Vol. 13, No. 1, Mei 2022

Hal: 101-111

### STRATEGY FOR DEVELOPMENT OF FISH AUCTION PLACE AT CILACAP OCEANIC FISHING PORT, CILACAP REGENCY, CENTRAL JAVA

Strategi Pengembangan Tempat Pelelangan Ikan di Pelabuhan Perikanan Samudera Cilacap, Kabupaten Cilacap, Jawa Tengah

Siti Annisa Dwi Setiani Nurfadillah<sup>1</sup>, Agus Suherman<sup>1\*</sup>, Abdul Kohar Mudzakir<sup>1</sup>

<sup>1</sup>Departemen Perikanan Tangkap Fakultas Perikanan dan Ilmu Kelautan, Universitas Diponegoro. lpgsuherman2@gmail.com, sitiannisa@gmail.com, akohmud@gmail.com

\* Correspondence: lpgsuherman2@gmail.com

Recieved: January 26th 2022; Accepted: July 14th 2022

#### **ABSTRACT**

From the economic perspective, Fish Auction Place (FAP) has a significant role, hence it needs to be improved by optimally utilizing facilities and providing good services. Therefore, this study aims at analyzing the existing conditions in the FAP and developing a strategy for development at the Cilacap Oceanic Fishing Port (PPS Cilacap). The study was conducted from October 2020 to January 2021 using the descriptive method. The primary and secondary data used were obtained from PPS Cilacap, while SWOT analysis was used to analyze the factors affecting the development strategy. The result showed that the condition of the PPS Cilacap's FAP is good, but certain facilities are not well maintained such as the wastewater treatment plant. The development strategy is to improve the quality of management in terms of service, develop human resources through improving skills with targeted training and management programs, maintain quality fish export such as tuna, as well as perform maintenance and care of FAP facilities for excellent service.

Keywords: Cilacap, Fish Auction Place, Fishing Port.

#### **ABSTRAK**

Tempat Pelelangan Ikan (TPI) memiliki peran yang sangat vital dalam perspektif aspek ekonomi. Oleh karena itu, TPI harus dioptimalkan dengan memanfaatkan fasilitas secara optimal dan memberikan pelayanan yang baik. Tujuan dari penelitian ini adalah untuk menganalisis kondisi eksisting di TPI dan menyusun strategi pengembangan TPI di Pelabuhan Perikanan Samudera (PPS) Cilacap. Penelitian ini dilaksanakan pada bulan Oktober 2020 sampai dengan Januari 2021. Penelitian ini menggunakan metode deskriptif. Data yang digunakan dalam penelitian ini adalah data primer dan data sekunder yang diperoleh dari PPS Cilacap. Analisis SWOT digunakan untuk menganalisis faktor-faktor dalam menentukan strategi pengembangan. Hasil penelitian menunjukkan bahwa kondisi TPI PPS Cilacap sudah baik namun terdapat beberapa fasilitas yang kurang terawat seperti IPAL. Strategi pengembangan yang diperoleh di TPI PPS Cilacap adalah meningkatkan kualitas pengelolaan TPI dari segi pelayanan, mengembangkan sumber daya manusia melalui peningkatan keterampilan dengan program pelatihan dan pengelolaan yang terarah, mempertahankan kualitas ekspor ikan seperti tuna, dan melakukan pemeliharaan fasilitas TPI menuju pelayanan prima.

Kata kunci: Cilacap, Tempat Pelelangan Ikan, Pelabuhan Perikanan

#### INTRODUCTION

Based on the Decree of Minister of Maritime Affairs and Fisheries Number 8 of 2012, fishing ports have 2 functions, namely government functions and supervisory functions. Government functions is operational functions which are performed by port managers, fisheries harbormasters supervisors, and government agency. These functions are operational and can not be delegated to other parties, therefore, good performance is needed problems (Suherman 2020a,b,c,d,e,f). The second function of the port is as a business center, which includes the marketing of processed products, trade, and others. This function can be delegated to other parties, as the implementation involves the community and parties related to licensing and port operations as a marketing center for the processing industry and also a trading center. In carrying out these two functions, facilities are needed as stipulated in the regulations.

As stated in the Decree of Minister of Marine Affairs and Fisheries Number 8 of 2012, there are three types of facilities in fishing ports, namely basic, functional, and supporting facilities. Among them are several perquisition facilities that need to be built in every fishing port in Indonesia. Basic facilities must at least consist of land, docks, harbor pools, complex roads and drainage: functional facilities are expected to have port administration offices, Fish Auction Place (FAP), clean water supply, and electrical installations; while supporting facilities need to have guard posts and toilets. The government established these prerequisites for every fishing port to provide good fisheries management for the activities of the industry in Indonesia (Kusdiantoro et al. 2019).

Cilacap is one of the regencies that have significant fishery potential in Central Java Province. According to Adiyanto et al. (2018), the large fishery potential in Cilacap Regency is the main reason for the several FAP in this region. Based on the Maritime Affairs and Fisheries Service (2020), nine FAP in Cilacap Regency are still operating, namely Cilacap FAP, Sentolokawat, Jetis, Sidakaya, Tegalkatilayu, Lenakona. Kemiren. Pandanarang. Rawajarit. FAP is one of the facilities needed in fishery activities and is a driving factor in increasing income and improving the welfare of fishermen. Solihin et al. (2017) stated that it has a vital role in the fishing industry and the processes carried out in the FAP can maintain the quality and value of the catch. One of the activities often carried out in FAP is fish auction. Auction is a marketing activity that brings

together sellers and buyers, in this case, fishermen as sellers of catches are represented by auction officers. Historically, fish auctions exist since 1922 and were organized by the Fisheries Cooperative on the island of Java. Setiawan *et al.* (1993) in Dianto *et al.* (2015) stated that the existence of a FAP is expected to improve the welfare of fishermen through the credit program managed by the KUD, especially in the equity business unit, as well as increase the economic growth and stability of fishermen, and strengthen the direct relationship between fishermen and fish traders.

The Cilacap Ocean Fishery Port's Fish Auction Place is the largest in Cilacap Regency and its management is carried out through cooperation between the OFP Cilacap and KUD Mino Saroyo. Fish production at this FAP is the highest compared to others in Cilacap Regency. According to the OFP Cilacap, in 2019 tuna production reached 82,445.55 tons, cakalang 47,029.81 tons, and shrimp 11,728.54 tons. Tuna production is the highest compared to other types of fish because the Cilacap area which is directly adjacent to the Indian Ocean is included in WPP NRI 573. According to Satrio and Christanto (2016), FAP in OFP Cilacap has fish landing facilities for large ships to allow fishermen auction their catch directly. The main marine product being auctioned at the Cilacap Ocean Fishery Port FAP is shrimp, but it is possible to also auction marine fish, such as tuna. The catch of tuna is generally marketed in the form of fresh tuna or frozen tuna which will be processed later. The level of marketing includes domestic or local markets and export markets. The type of tuna that enters the export market is fresh tuna, while the type of tuna that enters the local market is frozen tuna which is in the reject category. The middlemen who come are mostly big collectors with an international market and the auction is implemented using an open system.

Given that the significant growth in the fisheries activities of OFP Cilacap indicated by the increase in capture production, it is important to provide a high-level service at the OFP, especially at the FAP. Poor service is indicated by the speed of service provided by the cashier, the skills of FAP employees in carrying out their duties, lack of guidance and socialization to bidders, as well as lack of sanitation facilities especially the WWTPs (Waste Water Treatment Plant) at the FAP. Processing and marketing Centers have not

optimally functioned because of their limit capacity, in addition to shallow channel, garbage and mud cause the process is not optimal. It is necessary to build an integrated WWTP that is connected to the sewerage in the industrial area. Some of these indicators are still lacking and need to be improved. Meanwhile, the majority of previous studies generally focused developing strategies for Fishing (Suherman 2007; Suherman 2011; Suherman 2010).

Considering the importance of the FAP at OFP Cilacap and the novelty based on previous studies, it is necessary to assign the strategy for its development. Therefore, this study aims to analyze the conditions of the FAP at OFP Cilacap and formulate a strategy for its development. The results are expected to provide input in the development of the Cilacap Ocean Fishing Port Fish Auction Place to make the fishing community in this area feel the existence in line with its function.

#### **METHOD**

This study was conducted from October 2020 to January 2021 at the FAP of OFP Cilacap using the descriptive method. Initially, a literature study was conducted to obtain information related to the condition of FAP at OFP Cilacap, as well as secondary data as a theoretical basis for study including BPS data, statistics, as well as reports on related results, journals, bulletins, internet, and others. Production data and value, as well as vessels data in the OFP Cilacap were assessed, while primary data were collected through questionnaires which were used to analyze the strategy for development.

Data analysis was carried out by two methods namely descriptively to analyze FAP conditions and SWOT analysis to formulate strategic directions for the development of the FAP at OFP Cilacap. SWOT analysis is a method used to systematically identify various factors and formulate a development strategy (Rangkuti 2015).

#### **SWOT Analysis**

The SWOT analysis was used to analyze the internal and external factors needed in determining the strategy for developing fish auction sites. Internal factors include strengths and weaknesses, while external factors include opportunities and threats. The right development strategy consistent with the conditions of the fish auction place will advance the fishery business. This is supported by Suherman (2010) which mentioned that the internal and external conditions in an auction place include strengths,

weaknesses, opportunities and threats. The four elements must be "assessed" to determine the right strategy for achieving the primary vision and mission. According to Zhang et al. (2020), SWOT analysis is the main strategy that is often used for the decision-making process. It facilitates a better understanding of how to maximize strengths and new opportunities, by identifying weaknesses that can potentially increase threats to the company.

#### **Factor Identification**

The strategic steps in managing and developing fish auction sites were formulated using analysis of internal factors also called the Internal Strategic Factor Analysis Summary (IFAS) and external factors or the External Strategic Factor Analysis Summary (EFAS). This is reinforced by Ikhsan and Artahnan (2011) which stated that the internal factors that describe the strengths and weaknesses are summarized into the matrix internal strategic factors, while opportunities and threats are integrated into a matrix of external strategy factors.

The stages of making internal and external matrices are as follows:

- a. Column 1 consisted of all the factors owned by the company and was divided into two parts, namely internal/"IFE" (Internal Factor Evaluation) and external factors/"EFE" (External Factor Evaluation).
- b. The weighting of each factor in column 2, ranged from 2.0 (very important) to 0.0 (not important). The weights were determined as follows:

Weight Description:

- 0.20 Very strong
- 0.15 Above average
- 0.10 Average
- 0.05 Below average
- 0.00 Not affected
- c. Column 3 was filled with rating calculations for these factors based on their effect on the FAP OF OFP CILACAP condition. The rating value ranged from 1 to 4, as follows:
  - 1 = very weak
  - 2 = not so weak
  - 3 = strong enough
  - 4 = very strong
- d. Column 4 was filled by multiplying the weight in column 2 with the rating in column 3; and

e. The sum of weighting scores for each internal and external factor.

According to Wahdaniyah et al. (2018), the internal and external environment is weighted and rated based on professional considerations. The weighting of the internal environment is based on the magnitude of the strategic factors' influence on the position, while that of the external environment is based on the possibility of impacting strategic factors. The maximum total weight for each environment is 1, on a scale of 1.00 (very important) to 0.00 (not important).

#### **RESULTS**

Cilacap Regency is located at the coordinates of 108°4'30"- 109°30' 30" East Longitude and 70°30' - 70°45'20" South Latitude. It has an area of approximately 225,361 km<sup>2</sup> with a coastline of 105 km, and is one of the districts with high fishery potential. Based on data from the Department of Maritime Affairs and Fisheries of Cilacap Regency, Central Java Province (2019), the capture fisheries production in Cilacap Regency in 2018 reached 29,695.5 tons. According to Sabagariang et al. (2011) the Indian Ocean has the potential for large pelagic fish up to 386,260 tons per year with a production of 188,280 tons per year and a utilization rate of 48.74%. Capture fisheries is a business that is commonly run by communities on the south coast of Java.

#### The Condition of FAP at OFP Cilacap

The OFP Cilacap Fish Auction Place (FAP) is one of the functional facilities located in Tegal Kamulyan Village, South Cilacap District, Cilacap Regency. Geographically, it is located at coordinates 07° 34' 00" South Latitude and 108° 59' 00" East Longitude. Furthermore, OFP Cilacap has three building units located in two places, namely the old, hygienic, and small FAP. The old FAP which is still actively operating has a building area of 420 m<sup>2</sup>. The second building is a Hygienic FAP with an area of 1264 m<sup>2</sup> but is not being used optimally. It is only used for loading and unloading fish from large ships with the main catches being tuna and skipjack. The third building is the small FAP with a building area of 80 m<sup>2</sup>. It is used specifically for shrimp auction activities and is located at pier three of OFP Cilacap, namely a place for mooring small boats with trammel net fishing gear.

In order to support the requirements of the FAP building, it is also equipped with vehicle parking facilities, warehouse management offices and KUD offices to facilitate the smooth running of activities. Supporting facilities at the

hygienic FAP in OFP Cilacap are considered to be quite complete with the following: (a) Sorting table made of ceramic material but the condition in some parts is starting to crack; (b) Hand washing facilities in the building; (c) WC is placed outside the FAP room so as not to contaminate the product; (d) Management of waste that has been differentiated by type but is far from the FAP; and (e) Clean water that meets the needs of marketing activities (Hasani *et al.* 2020).

The auction services at the FAP took place at the third pier of the OFP Cilacap. The auction service is carried out every day at 17.00 WIB until it is finished. The bidders are middleman and fisherman, but fishermen are only limited compared to middleman, because fishermen prefer to sell their catch directly to middleman rather than in FAP. Auction participants on weekdays are only attended by 10-15 people, but if the shrimp peak season, the auction participants will increase.

The Fish Auction Place of OFP Cilacap helps fishermen in buying, and selling fish activities through the auction process. The management is carried out in collaboration with KUD Mino Saroyo. This is confirmed by Saputra et al. (2017) which stated that the activities carried out in FAP at OFP Cilacap include loading and unloading of landed auction of fishermen's catch, processing of caught fish, and payment of fishermen by FAP managers. Management at FAP takes place with fishermen depositing fish catches, buying fish at an auction system, then the baskets-fishers will pay at the cashier according to the price, and the fishermen receive payment from the sale. FAP operations are subject to an auction administration fee (BAL) consisting of 3.5% for fishermen and 2% for baskets or fish buyers with a total fee of 5.5%. From this fee, 3.75% is managed by KUD Mino Saroyo Cilacap and 1.75% is for the welfare of fishermen.

#### **Fish Resource Condition**

The waters of the Cilacap Ocean Fishing Port and its surroundings are included in WPP RI 573 South Indian Ocean, Java Island and Bali Strait. Meanwhile, the Indian Ocean is one of the waters rich in fish resources, especially skipjack, shrimp, and tuna. According to the Capture Fisheries Statistics Report of the OFP Cilacap (2017), the main commodity includes tuna up to 2,877.50 tons (24.30%), shrimp 2,338.20 tons (19.75%), and skipjack 1,558.80 tons

(13.17%). Based on the Decree of the Minister of KP No. 50 of 2017, the Indian Ocean has a fairly high fishery potential of 1,267,540 tons with pelagic fish of 630,521 tons per year, panaeid shrimp of 7,340 tons, and a utilization rate for large pelagic fish of 1.

The center of fishery activities in Cilacap Regency is located at the OFP Cilacap. The fisheries resources in this area is not only utilized by Cilacap fishermen but also others from different areas who carry out fishing activities including loading and unloading. Moreover, ships that carry out loading and unloading at the OFP Cilacap are mostly vessels with fishing rods, as well as gill and drag nets operating in WPP 573 and 572. The most dominant fishing fleet at the OFP Cilacap is the outboard motorboat type which is up to 52.39% of the total. This is reinforced by Putri (2018) which stated that the fishing fleet operating at the OFP Cilacap consists of two types, namely motorboats and outboard motors.

#### Fish Production of FAP at OFP Cilacap

Based on data from the Department of Fisheries and Maritime Affairs of Cilacap Regency, the production rate and value of fish in FAP is fluctuating. From 2010-2013, the production rate was quite stable, however, between 2014 and 2015, there was a considerable increase both in terms of production and value. In 2016, fish production decreased but the value increased compared to the previous year.

The fluctuations in fishery production are usually caused by several factors, including the number of fishermen, fishing gear, boats, baskets, as well as the weather conditions or oceanography. This is confirmed by Speir *et al.* (2014), which stated that the decline in catch production is due to a decrease or limitation of fishing activity and changes in the availability of fish resources in the water. The amount of production is presented in Figure 1.

The production value was inversely proportional to the number of fish produced. Based on the results, the production value increased between 2010 to 2019 with the highest being 35,554,971,600 tons in 2019 but it decreased in 2016 compared to 2015. Furthermore, the production value increased from 2017 to 2019 due to a rise in the specific type of fish that is consumed or caught with high economic value thereby making the results obtained higher than the previous year. The value of production is closely related to the amount of fish produced along with price and is influenced by the selling price of each type and condition of the catch, the production value is presented in Figure 2.

Figure 2 shows that te amount of fish production annually that fluctuated between 2010 and 2019. The lowest was found in 2014 with 5,737.65 tons, while the highest was found in 2019 namely 6,855,550 tons.

#### **Auction Process**

Fish auction is the initial activity of marketing at fishing ports to get a decent price by fishermen (Lubis and Pane, 2012; Lubis and Pane, 2017). The process of selling and buying the catch occurs in fish auction activities, where the price of the catch continues to increase until the seller (fisherman) and the buyer (wholesaler) agreed to the price. This is in line with Peterson and Geogiarnna (1988) which stated that auction is an activity of selling the catch to the participant with the highest bidder. The auction at FAP took place at Pier 3 of the OFP Cilacap, the participants are middleman and fishermen, but most fishermen prefer to sell their catch directly to baskets rather than participating in auctions. Therefore, FAP is majorly utilized by the middleman at the Cilacap Ocean Fishing Port area. The auction is only for shrimp, specifically (Panaeus dogol mondon). According to Tirtadanu and Chodrijah (2020), the peak rate of catching dogol shrimp with trammel net in Cilacap waters was observed in March and Jerbung Shrimp in August. Moreover, the auction process running at FAP is the English type.

The English auction uses the price system where the highest bidder wins the auction and gets the shrimp. This is supported by Guillotreau and Toribio (2011) which stated that the British and Dutch auction systems are most often used in the European region. In the British type of auction, the bidders tend to bid at a higher price than the previous price. According to Seo and Huh (2020), the auction process begins with collecting data and classifying catches based on the type and size to provide convenience for consumers. Subsequently, the auctioneer opens at a predetermined price, and the bidders bid at a higher price. The participant who bids with the highest price is given the auctioned shrimp. According to Rahman (2015), there are several types of auctions, namely the English, Dutch, the Closed Auction type or First-price sealed bid, and the Vickrey type.

#### **SWOT Metrics Analysis**

The SWOT matrix method was used to compare the external and internal conditions at FAP of OFP Cilacap. The results can

describe the strengths and weaknesses, while the combination of columns and rows contained in the matrix can be used as an alternative description of the development policy that will be set in FAP. Factors that can influence policies at FAP, both internal and external factors, are arranged in the matrix Table 2.

#### Strategy for Developing FAP at OFP Cilacap

The SWOT matrix of strategies was formulated based on the analysis of external and

internal metrics by matching the factors of strength and weakness with opportunities and threats. The SWOT matrix aims to collect several alternatives that can be used by business actors. It can be used to develop four types of strategies, namely SO, WO, ST, and WT strategy. The determination of development strategy priorities is presented in Table 1.

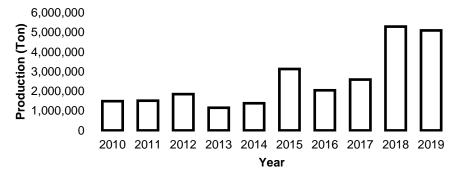


Figure 1 Fish Production of FAP at OFP Cilacap 2010 - 2019

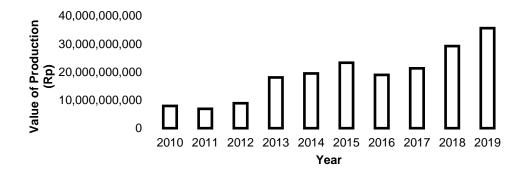


Figure 2 Fish Production Value of FAP at OFP Cilacap 2010 - 2019

Table 1 Analysis of Priority Strategy Assessment with SWOT

	Strategy Priority	Weight
WO1	Improving the quality of FAP management in terms of service	3.34
SO3	Conducting human resource development (fishermen-wholesaler) through skill improvement with targeted training and management programs	2.91
SO2	Maintaining export quality fish such as tuna	2.88
WT2	Perform maintenance and utilize FAP facilities towards excellent service	2.79
WO2	Re-empowering hygienic FAP to basket-fishers and providing socialization about the functions and benefits of Hygienic FAP	2.75
WT1	Improve coordination between ports and FAP managers from KUD	2.72
ST2	Carry out a persuasive approach in the form of counseling to fishermen and baskets related to knowledge in the field of fisheries to increase the insight of fishermen and baskets	2.71
WO3	Conduct market promotions and improve information systems on fish production at FAP	2.64
SO4	Creating a clean and conducive FAP environment	2.69
SO1	Improving facilities and infrastructure to increase FAP production	2.60
ST1	Increasing the intensity of dredging sand sediment periodically to make it easier for ships to enter the pier	2.40

#### Strenath (S) Weakness (W) Internal factors 1. FAP of OFP Cilacap is located in a 1. The utilization rate of FAP of strategic location OFP Cilacap facilities is less 2. OFP Cilacap has WKOPP than optimal Poorly maintained FAP facilities 3. Easy access to FAP Hygienic FAP is not working 4. Complete FAP facilities The ability of FAP managers is 5. Sufficient number FAP οf still lacking management human resources 6. Maintained environmental cleanliness 7. There are fish with economic importance and high productivity 8. The ability of fishermen to maintain **External Factors** the quality of the fish they catch is 9. The potential for pelagic fish is quite large because the area is directly adjacent to the Indian Ocean WO Strategy Opportunity (O) SO Strategy Improving the quality of FAP 1. High market demand for 1. Carry out development by marine fishery products improving facilities management in terms of service and infrastructure to increase FAP 2. The number of fishermen and 2. Re-empowering hygienic FAP to basket-fishers and providing fishing communities is quite production 2. large, domiciled in Maintaining export quality fish socialization about the functions southern Cilacap region, thus and benefits of Hygienic FAP such as Tuna enabling the growth of a larger Conducting human Creating a clean and conducive resource center of fishing activities development for fishermen and FAP environment 3. Safe security baskets through improving skills 4. Government support in FAP with targeted training management programs development is good Conduct market promotions and 5. OFP Cilacap has а improve information systems on development area fish production at FAP 6. Extensive marketing network (export) Threat (T) ST strategy WT Strategy 1. Port pools and shipping lanes the intensity 1. Improve coordination between Increasing of dredging port management and FAP are experiencing sand sediment periodically to make it easier for sedimentation management 2. Unfriendly natural conditions ships to enter the pier Perform maintenance (tidal) at OFP Cilacap Carry out a persuasive approach utilize FAP facilities towards in the form of counseling to excellent service 3. The quality of formal education fishermen and baskets related to (fishermen-wholesaler) is still knowledge in the field of fisheries lacking in order to increase the insight of fishermen and baskets

#### DISCUSSION

The operational activities at the OFP Cilacap are very dynamic from every year as shown in Figures 1 and 2. Therefore, there is a need to carry out and implement the different tasks and functions to achieve growth and fisheries economic development based on the number of catches and public service assistance. The OFP Cilacap is an infrastructure built by the government with a service orientation for port users to facilitate marketing activities for fishery products to achieve the welfare of fishermen.

Based on SWOT analysis, the possible development strategies are explained in detail below:

## (1) Improving the quality of FAP management in terms of service

Fish Auction Place of OFP Cilacap is the largest in the Regency and the fish production increases every year but still lacking in service quality. The ability of the FAP manager is inadequate as demonstrated in the service at the time of the fish auction which was not optimal. This is in line with Saputra *et al.* (2017) which stated that the bidders' level of satisfaction with the services of FAP at the Cilacap Ocean Fishery Port

reached 98.01%, meaning that bidders were not satisfied with the performance and services provided.

#### (2) Conducting human resource development (fishermen-wholesaler) through skill improvement with targeted training and management programs.

A training program can be carried out for fishermen-wholesaler to improve the skills on maintaining fish quality and increase the selling value. According to Al-Busaidi *et al.* (2016), fish have perishable properties, hence, there is a need to maintain the quality. The quality of fish tends to decline rapidly because of the high-water content, therefore, proper handling is needed for quality maintenance. Fitri *et al.* (2021) stated that one of the development strategies of FAP Tawang, is to strengthen and develop human resources skills for managers, fishermen, and wholesaler through improvement with targeted training and management programs.

## (3) Maintaining export quality fish such as tuna

Maintaining fish quality is very important because the better the quality, the higher the selling price (Grundvåg et al. 2021). The marketing of fish such as tuna which is the main commodity in FAP is not only domesticated but also exported to Japan in the form of fresh fish. Fish with high economic value such as skipiack and tuna are marketed to big cities such as Jakarta and Surabaya. This is also confirmed by Sarwanto et al. (2014), which reported that marketing is an important activity in running a fishery business because it is an economic action that affects the rise and fall of fishermen's income. Production is wasted when commodity prices are low, hence, marketing needs to be good and efficient. It is one of the post-production components that needs more attention because it is the key to business development. Specifically, perishable fishery products require special attention in the aspect of marketing.

## (4) Perform maintenance and utilize FAP facilities for excellent service.

The manager must pay attention to the existing facilities at the FAP by carrying out regular maintenance, especially on facilities that have been neglected. This is reinforced by Lubis and Mardiana (2011), which stated that the limited capacity of the facilities at the FAP will affect the smoothness of port activities and prevent the functions from being optimal

thereby affecting the development of the catch fishery. Jauhari *et al.* (2021) conducted a study aimed at developing CFP Bajomulyo's facilities and the result showed that the management needs to take steps toward increasing the quantity and quality of the existing infrastructure.

# (5) Re-empowering Hygienic FAP to fishermen-wholesaler and providing socialization about the functions and benefits of Hygienic FAP.

There is a need to educate fishermen and wholesaler, as well as provide socialization about the functions and benefits of Hygienic FAP for optimal use. According to Hasani et al. (2020), the perception of service users including managers and fishermen on the implementation of the OFP Cilacap hygienic FAP in the major facilities indicated high application with a value above 146.67, but there were several obstacles experienced, namely the absence of supporting facilities such as roller conveyor, cool box, and ice crusher. Furthermore, the participation of fishermen in marketing was reduced due to the absence of auctions, this is caused by the prior agreement on the fish caught between the ship owners and wholesalers.

#### CONCLUSION

The Cilacap Ocean Fishing Port has three FAP building units located in two places, namely the old, Hygienic and small for shrimp auctions. The old FAP has a building area of 420 m<sup>2</sup> which has not been used optimally, while the area of the Hygienic FAP is 1,264 m<sup>2</sup> and is only used for loading and unloading of fish from large ships with the main catches being tuna and skipjack. The third building is the small FAP with an area of 80 m<sup>2</sup>, the facilities and infrastructure such as scales, weighing stations, and administrative offices are in good condition. Facilities that need to be repaired are WWTPs because the drains are often clogged with garbage and mud, in the OFP Cilacap, it has an area of 140 m<sup>2</sup>.

The development strategy that can be carried out at FAP of OFP Cilacap consists of several combinations of internal and external factors which form eleven strategies, with the major five being improving the quality of FAP management in terms of service, developing human resources for fishermen-wholesaler by improving skills with targeted training and management programs, maintaining export quality fish such as tuna, utilizing FAP facilities towards excellent service, re-empowering

Hygienic FAP to wholesaler, and providing socialization about the functions and benefits of hygiene.

#### RECOMMENDATION

The government needs to develop FAP at OFP Cilacap by strengthening and developing human resource capacity in the form of competency training and optimizing skills in implementing the use of information systems to better serve the tender process. Furthermore, there is a need to develop fishery centers by using technology for fishermen. processors. and marketers/ baskets, which support fish production, processing, and marketing activities to maintain the quality of fish in FAP. The socialization of Hygienic FAP is also needed to attract users at OFP Cilacap.

#### **ACKNOWLEDGEMENT**

The authors are grateful to the Head and all employees of OFP Cilacap, fishermen, processors, marketers who have assisted in the study process. They also appreciate to the reviewers and the editorial team of the Marine Fisheries Journal for suggestions and revisions for the publication of the manuscript.

#### **REFERENCES**

- Adiyanto F, Prihandoko KE, Boesono H. 2018.
  Komposisi Ikan Hasil Tangkapan Jaring
  Caduk (*Scoop Net*) yang Beroperasi di
  Perairan Cilacap. *Jurnal Perikanan Tangkap* 2(3): 14-20.
  <a href="https://ejournal2.undip.ac.id/index.php/juperta/article/view/3747/2364">https://ejournal2.undip.ac.id/index.php/juperta/article/view/3747/2364</a>
- Al-Busaidi MA, Jukes DJ, Bose S. 2016. Seafood Safety and Quality: An Analysis of the Supply Chain in the Sultanate of Oman. Food Control Journal. 59(1): 651-662. https://doi.org/10.1016/j.foodcont.2015. 06.023
- Dianto MW, Harahap N, Ismadi. 2015. Evaluasi Kinerja Tempat Pelelangan Ikan (FAP) dalam Menunjang Kesejahteraan Nelayan di Popoh, Desa Besole, Kecamatan Besuki, Kabupaten Tulunggagung, Jawa Timur. *Jurnal ECSOFIM*. 3(1): 1-14.

- https://ecsofim.ub.ac.id/index.php/ecsofim/article/view/23/19
- Dinas Kelautan dan Perikanan Kabupaten Cilacap, 2020. Laporan Statistik
- Fitri HK, Suherman A, Boesono H. Strategy of Developing of Tawang Fish Auction (FAP) at Kendal Regency, Central Java. 2021. *Jurnal Sosek KP*. 16(2): 207-223. <a href="http://dx.doi.org/10.15578/jsekp.v16i2.10091">http://dx.doi.org/10.15578/jsekp.v16i2.10091</a>
- Grundvåg GS, Zhang D, Dreyer B. 2021.
  Competition in a Fish Auction: The
  Case of Atlantic Cod in Northern
  Norway. Fisheries Research.
  235(2021): 1-10.
  <a href="https://doi.org/10.1016/j.fishres.2020.1">https://doi.org/10.1016/j.fishres.2020.1</a>
  05826
- Guillotreau P, Toribio RJ. 2011. The Price Effect of Expanding Fish Auction Markets. *Journal of Economic Behavior* & *Organization*. 79(3): 211-225. <a href="http://dx.doi.org/10.1016/j.jebo.2011.01">http://dx.doi.org/10.1016/j.jebo.2011.01</a>
- Hasani MR, Suprapto D, Wijayanto D. 2020.
  Persepsi Nelayan terhadap Tempat
  Pemasaran Ikan Higienis di Pelabuhan
  Perikanan Samudera Cilacap. *Jurnal Sosek KP*. 15(1): 121-134.
  <a href="http://ejournal-balitbang.kkp.go.id/index.php/sosek/article/view/7919/6853">http://ejournal-balitbang.kkp.go.id/index.php/sosek/article/view/7919/6853</a>
- Ikhsan S, Aid A. 2011. Analisis SWOT untuk Merumuskan Strategi Pengembangan Komoditas Karet di Kabupaten Pulang Pisau, Kalimantan Tengah. *Jurnal Agribisnis Pedesaan* 1(3): 166-177. <a href="https://scholar.google.com/scholar?cluster=17954295921921516797&hl=en&oi=scholarr">https://scholar.google.com/scholar?cluster=17954295921921516797&hl=en&oi=scholarr</a>
- Jauhari MIK, Suherman A, Triarso I.
  Strategies for the Development of the
  Bajomulyo Coastal Fishing Port, Pati,
  Central Java. 2021. DEPIK Jurnal IlmuIlmu Perairan, Pesisir, dan Perikanan.
  10(3): 293-304.
  10.13170/depik.10.3.21601
- Kementerian Kelautan dan Perikanan Republik Indonesia. 2012. Peraturan Kelautan dan Perikanan Menteri Republik Indonesia Nomor PER.08/ MEN/2012 tentang Kepelabuhan Perikanan. Jakarta: Kementerian

- Kelautan dan Perikanan. <a href="http://jdih.kkp.go.id/peraturan/per-08-men-2012.%20pdf">http://jdih.kkp.go.id/peraturan/per-08-men-2012.%20pdf</a>
- Kementerian Kelautan dan Perikanan. 2017.
  Keputusan Menteri Kelautan dan Perikanan Republik Indonesia Nomor 50/KEPMEN-KP/2017 tentang Estimasi Potensi, Jumlah Tangkapan yang diperbolehkan, dan Tingkat Pemanfaatan Sumber Daya Ikan di Wilayah Pengelolaan Perikanan Negara Republik Indonesia. 8 hlm. http://jdih.kkp.go.id/peraturan/50%20KEPMEN-KP%202017.pdf
- Kusdiantoro, Fahrudin A, Wisudo SH, Juanda B. 2019. Kinerja Pembangunan Perikanan Tangkap di Indonesia. Buletin Ilmiah "Marina" Sosial Ekonomi Kelautan dan Perikanan. 5(2): 69-84. http://ejournal-balitbang.kkp.go.id/index.php/mra/article/view/8053/6399
- Lubis E, Mardiana N. 2011. Peranan Fasilitas PPI terhadap Kelancaran Aktivitas Pendaratan Ikan di Cituis Tangerang. *Jurnal Teknologi Perikanan dan Kelautan.* I(2): 1-10. http://dx.doi.org/10.24319/jtpk.2.1-10
- Lubis E, Pane AB. 2012. An Optimum Model of Fish Auction in Indonesian Fishing Ports in Accordance with the Characteristics of Fisherman. *Journal of Coastal Development*. 15(3): 282-296. <a href="https://ejournal.undip.ac.id/index.php/coastdev/article/view/4019/3693">https://ejournal.undip.ac.id/index.php/coastdev/article/view/4019/3693</a>
- Lubis E, Pane AB. 2017. Institutional Model of Fish Auction Refunctionalization in Indonesian Fishing Ports. AACL Bioflux. 10(6): 1456-1465. http://www.bioflux.com.ro/docs/2017.1456-1465.pdf
- Pelabuhan Perikanan Samudera Cilacap. 2017. Laporan Statistik Perikanan Tangkap Pelabuhan Perikanan Samudera Cilacap Tahun 2017 (unavailable online).
- Pelabuhan Perikanan Samudera Cilacap. 2019. Laporan Tahunan Pelabuhan Perikanan Samudera Cilacap Tahun 2019 (unavailable online).
- Peterson S, Giorgianna D. 1988. New Bedford's Fish Auction: A Study in Auction Method and Market Power.

- Human Organization. 47(3): 234-241. https://www.jstor.org/stable/44126498
- Putri MI. 2018. Studi Pemanfaatan Dermaga di Pelabuhan Perikanan Samudera Cilacap Provinsi Jawa Tengah. *Jomfaperika*. 2(4): 1-14. https://jom.unri.ac.id/index.php/JOMFA PERIKA/article/download/20963/20286
- Rangkuti F. 2015. *Analisis SWOT Teknik Membedah Kasus Bisnis*. Cetakan
  Keduapuluh. PT Gramedia Pustaka
  Utama, Jakarta, 245 hlm.
- Sabagariang OP, Fauziyah F, Agustriani F. 2011. Analisis Potensi Lestari Sumbedaya Perikanan Tuna Longline di Kabupaten Cilacap, Jawa Tengah. *Maspari Journal*. 3(8): 24-29. <a href="https://ejournal.unsri.ac.id/index.php/maspari/article/view/1314/462">https://ejournal.unsri.ac.id/index.php/maspari/article/view/1314/462</a>
- Saputra MR, Mudzakir AK, Ayunita D. 2017.
  Analisis Kualitas Pelayanan Jasa
  Tempat Pelelangan Ikan dengan
  Metode Potential Gain Customer Value
  di Pelabuhan Perikanan Samudera
  Cilacap. Journal of Fisheries Resources
  Utilization Manajement and
  Technology. 6(4): 234-242.
  <a href="https://ejournal2.undip.ac.id/index.php/juperta/article/view/1839/1188">https://ejournal2.undip.ac.id/index.php/juperta/article/view/1839/1188</a>
- Satrio IN, Christanto J. 2016. Peran Keberadaan Tempat Pelelangan Ikan Terhadap Pendapatan Nelayan di Kecamatan Cilacap Selatan Kabupaten Cilacap. *Jurnal Bumi Indonesia*. 5(1): 1-8.

  <a href="http://lib.geo.ugm.ac.id/ojs/index.php/jbi/">http://lib.geo.ugm.ac.id/ojs/index.php/jbi/</a>
  i/article/view/452/427
- Sarwanto C, Wiyono ES, Nurani TW, Haluan J. 2014. Kajian Sistem Pemasaran Ikan Hasil Tangkapan Nelayan di Kabupaten Gunung kidul, Provinsi DIY. *J. Sosek KP*. 9(2): 207-217. <a href="http://ejournal-balitbang.kkp.go.id/index.php/sosek/article/view/1222/1119">http://ejournal-balitbang.kkp.go.id/index.php/sosek/article/view/1222/1119</a>
- Seo YS, Huh JH. 2020. Context-aware Auction Solution of Cooperative Fish Market Monitoring System for Intelligent User. Human-Centric Computing and Information Sciences. 10(30): 1-36. https://doi.org/10.1186/s13673-020-00234-w
- Speir C, Pomeroy C, Sutinen JG. 2014. Port Level Fishing Dynamic : Assessing

- Changes in the Distributions of Fishing Activity Over Time. *Marine Policy*. 46(1): 171-181. <a href="https://doi.org/10.1016/j.marpol.2014.0">https://doi.org/10.1016/j.marpol.2014.0</a> 1.014
- Suherman A. 2007. Rekayasa Model Pengembangan Pelabuhan Perikanan Samudera Cilacap. [Disertasi]. Bogor: Program Pascasarjana, Institut Pertanian Bogor
- Suherman A. 2010. Alternatif Strategi Pengembangan Pelabuhan Perikanan Nusantara Brondong Lamongan Jawa Timur. *Jurnal Saintek Perikanan*. 5(2): 88-97.
  - https://ejournal.undip.ac.id/index.php/saintek/article/view/32887/17932
- Suherman A. 2011. Formulasi Strategi Pengembangan Pelabuhan Perikanan Nusantara Pengambengan Jembrana. *Marine Fisheries*. 2(1): 97-99. <a href="https://journal.ipb.ac.id/index.php/jpsp/article/view/4177/9975">https://journal.ipb.ac.id/index.php/jpsp/article/view/4177/9975</a>
- Suherman A, Santosa MA, Ihsan YN, Wijayanto D, Juwana S. 2020a. The Eradication of IUU Fishing in Indonesia for Fisheries Resources Sustainability by the Task Force 115. AACL Bioflux. 13(5): 2522-2537. http://www.bioflux.com.ro/docs/2020.2 522-2537.pdf
- Suherman A, Santosa MA, Wijayanto D, Sunoko R, Juwana S. 2020b. The Eradication of IUU Fishing in Indonesia for Economic Fisheries. *Jurnal Saintek Perikanan*. 16(3): 154-164. https://ejournal.undip.ac.id/index.php/saintek/article/view/32529/18247
- Suherman A, Boesono H, Kurohman F, Mudzakir AK. 2020c. Kinerja Pelabuhan Perikanan Nusantara Pengambengan Jembrana, Bali. Saintek Perikanan. 16(2): 123-131. <a href="https://ejournal.undip.ac.id/index.php/saintek/article/view/31068">https://ejournal.undip.ac.id/index.php/saintek/article/view/31068</a>
- \_\_\_\_\_\_. 2020d. Kinerja Pelabuhan
  Perikanan Nusntara Kejawanan
  Cirebon Jawa Barat. *Marine Fisheries*.
  11(1): 23-38.
  <a href="https://doi.org/10.29244/jmf.v11i1.3180">https://doi.org/10.29244/jmf.v11i1.3180</a>
  3

- \_\_\_\_\_\_. 2020e. Kinerja Pelabuhan Perikanan Nusantara Karangantu, Banten, Indonesia. *Jurnal Ilmu-Ilmu Perairan, Pesisir, dan Perikanan*. 9(2): 344-355. <a href="http://jurnal.unsyiah.ac.id/depik/article/view/17457">http://jurnal.unsyiah.ac.id/depik/article/view/17457</a>
- Suherman A, Kurohman F, Jayanto BB. 2020f.
  Kinerja Operasional Pelabuhan
  Perikanan Nusantara (PPN)
  Palabuhanratu Sukabumi, Jawa Barat.
  Jurnal Perikanan dan Kelautan. 10(1):
  87-101.
  <a href="https://jurnal.untirta.ac.id/index.php/jpk/article/download/8447/6007">https://jurnal.untirta.ac.id/index.php/jpk/article/download/8447/6007</a>
- Solihin A, Alamin MA, Isdahartatie. 2017.
  Penguatan Kelembagaan FAP dalam
  Mewujudkan Perikanan Berkelanjutan
  dan Berkeadilan. *Risalah Kebijakan*

https://journal.ipb.ac.id/index.php/jkebijakan/article/view/16253

Pertanian dan Lingkungan. 3(3): 205-

- Rahman H. 2015. Pengembangan Pasar Lelang Forward Komoditas Bahan Olahan Karet (Bokar) di Provinsi Sumatera Selatan. *Agriekonomika*. 4(2): 185-197. <a href="https://journal.trunojoyo.ac.id/agriekonomika/article/view/973/872">https://journal.trunojoyo.ac.id/agriekonomika/article/view/973/872</a>
- Tirtadanu T, Chodrijah U. 2020. Laju Tangkap, Karakteristik Biologi dan Status Pemanfaatan Udang Jerbung (*Penaeus Merguiensis De Mann*, 1988) dan Udang Dogol (*Metapenaeus Affinis* H. Milne Edwards, 1837) di Perairan Cilacap. *Jurnal Penelitian Perikanan Indonesia*. 26(1): 47-58. <a href="http://ejournal-balitbang.kkp.go.id/index.php/jppi/article/view/8666/6688">http://ejournal-balitbang.kkp.go.id/index.php/jppi/article/view/8666/6688</a>
- Wahdaniyah N. Jufriyadi J, Surur F. 2018. Strategi Pembangunan Sektor Kelautan dan Perikanan Berbasis Wilayah pada Satuan Wilayah Pengembangan (SWP) Bagian Selatan Provinsi Sulawesi Selatan. Journal of Regional and Rural of Development Planning. 2(1): 64-73. <a href="https://journal.ipb.ac.id/index.php/p2wd/article/view/21785/14677">https://journal.ipb.ac.id/index.php/p2wd/article/view/21785/14677</a>
- Zhang Y, Rysiecki L, Gong Y, Shin, Q. 2020. A SWOT Analysis of the UK EV Battery Supply Chain. *Sustainability*. 12(3): 1-18. https://doi.org/10.3390/su12239807