thereby allowing the organization to adapt rapidly and efficiently. It also enhances the implementation of new projects or policies and fosters an organizational culture that is flexible and development-oriented.

The promotion of this competency can be supported through practical training workshops on change management models, combined with case studies of real organizational change. Simulated scenarios and role-playing activities—such as organizational restructuring—can help staff understand human responses to change, while also providing opportunities to practice stakeholder analysis and participatory approaches to leading change.

2. MOTIVATION FACTORS CONTRIBUTING TO SUCCESSFUL WORK PERFORMANCE

The motivation factors contributing to successful work performance in the field of Monitoring, Control, and Surveillance (MCS) include key factors such as staff support, the provision of resources to enhance working styles, and the knowledge required for professional practice.

The prioritization of support for motivation factors is categorized into three levels of urgency: high, medium, and low. Regarding the knowledge required for professional practice, special attention is given to the alignment between supervisors and staff, ensuring consensus on the essential knowledge needed for effective job performance within the organization.

2.1 Gap in the urgency of motivation factors development and low existing support level

In terms of staff support for personnel within divisions responsible for the Monitoring system, a significant division in the perception of urgency was identified between executive staff and staff. The areas exhibiting the greatest differences were career progress (40.9%), task-based manpower allocation (31.8%), and job-relevant knowledge (27.2%). Furthermore, the issues most frequently cited as receiving low levels of support were task-based manpower allocation (61.3%), job allocation in response to changes in work demands (58.1%), and recognition and awards (51.6%) (**Table 08**).

TABLE 08 URGENCY PERCEPTION GAP IN MOTIVATION FACTORS DEVELOPMENT AND ACTUAL SUPPORTING EVALUATION LEVEL IN PERSPECTIVE OF STAFF AND EXECUTIVE STAFF IN MONITOR-RELATED DIVISION.

Details		The gap in perception of urgency between executive staff and staff		Proportion of respondents perceiving low existing support level (%)
		GAP Value (%)	Alignment of perspective	
STAFF	Career progress	40.9*	-	38.7*
	Recognition/awards	4.5	-	51.6*
	Organizational protection	13.6*	-	45.2*
	Job allocation	22.7*	-	58.1*
	Task-based manpower allocation	31.8*	-	61.3*
	Job-relevant knowledge	27.2*	-	45.1*
STYLE	Supportive environment for self-development	27.2*	-	48.4*
	Goal-oriented work environment	45.4*	-	41.9*
	Positive internal relations	36.3*	-	19.4*

Notes: * GAP greater than 10% or percentage of more than 20% of respondents assessing the existing support at a low level

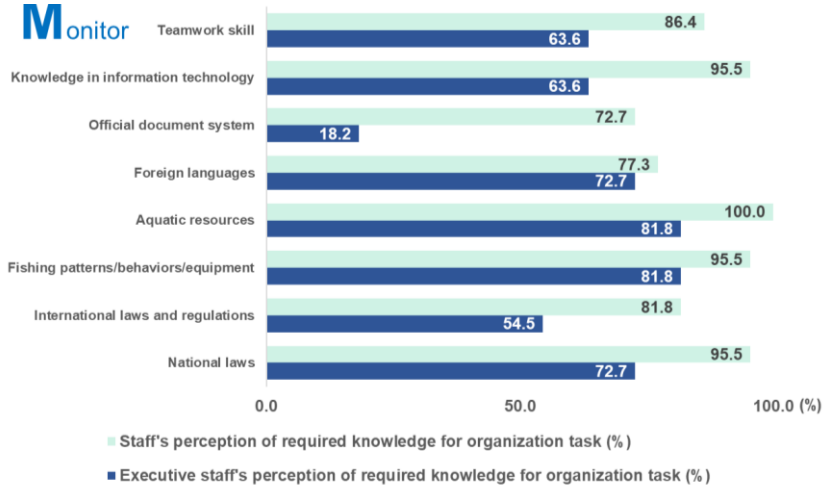
✓✓ More than 50% of both executive staff and staff consistently identified the issue as requiring urgent development

✓ the GAP was close to 0, and although the proportion of executive staff and staff who perceived the issue as urgent was less than 50%, it still represented one of the top two highest proportions within that category.

Regarding working style support, the greatest division in perceived urgency between executive staff and staff concerned the creation of a goal-oriented work environment (45.4%), followed by fostering positive internal relations (Table 4.3). In addition, more than 20 percent of respondents reported insufficient support in creating a supportive environment for self-development (48.4%) and in establishing a goal-oriented work environment (41.9%) (**Table 08**).

Regarding the knowledge required for professional practice within the divisions, it was found that more than 70.0 percent of both executive staff and staff shared consistent views on the essential knowledge areas. These included knowledge of aquatic resources (81.8% of executive staff, 100.0% of staff), fishing patterns, behaviors, and equipment (81.8% and 95.5%, respectively), national laws (72.7% and 95.0%), and foreign languages (72.7% and 77.3%). However, a notable divergence in opinion between the two groups was observed concerning the official document system, with staff indicating a greater need for this knowledge compared to executive staff. Therefore, it is recommended that discussions be held between executive staff and staff to reach a consensus regarding the knowledge requirements, in order to effectively inform future human resource development planning that aligns with the actual needs of the divisions (**Figure 14**).

FIGURE14 REQUIRED KNOWLEDGE IN PERSPECTIVE OF EXECUTIVE STAFF AND STAFF OF MONITOR-RELATED DIVISON.



For divisions involved in the Control system, the greatest division in perceptions between executive staff and staff regarding staff support was found in the area of organizational protection (15.7%). In terms of work support, more than 20.0 percent of respondents indicated that they still received a low level of support, with the top three areas being recognition and awards (48.1%), career progress (29.6%), and organizational protection (25.9%) (**Table 09**).

Regarding working style support, the areas with the largest differences in urgency perceptions between the two groups were the creation of a supportive environment for self-development (32.1%) and the creation of a goal-oriented work environment (25.9%) (Table 4.3.7). In terms of the current level of support for working conditions, it was found that more than 20.0 percent of respondents perceived that all aspects of support remained at a low level, particularly in the areas of recognition and awards (48.1%) and career progress (29.6%) (**Table 09**).

Regarding the knowledge required for professional practice within the division, it was found that both executive staff and staff shared consistent views that the essential knowledge areas included foreign languages (71.4% for both groups) and knowledge in information technology (71.4% for executive staff and 66.7% for staff). However, certain areas were identified where executive staff placed a higher emphasis on the need for knowledge compared to staff. These areas included

national laws, international laws and regulations (both at 85.7%), and teamwork skills (100.0%). In contrast, staff assigned greater importance to knowledge of aquatic resources (61.9%) than did executive staff. Therefore, it is recommended that further discussions be held to reach a consensus on the essential knowledge requirements for the division, in order to inform and guide future human resource development planning (**Figure 15**).

TABLE 09 URGENCY PERCEPTION GAP IN MOTIVATION FACTORS DEVELOPMENT AND ACTUAL SUPPORTING EVALUATION LEVEL IN PERSPECTIVE OF STAFF AND EXECUTIVE STAFF IN CONTROL-RELATED DIVISION

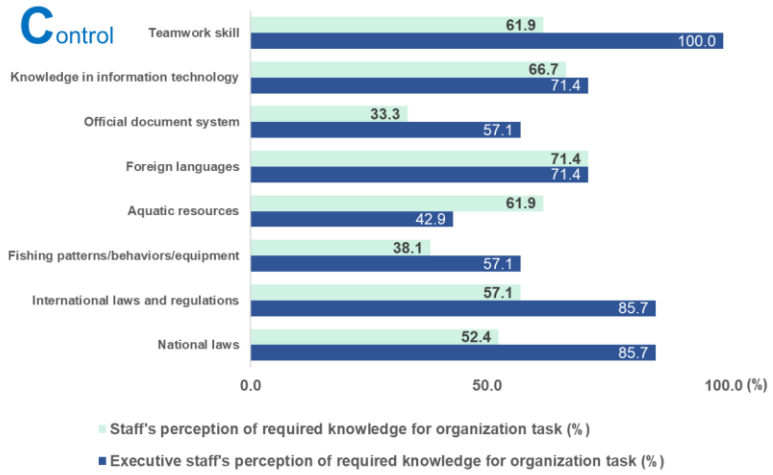
Details		The gap in perception of urgency between executive staff and staff		Proportion of respondents perceiving low existing support level (%)
		GAP Value (%)	Alignment of perspective	
STAFF	Career progress	6.4	-	29.6*
	Recognition/awards	2.9	-	48.1*
	Organizational protection	15.7*	-	25.9*
	Job allocation	1.4	-	23.1*
	Task-based manpower allocation	1.4	-	22.2*
	Job-relevant knowledge	0.0	-	21.4*
STYLE	Supportive environment for self-development	21.4*	-	32.1*
	Goal-oriented work environment	15.7*	-	25.9*
	Positive internal relations	15.7*	-	18.5

Notes: * GAP greater than 10% or percentage of more than 20% of respondents assessing the existing support at a low level

✓✓ More than 50% of both executive staff and staff consistently identified the issue as requiring urgent development

✓ the GAP was close to 0, and although the proportion of executive staff and staff who perceived the issue as urgent was less than 50%, it still represented one of the top two highest proportions within that category.

FIGURE 15 REQUIRED KNOWLEDGE IN PERSPECTIVE OF EXECUTIVE STAFF AND STAFF OF CONTROL-RELATED DIVISON.



In the case of divisions involved in the Surveillance system, a discrepancy in the perceived urgency of staff support between executive staff and staff was found to be greater than 10.0% (GAP>10%), with the most notable differences being in career progress (26.9%) and recognition/awards (10.4%) (Table 4.3.7). Regarding the current level of staff support, more than 20.0% of respondents indicated that they received low support across all areas, particularly in the areas of recognition/awards (45.1%) and task-based manpower allocation (44.4%) (**Table 10**).

Regarding working style support, the most significant difference in the perceived urgency of support between the two groups was in the area of positive internal relations (15.3%). Additionally, when assessing the current level of support in terms of work environment, more than 20.0% of respondents indicated low levels of support in creating a supportive environment for self-development, a goal-oriented work environment, and positive internal relations, with the respective percentages being 30.6%, 27.8%, and 25.0% (**Table 10**).

Regarding the knowledge required for professional practice within the division, both executive staff and staff agreed on the essential knowledge areas, with more than 70.0% of respondents in both groups aligning on the following: national laws (85.7% for executive staff, 90.2% for staff), fishing patterns/behaviors/equipment (78.7% for executive staff, 71.4% for staff), and teamwork skills (71.4% for executive staff, 83.6% for staff). However, there were knowledge areas where staff placed greater emphasis than executive staff, including international laws, regulations, and agreements (73.8%), aquatic resources (77.0%), and the official document system (10.2%). Therefore, it is recommended that a consensus be reached in order to guide the planning of personnel development to ensure the acquisition of the necessary knowledge for effective job performance moving forward (**Figure 16**).

TABLE 10 URGENCY PERCEPTION GAP IN MOTIVATION FACTORS DEVELOPMENT AND ACTUAL SUPPORTING EVALUATION LEVEL IN PERSPECTIVE OF STAFF AND EXECUTIVE STAFF IN SURVEILLANCE-RELATED DIVISIÓN

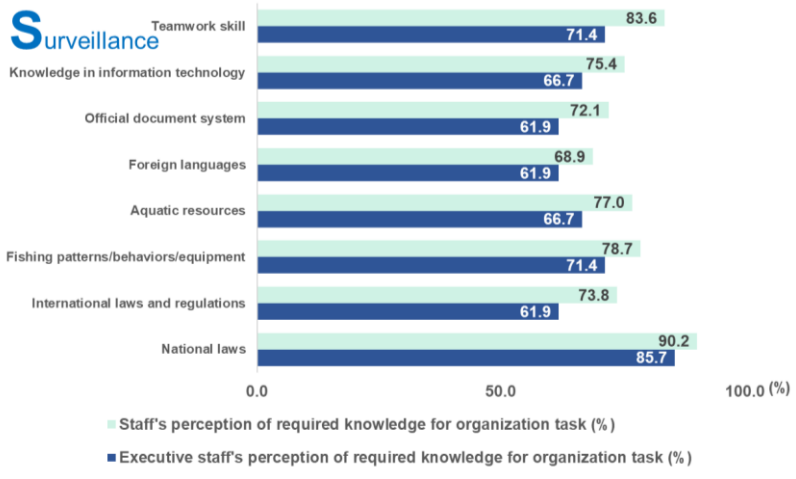
Details		The gap in perception of urgency between executive staff and staff		Proportion of respondents perceiving low existing support level (%)
		GAP Value (%)	Alignment of perspective	
STAFF	Career progress	26.9*	-	27.8*
	Recognition/awards	10.4*	-	45.1*
	Organizational protection	4.0	-	36.1*
	Job allocation	7.4	-	36.1*
	Task-based manpower allocation	1.6	-	44.4*
	Job-relevant knowledge	22.5*	-	29.6*
STYLE	Supportive environment for self-development	1.3	-	30.6*
	Goal-oriented work environment	1.3	-	27.8*
	Positive internal relations	15.3*	-	25.0*

Notes: * GAP greater than 10% or percentage of more than 20% of respondents assessing the existing support at a low level

✓✓ More than 50% of both executive staff and staff consistently identified the issue as requiring urgent development

✓ the GAP was close to 0, and although the proportion of executive staff and staff who perceived the issue as urgent was less than 50%, it still represented one of the top two highest proportions within that category.

FIGURE 16 REQUIRED KNOWLEDGE IN PERSPECTIVE OF EXECUTIVE STAFF AND STAFF OF SURVEILLANCE-RELATED DIVISON.



Regarding the support for professional practice within the supporting agencies, the most urgent issues identified by the respondents were, in order: Recognition/Awards (41.1%) and Job-relevant knowledge (41.1%). The second priority was Career Progress and Task-based manpower allocation (29.4% for both), followed by Organizational protection (29.3%). As for the current level of support available within the division, more than 20.0% of respondents indicated that support across all areas remains at a low level (**Table 11**).

In terms of receiving support for professional practice, the most urgent issue identified by respondents was creating a goal-oriented work environment (41.2%), followed by establishing a supportive environment for self-development (29.4%) and promoting positive internal relations (29.4%). As for the current level of support for professional practice, respondents indicated low support in several areas. The first priority was the supportive environment for self-development (30.6%), followed by the goal-oriented work environment (27.8%), and positive internal relations (25.0%) (**Table 11**).

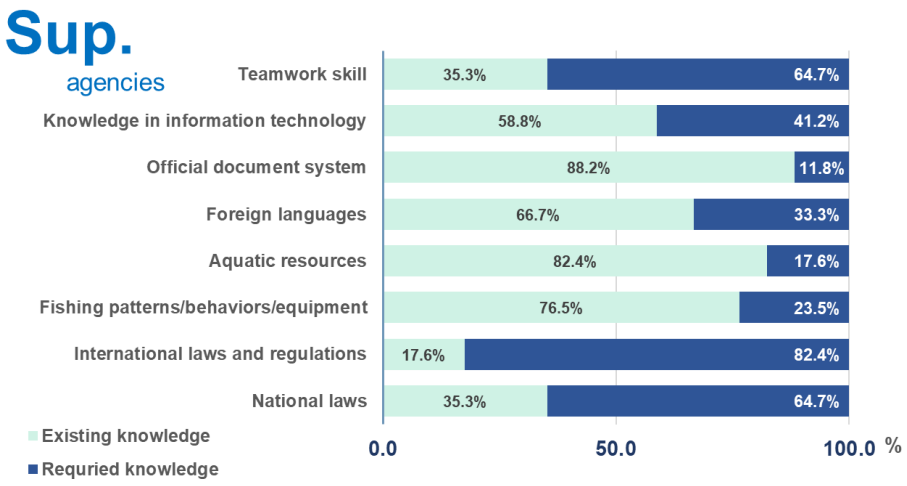
TABLE 11 URGENCY PERCEPTION GAP IN MOTIVATION FACTORS DEVELOPMENT AND ACTUAL SUPPORTING EVALUATION LEVEL IN PERSPECTIVE OF STAFF IN SUPPORTING AGENCIES

Details		Proportion of respondents perceiving of urgency (%)	Proportion of respondents perceiving low existing support level (%)
STAFF	Career progress	29.4	23.5*
	Recognition/awards	41.1	35.3*
	Organizational protection	29.3	29.4*
	Job allocation	41.2	29.4*
	Task-based manpower allocation	29.4	29.4*
	Job-relevant knowledge	41.1	23.5*
STYLE	Supportive environment for self-development	29.4	23.5*
	Goal-oriented work environment	41.2	23.5*
	Positive internal relations	29.4	11.8*

Notes: * More than 20% of respondents assessing the existing support at a low level

Regarding knowledge, the most required knowledge for professional practice within the division is international laws and regulations (82.4%), followed by National laws (64.7%) and Teamwork skills (64.7%) (**Figure 17**).

FIGURE 17 REQUIRED KNOWLEDGE IN PERSPECTIVE OF STAFF OF SUPPORTING AGENCIES.



2.2 Approach to strengthening motivation factors

The results of prioritizing the urgency of supporting motivation factors reveal critical issues that require immediate, medium, and low-priority attention. These issues should be addressed by each division, as shown in Table 12.

TABLE 12 PRIORITY LEVELS FOR ENHANCING AND SUPPORTING MOTIVATION FACTORS

Details		DIVISION/AGENCIES INVOLVED IN			
		Monitor	Control	Surveillance	Supporting
STAFF	Career progress	**		**	**
	Recognition/awards			**	***
	Organizational protection	**	***		**
	Job allocation	**			**
	Task-based manpower allocation	**			**
	Job-relevant knowledge	**		**	**
STYLE	Supportive environment for self-development	**	***		**
	Goal-oriented work environment	**	**		***
	Positive internal relations			***	

Notes: *** refers to high urgency ** refers to moderate urgency and * refers to low urgency

Approaches for enhancing work motivation through staff support and the provision of factors that promote effective work (Working style of the organization) are as follows:

Staff support

1) Recognition/awards

Work motivation is a critical factor influencing organizational efficiency and success. Supporting staff through recognition and awards has been proven to significantly enhance employee engagement, satisfaction, and work performance. Approaches to enhancing motivation through recognition and awards include establishing a clear and transparent recognition system, providing consistent and timely acknowledgment, and designing a variety of meaningful awards.

2) Organizational protection

An organization's systematic protection of its personnel—physically, psychologically, and legally—serves as a strong signal of its care for and respect toward employees. Such protection fosters trust between employees and the organization, reduces workplace stress and anxiety, enhances positive work engagement, lowers turnover rates, strengthens employee loyalty, and promotes a sustainable organizational culture. Approaches to enhancing work motivation through organizational protection include developing comprehensive workplace safety policies that cover all scenarios, providing employee benefits and assistance programs, establishing fair and non-discriminatory grievance systems, and offering training programs to raise awareness about self-care and employee rights.

3) Career progress

Career progression supports staff in setting clear objectives, fosters motivation, and identifies areas for development to enhance work performance. A well-structured career development plan aligned with organizational goals—combined with support for individualized career planning, training opportunities, and a growth-oriented work environment—enables agencies to cultivate personnel with the necessary knowledge, skills, and competencies to meet job demands and take on greater responsibilities.

4) Job-relevant knowledge

Having sufficient job-related knowledge and a thorough understanding of one's responsibilities enables staff to perform their duties accurately, precisely, and efficiently. It also strengthens their decision-making abilities when faced with complex and challenging situations. Establishing a knowledge support system for staff can be achieved through activities such as knowledge-sharing sessions, training programs, and reskilling and upskilling initiatives to review and enhance essential job knowledge necessary for effective performance.

The provision of factors that promote effective work (Working style of the organization)

1) Supportive environment for self-development

Organizations that foster a supportive environment for self-development enable personnel to reach their full potential, providing employees with opportunities for learning and career growth. This, in turn, benefits both the organization and its members. Approaches to enhancing motivation through the creation of a supportive environment for self-development include cultivating a culture of lifelong learning by providing opportunities for employees to participate in training programs and seminars to acquire new skills, offering career advancement opportunities through professional development initiatives, and establishing an open environment that encourages the exchange of ideas and

feedback. Additionally, promoting a flexible work environment that allows employees to manage their own time effectively is essential. However, organizations must continuously monitor and evaluate the outcomes of development activities to ensure that employees benefit from them. Development initiatives should also account for the diversity of employees and their varying learning needs. Moreover, strong support from senior management is crucial in establishing an organizational culture that genuinely promotes self-development.

2) Goal - oriented work environment

When an organization successfully fosters a goal-oriented work environment, employees are provided with clear direction and feel a sense of involvement in the organization's success. Supporting a results- and goal-focused working style can significantly enhance employees' motivation, thereby improving overall organizational performance. Approaches to promoting motivation through the creation of a goal-oriented environment include setting clear and challenging goals that provide employees with a clear understanding of what needs to be achieved and how to achieve it. Regular monitoring and evaluation of performance allow employees to visualize their progress toward organizational goals. Proper and appropriate performance evaluations help align employees' individual objectives with the organization's expectations and provide opportunities for work improvement. Consistent support and guidance are also crucial to helping employees achieve organizational goals. Such support can take the form of on-the-job training, mentoring, or the development of essential skills necessary for success.

3) Positive internal relations

Positive internal relations within an organization have a direct impact on employees' ability to work collaboratively. When employees are able to work together efficiently and maintain mutual respect, workplace challenges and problems can be addressed promptly and constructively. Moreover, positive internal relations foster a strong sense of teamwork and collaboration, thereby enhancing employees' motivation to perform. Motivation in this area can be strengthened through initiatives that promote a respectful work atmosphere, encourage open communication, organize relationship-building activities, and cultivate a collaborative working environment.

3. STRATEGIES FOR WORK IMPROVEMENT

The necessity for improving work efficiency is evaluated from the perspective of both executive staff and staff. The levels of necessity for work improvement are categorized into three levels: not necessary, low necessity (<50%), and high necessity (≥50%).

For the Monitor-related division, it was found that more than 70.0% of both executive staff and operational staff agreed that there is a high necessity for improvement in the following areas: utilizing databases effectively (100.0% for executive staff, 90.9% for staff), prioritizing tasks (81.8% for executive staff, 81.9% for staff), integrating the MCS system (72.7% for executive staff, 77.3% for staff), and automating work processes (81.8% for executive staff, 72.7% for staff). However, one area identified by staff as more necessary for improvement than by executive staff is creating workflow diagrams (77.3%) **(Figure 18).**

In the Control-related division, the findings revealed that both executive staff and staff agree on the necessity for significant improvements in certain areas. These include the integration of the MCS system (100% for executive staff, 90.5% for staff) and the effective utilization of databases (100.0% for executive staff, 81.0% for staff). However, staff indicated a higher need for improvement in certain areas compared to the executive staff. These areas include the development of work manuals (100.0%), the creation of workflow diagrams (85.7%), speeding up work processes (85.7%), prioritizing tasks (85.7%), and work breakdown (85.7%) **(Figure 19).**

FIGURE 18 PERCEIVED NECESSITY FOR PERFORMANCE IMPROVEMENT IN PERSPECTIVE OF EXECUTIVE STAFF (A) AND STAFF (B) OF MONITOR-RELATED DIVISION

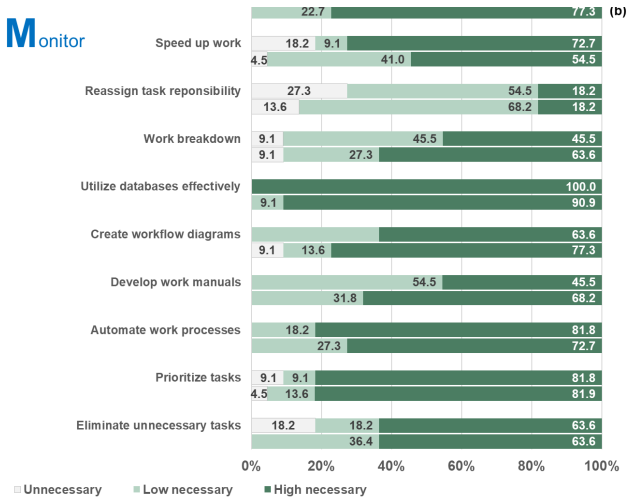
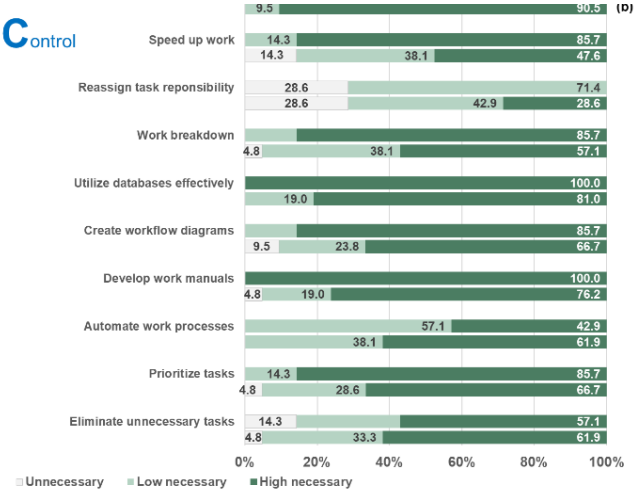


FIGURE 19 PERCEIVED NECESSITY FOR PERFORMANCE IMPROVEMENT IN PERSPECTIVE OF EXECUTIVE STAFF (A) AND STAFF (B) OF CONTROL-RELATED DIVISION



In the Surveillance-related division, the findings revealed that both executive staff and staff agree on the need for significant improvements in several areas. These include the effective utilization of databases (85.2% for executive staff, 90.0% for staff), the integration of the MCS system (85.2% for executive staff, 90.0% for staff), the development of work manuals (80.3% for executive staff, 95.0% for staff), and the prioritization of tasks (85.2% for executive staff, 85.0% for staff). However, there are areas where executive staff expressed a greater need for improvement compared to staff, such as the breakdown of work into components (82.0%). Conversely, staff members indicated a higher need for improvement in eliminating unnecessary tasks (90.0%) compared to the executive staff (**Figure 20**)

For the Supporting agencies division, the findings revealed that the area identified by all respondents as needing significant improvement is task prioritization. The second most prioritized area is the integration of the MCS system (94.1%), followed by work breakdown, the effective

utilization of databases, and the development of work manuals, all of which were rated equally at 88.2% (**Figure 21**).

Overall, the areas identified by all divisions as requiring significant improvement include the effective utilization of databases and the integration of the MCS system.

FIGURE 20 PERCEIVED NECESSITY FOR PERFORMANCE IMPROVEMENT IN PERSPECTIVE OF EXECUTIVE STAFF (A) AND STAFF (B) OF SURVEILLANCE-RELATED DIVISION

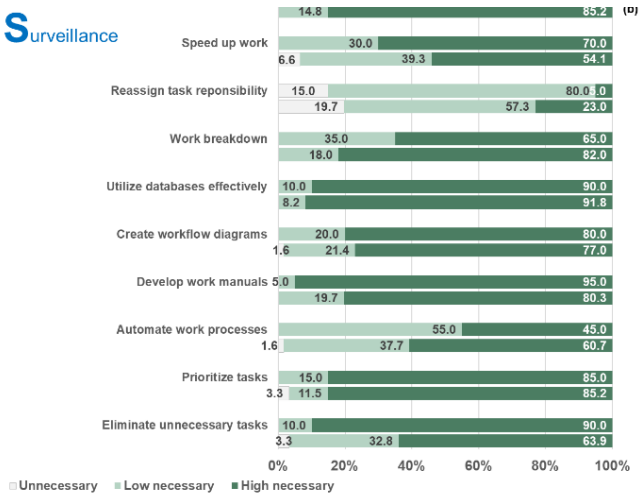
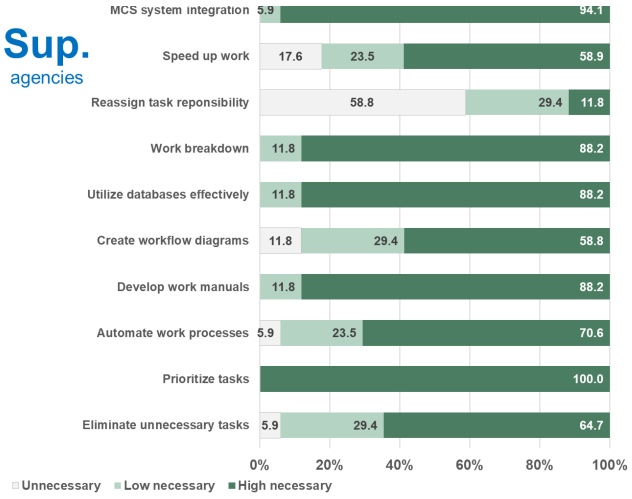


FIGURE 21 PERCEIVED NECESSITY FOR PERFORMANCE IMPROVEMENT IN PERSPECTIVE OF STAFF OF SUPPORTING AGENCIES



NEEDS FOR MCS IMPLEMENTATION TO COMBAT IUU FISHING IN THAILAND

05

OVERVIEW OF NEEDS FOR IMPROVEMENT TO ENHANCE WORK EFFICIENCY RELATED TO MCS

To strengthen the efficiency of Monitoring, Control, and Surveillance (MCS) operations in Thailand, it is necessary to consider aspects of organizational management, personnel development, and systems and operations, as follows:

ORGANIZATIONAL MANAGEMENT

1) Develop a Monitoring, Control, and Surveillance (MCS) Plan for Thailand
2) Adopt a proactive working approach, including budget acquisition to support operations, developing or improving efficient work models, balanced task distribution, and integration. These should be carried out alongside workforce analysis and synthesis, career progression planning, and a shift towards proactive rather than reactive operations.
3) Enhance financial management skills, including budget prioritization, budget allocation, appropriateness, financial management techniques, and budget disbursement processes.
4) Develop supervisors' knowledge and skills in system thinking to enable them to guide staff in the right and effective direction.
5) Develop a system to boost morale and motivation for operational staff.
6) Develop a system for transparency and accountability, enabling the agency to manage its responsibilities effectively, reduce external interference, and foster confidence among personnel. This will help ensure staff are not influenced by external pressures and prevent conflicts with local fishers

STAFF DEVELOPMENT

The needs for staff development related to MCS, which are strongly aligned across multiple agencies, are as follows:

1) Career Progression Planning. A career progression plan is developed for staff, such as the PIPO officers, to boost morale and motivation among personnel.

2) Regular skill development. This is crucial for improving staff performance and adapting to changes. Essential skills include language proficiency, computer skills, and legal knowledge.

3) Staff Development in MCS and Specialized Training. New and current personnel are trained to understand the importance of MCS (Monitoring, Control, and Surveillance). Specialized training courses relevant to the agency's duties are provided, such as investigation techniques for gathering evidence from offenders, and foreign languages related to document verification for monitoring foreign fishing vessels. These are achieved through training sessions, knowledge exchange programs, coaching systems (mentorship), and networking opportunities. These efforts aim to ensure that personnel understand the principles of their work and can perform their duties consistently and effectively.

The following are the secondary but commonly agreed-upon needs regarding human resource development:

1) Organizing activities to foster collaborative learning both within and outside the organization. This can enhance teamwork and shared knowledge.

2) Development of mindset. Developing the right mindset and passion for work among personnel involved in MCS-related tasks is crucial, as this will significantly improve overall work efficiency.

SYSTEM AND OPERATION DEVELOPMENT

The needs for system development and operations related to MCS, which are strongly agreed upon by multiple agencies, are as follows:

1) Enhance the Fishing Info/e-PIPO system in terms of data capacity and processing speed to improve operational efficiency.

2) Integrate related systems across the operational chain, such as linking VMS system with Fishing Info/e-PIPO and TFCC system, linking PPS system with TFCC system, and connecting the e-certification system with other relevant platforms.

3) Enhance the utilization of big data by applying technology to analyze information for real-time fisheries resource management, as well as to verify the accuracy of electronic documents to improve operational speed and efficiency.

4) Promote integration between internal and external agencies involved in MCS operations, along with establishing effective data linkage to ensure greater accuracy, consistency, and efficiency in overall MCS implementation.

5) Establish a centralized MCS coordination unit (Help Desk) to serve as a hub for communication and support.

The following represent the subsequent issues of consensus among agencies concerning system and operational development related to MCS:

1) Develop monitoring and surveillance systems by incorporating technology to support the suppression of illegal fishing activities, such as aerial surveillance and onboard video recording of fishing operations.

2) Register all fishing vessels regardless of size to ensure comprehensive inclusion in the system for monitoring and law enforcement purposes.

3) Issue fishing licenses to all small-scale vessels to strengthen legal oversight and resource management.

4) Mandate port-in/port-out (PIPO) reporting for all commercial fishing vessels, regardless of size.

5) Develop the VMS system of the Department of Fisheries and install it on all fishing vessels to enhance monitoring and surveillance capabilities.

6) Develop an integrated electronic system related to MCS into a unified One Stop Service platform to facilitate public access and improve the efficiency of officials' operations.

7) Establish a centralized database to track the progress of MCS-related operations carried out by responsible units within the Department. This database will support public relations efforts to enhance the organization's image and serve as a reference for communicating with international organizations or Non-Governmental Organizations (NGOs), with the aim of building trust and demonstrating the Department of Fisheries' effective performance.

8) Develop accessible channels for the public and eyewitnesses to report illegal fishing activities.

SPECIFIC NEEDS OF AGENCIES INVOLVED IN MCS OPERATIONS TO ENHANCE WORK EFFICIENCY

The agencies within the Department of Fisheries involved in MCS consist of core agencies that play a direct role or have primary responsibilities related to MCS, as well as supporting agencies whose work is partially engaged, particularly in the traceability system of the sources of fishery products. Due to the specific nature of their functions, each unit has distinct needs for improving work efficiency, as shown in **Table 13**.

TABLE 13 NEEDS OF AGENCIES INVOLVED IN MCS OPERATIONS.

Division	Needs of agencies involved in MCS operations
Core agencies	
FISHERIES DEVELOPMENT POLICY AND PLANNING DIVISION (M)	1) Develop a system for compiling statistical data on small-scale (coastal) fisheries, including both operational processes and related technological systems.
	2) Enhance the efficiency of compiling statistical data on catch and fishing effort in commercial fisheries by utilizing modern technologies.
	3) Improve the accuracy and efficiency of forecasting catch and fishing effort statistics for both commercial and small-scale fisheries by employing modern technologies such as AI or machine learning.
	4) Provide continuous training and knowledge transfer to personnel responsible for data collection and surveys, covering key knowledge such as statistical principles, fisheries science, and relevant laws and regulations. The goal is to deepen their understanding of the principles and processes of data compilation in order to improve the accuracy, precision, and reliability of the data.

TABLE 13 (CONT.)

Division	Needs of agencies involved in MCS operations
MARINE FISHERIES RESEARCH AND DEVELOPMENT DIVISION (M)	1) Develop field data collection methods to ensure accuracy, precision, and efficiency.
	2) Develop a centralized database system for the Division of Marine Fisheries Research and Development for fishery management.
	3) Review and reconsider the conditions for defining access rights to data, such as fishing logbooks, PIPO data, and VMS data, to improve the efficiency of data collection related to marine resource assessments.
	4) Develop a system for monitoring hygiene certification on fishing vessels that allows vessel owners to track it through an online platform.
FISHERIES RESOURCES MANAGEMENT AND MEASURES DETERMINATION DIVISION (C)	1) Continuously develop and improve the Smart Seabook system to provide greater convenience to the public and enhance the efficiency of staff operations.
LEGAL AFFAIRS DIVISION (C)	1) Link data between external agencies involved in case proceedings, such as the police, prosecutors, and courts, to enable convenient and timely tracking of case progress. The Fishery Law/KADEE Database System of the Department of Fisheries already has a legal case database to support such data linkage.
FISH QUARANTINE AND FISHING VESSELS INSPECTION DIVISION (S)	1) Promote the use of the E-logbook system
	2) Require all types of vessels supplying aquatic animals as raw materials to seafood processing plants install VMS.
	3) Develop a risk assessment system for seafood production throughout the supply chain with high accuracy to prevent the entry of seafood products derived from IUU fishing into the system.
	4) Develop a notification system to prevent violations, such as the expiration date of work permits or other relevant documents, and the approaching 30-day limit for fishing activities.
	5) Develop tools for the identification of aquatic animal species for use at aquatic animal inspection checkpoints.
	6) Develop methods for providing education on relevant international laws, as they are subject to continuous change, including collection, retrieval, dissemination, and knowledge sharing.

TABLE 13 (CONT.)

Division	Needs of agencies involved in MCS operations
FISHING AND FLEETS MANAGEMENT DIVISION (S)	1) Create incentives for work, especially for shift-based duties, by organizing appropriate shift schedules with suitable days off based on individual needs, or by providing other forms of compensation such as overtime pay.
	2) Implement personnel rotation for individuals who face difficulties in their roles, are unwilling to perform their assigned duties, demonstrate inefficiency, or show no intention to develop themselves toward the established goals.
	3) Promote career advancement by identifying higher-level positions for staff within the organization that can be used for rank or level adjustments.
	4) Enhance the efficiency of the VMS and establish a backup plan in case of system malfunctions.
	5) Upgrade hardware to improve performance, as existing equipment is nearing the end of its service life; a backup plan should be in place, such as procurement of replacement units or the adoption of cloud-based systems.
	6) Legal assistance should be closely supported by providing legal professionals to aid FMC center officers throughout the entire legal process—from the preparation of documents and evidence to court testimony and the final resolution of the case.
	7) Support in terms of operational equipment, such as providing center vehicles and upgrading computers.
FISHING CONTROL AND SURVEILLANCE DIVISION (S)	1) Procure high-speed and safe patrol vessels for combating illegal fishing activities.
	2) Establish a process for community involvement in the fishery management.
	3) Develop a public relations system regarding fishery laws and other relevant regulations to raise awareness alongside law enforcement efforts.
Supporting agencies	
FISH INSPECTION AND QUALITY CONTROL DIVISION	1) Develop a certification system for the hygiene standards of fish market.
FISHERIES COMMODITY STANDARD SYSTEM AND TRACEABILITY DIVISION	1) Integrate the operations of agencies within the Department of Fisheries to enable continuous traceability throughout the entire food production chain, including both wild-caught and farmed aquatic animals
	2) Develop the DOF Traceability system to be able to link with relevant documents within the aquatic animal production system (from farm to consumer)
AQUATIC ANIMAL FEED RESEARCH AND DEVELOPMENT DIVISION	1) Develop the e-Aquafeed system to integrate with other systems, such as FSW, to enable traceability of the origin of fishmeal and fish oil used as ingredients in aquafeed.

TABLE 13 (CONT.)

Division	Needs of agencies involved in MCS operations
INFORMATION AND COMMUNICATION TECHNOLOGY CENTER	1) Develop, upgrade, and replace safety equipment and other devices within the server room, such as air conditioners and uninterruptible power supplies (UPS), as the current equipment has exceeded its service life. This results in an inability to control the temperature during the summer or an increased risk of the UPS failing during power outages, which could lead to the MCS system crashing.
	2) Develop a sensor tracking system or IoT from fishing vessels to integrate into the Fisheries GIS system.

CONCLUSION

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Overall, the key development needs identified by the Department of Fisheries to enhance the efficiency of MCS-related operations consist of both staff development and the development of systems and operational processes. For staff development, key initiatives include: establishing career progression pathways, providing regular training and skill development programs, and offering specialized training for new and current personnel involved in MCS-related work. For system and operational development, key initiatives include: enhancing the Fishing Info/e-PIPO system in terms of capacity and processing speed to improve operational efficiency, integrating systems throughout the entire MCS-related chain, improving the use of big data for timely and effective fisheries resource management, promoting inter-agency collaboration between internal and external organizations involved in MCS, and establishing a central coordination unit or Help Desk for MCS operations.

In terms of overall capacity and motivation development needs for personnel involved in Thailand's Monitoring, Control, and Surveillance (MCS) operations, the following areas have been identified. For core competencies, key qualities include patience, humility, openness and sincerity, honesty, expertise, and flexibility. In terms of functional competencies, the focus is on self-confidence, communication and motivation, and negotiation skills. For managerial competencies, change management has been emphasized. Regarding motivational factors, the needs identified include recognition and awards, organizational protection, a supportive environment for self-development, a goal-oriented work environment, and positive internal relations. Strengthening both competencies and motivation should begin with the formulation of targeted personnel development policies. These should then be translated into a variety of programs and initiatives, such as workshops, informal in-house activities, and the establishment of personnel networks.

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