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Annual National Report:
Thailand Reports to the SIOFA Scientific Committee

Relates to agenda item: 03 Working paper ☒ Info paper ☐

Delegation of Thailand

Abstract

During 2015 – 2017, 62 authorized Thai oversea fishing vessels were fishing in the Western Indian Ocean. The main fishing grounds were distributed around Saya de Malha Bank. However, in 2018, Thai flagged fishing vessel had not been operated in Indian Ocean and SIOFA area of competent. For MCS and data verification mechanism, Thailand has put in place a range of management and technical measures through the Fisheries Act B.E. 2558 (2015), and the subordinate Ministerial Regulations and Implementing Rules for Thai overseas fishing vessels operating in high seas. Furthermore, Thailand defines the minimum requirement for the authorized vessel that include the installation of VMS ERS and EMS, human observer, port-in and port-out and the requirement of submission of the logbook. Currently, Thailand is in preparation to re-authorizing Thai flagged fishing vessels to operate in SIOFA area of competent that expected to be from mid-2019.

Contents

1. Description of Fisheries

Thailand has built upon the reforms of all dimensions undertaken during nearly the past 4 years, including the reform of legal framework and implementing regulations, the fisheries management limiting the fishing license issuance in compliance with the quantity of aquatic animals, the fleet management putting control over fishing vessels of all sizes and types, the monitoring, control and surveillance through port-in and port-out control. Moreover, for Thai oversea vessels installation of vessel monitoring system (VMS), and especially installation of electronic reporting system (ERS) electronic monitoring system (EM) for oversea fishing fleet, as well as the development of traceability system for catches from Thai-flagged vessel.

Since February 2017, Thai fishing vessels were called to return to Thai port by the Department of Fisheries to manage the fishing fleet to comply with the international regulations. After Thailand becomes a member of SIOFA, Department of Fisheries has issued measures and regulations for Thai overseas fishing vessels which wish to operate in SIOFA area to reflect the SIOFA CMMs before allow them to fish in high-seas again.

Fleet Structure

For Thai overseas fishing fleet, there was no Thai commercial trawler vessels operated in SIOFA area since February 2017 to present. Thailand had 62 vessels operated fishing in 2015 –2017. The number of fishing fleet was shown in table 1.

Table 1 A: Number of authorized trawler vessels operating in the SIOFA area

Year	Number of Thailand commercial trap vessels	Size (GT)	Remark
2015	56	158-1,125	In February 2017 - present, Thailand don't have commercial trawler vessels operated in SIOFA area
2016	60	158-1,125	
2017	13	164-721	

Table 1B: Number of authorized trap vessels operating in the SIOFA area

Year	Number of Thailand commercial trawler vessels	Size (GT)	Remark
2015	1	199.8	In February 2017 - present, Thailand don't have commercial trawler vessels operated in SIOFA area
2016	1	199.8	
2017	1	199.8	

During 2015 – 2017, there were 76 fishing vessels had been authorized by DOF, Thailand to fish in high-sea. From the total 76 individual vessels, trawling net was the most used fishing gears, composed with 1 paired trawl and 73 otter board trawls. There was only 1 vessel used both of purse seine and trap. However, there were only 62 authorized vessels that were active and had fishing operations in the western Indian Ocean during 2015 – 2017. Thai fleet operated fishing in high seas, Saya de Malha Bank, between latitude 9 to 12 degree South and longitude 60 to 62 degree East. The data used

to assess catch and species composition are from fishing logbook of 58 vessel. The total catch was 35,916.56 tons which 35,516.71 tons was from demersal trawl and 399.85 tons was from portable trap. The dominant catch species comprised round scad (*Decapterus* spp.) 29.78 %, lizard fish (*Saurida spp.*) 25.66%, threadfin bream (*Nemipterus* spp.) 11.62%, goat fish (*Parupeneus* spp.) 5.59 %, bigeye scad (*Selar* spp.) 4.79 % and Indian mackerel (*Rastrelliger* spp.) 4.29 %.

Developments in fisheries

Thai-DOF has considered the following matters: legal, licensing and monitoring systems (VMS/E/ERS). Today, Thailand is in preparation launch authorizing Thai-flagged overseas fishing vessels in 2019

2. Effort and Catch Summaries

As Thai vessel did not operate in SIOFA area in 2018, there is no effort and catch data to report.

3. Fisheries data collection and research activities

In the past, scientific data was derived from fishing logbook. The old format of the logbook did not cover all of necessary information for scientific analysis such as start/end time of set, start/end location. Some of scientific data (such as size frequency) was received from observer which regulate to cover 5% of fishing effort.

Currently, Department of Fisheries has designed the new format of fishing logbook for fishermen to complete the data which includes start/end time of set, start/end location etc. (Annex III). Moreover, Thailand defines the minimum requirement to authorize overseas fishing vessel including; the installation of the VMS, Electronic Reporting System (ERS) and Electronic Monitoring System (EMS). The information derived from these compliance monitoring tools will be either used for scientific purpose. Also, the vessels are required to have 100% coverage of observer onboard for bottom trawl or 20% coverage for other bottom fishing gear, thus this expected to result the data set of bottom impact assessment e.g. stock density, biomass, abundance, species diversity and variability.

4. VME Thresholds

Thailand has set the regulations for Thai fishing vessels when detect corals or sponges in the area which are likely to be a vulnerable ecosystem. These include stop fishing when catch living corals or sponges more than the defined benchmarks and take actions follow rules which classified by gear type as follows;

Trawler

Stop fishing when catch living corals more than 60 kg or 700 kg of sponges per one time of operation and move at least 2 nautical miles from that area.

Longliner

Stop fishing when catch living corals or sponges more than 10 kg per 1,000 hooks or per 1,200 meters of longline and move at least 1 nautical mile from the center of the line Segment.

Fish Trap Vessel

Stop fishing when catch living corals or sponges more than 10 kg and move at least 1 nautical mile from that area.

In addition, observers onboard are required to record and report species and quantities of coral and other marine organisms derived from each fishery and area. The data will be used to analyse the abundance and diversity of benthic marine organisms. This for further define VMEs in the SIOFA area.

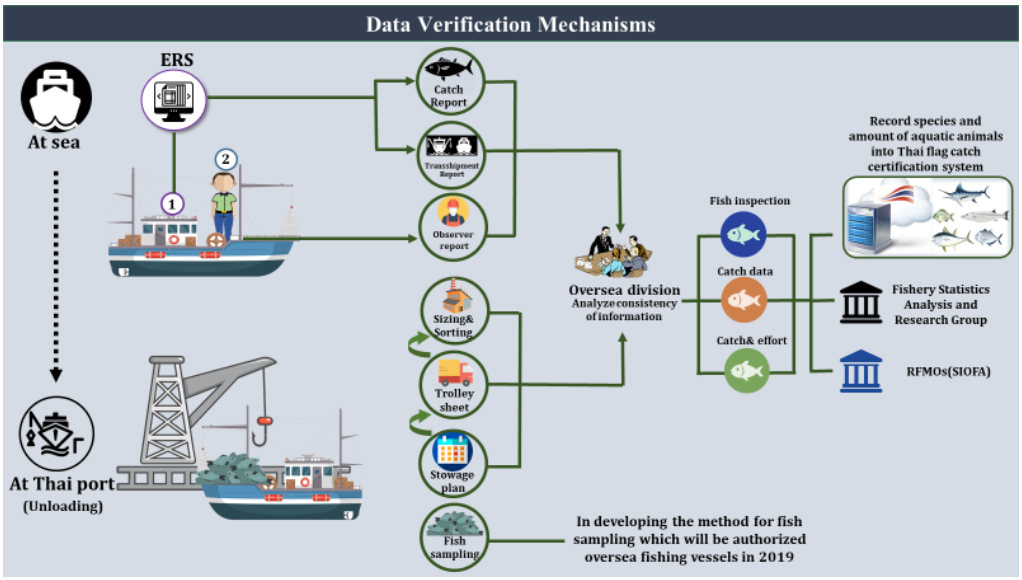
Thailand has a regulation for prohibit entering to BPAs which are meaningful bathomes by monitoring through VMS. The prohibit fishing areas are as *Table* 2.

Table 2 The prohibit fishing areas regulated in Thai fisheries law

Area	Lat (S)	Long (E)	Lat (S)	Long (W)
Fools Flat	31º 30′	94 º 40′	31 º 40′	95 º 00′
	31 º 30′	95 º 00′	31 º 40′	94 º 40′
Atlantis Bank	32 º 00′	57 º 00′	32 º 50′	58 º 00′
	32 º 00′	58 º 00′	32 º 50′	57 º 00′
Walters Shoal	33 º 00′	43 º 10′	33 º 20′	44 º 10′
	33 º 00′	44 º 10′	33 º 20′	43 º 10′
Coral	41 º 00′	42 º 00′	41 º 40′	44 º 00′
	41 º 00′	44 º 00′	41 º 40′	42 º 00′
Middle of What	37 º 54	50 º 23	37 º 56.5	50 º 27
	37 º 54	50 º 27	37 º 56.5	50 º 23

However, there is no any record from fishing logbook or observer report that these fishing activities neither encountered with Endangered, Threatened or Protected (ETP) species or marine mammals, corals or sponges.

5. Data Verification Mechanisms



Data collection on Thai oversea fisheries has been categorized into two themes. The first theme is collecting information from daily report while the vessel were fishing / transshipment activity outside Thai water transmitted these data via satellite system and second one is collecting data from landing sites. These data has been consistent analysis and record data information in Thai flag database system. Furthermore, these data are submitted to SIOFA secretariat to monitor and analyze the status of marine resources for sustainable management in long term. Source of the data collection as follow;

5.1 Data report during their fishing/transshipment activity outside Thai water

Fishing information from logbook and e-logbook

Data collection is from logbook and e-logbook which provided by DOF, Thailand. The data include information related to fishing trips and fishing operation. The trip data include details about the vessel to the dates and ports of departure and return, number and weight of catch and effort, and position (latitude and longitude). The operational data includes the data and time of the operation, the location, the retained of target species and other information relating to the operation. The master of fishing vessel shall record every fishing operation in the fishing logbook and send a copy during transshipment at sea or back to Thai port. The master must report the e-fishing logbook to the authority via an application on a daily basis as required by law. Data from these logbook will be used to estimate annual catches, nominal catch by species and effort were analyzed by Excel.

Transshipment activities

The overseas fishing vessel must request for authorization and report transshipment activity via ERS within designated timeframe. With the request function interface, fishing master can request for authorization to perform transshipment and landing activities. The responses from the authorities, whether authorize or not authorize, will be electronically sent to the vessel via the application. With the report function interface, Fishing master can declare their activities following those of authorizations which include transshipment declaration and landing declaration.

Daily report from observer onboard

Observer onboard must report daily to DOF via application (Currently in development). The reporting includes information about fishing operations, the amount of fish caught, the amount of fish released and discarded, as well as the details of fishing gears and fishing support equipment.

5.2 Data information from landing site

Port inspector will inspect the documentation and physical checks on board for port in –port out permission, the video recorded by the EM will be inspected by port inspector prior to authorize to unloading. Besides, the Thai authorities will also carry out the catch landing inspection when porting in for reliability and accuracy of information on landed fish before entering the supply chain. During this process, catch

weight is verified with landing declaration documents, such as fishing logbook, fishing gears and Marine Catch Transshipment Document (MCTD) in the case of transshipments.

The improved activities related to achieve the effective MCS and data verification mechanism

1. **Port Out Controls**

At Port In – Port Out Control Centers (PIPO), it is important to note that the Thai authorities have set clear targets for port in and port out inspections, i.e. documentation and physical checks of vessels and labor. This is carried out by PIPO officers and inspectors of relevant competent authorities.

2. **Vessel Monitoring System (VMS)**

The VMS of fishing vessels must be active all-time and transmit signals every 1 hours. The real-time system can be monitored by online application and navigation data of fishing vessel can be traced back to analyze behavior of fishing vessel. For oversea fishing vessel, a spare VMS set is available in case the main VMS signal is lost.

3. Electronic Reporting System (ERS) and Electronic Monitoring System (EM) installation.

A new electronic surveillance system has been developed, comprising of 2 main components: Electronic Reporting System (ERS) and Electronic Monitoring System (EM).

4. **Onboard observer coverage for fishing vessel**

- Vessels using trawl gear must have onboard observer coverage for the entire duration of the trip (100% coverage).
- Vessels using any other bottom fishing gear types must have onboard observer for 20% of operation in any calendar year.
- 100% Transhipment observer coverage.

5. **Catch Labelling**

It is required that all catch retained onboard shall be identified by a clearly legible label or stamp. The label or stamp on each box, carton, container, bag or block of frozen fishery resources or fishery resource products derived from fishing, shall indicate the species (e.g. group of species name/ common name/ scientific name/ FAO 3-Alpha code/codes as defined by the Scientific Committee), presentation, production date, and vessel identification number of the catching vessel. These should be consistency to the record in the electronic logbook and paper bound logbook.

6. Summary of observer and port sampling programs

5.1 Observers on Board

Observer's main tasks are to observe fishing activities, collect data and specimen as required, and submit data and a summary report to the Department of Fisheries. In addition, in the implication of compliance, observer will record and report the compliance or noncompliance practices on board.

The training course for observer contained 11 (eleven) modules of essential fisheries observer principle based on the FAO Guidelines for Developing an at-Sea Fisheries Observer Program. These included the Basic Training of Seaman, Fisheries Management, Legal and Policy Framework, Health and Safety, Code of Conduct for Observers, Fishing Vessels and Gears, Data Collection, Recording Forms and Documents, Navigation, Radio Communication and Shipboard Training.

In December 2017, DOF had submitted the approved list of 22 (twenty- two) national observers who had completed training of observer onboard and qualified for working as an observer on scientific data collection in SIOFA area.

In the observer onboard scheme, it is also include the briefing and de-briefing process. DOF officers are trained in these activities and perform the briefing for observers before their deployment and perform the debriefing activity when they return .The briefing and debriefing activity will ensure the quality of the collecting information by observers as well as to improve their capacity and performance

5.2 Port sampling programs

Port-in Inspection: Apart from documentation and physical checks for port-in authorization, the vessel will be inspected based on the indicative events recorded in the MCS observation report to ensure their compliance. In this regard, the video recorded by the EM of particular events will be inspected by port inspector prior to authorize to unloading of fish.

Unloading inspection: The unloading of fish will be monitored until finish. The fish unloaded were sampling to identify species. The deriving Fishing logbook (electronic logbook and paper bound logbook), transshipment declaration or marine catch transshipment document (MCTD) or landing declaration documents will be verified against the landed fish either species or amount.

7. Relevant social and economic information

7.1 Overview

Marine fisheries are important both socially and economically for Thailand. Fish are very important to the food security and self-sufficiency of Thailand. Based on a recent survey (2017), a total number of 10,913 active Thai commercial fishing vessels caught 1.18 million tonnes in 2017. This catch supports the livelihoods, incomes and employment for fishermen and employed in supporting industries (e.g. fish processing industry, ship building industry, canned and frozen fisheries product factories, fish meal factories). For rural Thailand, fish constitutes a generally affordable source of protein, contributing significantly to dietary health and food security, particularly the more than 2,500 villages of artisanal fishing communities along the coasts. Thailand is also a major seafood producer and exporter. In 2017, exports total 1.51 million tonnes, valued at USD

6,683 million and imports total 1.91 million tonnes valued at USD 3,776 million (DOF, 2018).

7.2 Cost and Benefit on Observer Onboard

Thai fleet are mostly the trawlers of the sizes between 100-400 GRT. These overseas vessels are required by national regulation to be equipped with the VMS and electronic observer. However, this equipment is costly. Apart from the first payment for equipping between 20,000-27,000 USD, it also needs a monthly payment for the airtime operation of between 170-1,600 USD, depending on the package size of data choosing by fishers. Moreover, to comply **SIOFA CMM 2017/02**, the vessels authorized to operate in the SIOFA area of competent are required to placing observer onboard for 100% coverage for trawler. It is another additional cost for fisheries in SIOFA area. Before became a member of SIOFA, Thailand required all overseas vessels to placing observer for only 5% of operations which was comply to the **IOTC Resolution 11/04** *on a Regional Observer Scheme*. The payment for observer was approximately 125 USD/days. It is a very high rate when applied to SIOFA vessels as the values of multispecies of demersal fish caught by bottom trawling nets are much lower than tunas. Previously, it was not too difficult for fishers to afford on the additional cost for placing observers for 5% coverage. However, when the 100% coverage has been required, this cost factor has affected fishers to decide whether they continue their trawling fishery. The negotiation between fishers and group of observer took place many times with the Department of Fisheries as the meditator, but there were no agreed the rate of payment. Lastly, by the end of February, 2018, the Department of Fisheries decided to seek for only the qualified observers who are willing to work with the payment of approximately 70 USD/Day with the intention to reduce the cost of the vessel and maintain fishing operation in SIOFA area accordingly.

With the long term perspective, after effective and stability of an electronic observer implementation, the Department of Fisheries, Thailand, proposes to complement the human observer with the electronic observer, based on the SIOFA CMM 2017/01 Para. 33 (a), 33 (b) and 33 (c). Thus, this might reduce the cost for fishers in a long term basis while the fisheries data is still derived from the electronic observer.