



Readiness Analysis of Greenport Implementation at Bakauheni Ferry Port, Lampung Province

Febriyanti Himmatul Ulya^{1*}, Yulia Puspita Sari¹, Aulia Ika Atika¹, Muhammad Rafiq¹

¹Politeknik Transportasi Sungai, Danau dan Penyebeangan Palembang
email : febrii8293@gmail.com

Abstract

Greenport or eco port is a sustainable port development by taking into account the environmental impact in its operation. The crowded port due to high mobility requires the port to have a greenport concept so that port activities run smoothly and do not have a negative impact on the environment. Ports that implement greenport are ports that fulfill environmental management and social responsibility commitments in supporting the continuity of the shipping business. Bakauheni Ferry Port became a research object because the Port is a port that has a fairly high port activity, so the purpose of this study is to determine the readiness of Bakauheni Port, Lampung Province in implementing the greenport concept with SWOT analysis Qualitative Research. The informants in this research are BPTD who is the regulator and PT ASDP who is the operator. Based on the results of the analysis and discussion, it is known that the Bakauheni Ferry Port has made internal preparations for PT ASDP to make the Bakauheni Ferry Port a greenport. Some of the efforts made are holding meetings to discuss the implementation of greenport, classifying waste and providing electric transportation used to carry out activities around the Port.

Keyword: greenport, eco port, SWOT

1. Introduction

Research conducted by Putra and Fadilah at the Port of Surabaya stated that the increasing flow of ship arrivals will increase the amount of ballast water discharge at the Port of Surabaya. The high discharge of ballast water will have an impact on the health of the marine environment and the ecosystem of living things in the sea. In the study, which was conducted for 3 (three) days with an average number of ship arrivals of 260 ships, it was stated that the expenditure of exhaust gas or emissions produced by ships was very large and exceeded the limits set by the Marine Pollution (MARPOL) [1].

The implementation of the port is regulated in the Regulation of the Minister of Transportation of the Republic of Indonesia Number 51 of 2015 which contains the procedures for port management regulations. The regulation

contains a statement that all types of ports must have Environmental Impact Analysis standard provisions tailored to each type of port. Law Number 17 of 2008 states about Shipping article 123 which contains an explanation of the order for maritime protection. [2]

In implementing the greenport, the port can be based on the Decree of the Directorate General of Sea Transportation Number KP - DJPL 689 of 2022 concerning Guidelines for Sustainable Environmental Port Management (Ecoport). The decree has steps that must be prepared and carried out by port managers to implement greenport.[3]

Greenport initiatives have many benefits, most notably improving port operational efficiency and reducing dependence on unsustainable natural resources. Through the adoption of green technologies such as renewable energy sources and efficient water management systems, ports can significantly reduce their carbon footprint and mitigate other adverse environmental impacts. In addition, greenport adoption aligns port operations with international sustainability and environmental standards. One such important standard is ISO 14001: 2015 - Environmental Management Systems, which underscores the importance of effective and sustainable environmental management practices. [4]

According to research conducted by Zulfikar et al (2023), the implementation of the greenport concept is not easy to implement in Indonesia. The need for support from stakeholders such as the government and the port industry in Indonesia to strengthen policies and regulations that support the implementation of green ports. In addition, there is a need for education and training for port managers and workers to improve understanding and skills in carrying out environmentally friendly practices. [5]

2. Method

This article is also called naturalistic inquiry because researchers must explore the natural conditions of the participants and their environment, so that the interpretations made by researchers are not only based on the assumptions and presumptions of researchers, but are the results of researchers' interpretations of factual circumstances [6].

Samples in qualitative research are called informants, sources or participants because research sampling is not based on population size but on the quality and depth of data obtained. The number of informants depends on the information provided. Information in this study was obtained from BPTD as a regulator and PT ASDP as an operator.

Data analysis in this research is SWOT analysis with a qualitative approach to determine strengths, opportunities, weaknesses and threats. SWOT analysis aims

to identify strengths, weaknesses, opportunities and threats to become the basis for determining development strategies.

Qualitative approach of SWOT matrix with the top two boxes are external factors (opportunities and challenges) and the left two boxes are internal factors (strengths and weaknesses), the other four boxes are strategic issues obtained from the meeting between external and internal factors.

Table 1. Qualitative Research SWOT Analysis Matrix

EKSTERNAL INTERNAL	OPPORTUNITY	THREATS
STRENGHT	Comparative Advantage	Mobilization
WEAKNESS	Divestment/investment	Damage Control

3. Result and Analysis

Bakauheni Ferry Port is a port that connects Sumatra Island (Bakauheni Port) and Java Island (Merak Port). The crossing route at the Bakauheni Ferry Port in Lampung Province is the Bakauheni - Merak crossing route with a distance of 15 miles and an average travel time of 75 minutes for executive ships and 108 minutes for regular ships. Bakauheni Crossing Port, managed by two agencies, namely the Land Transportation Management Center (BPTD) Class II Lampung and PT ASDP Indonesia Ferry, BPTD Class II Lampung as the regulator and PT ASDP Indonesia Ferry as the regulator. Bakauheni Crossing Port which is the gateway for mobilization from the island of Sumatra to Java and vice versa by sea makes Bakauheni Crossing Port has a fairly high number of service users.

Table 2. Bakauheni Ferry Port SWOT Qualitative Analysis Matrix

FACTORS	OPPORTUNITY	THREATS
STRENGHT	<i>Comparative Advantage:</i> • Large locations and many service users can increase funding for greenport Implementation. • The size of the site allows for the construction of landfills and waste management	<i>Mobilization</i> • Lack of coordination can be reduced by placing human resources who can communicate between the two agencies. • Placing human resources experts who know the points that must be fulfilled in implementing the greenport in

FACTORS	OPPORTUNITY	THREATS
	Environmental conditions with good sunlight make it possible to maintain the use of solar panels.	accordance with the greenport regulations KP – DJPL 689 Year 2022 Communicating with the local government to help provide an appeal for people who make inconvenience to port service users.
WEAKNESS	<i>Divestment/investment:</i> Develop a team of regulators and operators to implement the greenport.	<i>Damage Control:</i> - Continue to explore the latest information related to the implementation of greenport and complete all supporting aspects to get to the greenport port. - Improve relationships through more regular communication and coordination with regulators. - Coordinate with local organizations or local governments to provide appeals related to the convenience of Port service users.

The implementation of the greenport at Bakauheni Ferrying Port is in the preparation stage. This was conveyed by PT ASDP with a preparatory meeting that discussed zoning and sterilization of the greenport port. However, ASDP itself has not coordinated with regulators and written to several stakeholders and related agencies because it is related to the administration that must be completed. The advanced letter of decision for the implementation of this greenport has not yet come down from the Director General or the Ministry to the ASDP. At the preparatory meeting, the greenport traffic was discussed, the use of vehicles to reduce gas emissions in the port such as the procurement of electric motors, and the procurement of shuttle buses for shipping operators, tenant owners, and ship passengers who walk when they want to get on the ship or get off the ship from one pier to another. Waste management at Bakauheni Port is managed by a third party that has waste management certification. Bakauheni Port only separates waste that can be recycled or not by providing landfills that have been separated by type.

Waste originating from ships in the port is directly transported by a third party directly related to the ship operator. However, the temporary final TPS for waste in the port has been facilitated by ASDP. ASDP in the future has also planned and has applied for a license to be directly involved in handling waste management because it is one of the points of the greenport port.

Regarding socialization for the implementation of greenport, it was carried out in August 2024. ASDP has begun to model the use of electric motors at the port to shipping companies at the port. This aims to reduce gas emissions and tidy up the zoning of vehicles that can enter the port. The monitoring room has also been prepared by ASDP for stackholders with the same number of CCTVs as the number of docks in Bakauheni Port, namely seven CCTVs. With this monitoring room, it is also expected that the officers from the stackholders do not need to enter the ship to make sure the vehicle has entered or not, just look from the monitoring room. This aims to tidy up the existing system, outsiders who are allowed to enter the ship are only those who have tickets. The obstacles to the socialization of this application are in the alignment and synergy of stackholders and ASDP in the sterilization and zoning program. Stackholders lack socialization to their subordinates or the community. Because in the realm of socialization is the realm of regulators and existing stackholders. This is one example seen in the field of many vehicles that do not pass on the existing gangway. Ship operators at the port do not wear uniforms so it is difficult to distinguish whether they are operators or other unauthorized parties. Sanctions against violations of these sterilization rules do not exist and are not made by the regulator or related stackholders in supporting the greenport program that will be implemented by ASDP. The zoning points for greenport preparation have also been carefully prepared by ASDP, as evidenced by a review of preparations in the field from ASDP.

Bakauheni Port also has weaknesses in the implementation of greenport such as, the absence of experts who know the steps to be taken regarding the implementation of greenport, the absence of air quality meters and the lack of communication between the BPTD class II Palembang as the regulator. This is an internal weakness that can hinder the smooth implementation of greenport at the Bakauheni ferry port.

4. Conclusion

Based on the results of the analysis and discussion, it is known that the Bakauheni Crossing Port has made preparations to make the Bakauheni Crossing Port a greenport. The Bakauheni Crossing Port manager has conducted internal meetings to implement the greenport. Some of the efforts made are conducting meetings to discuss the implementation of the greenport, classifying waste and providing electric transportation used to carry out activities around the Port.

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