



Catch Fish Profile at Amagarapati Fish Landing Port, East Flores Regency, East Nusa Tenggara Province

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Received 9 November 2021; Accepted 24 February 2022; Available online 18 April 2022

ABSTRACT

East Nusa Tenggara (NTT) Province has many business potentials in the marine and fisheries sectors, especially fish as a commodity. East Flores District is one of the fish landing centers for fishing vessels in the East Nusa Tenggara Province. The objective of this study was to determine the activities of fishing vessels and to find out the catches that have been landed at Amagarapati Fish Landing Port. The location of this study was determined by purposive sampling, while the research location was carried out at Amagarapati Fish Landing Port. This research was conducted in July-October 2021. A descriptive survey was chosen as the data collection method by conducting direct observations in the field such as giving interviews and distributing questionnaires to the fishermen and Amagarapati Fish Landing Port's employees. The results of this study showed that fishing activities at Amagarapati Fish Landing Port were running normally as usual even though Implementation of restrictions on community activities (PPKM) was implemented in East Flores Regency, the fish caught were dominated by Skipjack, Mackerel Tuna, Tuna, Mackerel Scad, and Atlantic Menhaden. There was an obstacle in the decline in fish prices due to the decline in people's purchasing power, tuna exports to the United States experienced a decline due to the lockdown destination countries. The catch that landed at Amagarapati Fish Landing Port 2,527.5 Tons of catches were reduced due to bad weather, the availability of fish bait for pole and line vessels was limited so that it hampered fishing activities.

Keywords: Amagarapati Fish Landing Port, Fish Catch, and Fishing Vessels

ABSTRAK

Provinsi Nusa Tenggara Timur (NTT) memiliki banyak potensi bisnis di bidang kelautan dan perikanan, khususnya ikan sebagai komoditas. Kabupaten Flores Timur merupakan salah satu pusat pendaratan ikan kapal penangkap ikan di Provinsi Nusa Tenggara Timur. Penelitian ini bertujuan untuk mengetahui aktivitas kapal penangkap ikan dan mengetahui hasil tangkapan yang telah didaratkan di Pelabuhan Pendaratan Ikan Amagarapati. Lokasi penelitian ini ditentukan secara purposive sampling, sedangkan lokasi penelitian dilakukan di Pelabuhan Pendaratan Ikan Amagarapati. Penelitian ini dilakukan pada bulan Juli-Oktober 2021. Metode pengumpulan data dipilih dengan metode survei deskriptif dengan melakukan observasi langsung di lapangan seperti wawancara dan penyebaran kuesioner kepada para nelayan dan pegawai Pelabuhan Pendaratan Ikan Amagarapati. Hasil penelitian ini menunjukkan bahwa kegiatan penangkapan ikan di Pelabuhan Pendaratan Ikan Amagarapati berjalan normal seperti biasa meskipun Penerapan Pembatasan Kegiatan Masyarakat (PPKM) dilaksanakan di Kabupaten Flores Timur, ikan yang ditangkap didominasi oleh Cakalang, Tuna Tenggiri, Tuna, Mackerel Scad, dan Atlantic Menhaden. Terjadi kendala penurunan harga ikan akibat penurunan daya beli masyarakat, ekspor tuna ke Amerika Serikat mengalami penurunan akibat negara tujuan lockdown. Hasil tangkapan yang didaratkan di Pelabuhan Pendaratan Ikan Amagarapati 2.527,5 Ton hasil tangkapan berkurang karena cuaca buruk, ketersediaan umpan ikan untuk kapal pole and line terbatas sehingga menghambat kegiatan penangkapan.

Kata kunci: PPI Amagarapati, Hasil Tangkapan, dan Kapal Penangkap Ikan

1. Introduction

The restoration of the marine economy with a marine resource management approach based on the Blue Economy principle will support the sustainability of natural resources, ecosystem balance, and environmental health, and encourage the resources management to promote economic growth effectively. Marine resources are expected to be the pillar in increasing the national income in the future. They include the resources from the fisheries, energy and mineral, coastal and small islands, and conventional resources. Breakthrough efforts to realize the marine economy as a support for the national economy are optimized by designing the fishermen as the main actors in the EEZ (Exclusive Economic Zone) and offshore fisheries, to transform the small scale fisheries to have economic additional value (KKP, 2021).

The potential of business and investment in the marine and fisheries sectors in East Nusa Tenggara Province has a promising opportunity. As well as having high potential and competitive commodities that able to support the investment opportunity to increase the national income significantly. The potential of fisheries in East Nusa Tenggara in 2015 was quite high but the management was still low. Only about 40% of the sustainable potential with the main catches of pelagic fish, i.e. 3,901 tons of tuna, 12,114 tons of skipjack tuna, 1,868 tons of narrow-barred Spanish mackerel, 3,836 tons of Indian Mackerel and domestic fish specifically were groupers of 4,790 tons, 3,916 tons of snappers, and 1,654 tons of squids. The number of registered fishermen in East Nusa Tenggara Province is 53,967 people (KKP, 2018).

East Flores Regency is one of the fish landing centers for fishing vessels in the East Nusa Tenggara Province. East Flores Regency has six fishing industry units located in Larantuka District. Types of pelagic fish that are landed e.g., yellowfin tuna, baby tuna, skipjack and tuna. The fishermen group in East Flores Regency are dominated by the fishermen who use pole and line fishing gears and purse seines to catch fish (Utami, 2015). In 2018, 15,958 tons of marine products were landed at the fishing ports located in 19 sub-districts in the East Flores Regency. Amagarapati Fish Landing Port is located in Larantuka sub-district and it has landed 5,677 tons of fish caught. This sub-district is one of the largest fish landing in East Flores Regency waters (BPS, 2018).

Identifying fisherman catches, including activities of types of catch, size of fish caught,

and bycatch of fishermen, can provide a basic overview of aspects of sustainable fisheries management (Kondjol et al, 2020) To find out the diversity of fish in a waters, it is necessary to identify fish using a key of determination (Primawati, 2016). The scientific data and information that have been obtained regarding the types of fish caught by fishermen are one of the supports for the preservation of fish species in the area. The diversity of fish species is also one of the initial information considerations in determining the management policy of an area (Katarina, 2019).

The purpose of this research is find out the types of fish caught and the number of fishing vessels that operate in the East Flores Regency seawater, it is necessary to have research to determine the activities of fishing vessels and their landed catches at Amagarapati Fish Landing Port.

2. Materials and Methods

This research uses descriptive method. Descriptive research is a research method that describes the characteristics of the population or phenomenon being studied. The main focus of this research method is to explain the object of research, while the events and phenomena referred to here are the object of research. The location of this study was determined by purposive sampling which is a non-random sampling technique whom the researcher will determine the special characteristics of the research objects based on the research problems formulation. The research location was carried out at Amagarapati Fish Landing Port, Larantuka District, East Flores Regency as a fish landing center for fishermen in East Flores Regency seawaters. The data used in this study was the catch data of the fishermen at Amagarapati Fish Landing Port in 2020. The data analyzed are fish caught from purse seine vessels, pole and line vessels and collecting vessels while the size of the vessels measuring from 10-30 GT.

Amagarapati Fish Landing Port is located in a coastal area with natural and marine resources, East Flores Regency (Figure 1) is located at a position of 800 337' 094 "South Latitude to 1220 992' 125" East Longitude. This research was conducted in July-October 2021. The data collection was conducted by using a descriptive survey method in the form of an interview using questionnaires that addressed the fishermen and Amagarapati Fish Landing Port's employees. The secondary data was obtained from the reports of the Marine and Fisheries Resources Monitoring Unit of East



Source. East Flores Regency District Administration

Figure 1. Map East Flores Regency Waters

Flores Region (Satwas SDKP East Flores Regency) and Amagarapati Fish Landing Port. A simple tabulation data of Microsoft Excel was used to analyze the catch results.

3. Results

3.1 Amagarapati Fish Landing Port

Amagarapati Fish Landing Port is an aid from the Japanese people to Indonesia as a form of friendship between the two countries. Amagarapati Fish Landing Port grew and developed into a fishing port that is quite large and plays an important role as a center for fisheries activities that supply most of the fish needs in the NTT region. Amagarapati Fish Landing Port has the main task of managing existing facilities and infrastructure in the port area, as well as carrying out services for all fishing activities. Meanwhile, the function of Amagarapati Fish Landing Port which is based on PERMENKP Number: PER.08/MEN/2012 concerning fishery ports is: (1). Carry out services and arrangement of mooring places for fishing vessels carrying out loading and unloading activities at the PPI Amagarapati dock, (2) Supervising and controlling the landing, marketing/sales activities, processing of

fishermen and fishery business actors who carry out activities at the port as well as controlling and the withdrawal of levies on the object of activity in Amagarapati Fish Landing Port.

Based on the table 2, Amagarapati Fish Landing Port has good facilities in carrying out services and supervision of loading and unloading activities in East Flores waters. There is a jetty with a length of 60 meters, a breakwater, a Port Pool Area with a size of 2100 m², electrical installations with a capacity of 23,000 KVA, SPDN with a capacity of 15,000 liters and others. However, there are also facilities that are not yet operational, including fish auction and vessels repair dock buildings, this is because Amagarapati Fish Landing Port does not yet have field implementing officers and lacks of supporting facilities in managing these facilities. Then there are also problems related to operational costs if these facilities are activated, so why are some of these facilities not operating yet. The ice factory facilities also suffered damage from two main engine units, only one machine was functioning, the other was damaged, thus hampering operational activities.

Table 1. Facility of Amagarapati Fish Landing Port

No	Facility of Port	Volume	Condition
1	Jetty	60 M	item in good condition
2	Bridge to Jetty	93 M	item in good condition
3	Breakwater	60 M	item in good condition
4	Port Pool Area	70 x 30 M	item in good condition
5	Land Area	10.000 M ²	item in good condition
6	UPT Building	35 x 5 M	item in good condition
7	Fish Auction	20 x 8 M	Not running yet
8	Dock Building	10 x 5 M	Not running yet
9	Electrical installation	23.000 KVA	item in good condition
10	Solar Packed Diesel Nelayan (SPDN)	15.000 Liters	item in good condition
11	Ice Factory	1 Unit	Damage
12	Wastewater Treatment Plant (WWTP)	1 Unit	item in good condition

Source : Marine and Fisheries Resources Surveillance Unit of East Flores Region

3.2 Conditions of East Flores Fishermen In Amagarapati Fish Landing Port

The impact of the Covid-19 pandemic on fishery business in NTT greatly affected the welfare of the community so that it had an impact on around 226,526 people consisting of 66,525 families from all over the NTT region (Mongabay, 2020). This is due to a decrease in the value of fishery production in NTT, a decrease in the number of fishermen's catches and a decrease in the sale of fish by up to 50%. However, in some areas that are fishery producing center, they still carry out fishing activities, one of which is East Flores Regency.

East Flores Regency is a coastal area that has a tradition that is very close to the ocean and fisheries so that fishermen continue to carry out fishing activities in the midst of limitations and problems in the midst of the Covid-19 pandemic. The implementation of Community Activity Restrictions (PPKM) does not have a significant impact on fishermen who carry out activities at Amagarapati Fish Landing Port. Fishermen continue to carry out fishing activities as usual, including the catches of fishermen for local needs such as in Lembata, Maumere and Kupang can be marketed to the community. However, there are indeed other problems faced by fishermen, causing a decrease in catches landed at Amagarapati Fish Landing Port.

The problems faced by fishermen include the decline in fish prices as a result of the decline in people's purchasing power during the COVID-19 pandemic, causing a decrease in sales results, to anticipate losses, fishermen save operational and logistics and reduce the frequency of fishing. Tuna for the export market

experienced a decline in shipments because the export destination countries, especially the United States were under lockdown, for plasma fishermen they did not problems like those faced by other fishermen because the catch was directly received by companies around Larantuka. Another problem is the licensing of fishing areas which is considered confusing by fishermen. Among other things, vessels under 30 GT which are the authority of the Province and Regency can only catch fish up to 12 nautical miles, if ships under 30 GT wish to catch fish above 12 nautical miles, they must obtain permission from the ministry of marine affairs and fisheries in Jakarta by providing documents in accordance with applicable regulations. So that the government and regional policy makers are expected to find solutions to increase fishery production during the Covid-19 pandemic era.

3.3 Fishing Vessels Fleet Amagarapati Fish Landing Port

There are two types of vessels that carry out activities at Amagarapati Fish Landing Port, namely fishing vessels and collecting vessels. Fishing Vessels are vessels that specifically carry out fishing activities and cool the caught fish. While the collecting vessels is a vessels used to transport, load and accommodate the caught fish. The ships that carry out activities at Amagarapati Fish Landing Port consist of three vessels based fish catch equipment, Pole and Line, Purse Seine and collecting (Table 3). In general, the target species of purse seine fishing gear are fish species that live in groups or schooling (Negara, 2019). During 2020 there were 1,123 Operational Eligibility Letters (SLO)

Table 2. Fishing Vessels Fleet at Amagarapati Fish Landing Port

No	Vessel Type	GT	Amount
1	Purse Seine	10 - 15	29
		15 - 20	20
		20 - 30	3
2	Pole & Line	10 - 15	10
		15 - 20	7
		20 - 30	47
3	Collecting	10 - 15	9
		15 - 20	5
		20 - 30	13
		Total	143

Source: Marine and Fisheries Resources Surveillance Unit of East Flores Region

issued by the Marine and Fisheries Resources Surveillance Unit of East Flores Region who carried out fishing activities from Amagarapati Fish Landing Port. Vessels that get SLO are vessels that have a gross ton capacity of over 10 GT, while ships below 10 GT do not require SLO in carrying out operations. The following is the number of ships that have received SLO at Amagarapati Fish Landing Port.

The Purse Seine vessels that carry out activities at Amagarapati Fish Landing Port are 52 vessels with a description of the size of 10-15 GT totalling 29 vessels, 15-20 GT totalling 20 vessels and 20-30 GT totalling 3 vessels. There are 64 pole and line vessels carrying out activities at Amagarapati Fish Landing Port with information, 10 vessels of 10-15 GT, 7 vessels of 15-20 GT and 47 vessels of 20-30 GT. The collecting vessels are 27 vessels with a description of the size of 10-15 GT totalling 9 vessels, 15-20 GT totalling 5 vessels and 20-30 GT totalling 13 vessels. The total number of vessels carrying out fish landing activities at Amagarapati Fish Landing Port is 143 vessels.

3.4 Fish Caught Amagarapati Fish Landing Port

The types of fish landed at Amagarapati Fish Landing Port are dominated by pelagic fish including Skipjack, Mackerel Tuna, Tuna, Mackerel Scad, and Atlantic Menhaden. The waters in East Flores have abundant marine resources, this is due to the biological and geo-ecological phenomena of the waters caused by the confluence of water masses from the Flores Sea, Banda Sea and Sawu Sea, water flows from the Indian Ocean and the West and East Monsoons.

The catch of fishermen at Amagarapati Fish Landing Port is dominated by skipjack fish with a

total catch of 1,864.4 tons. second, mackerel scad with a total catch of 240 tons. The three atlantic menhaden fish with a total of 213.8 tons. fourth, tuna with a total catch of 157.4 tons and mackerel tuna fish as much as 51.7 tons. Catches in 2020 decreased this was caused by several factors including bad weather in January, February, November and December, people's purchasing power during the Covid-19 pandemic, availability of fuel for ship operations, limited bait from rumpoon so pole and line vessels unable to find fish, and related to licensing of fishing vessels.

Based on the table 3, the average catch from March to October amounted to 260.81 tons, in that period of time is a good fishing time for catching fish. This is due to the completion of the rainy season so that the weather, wind and waves tend to be good and calm for fishermen to carry out activities at sea. The average catch of fishermen in January, February, November and December amounted to 110.25 tons, catches have decreased significantly this was due to differences in air pressure in the northern and southern hemispheres causing strong winds, rainfall and high waves in the NTT region. Due to the change of seasons, fishermen reduce the frequency and even stop fishing to avoid ship accidents at sea. Total fish landings at Amagarapati Fish Landing Port in 2020 amounted to 2,527.5 Tons

4. Conclusion

Based on the results obtained by the research team, it can be concluded that fish landing activities at Amagarapati Fish Landing Port are running normally as usual, although PPKM is implemented to prevent the spread of the Covid-19 pandemic, but it does not affect the activities of fishermen in the East Flores area.

Table 3. Fishermen Catches at Amagarapati Fish Landing Port in 2020

Month	Skipjack (Kg)	Mackerel Tuna (Kg)	Tuna (Kg)	Mackerel Scad (Kg)	Atlantic Menhaden (Kg)	Total Amount (Kg)
January	38.137	-	5.323	20.700	18.150	82.310
February	51.892	20.821	562	12.850	9.500	95.625
March	135.437	19.010	2.387	49.662	17.000	223.496
April	339.954	2.450	46.436	7.250	14.600	410.690
Mei	197.632	1.333	30.104	21.130	1.600	251.799
June	177.390	2.226	10.200	16.020	3.350	209.186
July	146.154	2.243	19.780	15.945	4.650	188.772
Augustus	169.744	730	7.177	19.415	10.900	207.966
September	224.043	2.300	11.915	14.259	26.475	278.992
October	211.883	275	16.774	26.183	26.475	315.595
November	103.706	380	5.285	26.190	60.480	169.601
December	68.427	-	1.500	10.450	13.100	93.477
Total	1.864.399	51.768	157.443	240.054	213.845	2.527.509

Source: Marine and Fisheries Resources Surveillance Unit of East Flores Region

The catches of fishermen such as Skipjack, Mackerel Tuna, Mackerel Scad, and Atlantic Menhaden for local needs can be marketed but there is a decrease in selling prices due to the lack of people's purchasing power for fishery products. Then there is the problem of exporting tuna to the United States because the destination country is under lockdown. The catch that landed at Amagarapati Fish Landing Port was 2,527.5 tons, this result showed a decrease in the catch of fishermen. Fishermen's catch is reduced due to bad weather which causes strong winds and high waves so that fishermen do not go to sea, especially in January, February, November and December. The limited availability of bait has hampered fishing activities on pole and line vessels.

Acknowledgments

The authors would like to thank the fisheries business at Amagarapati Fish Landing Port, Marine and Fisheries Resources Surveillance Unit of East Flores Region and Marine and Fisheries Polytechnic of Kupang who assisted in the data collection process for this research. Thank are also conveyed to the reviewers and those who have provided input to improve this journal.

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