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Application of Sea Toll as a Means to Maintain the Availability of Goods in the 3T Area (Lagging, Frontier and Outermost)

***M. Aji Luhur Pambudi, Tika Handayani.**

Department of Marine Transportation, Politeknik Bumi Akpelni, Semarang, Indonesia
*Correspondence author: aji.luhur@akpelni.ac.id
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A b s t r a c t

Public Service Obligation (PSO) is the implementation of public services used by each country to mandate operators regarding minimum service standards, especially for remote areas where the output is expected to be increased and developed every year. Indonesia as an archipelagic country builds connectivity that can be adequate and can improve economic balance and welfare for the surrounding ecological community. The Sea Toll Program is designed so that each region can be connected between regions in Indonesia with adequate schedules and infrastructure, especially in areas that are still 3 T (Lagging, Frontier and Outermost). This study aims to describe the role of the Sea Toll from the government in designing and maintaining the availability of goods in the 3T area. The research method used is qualitative with a descriptive research approach, which is to say solving the current problems based on data that occurs in the field. So the implementation of sea tolls starting from 2015 to 2022 experiences a positive trend because from year to year it is seen that Indonesia has made a policy to realize an even logistics system by developing shipping networksto the periphery.

Keywords: Sea Toll, Connectivity, Sea Transportation, 3T Area

1. Introduction

According to [1], there are two types of subsidies that come from the state, regarding public service obligations and assistance from state operations, both of which lead to the level of connectivity between regions. Sea toll is an effort by the government to improve relations or connectivity between island areas by providing fixed and orderly sea transportation from the centre of economic activity to the 3T island.[2].

Fig.1. Sea Toll Route 2022. Sources; National Border Management Agency of the Republic of Indonesia. [3]

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It also received support from the ministry of home affairs for the implementation of a role inthe public service of freight transportation [4];

1. Synergy and Synchronization.

Synergize central and regional programs and activities. This is to achieve the national development goals on connectivity which are included in the implementation of sea toll activities

2. RKPD Guidelines

Every year the Ministry of Home Affairs issues a permendagri on the preparation of the RKPD in the form of an annual planning document that is used as an implementation of the RPJMD document prepared by the regional government.

3. Facilitating the Preparation of RPJMD

This is so that local governments can focus on contributing to the implementation of the sea tollprogram by facilitating the preparation of RPJMD bylaws.

States that geographical structure is the main reason for a country or region to determine what transport system to use. When viewed from the geographical structure of Indonesia, it can beseen that Indonesia has a wider sea area compared to the land area. So that sea transportation should be the main choice in terms of use, development and improvement. Goods distribution activities in Indonesia still use land routes at 90% while sea routes are only used by 9% and 1% use rail transportation [5][6].

The quality of Indonesia's ports is still ranked 96th in the world, while the quality of Singapore and Malaysia's ports is ranked 2nd and 19th in the world respectively. This is seen from the quality assessed based on time (duration of dwelling time) which took 5-6 days in 2015, while in Malaysia less than 4 days, Singapore was only less than 2 days. This sea toll road aims to develop the maritime economy, and the availability of goods for the 3 T region, by making this sea toll the main basis of production and marketing connectivity between regions/islands in Indonesia and theregion. From this sea toll, the government also hopes to reduce logistics costs, which have been an important key to the price disparity that occurs between the western and eastern regions [7].

2. Materials and Methods

In this research method, the author uses a qualitative research method with a descriptive approach. Descriptive research is research that describes, describes problem solving based on data and information that occurs in the field. This method, aims to uncover some facts, conditions, phenomena and circumstances that occur. One type of research method that describes a population, situation, or phenomenon being studied with data that is as it is so that the discussion at hand can be clearly expressed.

3. Results and Discussion

3.1. Indonesia's Sea Toll Program Supports the Maritime Axis

This sea toll program plays an important role in supporting the distribution of goods in the world, especially in Indonesia, which is an archipelagic country that needs ships as a link between islands and regions. This sea toll is used as a sea link or connectivity that is connected to fixed scheduling, routine and the presence of ships. So that this sea toll program is also supported by various parties, which aims to reduce economic inequality and availability of goods in several underdeveloped, outermost and frontier areas. The following is an overview of the Sea Toll Map in2021 [8].

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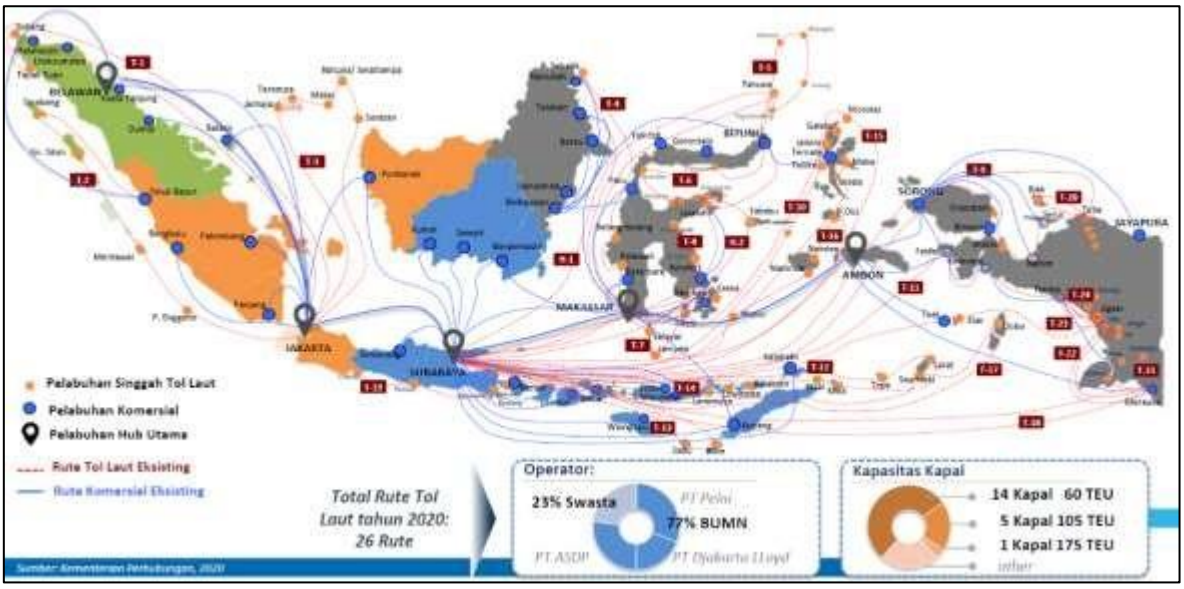

Fig.2. Indonesia Sea Toll Map

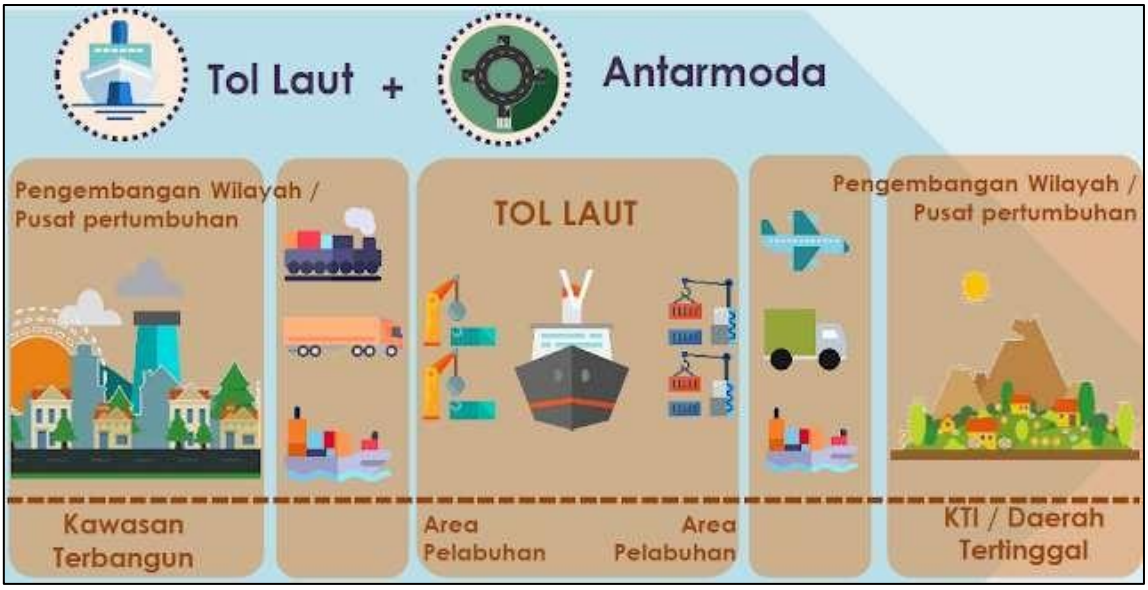

Fig.3. Series of Activities of the Sea Toll Program

From the picture above, it can be explained that: With this sea toll program, it can realize a maritime logistics system, where Indonesia makes a policy to realize an even logistics system by developing shipping networks such as people's shipping, commercial shipping and pioneering shipping/subsidies in the form of livestock and food clothing. This is a form of connectivity and distribution of goods to underdeveloped, outermost and frontier areas on the borders of Indonesia. In addition, it also improves connectivity to the international shipping network, by developing large port ports that are often passed by ships with international voyages such as Tanjung Priok, Kuala Tanjung, Patimban, Tanjung Perak, Makassar and Bitung. In addition to developing a sea toll supporting port as well as an international hub port, it is necessary to develop a supporting port to help the main port to run effectively and efficiently. After developing the main and supporting ports,a port must have the facilities and infrastructure needed for shipping safety, such as the reliability of SBNP, patrol boats, shipping and maritime safety. Improving international regulatory standards, because Indonesia is a maritime country and is included in the IMO members,it is required for Indonesia to follow international maritime regulations and regulations. Increasing collaboration between capitals and between regions, with connectivity and intermodal integration, can encourage, improve and accelerate the effectiveness of

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goods delivery. Improving Information Technology, with the rapid development of the shipping industry, the sophistication of information technology that can be adjusted to achieve efficiency and effectiveness in sea transportation, information technology in the form of Inaportnet, DO Online, VTS (Vessel Traffic Services), AIS is needed. Improving the development of the quality of public services such as the implementation of online tickets at ports.

3.2. Development of Sea Toll Route

Table 1. Development of Sea Toll Route

2016	6 Ship Operational Subsidy Routes	Assignment 6 PELNI Route
2017	13 Ship Operational Subsidy Routes	Assignment 7 PELNI Route Auction 6 Private Routes.
2018	18 Routes (Operational Subsidies and Container Subsidies)	Assignment 11 Routes: 6 PELNI, 2 ASDP, 3 Djakarta Llyod Auction of 7 Private Routes
2019	20 Routes (Operational Subsidies and Container Subsistences)	Assignment 19 Routes: 13 PELNI, 2 ASDP, 4 Djakarta Llyod Auction of 8 Private Routes
2020	26 Routes (Operational Subsidy, Container Subsidy, Cargo Subsidy)	Assignment 20 Routes: 8 PELNI, 7 ASDP, 5 Djakarta Llyod Auction of 6 Private Routes
2021	30 Routes (Operational Subsidy, Container Subsidy, Cargo Subsidy)	Assignment 21 Routes: 9 PELNI, 7 ASDP, 5 Djakarta Llyod Auction 9 Private Routes

The table above is a sea toll route that when viewed has experienced achievements in the implementation of sea tolls and developments such as increasing the number of routes, and supporting or stopping ports and cargo that continue to increase every year. At the beginning of 2016, it had 6 routes by PELNI and in 2021 it was already 30 routes run by several private ship voyages that were included in the sea toll project. From 10 layover ports in 2016 to 100 ports in 2020. As well as from the cargo also increased, namely the load volume from 81.40 thousand tons to 362.56 tons in 2020.

From year to year, the Sea Toll program has experienced significant developments, by improving and improving terms of information technology in Port Infrastructure. This is done to make it easier for the public to find information and place orders and then be able to track the delivery of goods, so that they can see price disparities between regions in Indonesia, especially in underdeveloped, frontier and outermost regions. Infrastructure that has undergone digitization andhas been refined with a digital-based platform, namely the SiTolaut application. This application is an integrated system jointly by various government and private agencies in ensuring the implementation of the objectives of the sea toll program and making it easier for the public and stakeholders to able to access sea toll services. Here's the SiTolaut application:

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Fig.4. SiTolaut Application, [9].

The SiTolaut application has been integrated with Bank BRI which is one of the state-owned banks that have customers in remote areas, with this it can make it easier for the public to make transactions online. The following bri store portals can be seen:

Fig.5. Portal BRI, [10].

3.3. Implementation of Freight Transportation at sea (Sea Toll)

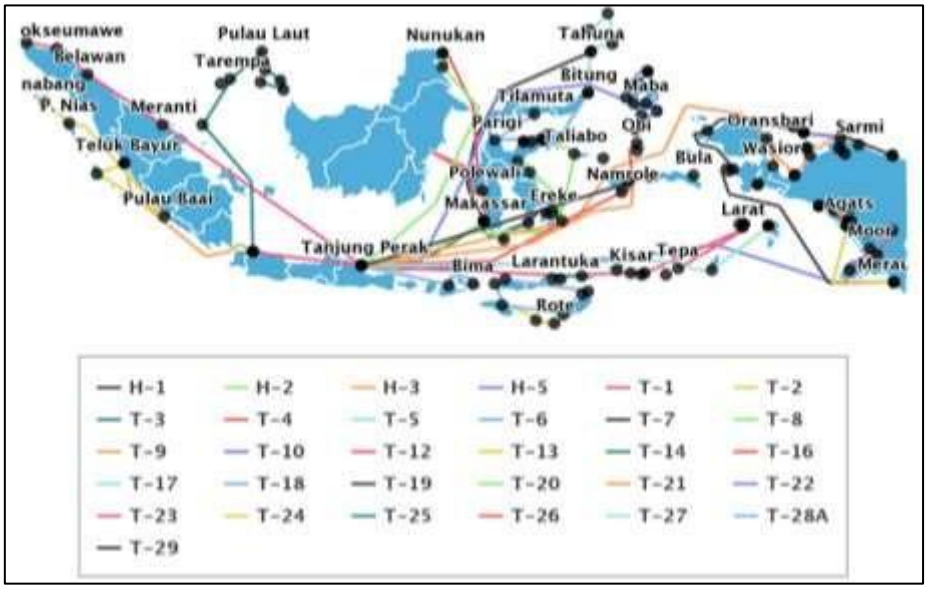

Fig.6. Toll Route 2022 [11].

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The picture above is a program from the implementation of goods transportation at sea (SeaToll) which was launched in 2015, and since then until now it has experienced an increase and development that can be seen in terms of load capacity, the number of cargo and in terms of routesthat continue to grow. The Ministry of Transportation stipulates that there are 34 Sea Toll routes in 2022, the determination is based on the Decree of the Director General of Sea Transportation Number KP – DJPL 8 of 2022 concerning the First Amendment to the Decree of the Director General of Sea Transportation Number: KP.998 / DJPL / 2021 concerning the Determination of Route Networks for the Implementation of Public Service Obligations for The Transportation of Goods at Sea for the fiscal year 2022. This increase indicates a positive achievement, with the increase in routes from year to year to the 3 T area, making this Sea Toll program supported by all relevant agencies, including local governments. The following is the implementation of the Sea Toll route in 2022 which can be seen in table 2.

Table 2. Sea Toll Route in 2022, [12]

Route	Network	Operator	Distance
H-1	Tg Perak - Makassar - Tahuna - Tg Perak	PT. PELNI (PERSERO)	2275
H-2	Tanjung Perak– 438- Makassar (Soekarno Hatta) -494- Bobong (Taliabu) -117- Luwuk - 1.100- Tanjung Perak	PT. DJAKARTA LLOYD	2149
H-3	Tanjung Priok - 562 - Teluk Bayur - 562 = Tanjung Priok	PT. MERATUS LINE	1124
H-5	Tanjung Perak – 1700 – Merauke – 372 – Agats –114 – Timika (Pomako) – 1598 – Tanjung Perak	PT. TEMPURAN MAS LINE	3784
T-1	Tanjung Priok - 397 - Tanjung Perak - 397 - Tanjung Priok - 702 - Meranti - 321 - Belawan - 144 - Lhokseumawe - 114 - Malahayati - 1111 - Tanjung Priok Teluk	PT. CITRABARU ADINUSANTARA	3186
T-2	Bayur - 219 - Gn. Sitoli – 109 Sinabang- 414 - Mentawai - 144 - Pulau Baai	PT. SUBSEA LINTAS GLOBALINDO	1107
T-3	- 221 - Teluk Bayur Tanjung Priok - 86 - Patimban – 492 - Kijang – 144 – Letung - 36 - Tarempa – 149 – Pulau Laut - 76 - Selat Lampa – 61 – Subi – 47	PT. PELNI (PERSERO)	1752
T-4	– Serasan – 85 – Midai – 576 – Tanjung PriokMakassar (Soekarno Hatta)- 97– Barru (Garongkong) – 64- Polewali – 129 – Mamuju – 27 – Belang-Belang – 581 – Nunukan – 613 – Makassar (SoekarnoHatta)	PT. CITRABARU ADINUSANTARA	1511
T-5	Bitung – 89 – Ulu Siau/Tagulandang – 64- Tahuna – 84 - Marore – 84 - Miangas – 57 – Marampit – 55 – Lirung/Melangoane – 83 –	PT. PELNI (PERSERO)	687
T-6	Mangaran – 171 – Bitung Bitung - 226 - Luwuk - 138 - Pagimana - 35 - Bunta - 28 - Mantangisi - 21 - Ampana - 107 - Parigi/Tinombo - 132 - Tilamuta - 212 -	PT. DJAKARTA LLOYD	899

P-ISSN: 2828-7010; E-ISSN: 2828-6669

Route	Network	Operator	Distance
T-7	Makassar (Soekarno Hatta) - 358 - Ereke - 89 - Raha - 111 - Sikeli - 116 - Selayar - 106 - Makassar (Soekarno Hatta)	PT. DJAKARTA LLOYD	780
T-8	Makassar (Soekarno Hatta) - 501 - Bungku - 61 - Kolonodale - 563 - Makassar (Soekarno Hatta)	PT. PELNI (PERSERO)	1125
T-9	Tanjung Perak - 1835 - Oransbari - 120 - Wasior - 126 - Nabire - 95 - Serui - 23 - Waren - 165 - Sarmi - 1708 - Tanjung Perak	PT. PELNI (PERSERO)	4072
T-10	Tanjung Perak - 1216 - Tidore (Soasio) - 156 - Morotai - 72 - Galela - 144 - Maba/Buli - 139 - Weda - 1213 - Tanjung Perak	PT. PELNI (PERSERO)	2940
T-12	Tanjung Perak - 858 - Wetar (Ilwaki) - 46 - Kisar - 33 - Letti - 11 - Moa - 70 - Sermatang (Mahaletta) - 51 - Tepa - 152 - Larat - 1074 - Tanjung Perak	PT. PELAYARAN PELANI TUNGGAL IKA	2295
T-13	Tanjung Perak - 701 – Rote (Ndao)- 63 – Sabu (Biu) -644 -Tanjung Perak	PT. PELNI (PERSERO)	1408
T-14	Tanjung Perak - 669 - Larantuka (Tabilota) - 32 - Lembata (Lewoleba) - 91 - Kalabahi - 745 - Tanjung Perak	PT. PELNI (PERSERO)	1537
T-15	Tanjung Perak - 437 - Makassar (Soekarno Hatta) - 775 - Jailolo - 139 - Morotai (Daruba) - 1256 - Tanjung Perak	PT. PELNI (PERSERO)	2607
T-16	Tanjung Perak - 710 - Wanci - 216 - Namrole (Leksula) - 133 - P. Obi - 1093 - Tanjung Perak	PT. DJAKARTA LLOYD	2152
T-17	Tanjung Perak - 1133 - Saumlaki - 231 - Dobo - 1313 - Tanjung Perak	PT. TEMPURAN MAS LINE	2677
T-18	Tanjung Perak - 334 - Badas - 118 - Bima - 415 - Tanjung Perak	PT. TEMPURAN MAS LINE	867
T-19	Sorong - 590/626 - Depapre/Jayapura - 345/320 - Biak/Korido - 320/282 - Sorong - 491 - Pomako - 410 - Merauke - 410 - Pomako - 406 - Kokas - 166 - Sorong	PT. PELNI (PERSERO)	3174
T-20	Tanjung Perak - 854 - Tarakan - 83 - Nunukan - 903 - Tanjung Perak	PT. TEMPURAN MAS LINE	1840
T-21	Tanjung Perak - 992 - Namlea - 992 - Tanjung Perak	PT. TEMPURAN MAS LINE	1984
T-22	Biak - 120 - Teba - 45 - Bagusa - 25 - Trimuris - 21 - Kasonaweja - 91 - Teba - 120 - Biak - 35 - Brumsi - 35 - Biak	PT. ASDP	492
T-23	Merauke (Kelapa Lima) - 194 - Kimaam - 180 - Moor - 40 - Bade (Mappi) - 105 - Gantentiri (Boven Digoel) - 519 - Merauke	PT. ASDP	1038

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Route	Network	Operator	Distance
	(Kelapa Lima)		
T-24	Merauke (Kelapa Lima) - 360 - Atsy - 86 - Agats - 86 - Atsy - 96 - Senggo - 96 - Atsy -	PT. ASDP	1084
T-25	Timika (Pomako) - 212 - Atsy - 110 - Eci - 110 - Atsy - 82 - Ewer - 8 - Agats - 66 - Sawaerma - 22 - Mamugu - 610 - Pomako	PT. ASDP	1220
T-26	Timika (Pomako) - 96 - Agats - 24 - Warse - 40 - Yosakor - 64 - Agats - 33 - Ayam - 20 - Katew - 53 - Agats - 23 - Yurfi - 41 - Komor - 64 - Agats - 126 - Timika (Pomako)	PT. ASDP	614
T-27	Merauke - 497 - Dobo - 104 - Elat - 26 - Tual - 136 - Kaimana - 618 - Biak - 108 - Serui - 114 - Nabire - 687 - Elat - 529 - Merauke	PT. LUAS LINE	2816
T-28A	Kupang - 201 - Waingapu - 138 - Labuan Bajo - 50 - Reo - 1223 - Merauke - 992/1018 - Atapupu/Wini - 121/101 - Kupang	PT. PELNI (PERSERO)	2751
T-29	Tanjung Perak - 1005 - Piru - 160 - Wayaloar - 97 -Malbufa - 183 - Babang - 24 - Saketa - 145 - Gimea (Tapeleo) - 241 - Bula - 1160 - Tanjung Perak	PT. LUAS LINE	3015
T-28B	Tanjung Perak - 1240 -Fakfak - 154 - Kaimana - 299 - Elat - 104 - Dobo - 1313 -	PT. PELNI (PERSERO)	3110

4. Conclusion

The implementation of sea tolls starting from 2015 to 2022 has experienced a positive trend because from year to year it is seen that Indonesia has made a policy to realize an even logistics system by developing shipping networks to the periphery, judging from the development of routesthat have also undergone changes that have been supported by the SiTolaut application and for financing transactions using BRI, then in terms of routes, it is increasing in number and supported by the agencies involved by issuing a Letter from the Decree of the Director General of Sea Transportation Number KP - DJPL 8 of 2022 concerning the First Amendment to the Decree of the Director General of Sea Transportation Number: KP.998 / DJPL / 2021 concerning the Determination of The Route Network for the Implementation of Public Service Obligations for The Transportation of Goods at Sea for the fiscal year 2022.

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