



Analysis Of Policy Has Been Established By The Minister On Opening The Export Of Lobster Seed In Indonesia

Aung Ye Kyaw¹, and Jalil²

¹Departement of Marine Administration, Myanmar

²Departement of Ocean Engineering, Hasanuddin University, Indonesia

Correspondence author: aungye_kyew@gmail.com; Tel.: +62 812-4420-9266

Abstract: Seakeeping is the ship's ability to stay afloat on the waves. The ship's maneuverability is greatly influenced by external factors related to the state of the sea and the waters in which the ship sails. Calculating seakeeping with various variations of depth, current, and wave height is needed for ship safety when sailing in the calculation of seakeeping using linear strip theory to calculate the response of heaving and pitching movements while roll damping theory for rolling movements. In this study, the ship's motion is calculated using the Finite element method software Hydrodynamic Diffraction and Hydrodynamic Time Response. For variations in wave height and water depth, referring to the conditions of Indonesian waters, from the reference, variations in wave height of 3 m, and 5 m (based on sea state WMO). In contrast, the current variation uses a current with a speed of 10 knots and a current depth of 10 T, 15 T, and 20 T. Based on the data obtained in data processing, it can be seen that the high value of the wave frequency obtained at 90 and 270 degrees wave direction is relatively high. The value of the roll spectrum in the direction of 0 and 270 degrees is large and can cause rolling on the ship. In the direction of 0 and 270 degrees, the wave resistance can be reduced by th Lobsters are animals that enter into crustaceans that have problematic skin. Adult lobsters can generally be found on a stretch of sand with coral spots with a depth of between 5-100 meters. This condition will cause a low number of young lobsters in the waters. This research was conducted with a case study regarding the policy of opening lobster seed export, which aims to find out how the policy is to open the export of lobster seed. The data obtained is done by reviewing the literature on the internet. Based on the analysis, the export profit of lobster seeds has continued to increase every month since it was again allowed by the government in May 2020. Based on data from the Central Statistics Agency (BPS), lobster seeds began to be re-exported in June 2020 at 32 kilograms, costing the US \$ 112,990. The government can help with training and outreach on lobster cultivation. The government can offer Lobster a partnership package to help people start a freshwater crayfish business.

Keywords: Lobster, Lobster Farm, Policy polemic

1. Introduction

Indonesia consists of a giant sea area. 2/3 of Indonesia's territory is the ocean. Therefore, Indonesia is also known as an archipelagic country that is rich in potential marine resources. As a country dominated by waters, Indonesia is the best seafood producer. Not only fish but lobster is also one of Indonesia's wealth. Lobsters are animals that enter into crustaceans or crustaceans that have problematic skin. Adult lobsters can generally be found on a stretch of sand with coral spots with a depth of between 5-100 meters. Lobsters are nocturnal in the process of molting [1][2].

Lobsters are high in protein for a fantastic price. In addition, lobster meat is considered adequate for preventing various diseases. Meanwhile, this article will discuss the facts, from the definition to the health benefits a lobster offers. The lobster life cycle consists of 5 phases, starting with adults producing sperm or eggs, hatching into phyllosoma (larvae), then turning into

puberulous (postlarvae), growing into juveniles and adults. The *Panulirus* clan has a plural life cycle. Knowledge about the life stages of larvae is still very lacking, especially for the species that live in tropical waters (Romimohtarto & Juwana, 2005). The habitat of crayfish (lobster) in general is in coastal waters, where there are many rocks/coral reefs. In addition to being a barrier (protector) from the waves, it is also a place to hide from predators and a foraging area [2][3].

According to the United States Department of Agriculture (USDA), 145 grams of lobster contains 129 calories; 1.25 g of fat; 0 g of carbohydrates; and 27.55 g of protein. Recent research also shows that not all cholesterol content in food harms the body. Despite their high overall fat content, lobster is not a harmful source of saturated fat. Lobster also provides health benefits for humans who consume them [4]. These organisms are known to act as antioxidants and help the thyroid absorb hormones to prevent thyroid disease. In addition, lobster consumption is believed to increase selenium to improve mood and thyroid function. The price of lobster seeds also varies, starting from the cheapest freshwater lobster seeds starting at IDR 2,500 per head, sand lobster seeds at around IDR 4,500 per head, and bamboo lobster pegged at IDR 7,000 per head with a size of 2.5 to 3 inches from the price is determined [5] as income from the results of the lobster hatchery, a policy is made from the minister of marine affairs whose certainty has not been determined. This journal was created to determine the continuation of the open policy [6][7]. This research was conducted with a case study regarding the policy of opening lobster seed export, which aims to find out how the policy is to open the export of lobster seed analysis of data obtained from literature reviews and several articles on the internet about lobster farming [8][9].

2. Materials and Methods

Literature review research analyzes various conceptual information and qualitative and quantitative data from various previously published scientific articles. The method used in this research is a literature study that guides a review of a research problem.

After all the data has been collected, the next step is to analyze the data to draw a conclusion. Content analysis is research that is an in-depth discussion of the contents of written or printed information in the mass media [3][5]. The author uses content analysis techniques to obtain correct and precise results in analyzing the data. Content analysis can be used to analyze all forms of communications, whether newspapers, radio news, television advertisements or other documentation materials. The data obtained was carried out utilizing a literature review by accessing articles on the policy of opening the export of lobster seeds abroad. The data obtained compare the advantages and disadvantages before exporting lobster seeds.

3. Result

3.1. Policy policy opening the export of lobster seed

Lobsters are invertebrates belonging to the Phylum Arthropoda that live in water. Marine fisheries know that there are two types of shrimp: Penaeid shrimp and lobster shrimp. These two types of shrimp are fishery resources that have high economic value. Lobster, also known as spiny lobster, is a genus of the Palinuridae family with 49 species. In the Indo-West Pacific waters, 11 species and six are found in Indonesian waters. The six species of lobster found in Indonesia are: *Panulirus homarus*, *Panulirus panicillatus*, *Panulirus cygnus*, *Panulirus polyphagus*, *Panulirus versicolor* and *Panulirus ornatus*.

In 2016 a regulation was issued concerning the Prohibition of Catching or exporting Lobster, Crab, and Crab from Indonesia. This policy was issued because lobster is one of the protected animals, but its existence has decreased due to being taken irregularly. The many activities of catching lobster seeds that are continuous and without restrictions have threatened the existence of this marine biota. Moreover, there is no good fishing management from fishers.

However, Vietnam does not have lobster seeds at all. On the other hand, Vietnam is one of the export destinations for Indonesian lobster seeds and, simultaneously, one of the countries with the most considerable lobster export value. According to data from the Ministry of Trade of the Republic of Indonesia for 2010-2014, Vietnam became one of the export destination countries in 2012, with an export volume of 45 kg or US\$ 680. At that time, Vietnam was in the eighth position out of 14 export destination countries based on the order of export volume from the highest. The first position was occupied by Malaysia, with an export volume of 7,312 Kg or worth 41,870 US\$.¹⁶

The high value of Vietnam's lobster exports is due to the uncontrolled buying and selling of lobster seeds. Lobster seeds are only priced at IDR 50,000-IDR 100,000 per head. If cultivated up to a size of 1 kg, the price is IDR 1.5-IDR 2 million per head. The following is a picture of one type of lobster cultivated in Indonesia.



Figure 1. Lobster Farming

3.2. New regulation implementation

The ban on exporting lobster seeds to Vietnam and several other countries has resulted in Indonesia's income declining. In 2020, revise Ministerial Regulation (Permen) Number 56 of 2016. The enactment of this regulation is considered to increase fishers' income, maintain the sustainability and availability of fishery products, increase welfare, equitable cultivation in terms of technology, develop investment, increase foreign exchange, develop aquaculture lobster, stop overfishing and illegal fishing, destroy marine resources, and develop knowledge-based science.

In May 2020, there were 32 kilograms of lobster seeds with a value of around IDR1.6 billion, which increased in June 2020 to IDR 51 billion, 1,389 kilograms. Then in August 2020, the number rose to more than IDR 90 billion 4,216 kilograms, with the significant importing countries being Taiwan and Vietnam.

3.3. Lobster Seed Export

BPS (Central Bureau of Statistics) data used in this analysis are as follows:

Table 1. Lobster seed export data to overseas in 2021 [3]

Number (Kg)	Bulan (2020)	Price (US\$)
0	Januari-April	0
32	Mei	112.990
1.389	Juli	3.670.000
4.216	Agustus	4.216.000

In table 1, the profit data for lobster seed exports have continued to increase every month since it was again allowed by the government in May 2020. Based on data from the Central Statistics Agency (BPS), lobster seeds began to be re-exported in June 2020 at 32 kilograms, costing the US \$ 112,990.

The re-opening of the lobster seed export faucet is based on the Regulation of the Minister of Maritime Affairs and Fisheries Number 12 of 2020 concerning Management of Lobster, Crab, and Crab in the Territory of Indonesia. It shows that exporting lobster seeds abroad is an increasing state income. Besides Vietnam, the dominant export destination for Indonesian lobster seeds, two other countries also receive supplies from Indonesia. They are Hong Kong with an October 2020 export value of US\$24,328 and Taiwan with US\$10,370.

3.3. The Solution From The Polemic Opens A Policy Of Exporting Lobster Seeds To Overseas.

The success of exporting lobster seeds abroad is a trigger for the ecosystem, and the continuity of lobster species in Indonesia is not protected. However, it is contradictory to the income of Indonesian fishers, which is relatively less if the Lobster is self-financed in Indonesia. On the other hand, massive exploitation of lobster seeds will suppress adult lobster populations from growing, developing, and reproducing faster than average conditions. Lobsters will mature gonads as juveniles or have not yet reached adult size, and the ability to produce eggs is relatively low. This condition will cause a low number of young lobsters in the waters.

The world community widely knows Indonesia's natural wealth in the sea area. One of them is coral reefs which cover 15 percent of the total in the world. Coral reef ecosystems became a favorite place for Lobster (*Panulirus* spp.) to breed. Lobsters are animals that enter into crustaceans or crustaceans that have problematic skin. Adult lobsters can generally be found on a stretch of sand with coral spots with a depth of between 5-100 meters.

The process, Lobster, is then sought after by many seafood lovers because of the meat's delicious taste and soft texture. As a result, the demand for Lobster also continues to increase, encouraging fishers to catch more from the sea.

The reason policies existed issued regarding the export of lobster seeds from the two ministers who planned these policies for each period. The solution obtained improves the welfare of the fishing community by doing lobster ponds in Indonesia itself with assistance from the government. The freshwater crayfish farming business opportunity turned out to be very profitable and has a bright prospect. The lobster market always has an increasing demand and stable prices, but the number of farmers is minimal compared to catfish, carp, and shrimp [9].



Figure 2. Cultivation of Lobster in Pond

The government can help with training and outreach on lobster cultivation. The government can offer Lobster a partnership package to help people start a freshwater crayfish business. Partners will start from the forum process, printing their seedlings, and growing. Partners can

market their products because all harvested lobsters will be accommodated directly by a lobster farm distributed in domestic and foreign markets. This activity gives fishing communities more significant benefits with government assistance than exporting lobster seeds abroad.

4. Conclusions

Based on the analysis, the export profit of lobster seeds has continued to increase every month since it was again allowed by the government in May 2020. Based on data from the Central Statistics Agency (BPS), lobster seeds began to be re-exported in June 2020 at 32 kilograms, costing the US \$ 112,990. Massive exploitation of lobster seeds will suppress the adult lobster population from growing, developing, and reproducing faster than average conditions. Lobsters will mature gonads as juveniles or have not yet reached adult size, and the ability to produce eggs is relatively low. This condition will cause a low number of young lobsters in the waters. The government can help with training and outreach on lobster cultivation. The government can offer Lobster a partnership package to help people start a freshwater crayfish business.

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