

# Analysis of Facilities and Infrastructure to Support the Merak-Bakauheni Crossing at PT. Dharma Lautan Utama Merak Branch

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#### Abstract

Merak Port is a crossing port on Merak Island, Cilegon City, Banten that connects the islands of Java and Sumatra separated by (Sunda Strait / Mount Krakatau). Every day, hundreds of ferry trips serve the flow of passengers and vehicles to and from Sumatra Island through the Port of Bakauheni Lampung. One of the companies providing crossing services is PT. Dharma Lautan Utama Peacock branch. In carrying out the service process, of course, the company needs a comfortable, safe and reliable ship transportation fleet to support all activities that occur at the port. To support port activities such as passenger departure, passenger boarding and descending, loading and berth, adequate port facilities and infrastructure are needed to facilitate all activities that take place at the port. In addition, policies related to management of regulations in the field such as: port separation for types of cars, buses, motorcycles, and freight transportation, as well as purchasing tickets online at least one day before departure, are carried out to maintain port capacity and vehicle volume or volume to capacity (V/C Ratio) can also affect crossing activities. This research uses qualitative descriptive methods with an approach through interviews and observations conducted by asking structured questions to resource persons working at PT. Dharma Lautan Utama Peacock branch. The result of this study is to analyze the facilities and infrastructure owned by the port of Merak and find out how the PT. Dharma Lautan Utama Merak branch is supporting Merak-Bakauheni crossing activities.

Keywords: analysis, port facilitties, port activities.

### A. INTRODUCTION

A port is a place used as a berth for ships, either for the purpose of loading and unloading goods, passengers, or other shipping activities. Ports are usually located on the waterfront, and are equipped with docks, passenger terminals, warehousing facilities, and security and safety facilities to support loading and unloading and shipping activities. The port, as one of the elements in the implementation of shipping, is a place to organize port services, the implementation of government activities and other economic activities, organized in an integrated manner in order to realize the provision of port services according to the level of need (PP Number 69 of 2001).

Sea transportation or ferry transportation is an important part of the national transportation system, especially in archipelagic countries like Indonesia. This mode of sea transportation includes various types of ships, ranging from ferries, fast boats, passenger



ships, freight ships, and others, which are used to connect between islands separated by water.

According to data from the Indonesian Ministry of Transportation, the number of passengers using sea transportation modes in Indonesia reaches more than 200 million people per year, with an average growth of around 5% per year. In addition, sea transportation is also a mainstay in transporting goods, especially for inter-island trade purposes.

Merak Port is one of the connecting facilities between Cilegon City and South Lampung, which serves the flow of passengers and goods originating from the surrounding islands and vice versa. Merak Port is one of the sea transportation facilities that plays an important role in the economic development of the population in Cilegon City. This port is highly utilized in supporting the development of trade in Cilegon. In order to support the function of the ferry port, each port has facilities consisting of basic facilities, functional facilities, and supporting facilities.

However, like other transportation, sea transportation also has its own challenges and risks, such as bad weather, security and safety, and limited infrastructure and supporting facilities. In addition, there are still facilities that need maintenance and repair. This can be seen from the passenger pedestrian bridge to get in and out of the ship (gang way), in addition, related policies.

Based on the background that has been stated, the problems that will be analyzed in this study are as follows:

- 1. How are the Facilities and Infrastructure at Merak Port?
- 2. How does PT Dharma Lautan Utama Merak branch support Merak-Bakauheni crossing activities?

# **B. METHODS**

This research was conducted in February - April 2023 at one of the passenger crossing ports right at Merak Port, Banten province. One of the focal points in this research is related to the management of Merak port facilities and infrastructure as a support for crossing activities at PT Dharma Lautan Utama Merak branch.

This research was conducted using descriptive qualitative research methods with an interview and observation approach conducted by asking several structured questions to sources who work directly at PT Dharma Lautan Utama Merak branch. In addition to directly visiting the facilities and infrastructure supporting the Merak - Bakauheni crossing, it is a further step to analyze the readiness of the company in providing the needs needed to support all activities at the port.

The data used in this research is primary data. Where this primary data is obtained through direct observation and interviews with the parties concerned. The data comes from agencies that have relevance to the research objectives. What includes primary data in this study includes: the process of company operational activities, basic port facilities, port functional facilities and port support facilities.

The data used in this research is qualitative. According to Meleong (2007), qualitative research is scientific research which aims to understand a phenomenon in a natural social context by prioritizing the process of in-depth communication interaction between the researcher and the phenomenon under study. It includes qualitative data in this



study, namely an overview of the object of research, including: analysis of company objects, main port facilities, port functional facilities and port support facilities.

# C. RESULT AND DISCUSSION

## **Overview and Geographical Layout of Merak Port**

Cilegon City is an area with ports, including Merak Port managed by PT ASDP and the cigging gate managed by PT Pelindo. PP number 47 is RTRWN. Cilegon City is designated as a Central Operational Area. Merak Port is located approximately 125 km west of Jakarta, geographically located at 05°.55'.43.5" South latitude and 105°.59'.30.50" East longitude. Merak Ferry Port is located in Pulomerak District, Cilegon City, Banten Province, Indonesia, which is directly adjacent to the Sunda Strait. The port is about 125 km west of the city of Jakarta, geographically located at 05°.55'.43.5" South latitude and 105°.59'.30.50 "East longitude.



Figure 1. Port of Merak

In terms of topography, the topographic conditions of this port are interesting, because it is surrounded by mountains, waves, and hills. Merak Port, with an area of about 15 hectares, is equipped with several main facilities in the form of places I, II, III, IV and V. Bakauheni Ferry Port is a public port that allows crossings between the southern tip of the island of Sumatra and the western tip of the island of Java. Bakauheni Port has a land area of approximately 75 hectares and physical boundaries with Ketapang Regency to the north, to the east the Sunda Strait, to the west the Kalianda area, to the south the Sunda Strait. Because the Merak - Bakauheni crossing plays an important role in the smooth traffic of people and vehicles between the islands of Java and Sumatra, it is necessary to analyze the operational facilities and infrastructure of transportation that crosses the route.

# **Company Profile and Geographical Location**

PT Dharma Lautan Utama Merak branch is a company that offers sea transportation and ferry travel throughout Indonesia. In 2004, the company operated 24 vessels on 18 routes in Indonesian waters. The quality of the fleet is maintained by a maintenance facility in the form of a shipyard. The PT Dharma Lautan Utama Merak branch has offices in several regions, including PT Dharma Lautan Utama Merak - Bakauheni Branch. PT Dharma Lautan Utama Merak Branch is located at ASDP Merak Office Complex, Jl. Merak Port, Merak, Gerem, Kec. Gerogol, Cilegon City, Banten 42438, Indonesia. The PT



Dharma Lautan Utama Merak branch was established in 2008 under the auspices of PT ASDP Indonesia Ferry anchored at Merak port. PT Dharma Lautan Utama Merak branch has its head office at Jl. Kangins #3-5, Ketabang, Genteng, Surabaya, East Java 60272.



Figure 2. Office of PT Dharma Lautan Utama Merak Branch

## **Merak Port Facilities and Infrastructure**

Port facilities and infrastructure are facilities needed to support the loading and unloading of goods at the port. PT Dharma Lautan Utama Merak branch is a company that serves sea transportation and ferry crossings throughout Indonesia. The facilities at Merak Port include landscape facilities and water side facilities, which are one of the supporting factors for PT Dharma Lautan Utama Merak branch in carrying out the process of crossing the Merak - Bakauheni route. Based on the Regulation of the Minister of Marine Affairs and Fisheries Number: PER.08 / MEN / 2012 concerning Fisheries Ports. Port facilities are divided into three (3) types, among others;

a. Basic Facilities

Basic facilities are facilities in the port that are used for mooring and anchoring ships and minimizing natural disturbances and shipping safety. The following is a table of data on the main facilities at Merak port, namely:

NO	FACILITY	DESCRIPTION
A	Port Area	
	Mooring water	Available
	Ship berthing	Available
	Passenger Terminal	Available
	Vehicle parking	Available
В	Harbor Pond	
	Shipping channel	Available
С	DERMAGA	Available
	Unloading dock	Available

# Tabel 1. Merak port main facilities



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	Mooring dock	Available
	Bunkering dock	Available
D	Road	
	Main Road	Available
	Railway access	Available
	Gang way	Available

## Source of table data: Observation Results and Data from PT Dharma Lautan Utama Merak branch

b. Functional Facilities

Functional facilities are facilities that serve to increase the use value of the main facilities, which are also often referred to as superstructure facilities. The data on functional facilities owned, namely:

NO	FASILITAS	KETERANGAN		
1	Shipyard	Available		
2	Fork lift	Available		
3	Water & fuel tanks	Available		
4	Hydrant	Available		
5	CCTV	Available		
6	Lan network	Available		
7	Telephone	Available		
8	Port Agency	Available		

## Tabel 2. Functional facilities of Merak port

Source of table data: Observation Results and Data from PT Dharma Lautan Utama Merak branch

c. Supporting Facilities

Supporting facilities are facilities that function as a complement to the main facilities and functional facilities. The following supporting facilities include, among others:

NO	FACILITY	DESCRIPTION	UNIT
1	Employee mess	Available	1 Unit
2	Guard post	Available	4 Units
<u>3</u>	Workshop	Available	1 Unit
4	Public facilities	Available	4 Units
5	Counter building	Available	1 Floor
6	Terminal building	Available	1 Floor
7	Office building	Available	2 Floors
8	Main toll booth	Available	8 Units

 Tabel 3. Merak Port supporting facilities



# Source of table data: Observation Results and Data from PT Dharma Lautan Utama Merak branch

The available facilities both from the main facilities, functional facilities, and supporting facilities owned by the port of Merak, PT Dharma Lautan Utama Merak branch is greatly assisted in carrying out crossing activities. In addition, the facilities are in good condition and are utilized very effectively. In this case, PT Dharma Lautan Utama Merak branch conducts maintenance activities for all facilities regularly and periodically to maintain customer satisfaction and safety.

## Ship Fleet of PT Dharma Lautan Utama

PT Dharma Lautan Utama Merak branch has several fleets in the form of cargo ships to support crossing activities by utilizing Merak port land facilities. The following fleet belongs to the PT Dharma Lautan Utama Merak branch, among others:

No.	FLEET	VOLUME (GT)
1	KM Musthika Kencana	5150 GT
2	KM Kirana II	6370 GT
3	KM Kirana IX	9168 GT
4	KM Kumala	5874 GT

Table 4. Ship fleet of PT Dharma Lautan Utama

Source of table data: Observation results and data from PT Dharma Lautan Utama Merak branch.

In supporting the crossing activities of the Merak - Bakauheni route, PT Dharma Lautan Utama Merak branch has 4 types of sea fleet transportation with various provisions and specifications.

# c. CONCLUSION

Based on the results of the research and discussion, it can be concluded:

- 1. Facilities and infrastructure contained in the Port of Merak are divided into 3, namely: basic facilities, functional facilities, and supporting facilities. Facilities and infrastructure at Pelabuhan Merak are in good condition and have been fully utilized to support all activities at the port.
- 2. In supporting the activities of the Merak Bakauheni route crossing, PT Dharma Lautan Utama Merak branch has 4 (four) transportation fleets. The transportation fleet is; KM Musthika Kencana (5150 GT), KM Kirana II (6370 GT), KM Kirana IX (9168 GT), KM Kumala (5874 GT).

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