Case study of marine product distribution for small-scale fisheries in Rayong Province, Eastern of Thailand -Focusing on middle person-

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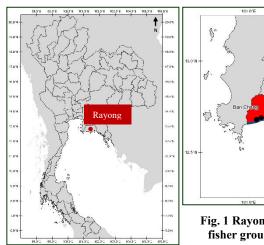
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Introduction

The fisheries sectors are very important and need the information in order to management the fisheries system and sustain the fisheries resources. The government and other agencies have been searched and collected on the fisheries data but the statistic data for this sector are very limited especially from the small-scale fisheries. Particularly, the statistics or complete data regarding marine products distribution and market from small-scale fisheries are not available, there are mostly the statistics of commercial fisheries. As well as the existed academic paper is a few. Therefore, the research conducted survey of marine product distribution in Rayong Province, Thailand as a case study, which focused on the fish distribution by collect the data from small-scale fishers and middle persons. Furthermore, the objective of this research is to describe the relationship of middle person and small-scale fishers.

Methodology

This research used two questionnaires, Household survey and Interview schedule for middle persons questionnaire. The target respondents were small-scale fishers and middle persons along the Rayong coastal area. The total number is 297 fishers and 39 middle persons. The 297 of sampling number came from three districts which adjacent to the sea: Klang District (53 samples), Muang District (216 samples) and Baan Chang District (28 samples). Furthermore, the research collected main middle person names and address by asking from the fishers. The research conducted survey by face to face in 2013 and 2014. The location/fisher groups are shown at the *Figure 1*.



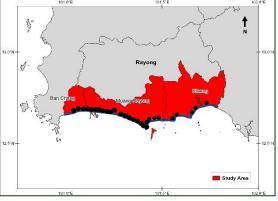


Fig. 1 Rayong Province, Thailand (Left) and 28 fisher groups in 3 District of Rayong (Right)

Results

More than 60.0% of fishers sell their catch to middle person in community, 21.5% sell by themselves at the local market and only 9.6 sell to fish retailer. The fishers sell their product by middle person comes to landing site 54.0% while the fishers bring their products to sell by motorcycle 36.1%.

Most of the middle persons (38.5%) were between 41-50 years old and they are women which they play an important role in selling business while

men's role is fishers. 41.0% of the middle person established their own business during 2001-2010. Before started to be a middle person, most of them used to be the fishers/wife's fisher or labor. It means that the middle persons are familiar with the fishery because they were the fishers before. In this case, it is a good opportunity to have a new or additional income for the women who became a middle person. Moreover, the reason why they select this job because they can sell fish easily every day. Furthermore, in the past, in some areas did not have middle person so they decided to be a middle person. As well as the 87.2% of middle persons are women and their husband is a fisher, therefore, middle person (wife) can get fish from fishers easily.

The middle persons (79.5%) can operate their job by themselves, need not to employ a labor, because it is not a big business. They do the business almost every day. For the sailing value/day, the result show that most of them (51.3%) can get 1,000-5,000 Baht/day, and 20.5% can get 5,001-10,000 Baht/day. Furthermore, besides buying aquatic product, the middle persons also sell fuel oil, net, and loan money to the fishers.

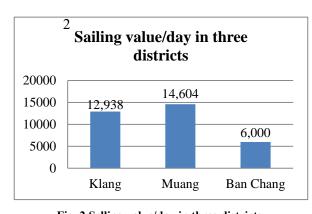


Fig. 2 Selling value/day in three districts

The average sailing value/day of middle person in Muang District has highest value (14,604 Baht/day) while Klang District got average income 12,938 Baht/day and Ban Change got 6,000 Baht/day (Fig. 2). From the result, Muang District is a tourist area or central on Rayong Province. There are many fishing boat landed here, and there are many places for selling fish product such as Municipal market, Wat Lum local market, and Banphe market. In Klang District, due to it is a conservation area, a small number of fishing boat landed here, therefore, it is not much middle person buy aquatic product in this area. For Ban Chang District, it is an industry zone. There is less number of capture fisheries but many of green mussel culture.

Aquatic product purchasing

Blue swimming crab is the most species collected from the middle persons both high season and low season. In high season, the middle persons can get blue swimming crab 2,428 kg/day, squid 1,742 kg/day, and various fish (cannot identify the species) 811 kg/day. In low season, the middle persons buy almost the same species with high season but less quantity. It means that the main species in Rayong Province are blue swimming crab and squid. The middle persons buy the aquatic product from fisher (86.0%), buyer (11.0%), and fish vender (fish collector from their relative or friend around their house) (3%). Most of the middle persons (48.0%) come to buy the aquatic product at the landing site. 45.9% of sellers (such as fishers, middle persons) bring aquatic product to the middle persons' house by using motorcycle with side car, pick up, and by walking.

The number of sellers has from 1 to 28 sellers per one middle person. 20.5%, 15.4, 12.8%, and 10.3% of middle persons buying aquatic product from 3, 2, 4, and 1 sellers, respectively. It indicated that most of middle persons are not a big buyer. Most of them buy the aquatic product from the same sellers/fishers. There are many reasons, for example, 28.2% of the middle persons said that the sellers are old acquaintance/friend, 20.5% answered that the sellers are relative while 7.7% said that it is a good quality and 5.1% of middle persons said that the sellers have large amount of aquatic product.

For the trends of easiness to buy the aquatic product, it was easy to buy at the previous time since year 2009. But there are some species (i.e. Blue swimming crab, Mackerel) that very difficult to buy during the year 2012-2013. As well as some species cannot find and buy during the low season such as Mullet. The middle persons determined the buying price by checking price from other middle persons alongside with the market price too. The price will be high during low season and festival because of less aquatic products and tourists increasing. On the other hand, it will be low price during high season because of many aquatic products. For example, the buying price of big size of blue swimming crab in high season is around 120 Baht/kg while low season is 260 Baht/kg. For the payment system, 84.0% of the middle persons pay the money directly to the seller at the same time as receiving aquatic product while 16.0% pay the money one day after receiving aquatic product.

Aquatic product selling

In order to sell the aquatic product, most of middle persons 50.5% use motorbike with side car for their transportation. The middle persons 17.9% sell the aquatic product at their house and shop so they need not to use any transportation for selling. There are many customers buy the aquatic product from the middle persons such as restaurant, other middle persons, and local people&tourists (at local market). But most middle persons (66.0%) sold the product at local market to local people and tourists while 27.0% sold to restaurant, and 7.0% sold to other middle persons. The middle persons prefer to sell at the local market because it can easily bring and sell the aquatic product to customers. The selling locations are at Muang Rayong and local Market.

The middle persons determined the buying price by themselves (98.9%). Only 1.1% was determined by buyer (restaurant). For the payment system, 85.6% of the middle persons can get the money directly from the buyers at the same time as selling aquatic product while 14.4% get the money after selling aquatic product. The amount of payment day is depended on the agreement between the middle person and buyer. The range is during 2-7 days and it can be extended to 30 days in case of selling to restaurant.

The middle persons (60.0%) provide loan or fishing gear to sellers (fishers) in order to help them for the operation cost. After fishers get aquatic product, they need to sell all product to the middle persons. Although middle persons do not provide any loan/fishing gear to fishers, fishers are willing to sell their product to the same middle persons. Whatever the aquatic product is high or low quality, big or small amount, and high or low price, the middle persons would buy all products from the fishers. The fishers do not sell to other middle persons.

If the fighers sell to other middle persons, the previous middle persons would not buy their product for next time. As well as, if the middle persons do not buy the product from the same fishers, those fishers might sell their products to other middle persons and do not sell to them for next time. This is can be called "Mutual System".

Conclusion and discussion

In this research, the middle persons are the person who collects the aquatic product from the fishers, buyer, and fish vender and then sells to local people (customers), restaurants, and other middle persons. The aquatic product sellers are the fishers who mostly are the fishers' wife. Most of the fishers landed their fish catch at the coastal area which in front of their village or the place that can avoid from the strong wind. The fishers prefer to sell their catch to the middle persons than restaurants and customers because it is convenient and easy for them. It need not to bring their catch to the selling point. Therefore, they can take a rest after back from the sea.

The marine product distribution was show at *Figure 3*.

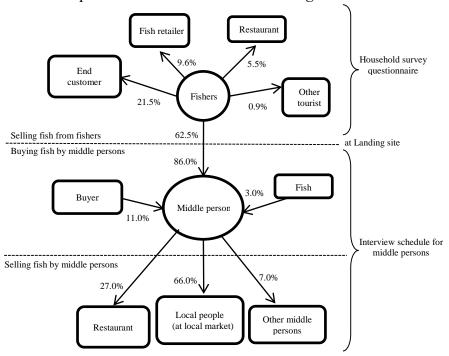


Fig. 3 marine product distribution

The species and quantity of aquatic product for buying/selling would be depended on the fishers. During the southwest monsoon season (May-October), the middle persons got high amount of crab and shrimp. While the northeast monsoon season (October-February), the middle persons got high amount of fish. The middle persons need to prepare the ice bucket for buying aquatic product from the landing site. They would buy the aquatic product from the same fishers and buy all the species and size from the fishers even the aquatic product is low quality. The price is not fixed, it is depended on the market price. The price may increase during weekend or holiday which there are many tourists. In case of the fisher loan money from the middle person, the middle person won't pay lower prices for buying fish but they

will deduct the paying money from the fisher. The fishers and the middle persons thought that it is like a "Mutual System" for them. The system is base of distribution in this area. Some officer said that middle persons exploit fishers, but actually they help each other in order to continue their livelihood because it is fair trade and mutual assistance.

The problem in future is to decrease the middle person because of a few successors. Furthermore, the middle persons take a risk for buying-selling payment system because normally, the middle person will pay the buying money to sellers directly but the middle persons might get the selling money late. If the number of middle persons decrease, they might have big buying power and exploit the fishers. Moreover, it also lose significant woman's job.

In the future, it is needed to support the mutual system to create and establish marine product co-management system with fishers, middle persons and local government. As well as the aquatic product data collection by fishers and the middle persons including value added are very important. The co-management system can help them for more effective and benefit in the selling and buying system.

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