

# **Baseline survey on monitoring and control of fishing effort and landing in the Southwestern Gulf of Thailand**

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## **Introduction**

The SEAFDEC Training Department (TD) in collaboration with working team from the Department of Fisheries, Thailand conducted a baseline survey on monitoring and control of fishing effort and landing in the Southwestern Gulf of Thailand. This study is aimed to gather preliminary information regarding fishing effort which are focused on fishing vessels, (including gear, and people) and landing of catch, which would be used as basis to improve the monitoring and control of fishing activities in Thailand. This is an activity under the project of "Strengthening Malaysian and Thai Partnership in support of Joint Fisheries Planning and Management in the Western Gulf of Thailand" which supported by SEAFDEC-Sweden project.

## **Methodology**

### *1. Sampling and factor control*

The baseline survey on monitoring and control of fishing effort and landing in the Southwestern Gulf of Thailand was conducted in Songkhla province, Pattani Province, and Narathiwat province. The target of interview is owner, captain or master fishermen who engaged in fishing vessels with loading fish product at fishing port. A number of respondent in each province are 101, 310 and 16 respectively.

### *2. Design of questionnaire*

The questionnaire was designed and developed in collaboration with working team from Thailand (6 from the Department of Fisheries and 3 from Fish Market Organization). The questionnaire was separated to two parts; first part concerned to vessels information and second part concerned to fishing operation and fish landing information. Moreover, the working team agreed, while interview should be take a photo of fishing vessels as reference and useful for second level data analysis.

### *3. Process of data analysis*

The process of data analysis was separated to two levels; first level is general analysis into percentages and compares each other. Second level is advance analysis to assume IUU fishing vessel from questionnaire which consider by characteristic of fishing vessels, fishing gear feature on board, number of crew, nationality of crew, fuel consumption, provision, ice supply location and so on. In the second level analysis, all major data in questionnaire is important especially photography of fishing vessels.

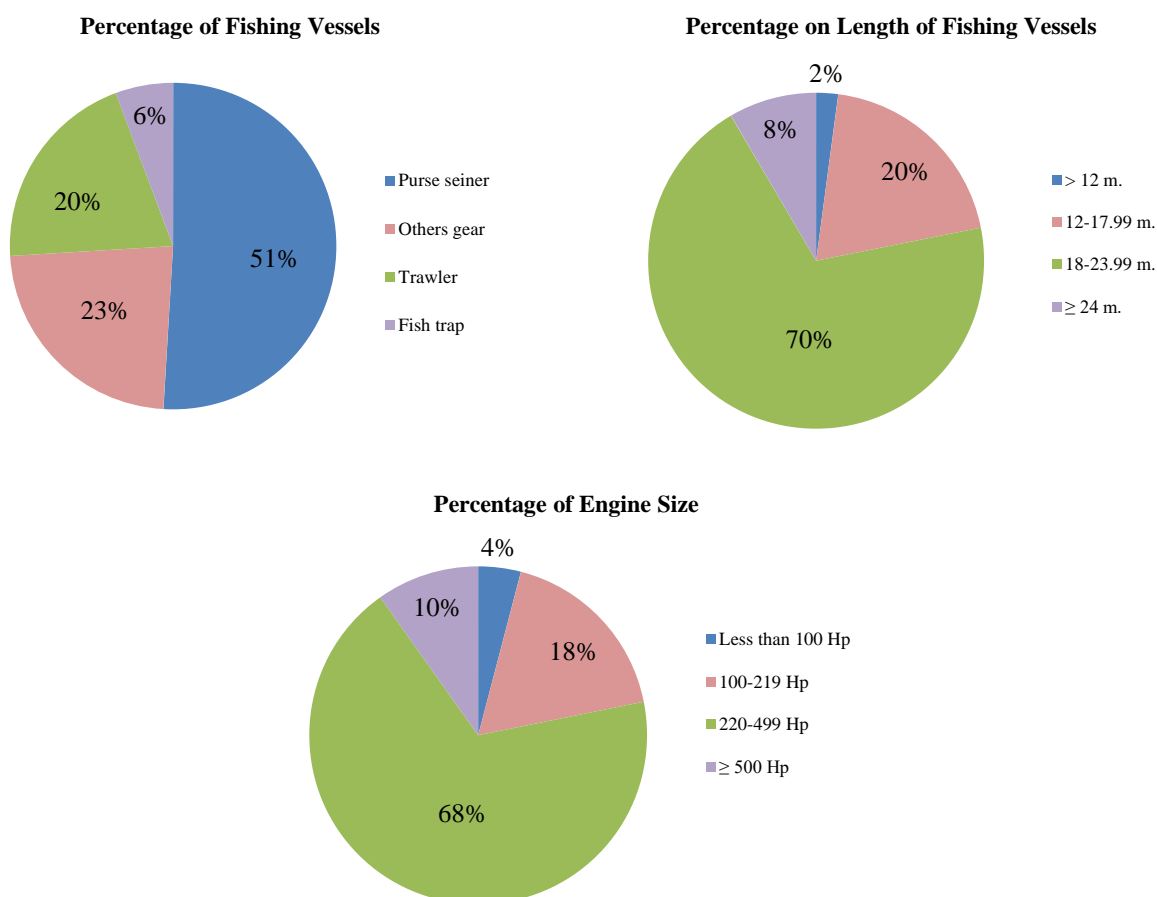
## **Result**

### *1. First level analysis*

#### *Vessel information*

The most of fishing vessels that interview are purse seiner, others gear, trawler and fish trap. The percentage is 50.12, 22.72, 19.91 and 5.62 respectively. Just only 1.64 percentages is fish carrier vessel. Most of fishing vessels about 96.26 percentage register in Thailand and 3.75 percentages not reply in the questionnaire.

The length of fishing vessels was categorized to four ranges. There is less than 12 meters, 12 to 17.99 meters, 18 to 23.99 meters, 24 meters and over. The percentage is 2.11, 19.67, 69.55 and 8.43 respectively. The engine size was also categorized to four ranges. There is less than 100 Hp, 100 to 219 Hp, 220 to 499 Hp and 500 hp and over. The percentage is 3.98, 17.33, 66.74 and 9.6 respectively.



### *Fishing operation and fish landing information*

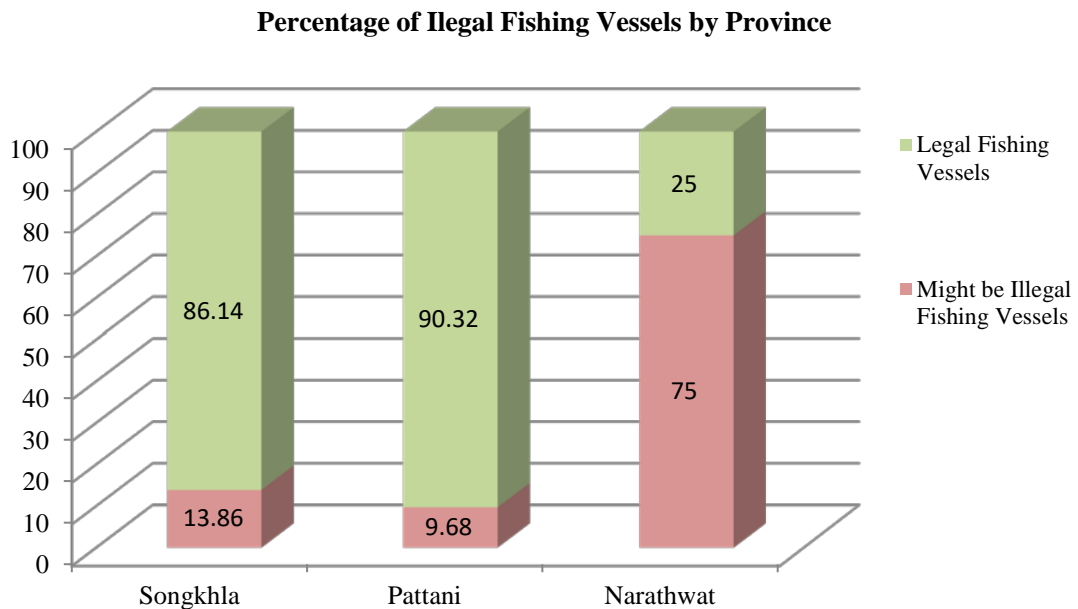
Most of fishing ground area is in Thailand (98.36%). However, some of fishing vessel operates in Malaysia, Thailand and Malaysia, and others area. The percentage is 0.47, 0.23 and 0.47 respectively. Most of fishing vessels is Thai flag (96.49%) but no reply in the questionnaire about 3.52 percentage.

In regard to nationality of captain/ master fisherman, most of them are Thai while the nationality of crews is Cambodian, Burmese, Thai and Lao. The percentage is 52.93, 27.71, 16.55 and 2.82 respectively.

For fish landing port, Most of fishing vessels is landing in Thai fishing port (94.61%) and 5.39 percentage not reply in questionnaire. Regarding to source of supply such as fuel, ice, provision, vessel maintenance, and fishing equipment was bought from Thailand.

## 2. Second level analysis

All information from questionnaire including photography of fishing vessels was considered to analysis in second level which assumes for IUU fishing vessel. The questionnaire from Songkhla Province, Pattani Province, and Narathiwat Province, we can assume IUU fishing vessel is 13.86, 9.68 and 75 percentage respectively.



## Conclusion

The main of fishing vessels that interview are purse seiner. Most of fishing vessels register in Thailand. The length of fishing vessels is 18 to 23.99 meters. The engine size is 220 to 499 Hp. The main fishing ground area is in Thailand. However, some of fishing vessel operates in Malaysia, Thailand and Malaysia, and others area. Most of fishing vessels is Thai flag. In regard to nationality of captain/ master fisherman, most of them are Thai while the nationality of crews is Cambodian (52.93%), Burmese (27.71%), Thai (16.55%) and Lao (2.82%). Most of vessels are landing in Thai fishing port. The source of supply such as fuel, ice, provision, vessel maintenance, and fishing equipment was bought from Thailand. The assumes for IUU fishing vessel by consideration from all information from questionnaire including photography of fishing vessels found that IUU fishing vessel in Narathiwat is higher than Songkhla and Pattani. The relevant agencies can used the results from this survey as basis to improve the monitoring and control through reduce IUU fishing activities in Thailand.