

Baseline survey on fishing efforts and landing in the Southwestern Gulf of Thailand

Kongpathai Saraphaivanich, Yanida Suthipol, Namfon Imsamrarn

I. Introduction

A baseline survey on fishing efforts and landing in the Southwestern Gulf of Thailand is an activity under the title of “Strengthening Malaysian and Thai Partnership in support of Joint Fisheries Planning and Management in the Western Gulf of Thailand” which was implemented from July 2014 to December 2015. Its aim is to gather preliminary information on fishing efforts (vessels, gear, and people) and landing of catch, which would be used as basis to improve the monitoring and control of fishing activities. In addition, the survey hopes to serve as a medium through local teams can participate, thus strengthening the cooperation between Thailand and Malaysia.

II. Methodology

- 1) Designed by teams from both countries, the questionnaire on baseline survey covers important information on vessels name, vessels registration number, vessels owner name, specification symbol of vessels, type of vessels, port of registry, size of vessels, engine power, VMS system in the vessels, fishing area, nationality of vessels, history of vessels, nationality of captain/ master, number and nationality of crew through fishing operation and fish landing information such as fishing operation, major target species, landing port, and supply.
- 2) The targeted area for the survey consists of three provinces in Thailand: Pattani, Songkhla, and Narathiwat; and three states in Malaysia: Kelantan, Terengganu, and Pahang. These areas were selected due to their close proximity to the border, opening the possibility of having a joint venture fishing arrangement between both countries. The actual total number of questionnaire from survey in Thailand and Malaysia is 409 and 459 samples respectively.

III. Results

- *The first level of data analysis*

The first level of data analysis is summary feedbacks from the questionnaires conducted by two countries from April to September 2015. The baseline survey found that most of the fishing vessels in Thailand is purse seiner (51.84%), while in Malaysia is trawler (71.77%). There were only 96.09% of fishing vessels who were officially registered in Thailand. This contrasts the statistics of Malaysia: all fishing vessels were registered in their country. Most of the length of fishing vessels in both countries lies in the interval 18 to 23.99 meters, and engine size in 220 to 499 Hp. Most of fishing vessels in Thailand (98%) and Malaysia (96%) operate in their respective waters. In regards to nationality of captain/master fisherman in Thailand, most of them are Thai, while the nationality of crews is Cambodian, Burmese, Thai, and Lao. In Malaysia, the most common nationality of captain/ master fisherman is Malaysian, while the nationality of crews consists of Thai, Malaysian, Vietnamese, Cambodian, Lao, and Burmese. For fish landing, most of Thai fishing vessels are landing in Thai fishing port (98%) and all of Malaysian fishing vessels are landing in Malaysian fishing port. Supplies, such as ice, fuel, provision, general vessels maintenance, and fishing equipment were bought from their countries. Vessels Monitoring System (VMS) was

installed to Thai and Malaysian fishing vessels about 16.53% and 36.17% respectively. In Malaysia only Zone C2 fishing vessel were installed with VMS. The highest total catches in Thailand are purse seine (72.78%), trawler (12.46%) and fish trap (4.14%). Whereas in Malaysia, highest catch is trawler (54.30%), followed by purse seine (45.37%) and fish trap (0.13%).

- *The second level of data analysis*

The second level of data analysis is an advance examination into illegal fishing vessels. It uses information from the questionnaire, such as: port of survey, number of vessels at specific port, specification of vessels (color of super structure, name and ID number, port register, type of fishing gear), previous name and nationality of flag, area of fishing/ landing, number of crew and nationality, nationality of captain, number of working days at sea/month, fuel consumption, source of provision and supply. Assumption of IUU fishing vessels from baseline survey is 12.41%. Most of illegal fishing vessels are purse seine. Most of illegal fishing vessels length is 18-23.99 meters, with an average of 16.3 meters and weight 30 GT and over.

However, in the same period of baseline survey, Thailand implemented Port in- Port out Control (PIPO) system to combat the IUU fishing vessels. In regards to this system, the fishing vessels weight 30 GT and over have the responsibility of implementing this system. According to this system, the fishing vessels less than 30 GT should be watchdog because it is easy to enter the illegal fishing operation.

IV. Recommendations and suggestions

Recommendations and suggestions to improve the planning, development, and management of fishing effort, and monitoring of landing in Malaysia and Thailand Sub-region are given as follow:

1. Establish a Memorandum of Understanding (MoU) between Malaysia and Thailand through landing information dissemination that covers the area of Songkhla Province, Pattani Province, Narathiwat Province in Thailand and Kelantan, Terengganu and Pahang in Malaysia;
2. Identify and appoint a National Coordinator, who will oversee the exchange of landing information;
3. Promote the improvement of fishing effort management in close cooperation between local authorities nearby boundary;
4. Encourage and emphasize the need for vessels marking inspection, in accordance with national regulation;
5. Consider and develop tools for fishing vessels less than 24 meters in length to reduce illegal fishing activities;
6. Encourage the usage of information from VMS for validation of fishing ground;
7. Expand research: baseline survey activity should not only be considered for commercial fishing vessels, but also for small-scale fishing vessels. The results of baseline survey will be used as information for planning and development of activities to improve management of fishing effort and monitoring landing in Sub-region.

V. Reference

SEAFDEC/TD. 2016. *The report on baseline survey on fishing effort and landing in the Southwestern Gulf of Thailand*. Samut Prakan, Southeast Asian Fisheries Development Center/ Training Department. TD/RP/189. 30 pages.