Ex-Ante Evaluation

Southeast Asia Division 1, Southeast Asia and Pacific Department

Japan International Cooperation Agency

1. Basic Information

(1) Country: The Republic of Indonesia

(2) Project Site/Target Area: Patimban, Subang Regency, West Java

(3) Project: Patimban Port Development Project (III)

(4) Loan Agreement: January 10, 2025

2. Background and Necessity of the Project

(1) Current State and Issues of Port Sector Development and the Project's Position in the Republic of Indonesia

The rapid economic growth in recent years in the Republic of Indonesia (hereinafter "Indonesia") has led to an increase in the total volume of cargo within the country, but there are concerns regarding the port congestion and logistics stagnation, mainly due to an overall lack of port capacity.

In particular, the volume of cargo handled in the Jakarta Metropolitan Area has grown significantly. This is due to the fact that the area accounts for about 30% of the nation's GDP, and the accumulation of manufacturing companies and inward foreign investment is concentrated there. The current container handling capacity of 8.63 million TEUs a year at the existing port of Tanjung Priok (hereinafter "existing port"), which processes over 90% of the Jakarta Metropolitan Area's total volume of cargo, is likely to fail to meet the area's container-handling demand for 2025 (forecast at 10.24 million TEUs), especially since the port's existing extension plan is not scheduled to be completed until after 2030.

Another issue is the lack of adequate container storage space within the terminal and backup area space for logistics at the existing port. Furthermore, there is chronic traffic congestion in the area and a need to disperse freight traffic. There are high expectations from Japanese companies for the construction of a new port outside of this area, including many automobile-related companies operating in the industrial park in the eastern part of the Jakarta Metropolitan Area.

Under such circumstances, the Ministry of Transportation of Indonesia conducted a study in 2015 to figure out where to establish the new port, and proposed the Patimban area in Subang Regency, West Java, at the top of the

list of prospective new development sites. Following the issue of a presidential decree on the development of the Patimban Port (hereinafter “the new port”) in May 2016, the Ministry created a master plan for the new port in January 2017. This plan positioned the new port to serve as Indonesia’s “principal port,” functioning as a key trading hub for the country. At the same time, the Government of Indonesia places infrastructure development as a priority item among its national development initiatives to help promote the country’s economic growth in its National Medium-Term Development Plan (RPJMN) for 2020–2024, and the “National Port Master Plan,” revised by the Ministry of Transportation in 2017, also positions the development of the New Port in Patimban as a measure to improve logistics in the industrial zone in West Java.

Thus, the Patimban Port Development Project (hereinafter “the Project”), which aims to improve logistics functions in the metropolitan area through the development of the new port, has been positioned as a high priority project in both the Indonesian Government’s policy and its port infrastructure development plan. After the completion of the Project, the government also plans to expand the port in stages with private investment.

(2) Japan and JICA’s Policy in the Port Sector and the Project’s Position

With respect to the project strategies set forth in the “JICA Global Agenda (June 2022),” the “Transportation” sector has the objective of enhancing the connectivity of transportation infrastructure through the development of logistics hubs such as ports, etc., and the Project is in line with this policy. Japan’s Country Assistance Policy for Indonesia (September 2017) also identifies “assistance for enhancing international competitiveness” as one of its priority areas and specifies assistance to develop high-quality infrastructure in transportation, logistics and other areas with the aim of realizing Indonesia’s economic growth through enhancing the international competitiveness of private companies. The JICA Country Analysis Paper for Indonesia (revised in June 2018) also states that it is important to provide infrastructure development assistance to deal with increasing port and road congestion resulting from the port extension in the metropolitan area, and the Project is also in line with these policies and analysis. The Project also corresponds to maritime cooperation in the Japan-Indonesia Joint Statement on Strengthening Strategic Partnership, published at the Japan-Indonesia summit meeting in January 2017. From the perspective of improving connectivity beyond regional boundaries, the Project is also positioned as Pillar 3, “multi-layered connectivity” under the “Free and

Open Indo-Pacific (FOIP)" initiative.

(3) Other Donors' Activities

The World Bank has provided program loans (Phase 1: US$400 million, approved in November 2016; Phase 2: US$300 million, approved in June 2018) to provide technical assistance for the improvement of port cargo handling efficiency and the improvement of logistics functions. The Asian Development Bank is currently implementing emergency assistance for the 2018 Central Sulawesi earthquake in the form of the development of port facilities at three ports.

3. Project Description

(1) Project Description

(i) Project Objective

The objective of the Project is to strengthen the port logistic capacity of Jakarta Metropolitan Area and improve the total economic activities in the region by constructing international seaport and access road in Subang Regency of West Java Province, thereby contributing to further economic development in the Republic of Indonesia.

(ii) Project Components

a) The Project is divided into Phase 1-1 (early open port sections) and Phase 1-2 (other sections).

Phase1-1 (Completed): Construction of a container terminal (10 hectares) and car terminal (22.4 hectares), breakwater and outer revetment, anchorage/channel dredging, and the construction of access roads (about 8.1 km), extension of existing pier, and construction of a connecting bridge (about 1.0 km).

Phase1-2: Construction of a container terminal (64 hectares) and car terminal (13.7 hectares), and anchorage/channel dredging, etc.

b) Consulting services (detailed design, tender assistance, construction supervision, etc.)

(2) Estimated Project Cost

Total Project cost: JPY 344.47 billion (incl. This Loan: JPY 83.408 billion)

(3) Project Implementation Schedule (Cooperation Period)

Scheduled for November 2017 to July 2029 (total of 141 months). The project completion will be when all of the target port facilities have been fully opened (July 2027).

(4) Project Implementation Structure

1) Borrower: The Government of the Republic of Indonesia

2) Guarantor: None

3) Executing Agency: The Directorate General of Sea Transportation of the Ministry of Transportation (hereinafter “DGST”) will manage the entire project, arranging for port construction work, land acquisition and resettlement, operation and maintenance, etc. The Directorate General of Highways of the Ministry of Public Works will oversee construction work for the access roads under the control of the DGST.

4) Operation and Maintenance System: The operation and maintenance of the port facilities, shipping routes, and access roads to be built through the Project will be performed by the Patimban Port Authority, under the jurisdiction of the Ministry of Transportation. The Port Authorities of other ports have performed maintenance without particular issues, and this expertise will be transferrable to the new port so there are no technical obstacles. It is also confirmed that the Ministry of Transportation will distribute sufficient budget to the Port Authority for port maintenance costs, as with other ports, so there are no financial issues. A private Indonesian company (PT. Pelabuhan Patimban Internasional. Hereinafter “PPI”) has the rights to operate the port, but the car terminal started operation in December 2021 under a Japanese-funded (100%) operating enterprise based on a sub-concession agreement with PPI. PPI is in the process of selecting a sub-concession operator for the container terminal, part of which (Phase 1-1 area) is scheduled to begin operation in 2026 after the installation of cranes and other major cargo handling equipment. The port operator is expected to cover the cost of operation and maintenance of cargo handling equipment for the car and container terminals, and of the dredging of the anchorage within the revetment, etc. The port will also develop in parallel with this customs, immigration control and quarantine implementation system, which will be needed for the port to operate as an international port. It is also planned that the Project’s consultants will create operation and maintenance manuals for the facilities to be built through the Project, so that the Port Authority and port operators can implement facility operation and maintenance in accordance with these manuals.

(5) Cooperation and Sharing of Roles with other Projects and Donors

1) Japan’s Assistance Activities

JICA has dispatched a Port Development Policy Advisor to the Directorate

General of Sea Transportation at Indonesia's Ministry of Transportation since May 2012 to assist in the planning and implementation of the Project. An ODA Loan Agreement was also signed in March 2023 for the "Patimban Access Toll Road Construction Project." A highway will also be completed to connect to this access road, accommodating the increased traffic around the port because of the Project. JICA also provided planning assistance for the development of the backup area as the physical distribution base for the new port through the Expert for Development of Backup Area of Patimban Port between March 2020 and September 2021. In addition, since March 2023, the technical cooperation "Project for Capacity Development on Port Management Organization in Indonesia" is being implemented to support the operation and maintenance of the port and backup area development (until February 2026). These initiatives are aimed at maximizing the functions of the port through support for the development of the entire backup area, assuming the mobilization of private funds and attracting bases for logistics and manufacturing, etc.

2) Other Donors' Assistance Activities

No cooperation with this project.

(6) Environmental and Social Considerations

1) Environmental and Social Considerations

(i) Category: A

(ii) Reason for Categorization:

The project falls into the port and road sector and is likely to have significant adverse impact due to its characteristic under the JICA guidelines for environmental and social considerations (April 2010) (hereinafter "JICA guidelines").

(iii) Environmental Permit:

In February 2017, the environmental impact assessment (EIA) report for the Project was approved by the Ministry of Environment and Forestry with respect to the entirety of the port and road portions of the project. An additional document was created and approved in February 2022 to reflect changes based on the detailed design for Phase 1-2, in accordance with domestic Indonesian law.

(iv) Anti-Pollution Measures:

Among measures to be taken for the port, breakwaters will be built early on in the construction, and a filter will be used to prevent pollution during construction. Waste from ships after the port starts operating will be

processed at the facilities to be installed at the port pursuant to domestic laws and regulations. Dredged soil will be discarded at specified spots in pre-set quantities and every several hours according to domestic laws, coinciding with the above-mentioned anti-water pollution measure to minimize impact. Regarding the access roads, various mitigation measures have been implemented against air pollution during construction, such as the proper maintenance of construction vehicles, speed limits, and water sprinkling, etc. If noise levels exceed legal noise standards in Indonesia during operation, it has been agreed to consider the installing sound-insulation walls.

(v) The Natural Environment:

The target project site does not fall under either a natural preserve such as a national park or a significant nature habitat, and there is expected to be minimal adverse impact on the natural environment. While there is a forest reserve (mangrove forest) situated 2 km to the west of the proposed construction site, any impact on it would likely be minimal because polluted water from the construction site will not reach the forest.

(vi) The Social Environment:

In the Project, the construction of a backup area and access roads involved the acquisition of land blocks totaling 356.23 hectares and 15.79 hectares, as well as the involuntary resettlement of 20 and 8 households, respectively. Moreover, the construction of port facilities will likely impact local fishery operations. To take care of the above, the acquisition of land, and provision of compensation and livelihood restoration programs have been implemented in accordance with a Land Acquisition and Resettlement Action Plan (LARAP), created according to Indonesia's domestic procedures and JICA guidelines (0.8 hectares of private land of the above 356.23 hectares has not been acquired, and some public land is still in the process of being transferred). Affected residents have expressed no particular opposition to the project. Also, in terms of livelihood restoration support, actions are being taken such as revising the program content to properly reflect the opinions of residents.

(vii) Other/Monitoring

In the Project, under the supervision of the executing agencies, the construction work contractors have been monitoring anti-pollution, road traffic safety, and other measures during construction, and it is planned

that the Port Authority and private operators will monitor anti-pollution measures after the port starts operating. The executing agencies have also been monitoring land acquisition and livelihood restoration aid.

(7) Cross-cutting Issues

As the Project involves large-scale construction sites where a large number of construction workers are concentrated, various labor hygiene and safety measures, including activities for prevention of HIV/AIDS infection among workers, are implemented.

(8) Gender Category: GI (Gender mainstreaming needs assessment and analysis)

<Activity/Reason for Categorization>

Although gender mainstreaming needs have been investigated and confirmed in the Project, no specific effort has been deployed that contributes to gender equality and women empowerment.

(9) Other Important Issues

As the project site has a thick sedimentation of clay soil which is extremely soft and impermeable, the government of Indonesia has requested the use of Japanese construction techniques for quay wall-building, land reclamation and ground improvement, and other technologies applicable to super-soft grounds, and a loan for this is planned to be provided under Special Terms for Economic Partnerships (STEP).

4. Target Outcomes

(1) Quantitative Effects

Outcomes (Operation and Effect Indicators)

Indicator	Baseline (Actual Record in 2016)	Target (2029) [2 years after completion]
Annual container cargo throughput (TEUs/year)	0	1,434,000
Annual completed vehicle throughput (units/year)	0	522,000

(2) Qualitative Effects

Improvement in the investment environment of the Jakarta Metropolitan Area, including the area's logistics situation, promotion of the economic development of the Jakarta Metropolitan Area, and Indonesia's sustainable

economic growth.

(3) Internal Rate of Return

Based on the following assumptions, the Project's economic internal rate of return (EIRR) is set at 17.54% and its financial internal rate of return (FIRR) at 4.48%.

[EIRR]

Costs: Project costs, operation and maintenance costs, and renewal investment costs (all excluding tax)

Benefits: Reduction of cost of other means of transportation and avoidance of freight value-related opportunity loss arising from cargo backlog

Project life: 40 years

[FIRR]

Costs: Project costs, operation and maintenance costs, and renewal investment costs

Benefits: Revenues from port usage fees

Project life: 40 years

5. Preconditions/External Factors

(1) Preconditions

Development of the new port is expected to result in increasing traffic of large vehicles, so there is a need for an access highway to be constructed to further realize the benefits of the Project. "Patimban Access Toll Road Construction Project" began in November 2023.

(2) External Factors

None in particular.

6. Lessons Learned from Past Projects and Application to the Project

The ex-post evaluation of the Batangas Port Development Project (evaluated in 1999) for the Republic of the Philippines noted that the expected shift in cargo handling from the existing ports to the new port had not occurred due to the lack of competitiveness of the latter in terms of the quality of facilities and port services in comparison to the former, as well as a lack of interest in the latter from companies moving into the industrial park and other transportation and shipping companies, resulting in low utilization rates for the new port. The lesson learned from this case is that when a new port does not have any special advantages, it is important for related administrative authorities to adopt a policy to stimulate

use of the port by giving it preferential treatment and considering the medium- to long-term outlook on the industrial structure of the backup area. In applying these lessons, the Project plans to stimulate utilization of the new port through seminars provided by the executing agency to port users in cooperation with the port operator, and other initiatives, in addition to providing planning assistance, etc. for backup area development through “Expert for Development of Backup Area of the Patimban Port” and “Project for Capacity Development on Port Management Organization in Indonesia”. Furthermore, the ex-post evaluation of the Dumai Port Development Project (II), in the Indonesia, highlighted the lesson of the importance of developing the new port in an integrated manner with its access roads. The evaluation pointed out that in the Dumai Port Development Project, officials did not plan access roads, causing the operator to run the port amid adverse road conditions even after the port opened, causing the project to have a limited impact on improving logistics. Based on this lesson learned, the Project has confirmed with the Indonesian government the importance of developing access roads from the port site to the existing highway and of improving the paving of the existing highway to further realize the effects of the new port. The former access road has already been built as part of the Project, and the “Patimban Access Toll Road Construction Project” is currently working on the extension from the existing national highway to the existing expressway. This review has also confirmed that the latter will be implemented by the government of Indonesia in accordance with its Annual National Highway Development Plan.

7. Evaluation Results

The Project is highly prioritized in the Indonesian Government’s development agenda and policy and is in line with the policies and analysis of Japan and JICA, it aims to improve logistics functions in the metropolitan area through development of the New Port, and is considered to contribute to efforts toward Sustainable Development Goal (SDG) 8 (promote sustained, inclusive and sustainable economic growth) and SDG 9 (build resilient infrastructure). As such, it is highly significant to assist in the implementation of the Project.

8. Plan for Future Evaluation

(1) Indicators to Be Used for Future Evaluation

As shown in 4.

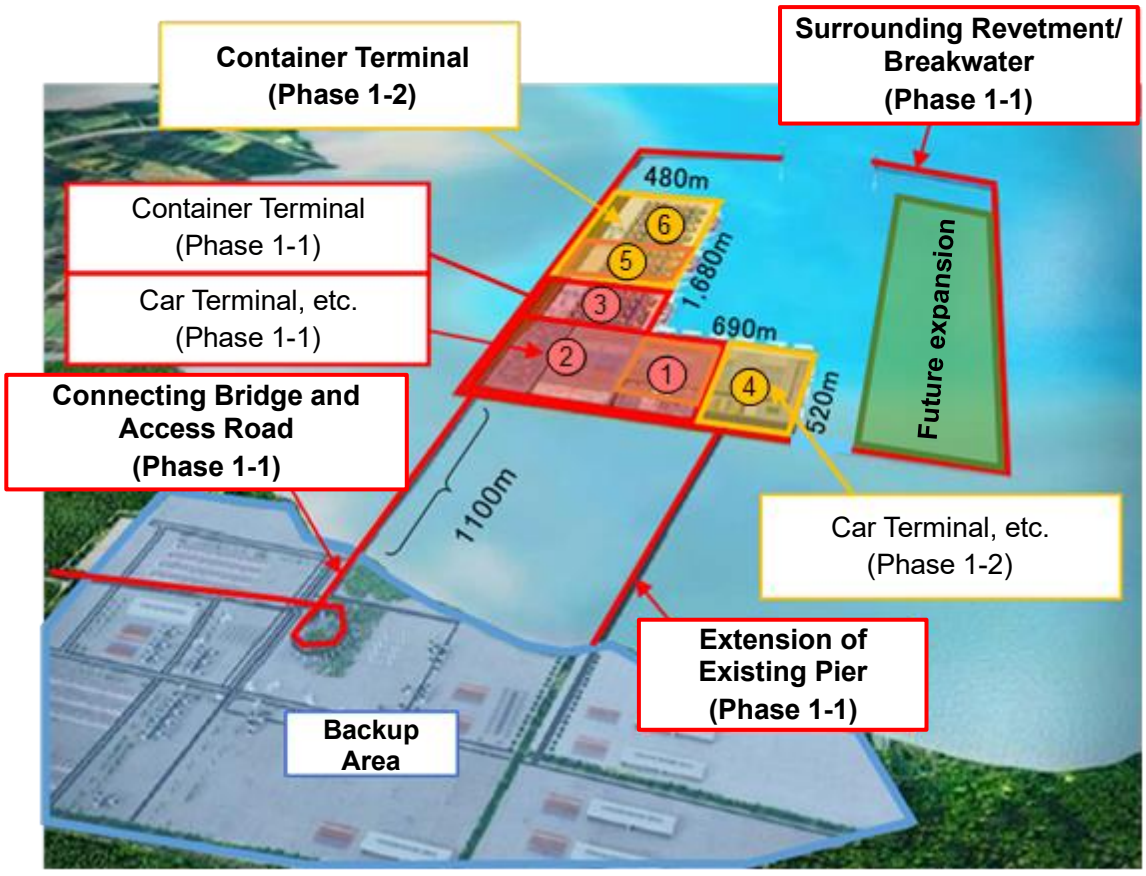
(2) Timing of the Next Evaluation

Two years after project completion (Ex-post Evaluation)

END

Attachment: Map of the Patimban Port Development Project (III)

Source: Google Map



Source: Created based on “Final report for detail design study of phase 1-1 of new port development project in eastern metropolitan area in the Republic of Indonesia. -”

*① through ③ in the figure have already been constructed in Phase 1-1, ④

and ⑤ are currently under construction in Phase 1-2, and ⑥ is scheduled for construction.