

【Indonesia】

The current situation and future initiatives of Tanjung Priok Port

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1. Introduction

In Indonesia, particularly in the Jakarta area, there has been a significant increase in logistics volume in recent years, driven by robust economic growth. Additionally, as an archipelagic nation, ports are one of the crucial logistics infrastructures for Indonesia, and this trend is particularly evident in ports.

Tanjung Priok Port being the largest port in the country located in Jakarta has also seen a steady increase in cargo volume year by year. The congestion of handling capacity poses a significant impact on the Indonesian economy.

Recently, we had an opportunity from Indonesian port authorities to discuss and observe Tanjung Priok Port. We will now provide a report on the current status of port operations and future initiatives at the port.

In writing this report, we've received cooperation and advice from Mr. Omori, Distinguished Project Research Fellow.

2. Tanjung Priok Port Outline

In Indonesia, port management was traditionally divided into four regions, each region managed by a state-owned port company: PELINDO1 to PELINDO4. However, on October 1, 2021, these 4 companies were merged into a single entity known as "PELINDO" and operate the port to improve business efficiency. As a result, PELINDO became the sole jurisdictioned state-owned enterprise responsible for port operations nationwide, and the Directorate General of Sea Transportation under the Ministry of Transport became responsible for management and regulation of each port.

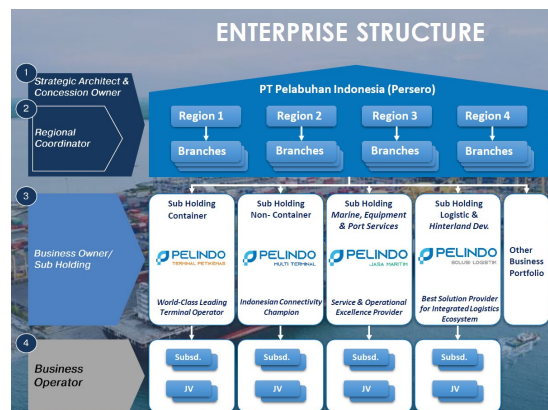


Figure1 : PELINDO Organization Chart

(Source : PELINDO Document)

The business operations of PELINDO are broadly divided into four main pillars:

- ① Container terminal operations, which include services such as cargo handling and transportation at the quayside.
- ② Terminal operations for bulk and non-containerized cargo such as vehicles.
- ③ Infrastructure development including warehouses, sheds, surrounding roads, etc.
- ④ Services for vessels including marina operations, and others.

The PELINDO Group's mission is "To be a world-class integrated leader in the maritime ecosystem", and they are implementing various initiatives aimed at achieving a world-class service standards.

Tanjung Priok Port is the largest port operated by PELINDO in Indonesia, located conveniently within 10km from Jakarta's central part. It handles a significant volume of both overseas and domestic cargos.



Figure2 : Overview map of Tanjung Priok Port
(Source : PELINDO Document)

In the past, Jakarta’s old port (Sunda Kelapa Port), located to the west of the current port, was served as Indonesia’s gateway. However, to accommodate the increased maritime traffic, Tanjung Priok Port was developed during the Dutch colonial era after the opening of the Suez Canal. The port has a total berth length of 17,760 meters with a depth of -16 meters. In 2022, it handled 7.23 million TEUs of container cargo, making it the 25th largest in the world by volume.

After opening, a significant expansion had not been carried out for a long time. However, in response to the modern increase in cargo volume, an emergency rehabilitation project was implemented in 2004 with a loan aid project by JICA. This project focused on widening and deepening the waterways to enhance the efficiency of vessel traffic.

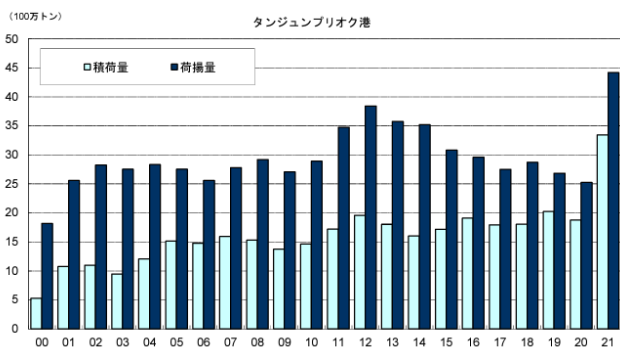


Figure3 : The trend of cargo volume handled at Tanjung Priok Port.
(Source : JBIC)

Tanjung Priok Port handles approximately 50% of the cargo volume in Indonesia, with the main cargo types including containers, bulk cargo, and vehicles. The

port serves as a core infrastructure supporting logistics across neighboring countries, and plans are being considered to expand it by reclaiming offshore areas to accommodate further increases in cargo volume.

In Indonesia, the ownership of port facilities is held by the Ministry of Transport, which has concluded long-term concession contracts with PELINDO for their operations. Additionally, at each terminal, further sub-concession contracts are signed between PELINDO and terminal operating companies such as JICT and NPTC1 (mentioned later). While PELINDO handles repairs of port facilities, construction of cargo sheds, the overall port operations are entrusted to each terminal operating company.

Also, according to foreign investment regulations imposed by the Indonesian government, port operating companies are required to have at least 51% of their capital invested by Indonesian companies. However, as PELINDO is the only major domestic company with experience in port operations, this led to a monopoly in the market.

3. Overview of Major Terminals

【Jakarta International Container Terminal (JICT)】

JICT was established in 1999 through a joint venture between Hutchison Port of Hong Kong and PELINDO. In Indonesia, JICT is involved in the operation of both JICT and Koja terminals. International cargo volume at the port was 4.5 million TEUs in 2022, and JICT and Koja terminals handle 3.6 million TEUs, and approximately 40 vessels dock at these terminals every week.

Railway lines extend to the hinterland of the terminals, enabling transshipment to railway transport, and connecting with Inland Container Depots. However, due to the absence of railway lines extending directly to the hinterland of the terminals, a double handling process occurs where cargo needs to be loaded onto trucks for transport to the railway and then reloaded onto trains. This inefficiency has resulted in limited utilization of railway transport. PELINDO is committed

to improving customs procedures and other measures to facilitate more efficient logistics, aiming to promote the use of railway freight transportation.

Furthermore, JICT has recently been accepting human resource training from universities and other companies, demonstrating a strong commitment to talent development as a terminal operating company. These initiatives are seen more as a corporate social responsibility rather than solely for future talent acquisition.

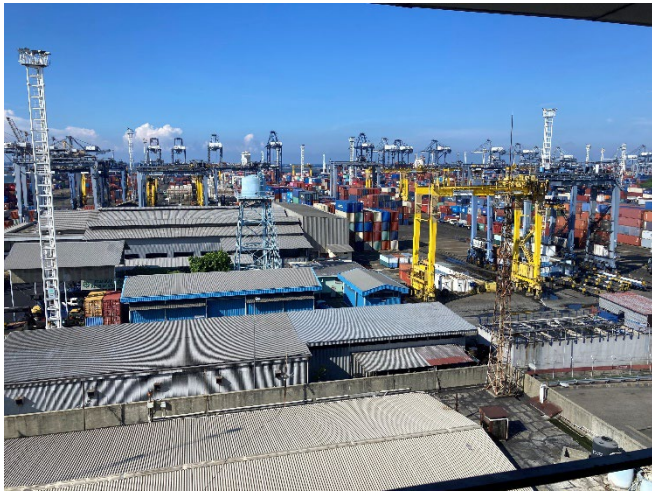


Figure 4 : JICT Container Yard

【New Priok Container Terminal 1 (NPCT1)】

Due to the existing JICT and Koja terminals reaching their capacity limits, land expansion was carried out in the eastern sea area and partial operations began in August 2016, and full operations started in March 2017 with a berth length of 850 meters. The handling capacity is approximately 1.5 million TEUs per year, capable of accommodating 14,000 TEU class container ships.

The principle of NPCT1 is to improve efficiency, safety, and productivity, aiming to become a leading-edge terminal operating company in Indonesia. Various initiatives are undertaken to achieve the goal. For instance, the ECON system has been introduced even though cargo handling capacity may not be particularly tight at this terminal to achieve more stable logistics. This system enables sharing information on trailer gate passage status, congestion prediction, moving containers in advance, to improve the efficiency of cargo handling operations.

PELINDO holds 51% of the shares in NPCT1, while the

remaining 49% is owned by Mitsui & Co., Ltd., Nippon Yusen Kabushiki Kaisha (NYK Line), and PSA (Singapore). Mitsui & Co., Ltd. may not participate in container terminal operations in Japan. However, it is involved in approximately ten ports worldwide, including Lem Chabang Port and Ho Chi Minh Port. The company intends to expand the number in the future.

Also, the aforementioned plan is scheduled for the northern section of this terminal as NPCT2 and NPCT3.

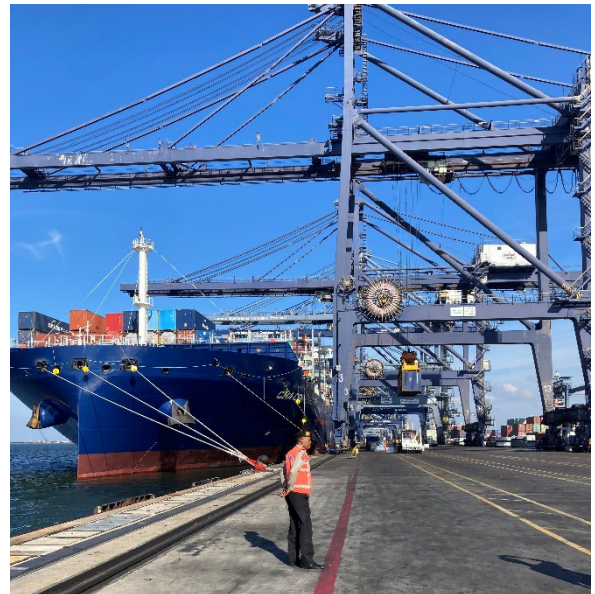


Figure 5 : NPCT1 gantry crane loading and unloading Operation

4. Recent topics and future initiatives

○Decarbonization

A Considering global trends toward carbon neutrality, the Indonesian government has also set a goal to achieve carbon neutrality by 2060. The Ministry of Transport is advancing initiatives to reduce environmental impact, including efforts towards climate change mitigation in the transportation sector. Based on this, PELINDO has formulated the “Sustainability Implementation Policy 2023” and established the Green Port Certification System to promote decarbonization in ports managed by PELINDO. This initiative is to promote efforts at each port by providing budgetary support for realization of environmentally friendly green ports and conducting evaluations based on the level of achievement. Efforts are also focused on greening port areas. PELINDO is

committed to greening the port area, aligning with the national goal set by the Ministry of Environment and Forestry to increase the number of new mangrove forests by 6,000km² by 2060. Another key initiative is providing shore power supply while docking. There is ongoing discussion in the EU about shore power supply to ships should be made compulsory, and there is a possibility that it may also be mandated in Indonesia in the future. Anticipating this, NPCT1 is proceeding with the development of shore power supply facilities. However, it's necessary to have equipment on both the quayside and the ship side. This is currently implemented as a trial operation. Due to the advantage of shorter power supply durations, the focus is initially on accommodating vessels with shorter cargo handling times. On the other hand, for users (shipping companies), not only focusing on the use of electricity through energy conversion but also the method of power generation. Currently, coal-fired power generation is dominant in Java Island, making the transition to cleaner energy sources a challenge for Indonesia as a whole. Electrification is still largely lacking in cargo handling at regional ports, but significant improvements are expected in the future. Additionally, NPCT1 aims to replace trucks used for cargo handling within the port with B35 fuel (35% biodiesel) by 2026.



Figure6 : Shore Power Supply
(Source : PELINDO Document)

○Digitalization

To increase its competitiveness as a container terminal, PELINDO is adopting technologies such as AI

and IoT to unify processes and automate and remotely control operations, aiming to improve the efficiency of procedures and tasks. PELINDO is working towards utilizing Single Truck Identity Documents (STIDs) as a solution to the cost escalation caused by inefficient port operations. This system integrates databases consisting of information about trucks, drivers, and transport companies with port management systems, enabling vehicle access control and paperless operation of container terminals. The utilization of this database facilitates further digitization of the entire port area. These efforts aimed at achieving well organized logistics.

○Other Activities

- In the hinterland of the port, there are numerous industrial estates located in various directions. Among them, the eastern region includes the industrial zone of Bekasi, where many automobile and parts factories are located, resulting in a high volume of related cargo transportation. However, inadequate road infrastructure for access has limited smooth transportation due to congestion and other issues. Therefore, there are plans for the construction of new access roads in the future.
- To achieve more efficient logistics, PELINDO has signed a memorandum of understanding (MOU) with Surabaya Industrial Estate Rungkut (SIER), which operates industrial estates in East Java. Through this agreement, they aim to collaborate on joint marketing of logistics services, container depot services, customs clearance, truck transportation, multimodal transportation that combines multiple modes of transportation, and warehouse operations.
- At NPCT1, reefer plugs are installed, allowing for the import of frozen foods from countries like Thailand, as well as the export of Indonesian-produced foods and agricultural products, which is also part of Indonesia's regional development strategy. However, there is a shortage of trailers with onboard power sources for land transportation within Indonesia, highlighting the need for seamless cold chain infrastructure.

• Although Sunda Kelapa Port is heavily used for domestic shipping and is used by numerous general cargo vessels daily, the facilities are severely deteriorated, and cargo handling is primarily conducted using the vessel's own cranes or manual labor due to the absence of cargo handling machinery, leading to inefficient port operations. Currently, plans are being considered as part of the overall redevelopment of Tanjung Priok Port, including Sunda Kelapa Port. It is expected that more efficient port operations will be achieved in the future.



Figure7 : The condition of the quay and the process of cargo handling.

5. Conclusion

Efforts have been made at Tanjung Priok Port to increase its competitiveness as a port by increasing in cargo handling volume and improving cargo handling efficiency. However, it is also necessary to consider the utilization of neighboring ports like Patimban Port in order to increase the competitiveness of port operations throughout Indonesia. Considering the logistics situation in Indonesia and neighboring countries, it is important to continue monitoring the port management in the country closely.

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