



Port In – Port Out Control Center

Thai-flagged vessel



Contents

01 **Monitoring Control and Surveillance**

02 **Functions & location**

04 **PIPO process**

03 **PIPO structure**

05 **Lesson learn**



01

Monitoring Control and Surveillance

What is MCS?

Monitoring Control Surveillance

MCS is the implementation of a plan or strategy. The objectives of fisheries management and MCS are generally to take advantage of the economic opportunities of the EEZ, they also include the exercise of sovereign rights over the zone, conservation of marine resources, and collection of appropriate data on activities to ensure sound, rational oceans and fisheries management planning.

Control



Input control

Fishing effort management by limitation imposed on fishing gear



Output control

Limits on the number of fish that can be taken from a fishery;
Total Allowed Catch (TAC)

- Size and number of vessel
- Fishing day etc.



Technical measure

Size selectivity management may minimize protected species mortality

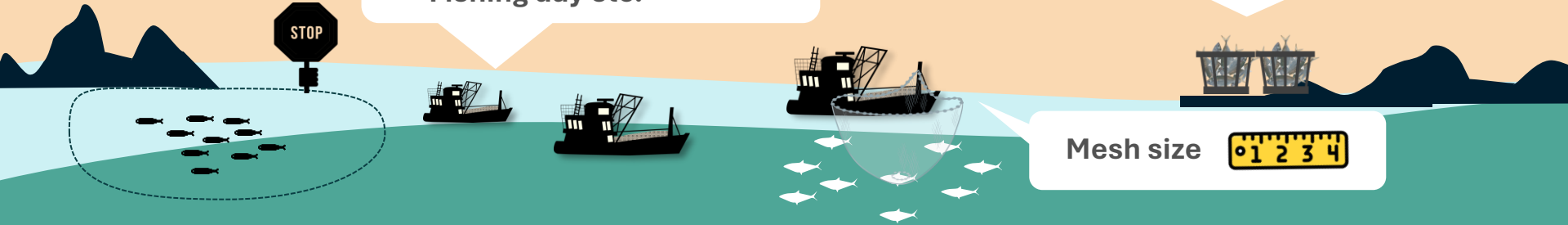


Time-area restriction

- Marine Protected Area (MPAs)
- Seasonal closure

Total Allowable Catches

Mesh size



Thailand's Surveillance tools to combat IUU fishing



01

Fisheries Monitoring Center

Vessel Monitoring System (VMS)



02

At sea inspection

Fishery patrol vessel by ThaiMECC, DOF



03

At port inspection

Port In and Port Out Control Center



04

Air surveillance

Maritime Patrol Aircraft and UAV





02

Functions & location

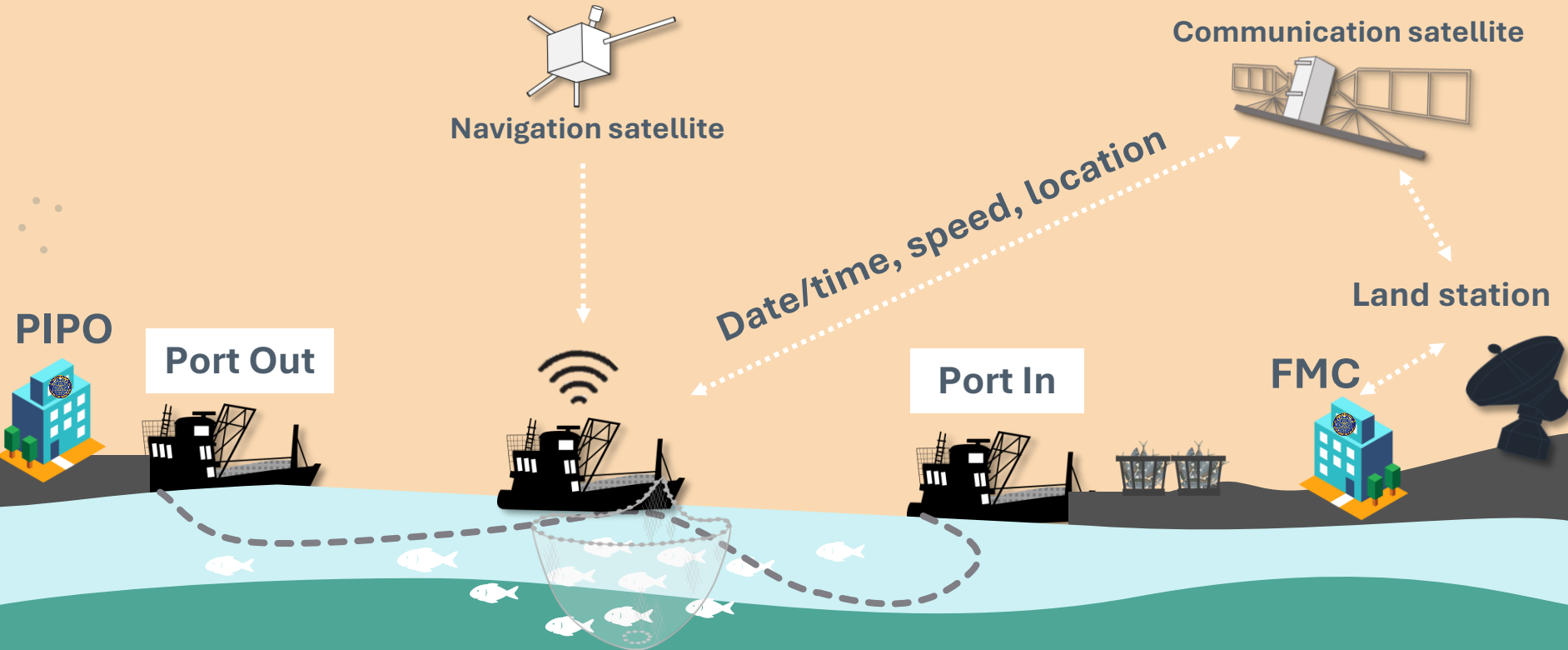
PIPO Center Functions

Before fishing

During fishing

During landing

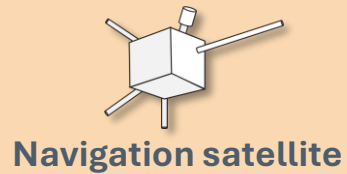
Post landing



PIPO



Port Out



Navigation satellite

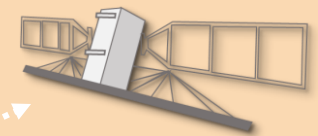


Date/time, speed, location

Port In



Communication satellite



Land station

FMC



PIPO Center Functions

Vessel

Vessel Monitoring System

Occupational Safety

Health & Hygiene Supplies



Vessel name & ID

Marking

Fishing gear
(type/number)

Crew



Skipper



Engineer



Crew list



Labor welfare

Fishing/Catch



Inspecting species and fish weight as specified in the fishing logbooks



Verify the actual weight and species of fish caught in fishing logbook

PIPO Locations



30 PIPO Centers



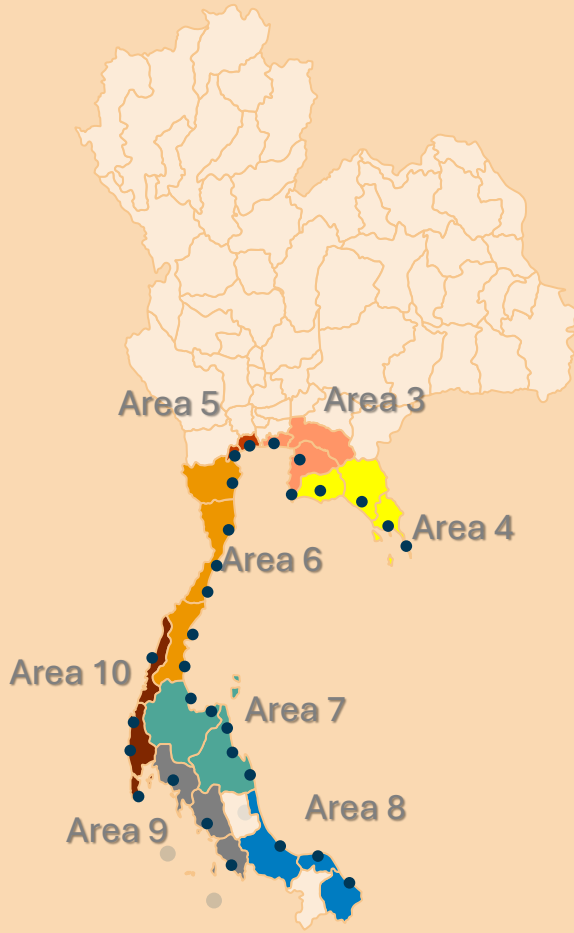
~ 1,500 fishing ports



~ 5,493 FVs



~ 29,828 trips/month



Vessel types controlled by the PIPO



Commercial FVs & Oversea FVs

10-30 GT operated 4 types
of fishing gears; trawler,
surrounding net, anchovy
falling and lifting net

>30 GT all fishing gears (VMS)

Oversea vessel



Transshipment Vessels

<30 GT (No VMS)

≥30 GT (VMS)



Auxiliary Vessels

Oil tanker

Refrigerated Vessel

Fresh Water Tanker



03

PIPO structure

PIPO Structure



Department of Fisheries
(DOF)



Thai Maritime Enforcement
Command Center (ThaiMECC)

Fish Quarantine and Fishing
Vessel Inspection Division

ThaiMECC Area



DOF

Head of PIPO



RTN

Deputy Head PIPO



DOF

Landing
inspection officer



DOF MD DOE DLPW

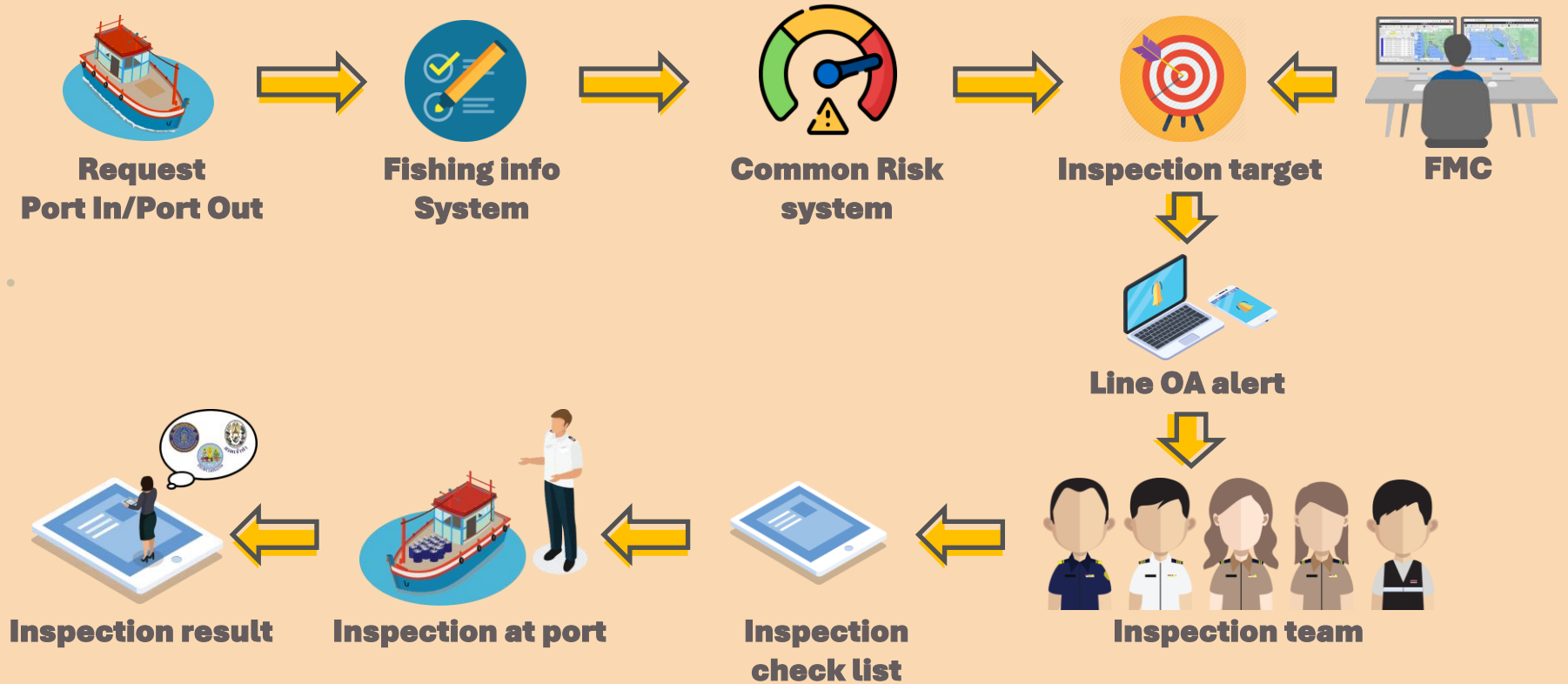
Inspection team (85 teams)

The background features a stylized illustration of a beach scene. At the top, there are teal and light blue waves with white foam. Below the waves is a wide, light orange sandy beach. At the bottom, there is a dark teal area representing the ocean. The overall style is clean and modern.

04

PIPO process

PIPO Process





Automatic checking by fishing info system

1. Ship registration
2. Ship operating license
3. Master certificate level
4. Engineer certificate level
5. Ship operating license
6. Vessel lock status
7. Fishing license
8. Vessel Monitoring system (VMS)
9. Remaining fishing days
10. Estimated fishing days
11. Return to port within allowed period (30 days)
12. Vessel Monitoring System (VMS) signal history
13. Fishing port status
14. Offense record data
15. Seabook
16. Work permit
17. Fishing area (Andaman Sea / GOT)
18. Fishing vessel hygiene standard certificate
19. Inspection of fishing equipment standards
20. Objectives of PI/PO notification
21. Types and quantities of catch

Preparations for Pier-Side Inspection



1

The head of PIPO receives the inspection target, **decides the inspection team** and **creates the inspection document** in the FI system

2

The head of the multidisciplinary team considers to inspect and record the data in the FI system as "**Inspection**"

3

Multidisciplinary team conduct **inspections/verifications of data** in the electronic system



When arriving at port

1

The head of the multidisciplinary team gave a **briefing** along with other points of observation would be useful in inspection



2

The head of the multidisciplinary team **informs the ship owner or master to submit documents related to the notification and informs the crew to prepare their personal documents for inspection**

Pier-side Inspection

01

Vessel inspection

DOF

MD



Boarding for vessel inspections

Pier-side Inspection

01

Vessel inspection



Vessel name, Vessel registration, Ship license

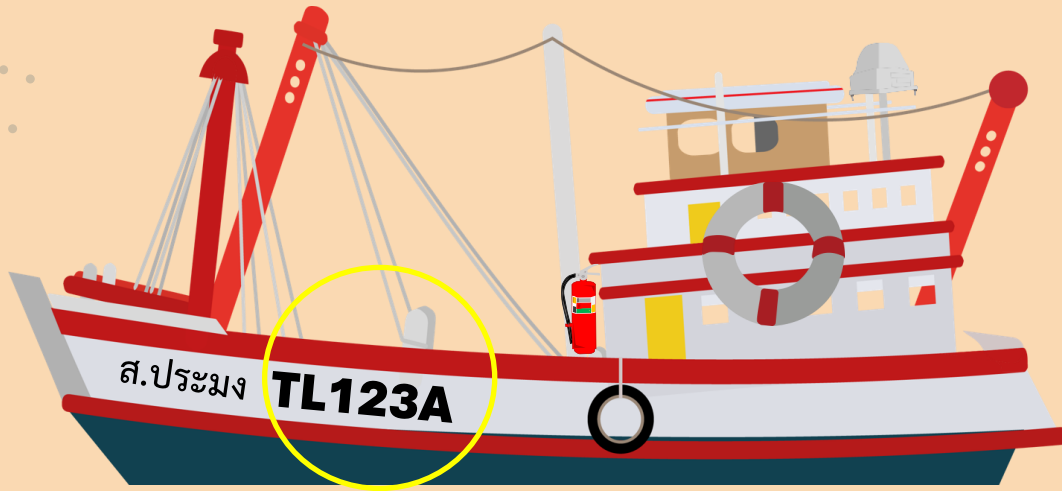


Unique Vessel Identifier (UVI)

Pier-side Inspection

01

Vessel inspection



Fishing ground

A = Andaman
T = Gulf of Thailand

Vessel size

S < 30 GT
M = 30 GT < 60 GT
L = 60 GT < 150 GT
X = 150 GT and over

Fishing license

: Using order
number of fishing
license issuing

Fishing gear

A = Trawler
B = Purse seine
C = Dredge
D = Lift net
E = Falling net
F = Gill net
G = Krill push net
H = Trap
J = Longline
K = Other
M = Generator
fishing vessel

Vessel Marking

Pier-side Inspection

1. The markings match the license
2. The markings are clear and correct as required by law

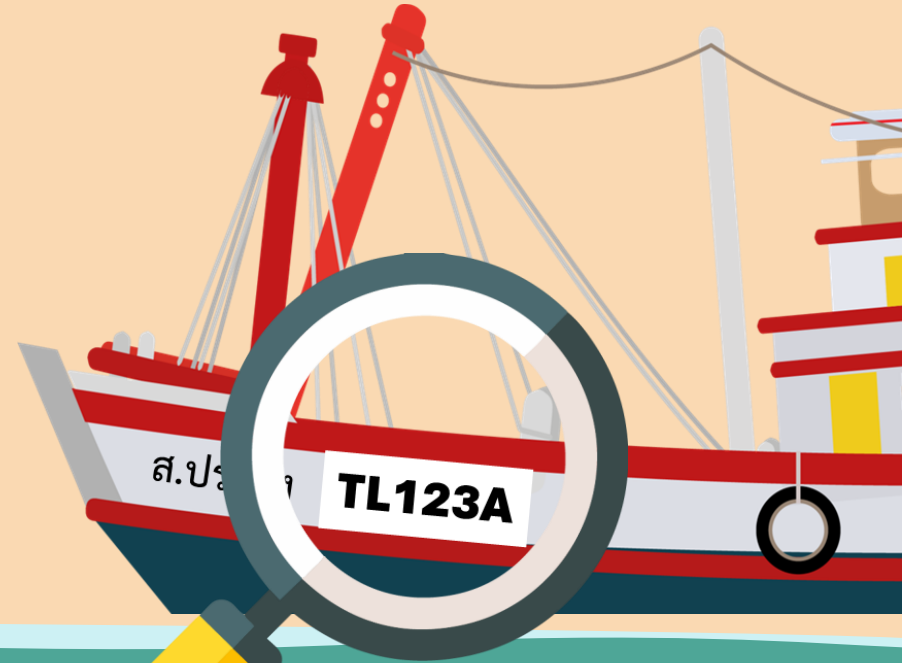
TM245B

TM245B

AX100CFK

AX100CFK

Ex. Colour and style



Pier-side Inspection

01

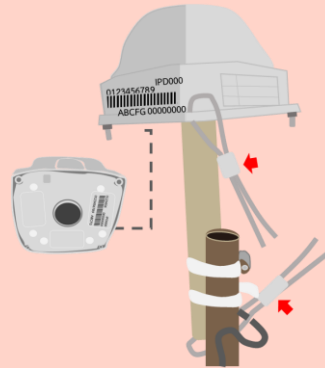
Vessel inspection



Serial Number/VMS
signal



Security Seal and
seal number



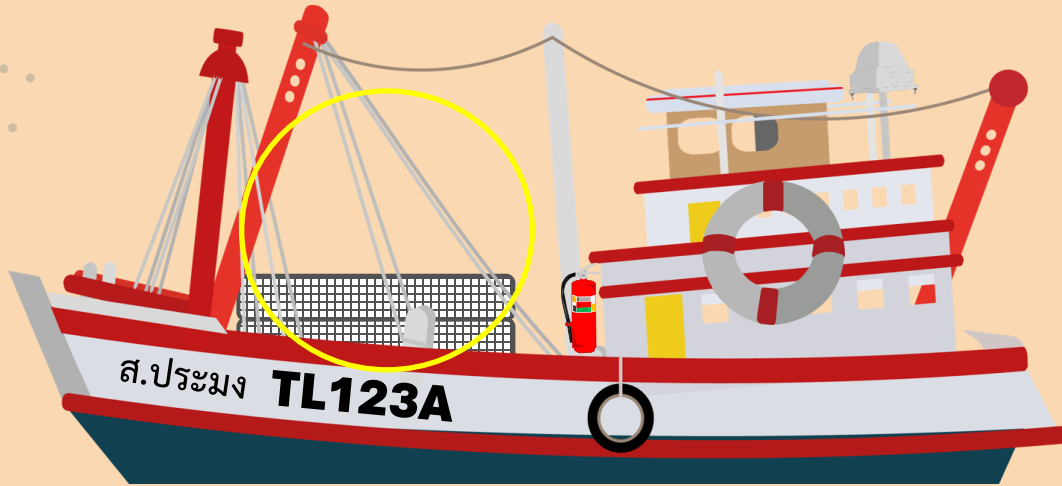
Actual vs VMS position

Vessel Monitoring System

Pier-side Inspection

01

Vessel inspection



Type/ mesh size/
number of fishing gear

ใบอนุญาตทำการประมงพาณิชย์

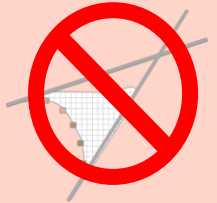


ใบอนุญาตทำการประมงพาณิชย์

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No prohibited fishing
gear on board

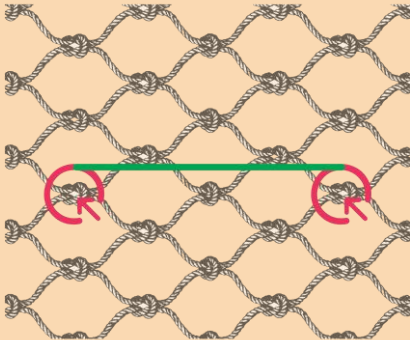


Fishing gear

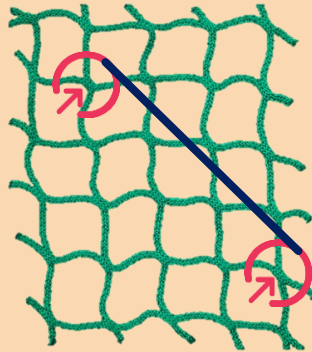
Materials and Measurements



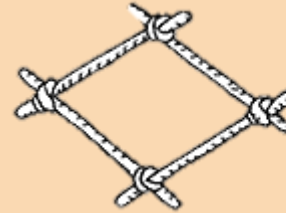
Preparing the tools to measure the net mesh size



Net with knot

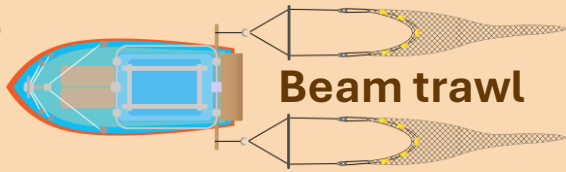
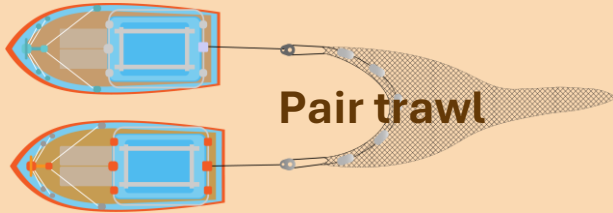


Net without knot



Stretching the mesh and then using a ruler to measure between the two knots

Materials and Measurements

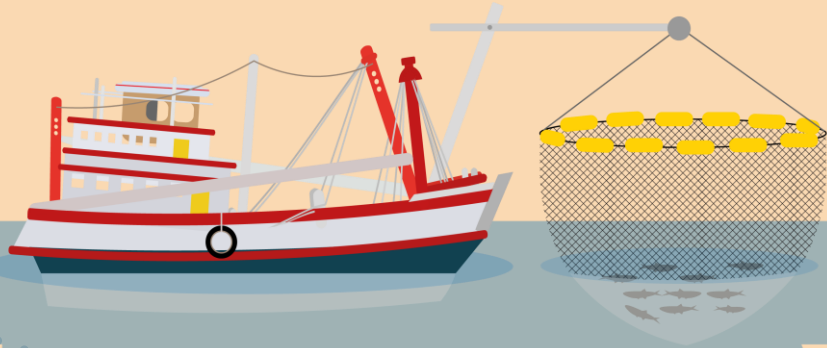


The net cover the bottommost part (yellow net outside)
 $\geq 7\text{-cm}$ wide or wider
(10 meshes, 3 replications)

The mesh size of the bottommost part shall be
 $\geq 4\text{-cm}$ wide or wider
(20 meshes, 3 replications)

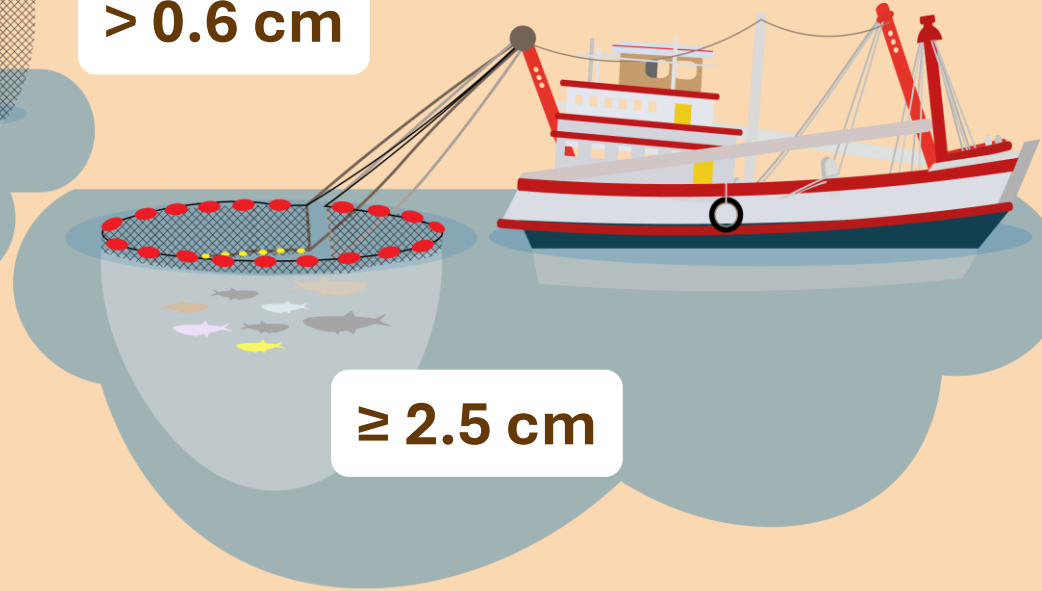
Trawler

Materials and Measurements



$> 0.6 \text{ cm}$

**Anchovy
purse seine**



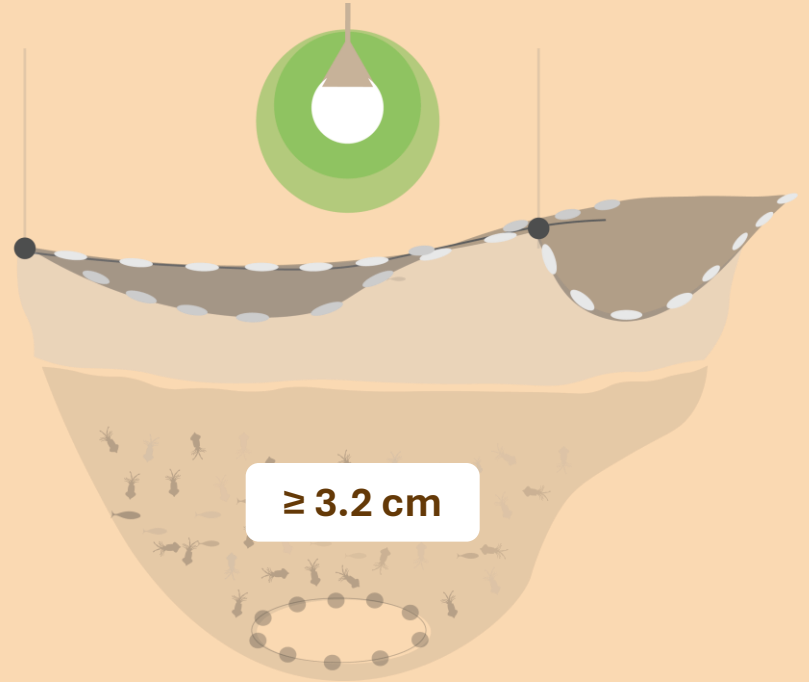
$\geq 2.5 \text{ cm}$

Purse seine

Materials and Measurements



Anchovy lift/falling net



Squid falling net

Materials and Measurements



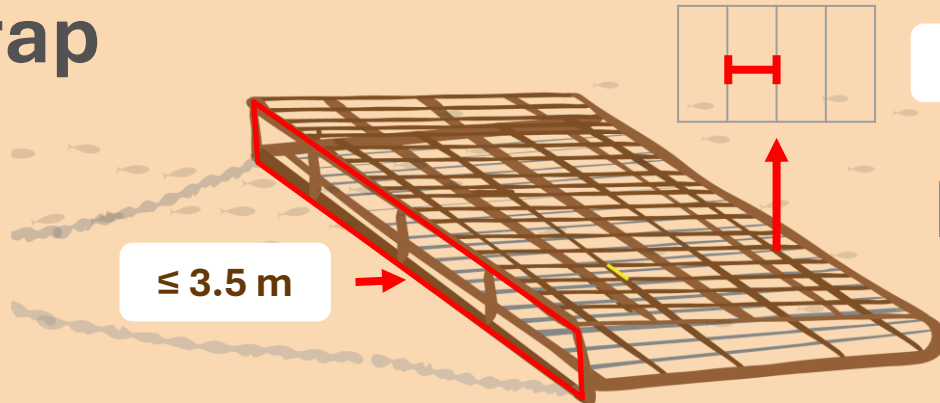
≥ 2.5 Inch

Crab trap



≤ 2 mm

Krill push net



≤ 3.5 m

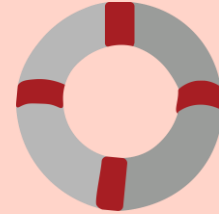
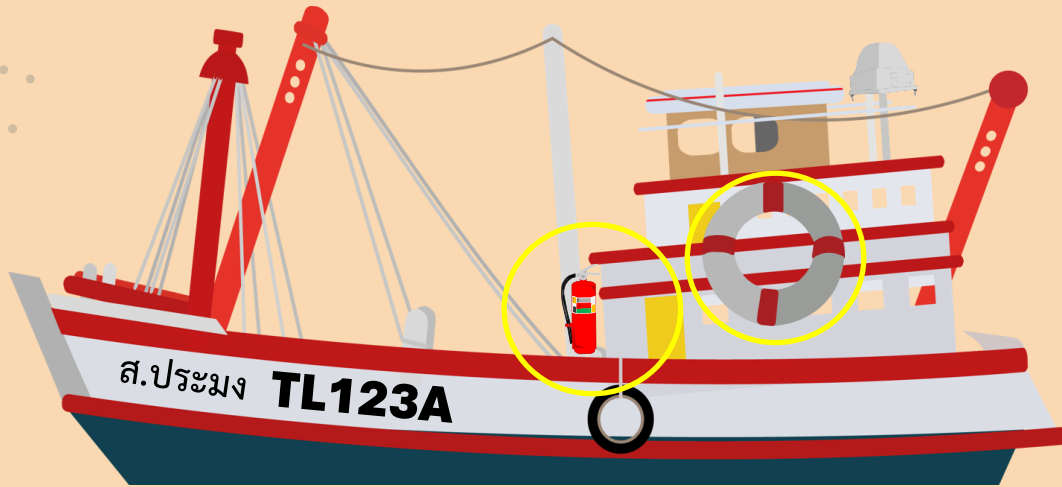
≥ 1.2 mm

Dredge

Pier-side Inspection

01

Vessel inspection



The life jackets, lifebuoy, and fire extinguisher are ready to use



Enough life jackets for all crew members

Occupational Safety

Pier-side Inspection

01

Vessel inspection



Place safety warning signs
throughout the ship



Occupational Health and Safety

Pier-side Inspection

01

Vessel inspection



- Enough medicine
- No expired medicine on board



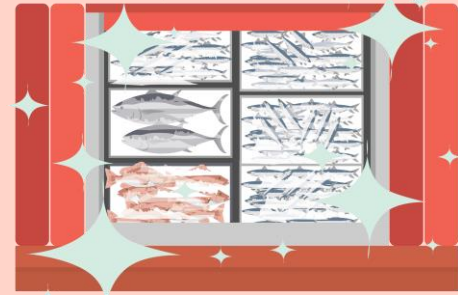
Enough food and water for fishing trip

Health & Hygiene Supplies

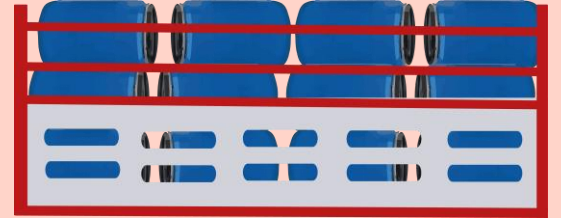
Pier-side Inspection

01

Vessel inspection



Hygiene in storage



The materials and equipment are clean and properly stored

Health & Hygiene Supplies

Pier-side Inspection

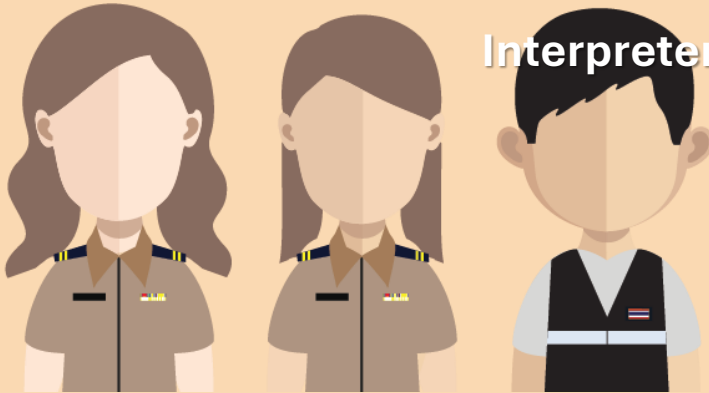
02

Crew

DOE

DLPW

Interpreter



DOE officer and DLPW officer inform the **ship's master and crew** to **line up and wait for identity verification, counting and interview**

Pier-side Inspection

02

Crew; personal documents

Skipper



ID card



Seaman book



Captain license

Crew



ID card



Contract

Engineer



ID card



Seaman book



Engineer license



Seaman book or Sea book



Work permit

Pier-side Inspection

02

Crew; Labor record (LR)



Ship owner

Submit crew list



Marine Department
(MD)

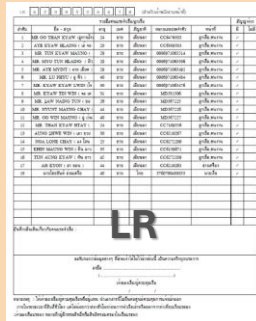


Request Port Out

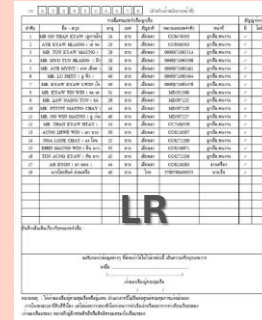
Submit LR
using crew list



DOF



Face scan



Verify the LR matches
the actual crew members



Check total number of crew

Pier-side Inspection

02

Crew; Labor welfare

Young worker



The minimum age for working on board in the fishery industry is **18-year-old**

Signs of force labor



Starveling



Accident



Quarrel/Fight

Document Checking

Daily rest period

Contract

Payment of Wages

Vacation, holiday and sick leave

Document checking and interview



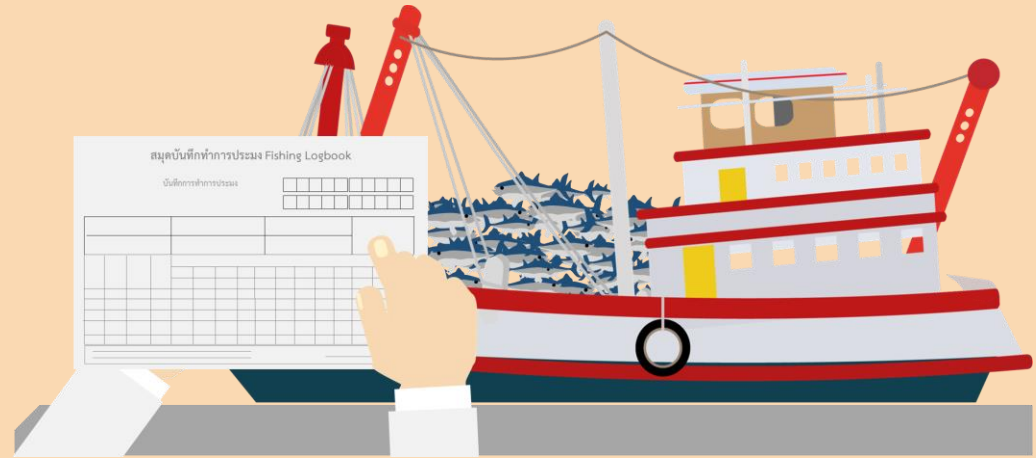
Pier-side Inspection

03

Fishing/Catch

DOF

Fishery inspector Landing inspection officer



Boarding for fishery inspection

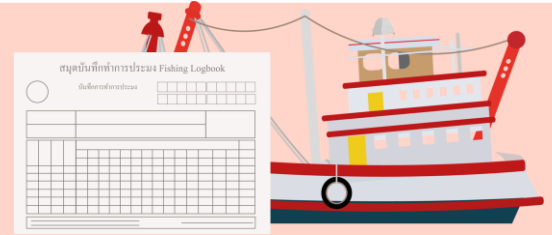
Pier-side Inspection

03

Fishing/Catch

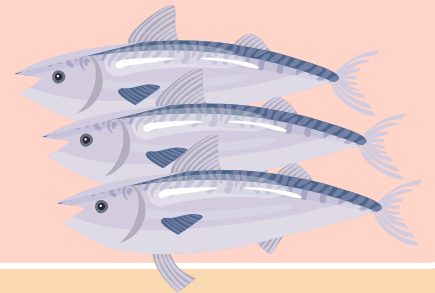
Verify fishing logbook vs catch on board

Compare the estimated catch in the fishing logbook with the actual catch on board



Verify that the catch species align with the type of fishing gear used

Observe the quality of fish on board



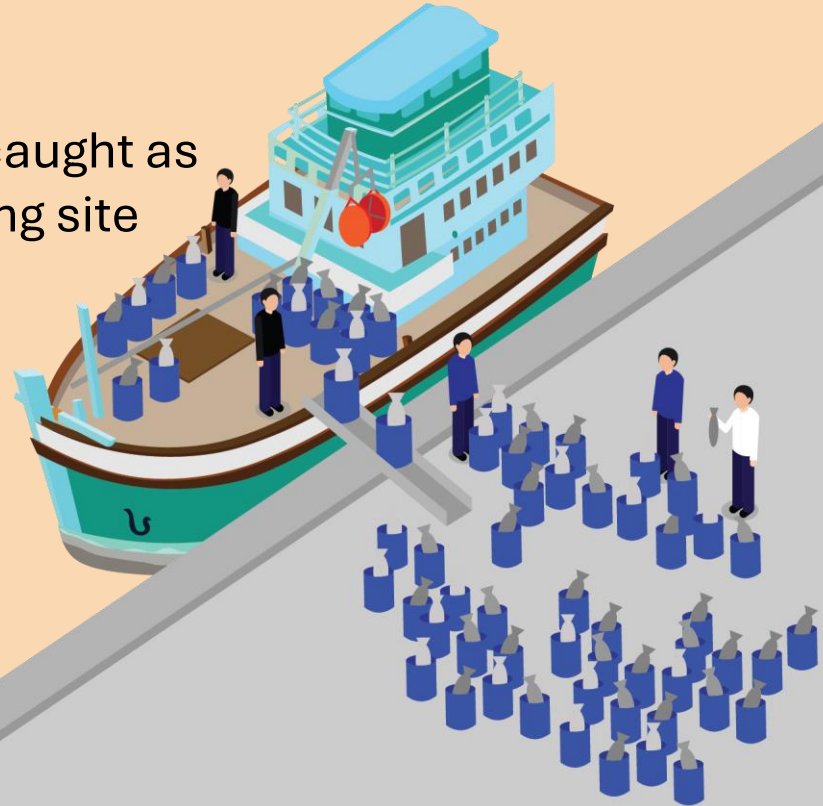
Pier-side Inspection

03

Fishing/Catch

Verify the actual weight and species of fish caught as recorded in the fishing logbooks at the landing site

±20%





05

Lesson learn

Changes in the legal framework and PIPO procedures

2015

NCOP order
10/2558

- ❖ CCCIF
- ❖ PIPO
- ❖ VMS

Royal
Ordinance on
Fisheries B.E.
2558 (ROF)

ROF Section
81(3)

- ❖ PIPO 30 GT
- ❖ 4-12 hrs.

ROF Section 82

- ❖ **PO 12 items**
(Paper based)

2016

ROF Section
81(3)

- ❖ **PIPO 10-30 GT**

DoF
restructuring

- ❖ FFMD (DOF)

2017

NCOP order
22/2560

- ❖ PIPO supporting vessel

ROF Section 81(3)

- ❖ 2-24 hrs.
- ❖ fishing day
scheme
- ❖ PIPO 32 / FIP 19

ROF B.E. 2560 (2)

ROF Section 81(3)

- ❖ **E-PIPO**
- ❖ fishing day scheme
PIPO 32 / FIP 19
- ❖ New PIPO
procedure

2018

ROF Section
81(3)

- ❖ **E-PIPO 100%**
- ❖ **1-24 hrs.**
- ❖ PIPO 30/ FIP 21

ROF Section
82

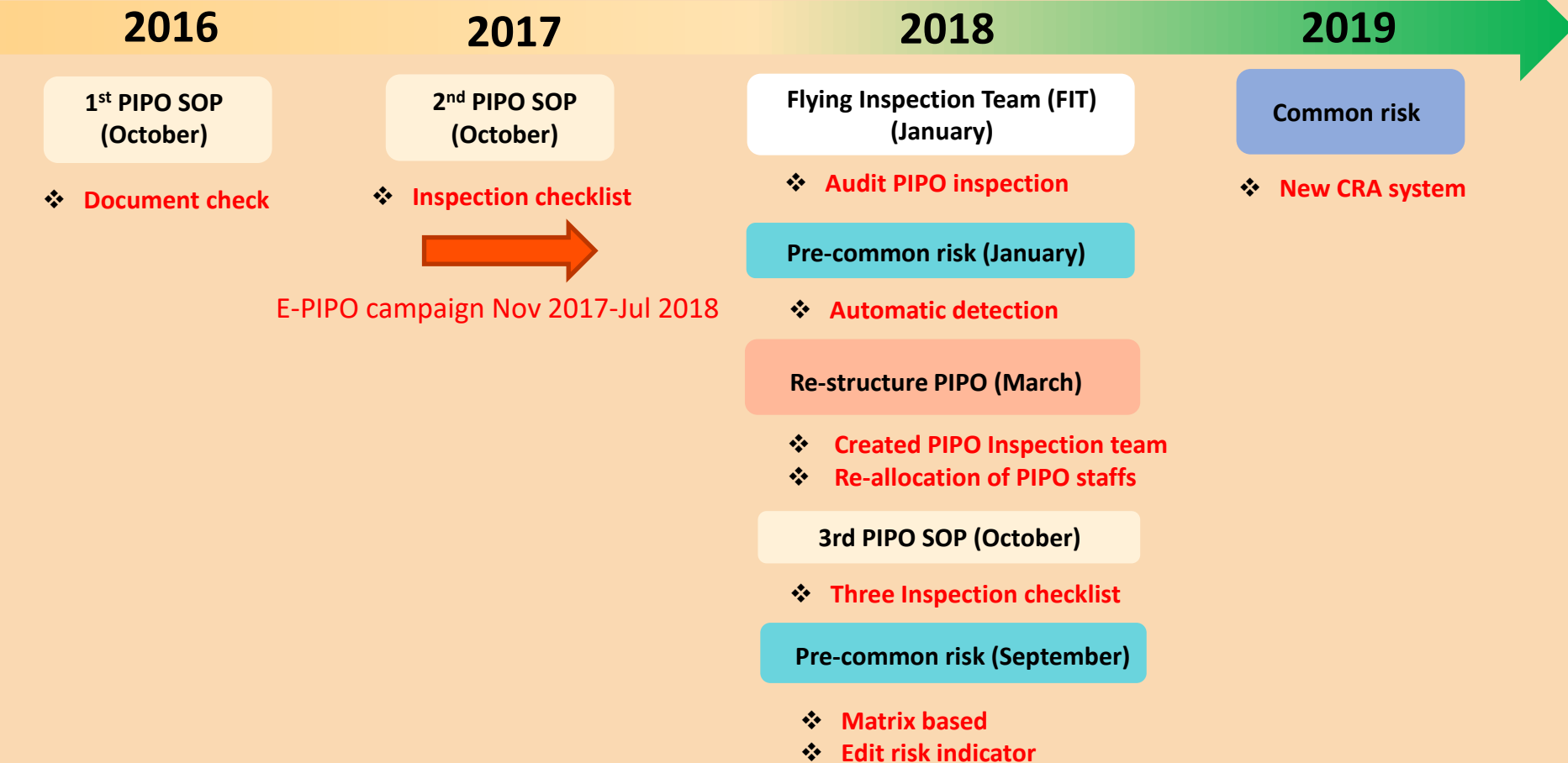
- ❖ **E-PIPO**
- ❖ **PO 6 items**

2020

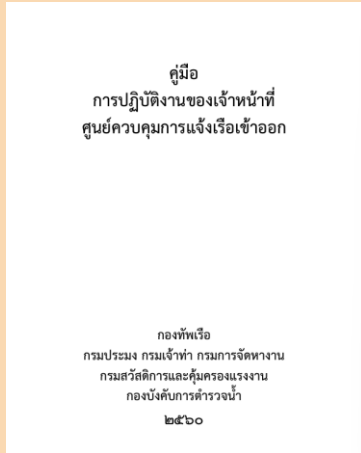
DoF
restructuring

- ❖ Adjust new process

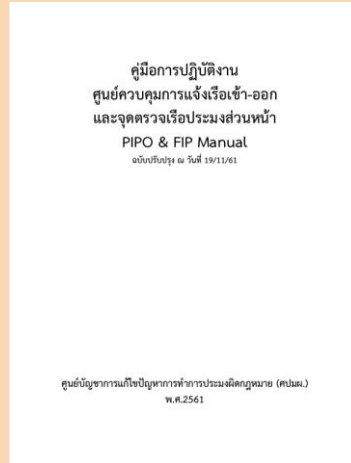
Evolution of PIPO



Standard Operation Procedure (SOP)



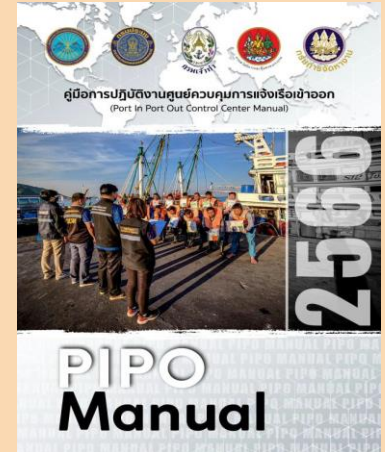
2017



2018



2020



2023

Common Risk Assessment



Fishing trips 30,000 trips/month
~ 1,000 trips/day (Peak at 1,300 trips)



Fishing port



Manpower

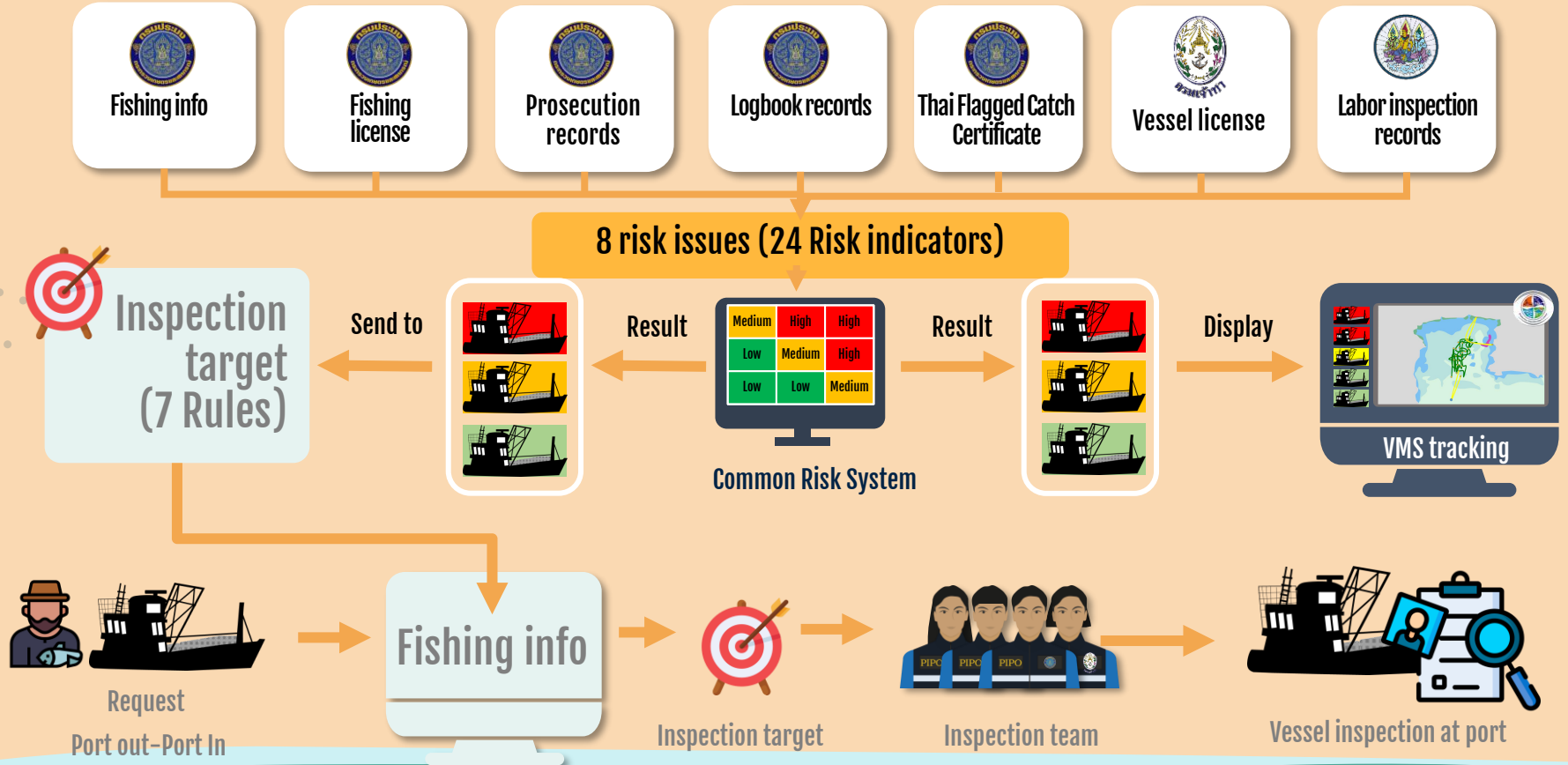


Vehicle

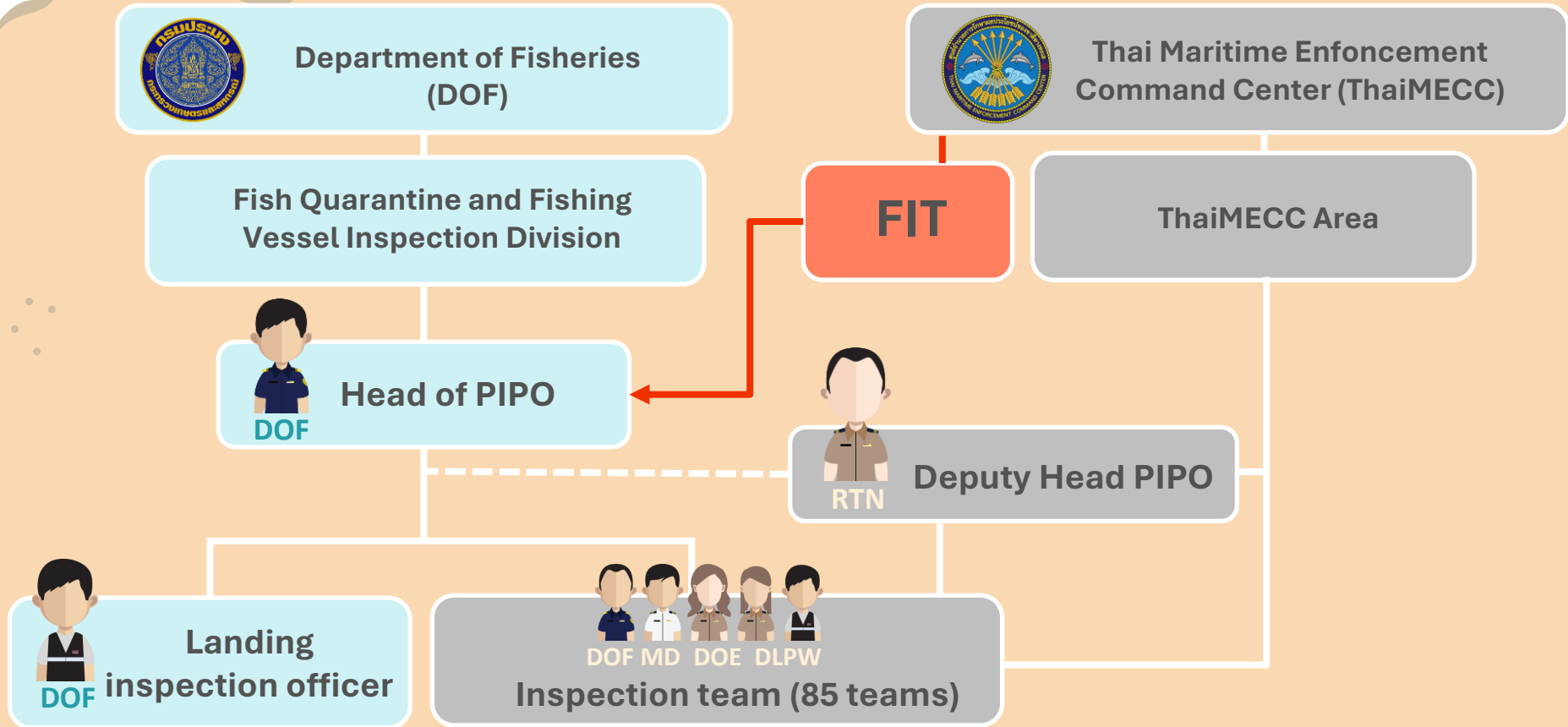


Budget

Common Risk Assessment



Flying Inspection Team (FIT)



Flying Inspection Team (FIT)



DOF

THAI
MECC



กรมเจ้าท่า

MD



DOF



DLPW



DOE

Administrative: Effectiveness in controlling the operations and supervision of the head of PIPO

Vessel inspector

Fishery inspector

Labor inspector





Thank you for your attention