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# Maritime Policy: Marine Toll to Ensure Availability Of Coconut Trunk Supply Chain On Morotai Island

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## Abstract

The development of the trunk industry in Indonesia is currently growing from year to year along with the increasing population, technological advances, industry, and science. The furniture industry in the current era is increasing over time because this industrial sector provides unique and creative interior designs and artistic values that offer comfort to support various activities. With the development of the furniture industry, the demand for wood has also increased, which has led to increasingly fierce competition in the wood industry. Morotai Island Regency is located at the northernmost tip of North Maluku Province, bordering the Pacific Ocean. Its area is 4,301 km<sup>2</sup>. Accessibility there is complex, and development growth is still minimal. This area includes underdeveloped, remote, outermost, and border areas (3TP). To achieve the welfare of the people in Morotai Island, the Marine Toll Road is a solution offered to reduce the price disparity for coconut trunks from Morotai, which must pass through Tobelo Regency and then be sent to Java.

**Keywords:** Morotai Island, Sea Highway, Supply Chain, Coconut Trunk.

## 1. Introduction

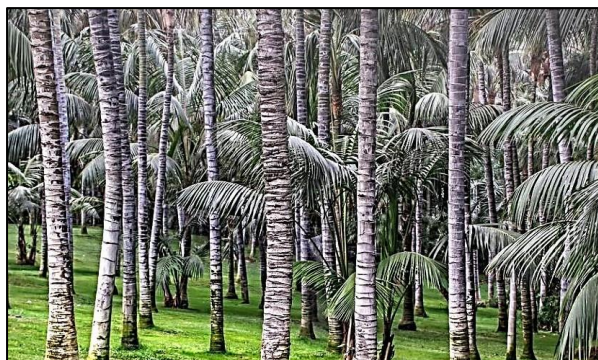
Morotai Island Regency is located at the northernmost tip of North Maluku Province, bordering the Pacific Ocean. Accessibility there is complex, and development growth is still minimal. This area includes underdeveloped, remote, outermost, and border areas (3TP).

The Sea Highway is one of the Indonesian government's programs that aims to reduce the price disparity that occurs between the western region of Indonesia and the eastern part of Indonesia by utilizing sea transportation. The sea transportation system is essential in regional development, especially for the province, which consists of many islands, including sea transportation through ports. In the process of regional development, transportation is an essential

element and strategy in facilitating economic activities because transportation is one of the elements forming the structure of restricted space to directly support functional relationships and the orientation of distribution services between connectivity nodes in realizing the accessibility of socio-economic activities of the community both within the region and within the area outside the region [1]. The wood industry's development in Indonesia is growing yearly along with the increase in population and advances in technology, industry, and science. In construction, wood is still necessary even though many other materials are needed. However, wood has advantages, such as being easy to shape and work. The furniture industry in the current era is increasing over time because this industrial sector provides unique and creative interior designs and artistic values that offer

comfort to support various activities. With the development of the furniture industry, the demand for wood has also increased, which has led to increasingly fierce competition in the wood

industry. Indeed an opportunity and a challenge for the wood industry players to implement effective and efficient strategies to meet demand.



**Fig. 1.** Coconut Trunk Commodity [2]

The Marine Toll Road is a solution offered to reduce the price disparity that arises between Western Indonesia and Eastern Indonesia. The Sea Highway is effective sea connectivity in the form of ships that serve regularly and on a scheduled basis from the Western Region of Indonesia to the

Eastern Region of Indonesia. To reach and distribute logistics to disadvantaged areas, isolated, outermost. Borders ensure the availability of goods and reduce price disparities to improve people's welfare.



**Fig. 2.** The Sea Highway or Marine Toll [3]

It is realized by providing subsidized, routine, and scheduled shipping services so that the high contrast between the Western Region of Indonesia and the Eastern Region of Indonesia can decrease.

## 2. Materials and Methods

The type of research is descriptive research. The illustrative method can be interpreted as a problem-solving procedure that is investigated by describing the state of the subject or object in the study, which can be in the form of people, institutions, communities, and others currently based on visible facts or what they are. "The Sample Book of Research Methods," the descriptive method examines the status of a group of people, an object, a set of conditions, a system of thought, or a class of events in the present. This descriptive

research aims to make a systematic, factual, and accurate description, picture, or painting of the facts, characteristics, and relationships between the investigated phenomena [4].

This research is a qualitative approach. The qualitative research method is a research method based on the philosophy of post-positivism, used to examine the condition of natural objects, where the researcher is the key instrument, sampling of data sources is done purposively, data collection techniques are combined, data analysis is inductive/qualitative, and the results of qualitative research emphasize meaning rather than generalization [5][6][7]. This study emphasizes disclosing the meaning contained in the description of the data. Therefore this study uses a qualitative research approach.

### 3. Results

#### 3.1. Description of Research Objects

Morotai Island Regency, located at the northernmost tip of North Maluku Province, is a new regency resulting from the division of North Halmahera Regency based on Law Number 53 of 2008 concerning the Establishment of Morotai Island Regency, North Maluku Province. The land area of the Morotai Island regency reaches 2,330.6 km<sup>2</sup> and consists of 33 islands. The population of the district. Morotai Island has only about 73,630 inhabitants.

Astronomically, Morotai Island Regency is located between 2°00' 00" to 2°40' 00" North Latitude and 128°15' 00" to 128°48' 00" East

Longitude. The geographical boundaries of the Morotai Island Regency are as follows:

- In the north, it is bordered by the Pacific Ocean;
- To the east, it is bordered by the Halmahera Sea;
- To the south, it is bordered by the Morotai Strait;
- To the west, it is bordered by the Sulawesi Sea.

The area of the Morotai Island Regency is 4,301.53 km<sup>2</sup> which consists of a land area of 2,330.60km<sup>2</sup> and the sea (4 miles to the sea) covering an area of 1,970.93 km<sup>2</sup> with a total coastline of 311,217 Km. The total number of islands is 33, of which seven are inhabited, and 26 are uninhabited.



Fig. 3. Location of Morotai Island Regency [1]

Morotai Island Regency is located at the northernmost tip of North Maluku Province, bordering the Pacific Ocean. Accessibility there is complex, and development growth is still minimal. This area includes underdeveloped, remote, outermost, and border areas (3TP). During his reign, President Joko Widodo paid attention to places included in the 3TP area. One is through the sea highway program, first released in 2015. Marine toll ships are tasked with distributing necessities to the 3TP site. The budget from state budget subsidizes the rate. The target is to ensure the availability of goods and cut the price disparity between 3TP areas and others. Morotai Island is often a benchmark for the success of the marine highway program. Since first entering Morotai in 2017, the return of ships from this area to Surabaya has continued to grow. Even now, Morotai is served by two marine toll vessels owned by PT Pelayaran Nasional Indonesia or PT Pelni (Persero), namely KM Logistik Nusantara 3 and KM Logistik Nusantara 6.

#### 3.2. Description of Coconut Trunk

Coconut (*Cocos nucifera* L.) is a strategic commodity with a social role, culture, and economy in the life of the Indonesian people. Humans use almost all of its parts, so it is considered a plant and valuable, especially for coastal communities. Coconut oil has been traded since ancient times, namely coconut oil, which since the 17th century has been imported to Europe from Asia [3].

In general, coconut tree trunks grow straight up, except for coconut trees that grow in certain places, such as on the banks of rivers, cliffs, and others. The stems will grow curved towards the sun. The coconut trunk is grey and smooth, and the height of the coconut trunk can reach 20 meters to a diameter of 20 cm to 30 cm, depending on the variety, climate, soil, and spacing. The actual trunk of a young tree is only apparent when the tree is 3-4 years old and when the bottom leaves have fallen.



**Fig. 4.** Coconut Trunk [2]

### 3.3. Utilization of the Sea Highway on Morotai Island

The Marine Toll Road is a program initiated by President Joko Widodo at the beginning of his administration. The goal is to create connectivity. In addition, the Marine Toll Road is expected to reduce the disparity in the prices of essential commodities, especially in the eastern region and the 3 TP (Lagged, Remote, Outermost, and Border) areas. The Marine Toll Program was present in

Morotai in 2017. PT Pelayaran Nasional Indonesia or PT Pelni Persero was assigned to be the operator of the KM Logistik Nusantara 3 Marine Toll Ship. This freighter sails regularly according to the government's assignment. The reverse charge of the Marine Toll Road also affects the welfare of residents in the 3T area. Local superior products are transported back to Marine Toll ships. Local entrepreneurs can take advantage of it. Morotai is a producer of copra, coconut stalks, cloves, and fish.



**Fig. 3.** Logistics of Coconut Trunk on Morotai Island [3]

### 3.4. Comparison of Before and After the Marine Toll Road in Logistics of Coconut Trunk

Based on the results of field visits, a coconut trunk businessman on Morotai Island said his industrial productivity doubled. Before the Marine Toll Road existed, he only supplied 5-6 containers of processed wood. After the Marine Toll Road, ten containers can be produced per month. Processed coconut trunks are sent to Surabaya, Bali, and Lombok. Before the Marine Toll Road, coconut logs from Morotai had to pass through Tobelo Regency before being sent to Java. The length of distribution channels makes logistics costs swell. The cost of transportation to Tobelo reaches IDR. 8.4 million. Meanwhile, the Marine Toll tariff is only IDR. 2.3 million to Tanjung Perak Port, Surabaya. The price can be low because the state subsidizes it. The efficiency is around 30% if you go through Tobelo; you must rent a car and a costly ship. After the

Marine Toll, only pay for the expedition fee.

## 4. Conclusions

Morotai Island Regency is located at the northernmost tip of North Maluku Province, bordering the Pacific Ocean. Its area is 4,301 km<sup>2</sup>. Accessibility there is complex, and development growth is still minimal. This area includes underdeveloped, remote, outermost, and border areas (3TP). To achieve the welfare of the people in Morotai Island, one of which is the sea highway development program. Before the Marine Toll Road existed, coconut logs from Morotai had to pass through Tobelo Regency before being sent to Java. The length of distribution channels makes logistics costs swell. The cost of transportation to Tobelo reaches IDR. 8.4 million. Meanwhile, the Marine Toll tariff is only IDR. 2.3 million to Tanjung Perak

Port, Surabaya. This Marine Toll can be used as a reference for controlling costs for transporting goods at sea, reducing price disparities, and maintaining price stability for coconut trunks, which is 30% more efficient than the price before the Marine Toll. In addition, it can encourage infrastructure development in underdeveloped, remote, outermost, and border areas (3TP).

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