

Outline of Small-scale fishing in Eastern, Center and Southern Gulf of Thailand

Thanyalak Suasi¹, Miyata Tsutom², Mina Hori³, Sumitra Ruangsivakul¹, Jariya Sornkliang¹, and Rattana Tiaye¹

¹Southeast Asian Development Center/Training Department, ²Fisheries Research and Education Agency, ³Kochi University

I. Introduction

Thailand has a long coast line about 2,614 kilometers cover 23 provinces located along the coastal so that the fishing activities relate with the fisher folk more than 2,000 communities, the census of the National Statistical Office in year 2013 show the total number of fishery household is about 45,058 household involved in fisheries. In 2013, the fish production value is 104,152 million Baht approximately 10.6 percent to the Gross Domestic Product and 7.6 percent of agriculture sector (NSO, 2013) that show the fisheries sector contributed significantly to country economy, apart from generate income and employment it also supports the various fisheries industries. The small-scale fisheries in Thailand provide many livelihoods to the people living along the coast area. Small-scale fishers operate fishing in inshore water less than 3 miles from shore with no boat or using the fishing boat less than 10 gross ton and using simply fishing gear such as gill net, trap, hook and line for various target species.

Nowadays, the fisheries industry is rapidly developments with the open access fishery that lead to the overfishing and decline of fisheries resources. It would be affect to small-scale fishers who exploit of the fisheries resources for their livelihood. It is an urgent need to restore the fisheries resources and solve the fisheries problem by implementing the systematic fisheries management to the fishing communities. The lack of information on the small-scale fisheries is the one factor that contributed to the difficulties in establishing fisheries management system. This paper describes a case study aimed at documenting the characteristics of small scale fisheries in Thailand, the study will fulfill the information gap on the small-scale fisheries in Thailand and provide the baseline data to develop workable management solution in case of limit resources.

II. Methodology

This study mainly focus on major coastal Gulf of Thailand by dividing into three regions consist of Eastern, Center and Southern region and selected three sites to be the representative of each region namely: Rayong Province, Prachuap Kirikhan and Chumphon Provinces, and Surat Thani Provinces respectively. The data collection was conducted during 2012-2015 by face to face interview using the questionnaire to the fishers in three target area. The sample size of three target area was calculated by extraction, the actual number of sample size are 297, 286 and 316 samples respectively as shown in table 1. The set of data were analyzed using descriptive statistic to delineate the fisheries condition of coastal area of three target area in term of number and percentages. The results would be presented in table or a matrix format for easy understand. In addition, the secondary data were collected from Provincial Fisheries office, District fisheries, the report, research paper concerning on the small-scale fishing in the coastal area.

Table 1The extraction number and number of sampled size

Target Area	Rayong	Prachuap-Chumphon	Surat thani
No. of fishers	1,458	953	1,795
No. of extraction	302	274	337
Actual No. of sampling	297	286	316

III. Results

1. Type of fishing boat

There are two type of fishing boat categorized by powered of boat; in-board and out-board powered. The out-board powered fishing boat is locally known as “Long-tail boat”, most fishing boat made of wooden material. Most fisher interviewed in Rayong and Surat Thani use in-board powered fishing boat employed fisheries with 88.4% and 92.5% respectively while 53% of fisher in Prachuap-Chumphon engage in fisheries by using long-tail fishing boat. Most fisher interviewed of three study area use the fishing boat with length 6-13 meters and equipped with engine 5-185 horse power.

2. Main type of fishing gear

Crab gill net is the main type of fishing gear in Rayong, Prachuap-Chumphon and Surat Thani all area with 36.8%, 28.4% and 40.2% respectively. In Rayong, the fisher favor to use fish gill net and shrimp trammel net for fishing (14.0% and 13.6%) and the squid jig is the one fishing gear that fisher favored in this area. For Prachuap-Chumphon, Squid falling net is the second most frequency among the fishers (26.9%), it is observed that the anchovy falling is only favor employed in this area (8.7%). Besides, fish gill net take the second place among the fisher in Surat Thani, the result found that Crab trap and shrimp trap are favored use in this area more than the other (8.8%,5.3%).

3. Fishing season

Base on the fisher experience in fishing operation, the crab gill net and fish gill net can operate throughout a whole year, however the crab gill net has a peak season from June to September in Rayong and October to December in Prachuap-Chumphon as well as Surat Thani is from September to November. The high season of fish gill net in Rayong, Prachuap-Chumphon and Surat Thani are October-December, February-May, and March-August respectively. The fishers will use the shrimp trammel net when they found the abundant of shrimp in the coastal sea. In addition, the small-scale fisher respondent explained that they engage in fisheries with more than one type of fishing gear and they will change fishing gear for the peak season of target species. During low season, some of them repair fishing boat and preparing fishing gear and some fishers earn additional income from agriculture and Aquaculture as well as some fishers employ in labor and trade.

4. Fishing effort

The average fishing trip of all fishing operation is one trip per day due to the small-scale fishers operate fishing in the coastal area (within 3-10 kilometer from shore). The fisher interviewed of Rayong, Prachuap-Chumphon and Surat Thani operate the crab gill net fishing around 21.3, 11.6, and 18 days respectively during high fishing season. The fisher respondent of three study area use fish gill net for fishing around 20.3, 17.7, and 20 days

respectively during peak fishing season as well as they spend 19.8, 13.9, and 15 days respectively in a month to operate shrimp trammel net.

5. Main target species

The blue swimming crab is the main species of crab gill net fishing that the fishers catch about 23.2 and 41 kg. per trip in Rayong, Prachuap-Chumphon respectively, the result show the highest volume of this species in Surat Thani about 75.9 kg. per trip. Most fishers from Rayong and Prachuap-Chumphon catch mackerel using fish gill net with 114.7 and 155.7 kg. /trip respectively, while the fishers in Surat Thani can catch mullet as the main target species from fish gill net with 61.1 kg. per trip. The highest catch of shrimp from shrimp trammel net fishing (29.4 kg. /trip) was operated by Surat Thani fishers.

IV. Conculsion

The characteristic of small scale fisheries is employing fishing in inshore and one day trip operation, the small-scale fishers use in-board and out board powered fishing boat with length 6-13 meters equipped with engine 5-185 horse power. They own more than one type of fishing gear, the fishing gear selective depend on fishing season of target species nevertheless the fishers can catch the variety species. The main type of fishing gear of three study area is crab gill net that can operate throughout a whole year especially the peak season is during monsoon season due to the strong winds bring aquatic animals to coastal line, Blue swimming crab is main target species which the catch volume is highest in Surat Thani Province 75.9 kg. per trip. However, most fishers earn the additional income from agriculture and aquaculture while some fishers repair their fishing gear and fishing boat in low season period.

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