

Ex-Ante Evaluation**1. Basic Information**

Country: The Republic of Indonesia

Project: Patimban Port Development Project (II)

Loan Agreement: May 20, 2022

Loan Amount: 70,195 million yen

Borrower: The Government of the Republic of Indonesia

2. Background and Necessity of the Project

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

The rapid economic growth in recent years in the Republic of Indonesia (hereinafter referred to as "Indonesia") has led to an increase in the total volume of cargo. Given this situation, there are concerns regarding the country's port congestion and logistic stagnation, with a major factor being Indonesia's insufficient overall 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 accumulation of manufacturing companies and inward foreign investment is concentrated there. As the current container handling capacity of the Tanjung Priok Port (8.63 million TEUs a year; hereinafter referred to as "the 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), construction of a new port is required, especially since the port's existing extension plan is not scheduled to be completed until after 2030. Furthermore, given the area's road traffic congestion, it is a pressing priority to construct a new port in the outskirts of the city, thus expediting cargo transportation and dispersing cargo traffic in the metropolitan area. Another problem is that the Existing Port does not provide adequate space for container depot and logistics purposes in the backup area. That is why construction of a new port with a spacious backup area that can offer sufficient depot space is highly anticipated among Japanese companies, 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 to figure out where to establish the new port in 2015, 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 referred to as "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 location in 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.

In this way, the Patimban Port Development Project (hereinafter referred to as “the Project”), which aims to improve logistics functions in the metropolitan area through the development of the New Port, receives high priority in both the Indonesian Government’s policy and its port infrastructure development plan. After completion of the Project, the government also plans to expand the port in stages by private investment.

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

Japan’s Country Assistance Policy for Indonesia (September 2017) identifies “assistance for enhancing international competitiveness” as one of its priority areas and states that Japan will extend assistance to develop high-quality infrastructure in transportation, logistics and other areas with the aim of realizing Indonesia’s economic growth through enhancing 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. The Project meets the requirements of the above policy and analysis. In addition, the Project 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 also contributes to the pursuit of economic prosperity in the “Free and Open Indo-Pacific (FOIP).”

At the same time, the Project—which is highly prioritized in the Indonesian Government’s development agenda and policy, meets the policies of Japan and JICA, and contributes to sustainable economic growth and industrialization through enhancing port handling capacity in the metropolitan area to improve logistics functions—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).

(3) Other Donors’ Activities

The World Bank has provided program loans to streamline port cargo handling and improve logistics functions as follows: USD400 million (Phase I), approved in November 2016, and USD300 million (Phase II), approved in June 2018. In addition, it is now planning the Eastern Indonesia Port-Led Development Project (USD187 million), involving ten ports in Maluku, East Nusa Tenggara, Papua, and West Papua Provinces. The Asian Development Bank has been implementing an emergency assistance project for the 2018 earthquake in Central Sulawesi to finance the reconstruction and enhancement of three damaged ports. Besides this, it is now planning PPP projects to offer development assistance for Anggrek Port (Gorontalo

Province) and Baubau Port (Southeast Sulawesi Province).

3. Project Description

(1) 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.

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

(3) Project Components

- 1) Process-wise, the Project is divided into Phase 1-1 (early open port sections) and Phase 1-2 (sections other than the early open port sections) as follows:

Phase 1-1: Construction of a container terminal (10 hectares) and car terminal (22.4 hectares), breakwater, anchorage/channel dredging, and construction of access roads (about 8.1 km) and a bridge (about 1 km)

Phase 1-2: Construction of a container terminal (64 hectares) and car terminal (13.7 hectares), and anchorage/channel dredging

- 2) Consulting services (detailed design, tender assistance, work supervision, etc.)

* Regarding the detailed design and tender assistance for contractor selection for the port sections to be opened ahead of the other sections (a 32.4-hectare port block, a bridge and access roads), JICA has already provided these services in a technical cooperation program. Therefore, the above-mentioned consulting services will target the detailed design and tender assistance for the sections other than the early open port sections, work supervision and operator selection assistance for the entire Project, etc.

(4) Estimated Project Cost (Loan Amount)

260,232 million yen (including a yen loan amount on this occasion of 70,195 million yen)

(5) Schedule

From November 2017 to December 2028 (134 months in total). The Project will be deemed as completed on the date on which the target port facilities are put into full service (December 2026).

(6) 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 referred to as “the DGST”) will manage the entire project, arranging for port construction work, land acquisition and resettlement, operation and maintenance (O&M), etc. The Directorate General of Highways of the Ministry of Public Works and Housing will oversee construction work for the access roads under the control of the DGST.

4) Operation and Maintenance System: The Port Authority for the New Port, a body under the Ministry of Transportation, will maintain and manage the port facilities (excluding the car and container terminals) and access roads to be built through the Project. The port authorities of the nation's existing main commercial ports maintain and manage their facilities without any particular problems, and their relevant expertise will be transferred to the new Port Authority, so there will be no obstacles in technical terms. The Port Authority will not face any financial challenges either because, like other port authorities, it will be allocated sufficient O&M funds from national budget appropriations to the Ministry of Transportation. The car terminals has been operated by the port operator which is owned by a Japanese private enterprise under sub-concession agreement with PT.Pelabuhan Patimban Internasional since December 2021. While the container terminals are being operated by a state-owned port operator (PELINDO III) on an interim basis and it is planned to be jointly operated by Japanese and Indonesian companies. It is also planned that the Project's consultants will create O&M manuals for the facilities to be built through the Project, so that the Port Authority and port operators can implement O&M for the facilities in accordance with the manuals.

(7) Cooperation and Sharing of Roles with Other Donors

1) Japan's Assistance Activities

JICA dispatched a Port Development Policy Advisor to the Directorate General of Sea Transportation, Ministry of Transportation of Indonesia, in May 2012 to assist in the planning and implementation 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, a Technical Cooperation Project "Project for Capacity Development on Port Management Organization in Indonesia" is planned to commence from October 2022.

2) Other Donors' Assistance Activities

None in particular.

(8) Environmental and Social Considerations/Poverty Reduction/Social Development

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 referred to as "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 that was created

to reflect changes based on the detailed design is expected to be approved by May 2022.

(iv) Anti-Pollution Measures:

Among measures to be taken for the port, water pollution occurring during the work process will be mitigated by using a filter designed to prevent pollutants from spreading and by building an embankment early on in the construction. Water emissions and 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, such as using equipment compliant with standards to deal with air pollution arising during the construction and prohibiting unnecessary engine idling, will be taken. To address noise occurring after the port begins operating, mitigation measures such as installing sound-insulation walls will be taken.

(v) The Natural Environment:

The planned port construction site does not fall under either a natural preserve such as a national park or a significant nature habitat. Although a forest reserve (a mangrove forest) borders the site to the west, any impact on it would likely be minimal because polluted water from the construction work will not reach the forest.

(vi) The Social Environment:

In the Project, the construction of a backup area and access roads will involve the acquisition of land blocks totaling 356.23 hectares and 15.79 hectares, as well as the involuntary resettlement of 75 and 21 households, respectively. Moreover, the construction of port facilities will probably impact local fishery operations. To take care of the above, acquisition of land, and provision of compensation and livelihood restoration programs are being implemented in accordance with a Land Acquisition and Resettlement Action Plan (LARAP), created according to Indonesia's domestic procedures and JICA guidelines. Although the construction of access roads (Phase I of the ODA loan project) has caused damage to houses along the roads, necessary repair work has already been completed. Besides this, all necessary actions have been taken as needed, for example revising the livelihood restoration programs 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. In addition, it is important to give due consideration to the

involvement of the socially vulnerable people (including the poor, the elderly, female households, and people with disabilities) in public consultation with residents, surveys of their opinions, and conditions of their relocation sites (to prevent the relocation from making their social participation more difficult).

2) 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. Besides this, anti-COVID-19 measures, such as daily infection prevention efforts of contractors, and establishment of a COVID-19 antivirals taskforce made up of executing agencies, contractors, consultants and other members, are also being implemented.

3) 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 deposits which are extremely soft and impermeable, it is planned that Japanese quay-building, landfilling, soil stabilization, and other technologies applicable to super-soft grounds will be applied.

4. Target Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	Baseline (Recorded in 2016)	Target (2028) [2 years after completion]
Annual container cargo throughput (TEUs/year)	-	800,000
Annual CBU cargo throughput (units/year)	-	360,000

(Note 1) The targets are based on the results of demand forecast for Patimban Port obtained by the Preparatory Survey on the Patimban Port Development Project. It is planned that the executing agencies will revise the existing predicted demand values and operation and effect indicators by around the end of 2022, by reflecting the actual port operations by the port operators, influence of the spread of COVID-19, and the implementation schedule of the express access road project.

(Note 2) The other three indicators set for Phase I of the ODA loan project, “productivity (boxes/ships/hour),” “truck turnaround time (hours)” and “container dwell time (days),” are removed as indicators for the targets for the Project as they can vary

depending on the operating performance of the port operators.

(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 19.13% and its financial internal rate of return (FIRR) at 3.83%.

[EIRR]

Costs: Project costs (excluding tax), O&M expenses (excluding tax), and renewal investment costs (excluding tax)

Benefits: Reduction of costs for using other means (for example, the Existing Port) and avoidance of freight value-related opportunity loss arising from container dwell

Project life: 40 years

[FIRR]

Costs: Project costs, O&M expenses and renewal investment costs

Benefits: Revenues from port use fees

Project life: 40 years

5. Preconditions/External Factors
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(1) Preconditions

Development of the New Port is expected to result in increasing traffic of large vehicles. Towards maximization of the effects of the Project, the Indonesian side is planned to work to eliminate traffic bottlenecks at the existing national road (through pavement improvement, etc.) and develop an express access road.

(2) External Factors

None in particular.

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

(1) Lessons Learned from Past Projects

The ex-post evaluation of the Batangas Port Development Project, a Japanese ODA loan project for the Republic of the Philippines, points out that the shift expected in cargo-handling from the existing port to the new port has not occurred due to the latter's weak competitiveness in terms of the quality of facilities and port services compared to the former, as well as inadequate attention to the latter among companies operating in the industrial park, freight forwarding companies and marine transportation companies, and the utilization rate of the new port remains low. 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.

The ex-post evaluation of the Dumai Port Development Project (II), a Japanese ODA loan

project for Indonesia, highlights a lesson showing the importance of developing the port itself and its access roads together. The evaluation pointed out that: for 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; and the project thus had the effect of improving logistics to only a limited degree.

(2) Lessons Applied to the Project

Applying these lessons, the Project plans to stimulate utilization of the New Port through seminars to be provided by the executing agencies to port users in cooperation with the port operators and other initiatives, in addition to providing planning assistance, etc. for backup area development through the above Expert for Development of Backup Area of the Patimban Port. It is planned that the New Port will be jointly operated by Japanese and Indonesian private operators, which is expected to guarantee the quality of port services.

Furthermore, the Project and the Indonesian Government have already established consensus on the importance of improving access to and from the New Port to maximize its effects. While the Project will build access roads connecting the port site to an existing national road, the Indonesian Government will improve the existing national road, for example through pavement improvement, and build a new north-south expressway leading from an existing east-west expressway to the access roads.

7. Evaluation Results

The Project fits the Indonesian Government's development agenda and policy as well as the policies 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)