



Indonesia Toll Roads: Its Effect on The Trade Routes in ASEAN

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ABSTRACT

The sea toll road is one of a solution that gives a good effect in the trade routes in the future. Indonesia toll road is a program of the Indonesian government that aims to improve connectivity between regions inequitable distribution of goods so that the movement of the economy can be efficient and evenly distributed. In addition to the impact on the Indonesian state, this program has an impact on countries that are close to Indonesia (ASEAN). The purpose of this study is to analyze how the systematics of Indonesia's toll road program and its effects on the trade routes neighboring countries of Indonesia. The method that we used in this study is review analysis. The result of this study is sea toll facilitates commercial access from southern Pacific countries to Eastern Asian countries. The idea of the Sea Toll concept will open up regional access by making two large international hub ports that can serve large commercial ships above 3,000 TEUs or a Panamax vessel class of 6000 TEUs. This study has an impact on the international shipping process through ASEAN trade routes.

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1. INTRODUCTION

Indonesia is in a strategic position because it is at the intersection of two oceans, the Indian and Pacific Oceans, and two continents, the continents of Asia and Australia. The vision carried by Joko Widodo (Jokowi) is to make Indonesia the world's maritime axis. In the economic field, Indonesia will play an important role in world trade, because 40 percent of international trade passes through Indonesian territory (Rustam, 2016). The government of Indonesia has been prioritizing the rapid development of the country's infrastructure since 2014. To date, 13,432 km of national roads, 941 km of toll roads, and eight dams, and counting, have been built, according to the national plan. The prioritized project of the toll roads, to be called Trans Java Toll Road (TJTR), is expected to stretch along Java Island from the West to the East. It is discovered that there is behavioral correlation both in and between the households that lead to shifting in the work sector, income level, health, and education (Ariyanda & Khoirunurrofik, 2020). It is also revealed that the income level of households that reside closer to the toll road is relatively higher compared to those that reside farther (Noll & Weick, 2015).

Globalization allows the rapid development of transportation, thus both human mobility and goods become significant (Small, 2020). Marine transportation is one of the massive transportation tools used for both business and travel, as well as private both locally and internationally. The goal of "Indonesia's sea toll road" is to strengthen the connectivity between Western Indonesia and Eastern Indonesia and facilitate trade routes with the South Pacific and East Asia (Malisan et al., 2018). The toll program is designed to make interregional connectivity across Indonesia. The toll program is viewed as a solution to reduce price disparity in Indonesia. To make Indonesia a maritime axis, the government has begun to build transportation infrastructure from the border to make it easier to access, particularly to the ASEAN State (Malisan et al., 2018). As an island nation, Indonesia needs adequate connections to improve economic well-being and balance. Implementing the ocean plan by providing cheap, regular, and regular transportation services to galloping economic growth (Yunianto et al., 2019).

The purpose of this literature review is to see how "Indonesia's sea toll road" process and how it affects the economy of the ASEAN. The findings of this study could help ASEAN policymakers to understand the systematic "Indonesia's sea toll road" and how to increase the effectiveness of "Indonesia's sea toll" road so that it can boost the economies of ASEAN countries.

2. METHODS

This study used literature review method, to analyze this research, we used a literature review as our method. Scientific articles sourced from national, international, and official journals using the Emerald, Springer, Science Direct, Elseviers, ReasearchGate, and Google Scholar databases. in the early stage of looking for journal articles, we used " ASEAN", "Logistics", "Sea Toll", and "Shipping" as the keywords with the stages of problem formulation-research-sorting-data evaluation (compare-contrast-criticism-synthesis-summary) -analysis and interpretation. From this search, we obtained about 4500 Scientific articles from the databases. There are about 20 relevant articles. The steps are planning, conducting and reporting. The steps to do a literature review are shown in **Figure 1**.

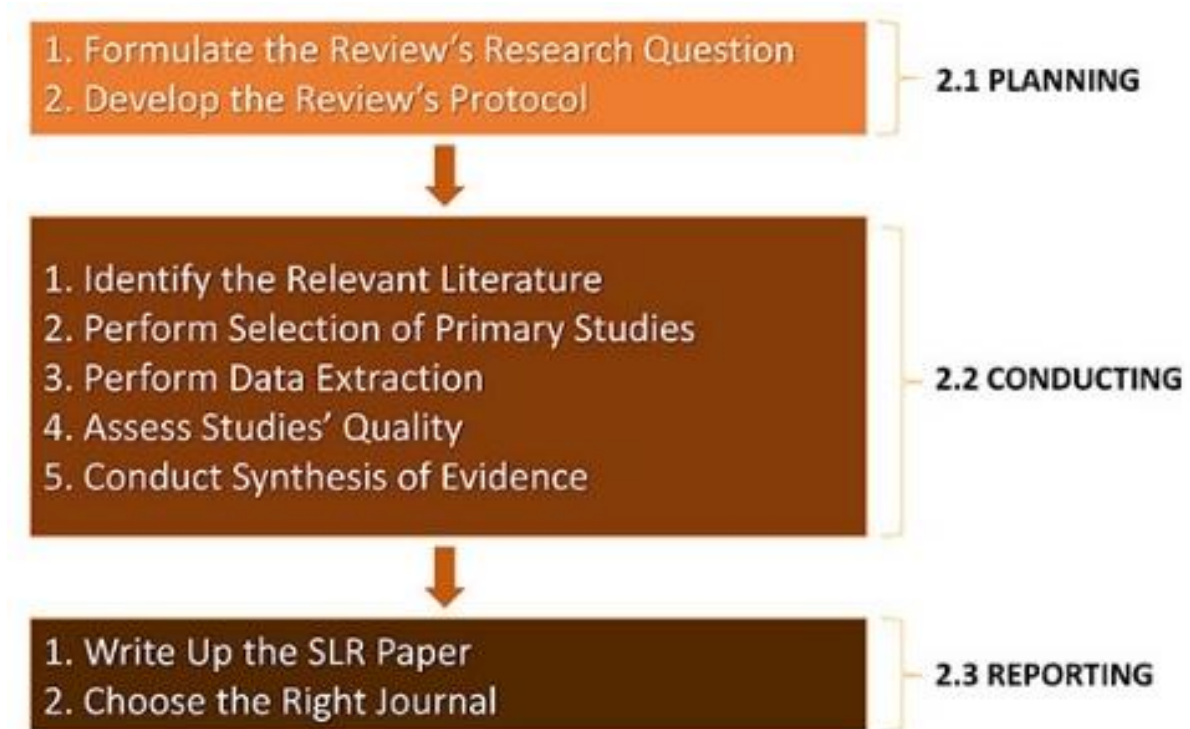


Figure 1. Review Analysis Stages.

3. RESULTS AND DISCUSSION

The development of maritime infrastructure such as ports which are the hubs for trade activities and the provision of international standard of transportation, as well as service facilities to support trade activities in the periphery of Indonesia, especially in the eastern part of Indonesia, must be a concern. A whole of Indonesia is an island nation and has a vast ocean. The total area of the sea in Indonesia reaches 5.9 million square kilometers (National Sea Jurisdiction), the area comprises 2.9 million square kilometers of the Nusantara Sea, 0.3 million square meters of Territorial Sea, and 2.7 square kilometers is Exclusive Economic Zone Indonesia (ZEEI) (Toledo & Sharif, 2019). Based on its geo-strategic, Indonesia lies between the Asian Continent and the Australian Continent and has two Indonesian Archipelagic Sea Lines (ALKI) that have been established under the international maritime law conventions. In addition, the potential of Indonesia's marine resources is also very abundant, not only fish but also minerals located below sea level. That materials are tin, iron ore, gold, bauxite, nickel, and oil gas. Coastal resources did not escape the form of coral reefs, mangroves, etc (Sengupta *et al.*, 2016).

Tanjung Priok Port is one of the 5 busiest container ports in ASEAN with annual traffic reached 7.8 million TEU (Twenty-foot Equivalent Unit). By this number, 80.6 percent or 41.6 million TEUs consist of transshipment containers making this region one of the largest container transshipment markets in the world. Southeast Asia is a major transshipment market in the world with shipping alliances having well-developed delivery service connectivity (Yap & Zahraei, 2018).

Therefore, a maritime highway program was built that aims to evenly distribute the distribution of people, goods, and services by sea throughout Indonesia at affordable costs, and is expected to improve Indonesia's economy in the maritime sector.

The success of the maritime highway program has been proven by the decline in national logistics costs, which initially amounted to 24.5% of the total Gross Domestic Product (GDP), which fell to 19% (Rustam, 2016). From the results of a survey conducted by the Sea Toll Road, it can reduce prices by 11% -20% for staple goods commodities. The biggest decline occurred in the commodity of chicken meat and cooking oil with a decrease of 20% (Nur et al., 2020).

Sea toll facilitates commercial access from southern Pacific countries to Eastern Asian countries. The idea of the Sea Toll concept will open up regional access by making two large international hub ports that can serve large commercial ships above 3,000 TEUs or a Panamax vessel class of 6000 TEUs. The opening of regional access through the implementation of the Sea Highway concept can provide an opportunity for the national cargo/logistics industry to play a role in international distribution, where currently 40% pass-through Indonesian territory. Sea toll will support the principle *cabotage* and *beyond cabotage*.

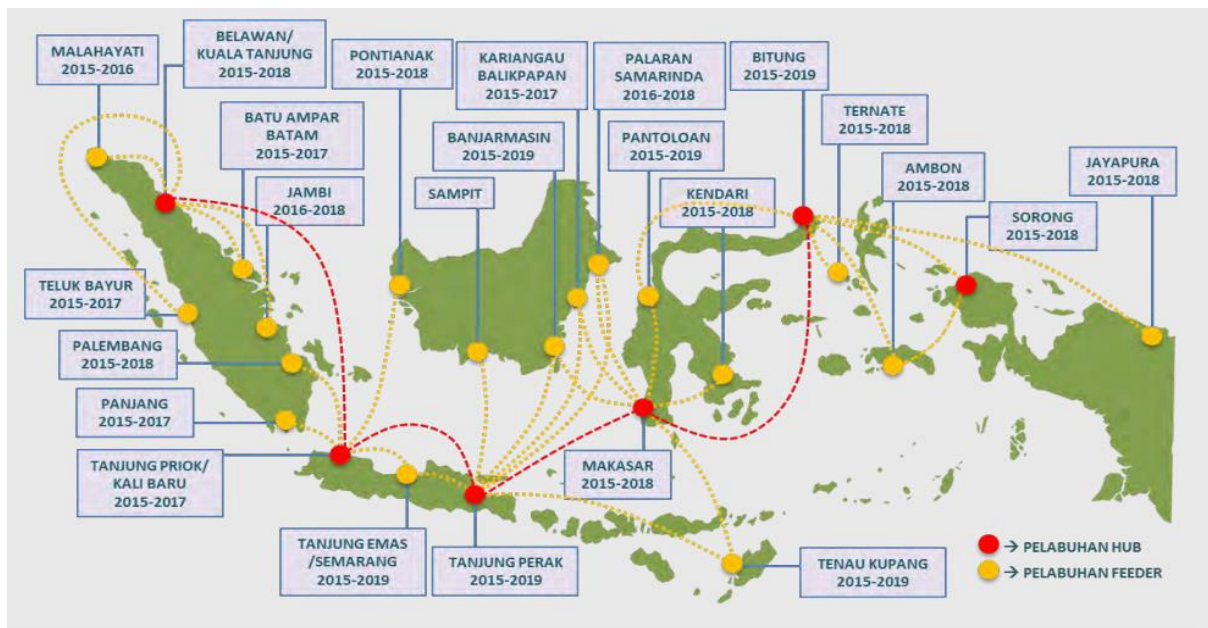


Figure 2. 24 Ports to Support Sea Toll Roads

(<http://nusantarainitiative.com/wp-content/uploads/2016/02/150915-Buku-Tol-Laut-bappenas.pdf>)

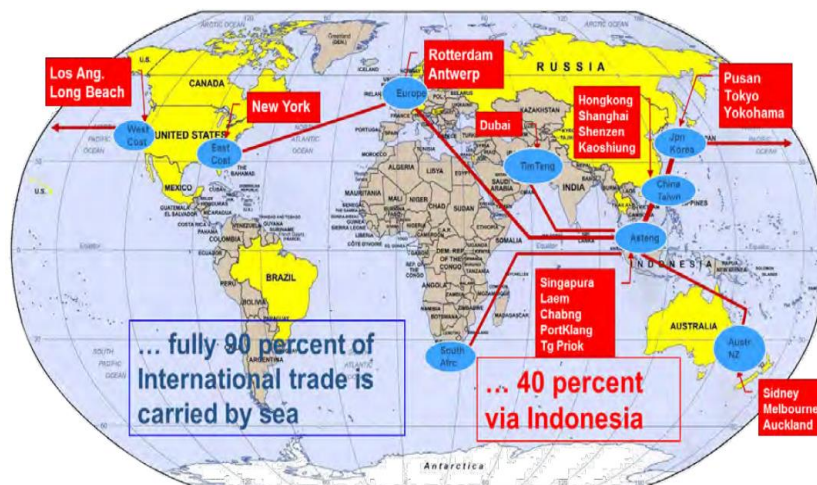


Figure 3. Opportunities for Industrial Logistics Services and International Trade

(<http://nusantarainitiative.com/wp-content/uploads/2016/02/150915-Buku-Tol-Laut-bappenas.pdf>.)

Another effect of the sea toll program is reducing dependence on imported products from abroad. This maritime highway program also affects the shipping industry in which the issuance of policies to prohibit and stop imports of used vessels and increase domestic ship production. It will make a trade route more efficient and effective.

According to Kristian Saragi, Mamahit, & Budi Prasetyo, (2018) Sea highway development factors to realize Indonesia as a World Maritime Axis consists of supporting factors, including:

- 1) Geographical condition of Indonesia;
- 2) Reducing the price disparity between West and East Indonesia²⁰;
- 3) Equitable distribution of basic needs;
- 4) Coordinated development planning;
- 5) Integrated development; and
- 6) Financing cooperation development.

There are some obstacle factors:

- 1) Mindset of the Sea
- 2) Ego sectoral;
- 3) Shipping has not been maximized;
- 4) The port condition is inadequate;
- 5) The shipping industry has not yet developed;
- 6) Operational problems of sea toll ship;
- 7) Old land provision process; and
- 8) Inadequate access and infrastructure for underdeveloped areas and border areas.

4. CONCLUSION

The development of maritime infrastructure such as ports that become a hub for trade activities and the provision of international standard of transportation, especially in the eastern part of Indonesia, must be a concern. The existence of a sea highway aims to equalize the distribution of people, goods, and services and has been proven to reduce national logistics costs with initial data from 24.5% (total Gross Domestic Product (GDP)) to 19% and can reduce prices by 11% -20 % for staple commodities. Sea tolls can facilitate commercial access from South Pacific countries to East Asian countries. The opening of regional access through the implementation of the sea highway concept can provide opportunities for the national logistics industry to play a role in international distribution. Besides, with this maritime highway program, dependence on foreign imported products can be reduced and increase domestic ship production.

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6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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