

Ex-Ante Evaluation Report
Southeast Asia Division 1, Southeast Asia and Pacific Department
Japan International Cooperation Agency

1. Basic Information

- (1) Country: Republic of Indonesia
 - (2) Project Site/Target Area: Subang Regency, West Java Province
 - (3) Project: Patimban Access Toll Road Construction Project
- Loan Agreement: March 31, 2023

2. Background and Necessity of the Project

- (1) The current status and issues of road and port sector development in the country and the positioning of the project

The Government of the Republic of Indonesia (hereinafter referred to as "Indonesia") has placed infrastructure development to support the promotion of economic growth as a priority for national development in the National Medium-Term Development Plan (2020-2024), while President Joko's "vision of a maritime nation" places emphasis on strengthening connectivity and enhancing transport infrastructure through the development of ports. The volume of cargo handling at Indonesia's ports has rapidly increased as a result of rapid economic growth in recent years. The existing Tanjung Priok Port (hereafter referred to as the "current port", the expansion of which was supported by an ODA loan signed in 2004), which handles more than 90% of the metropolitan area's cargo, with a container handling capacity of 8.63 million TEU/year, will be unable to meet container demand in 2025 (10.24 million TEU/year), and further expansion of the current port is expected to take place after 2030 (JICA Preparatory Survey on Patimban Port Toll Road Project 2017). As the roads in the metropolitan area suffer from chronic traffic congestion and poor access to the current port poses a barrier to smooth logistics, many companies in the eastern industrial zone of the metropolitan area, where many manufacturing sites of Japanese companies are based, are expecting the development of a new port that enables access to avoid chronic traffic congestion, thereby diversifying the volume of cargo traffic flow in the metropolitan area.

Given this background, in May 2016, Indonesia revised its National Port Master Plan (including the formulation of a development plan concerning Patimban Port) following the enactment of a Presidential Decree on the development of Patimban Port, which will become the new port. Under the Master Plan, Patimban Port is positioned as a "main port" that functions as the country's main trade hub, and is currently under construction under the ODA

loan "Patimban Port Development Project" (Phase I: Loan Agreement (L/A) signed in November 2017 with an agreed amount of 118,906 million yen; Phase II: L/A signed in May 2022 with an agreed amount of 70,195 million yen).

Patimban Port is supposed to be fully operational in 2025, after which the traffic volume of trucks and other loaded vehicles is projected to increase substantially (by 2027, the traffic volume of trucks and other vehicles is estimated to increase by approximately 5,600 vehicles/day compared to the current level). Existing access to Patimban Port from industrial zones in the eastern part of the metropolitan area, etc., via the Cikampek-Palimanan Toll Road (hereinafter referred to as "Cipali Toll Road"), which requires traffic to exit the expressway and pass through National Highway 1, currently still exceeds 80% of the planned traffic volume, and it will therefore be difficult to meet the traffic demand after the full opening of Patimban Port. In view of the above, the construction of an access toll road connecting to the Cipali Toll Road is urgently needed to cope with the increase in cargo traffic associated with the new Patimban Port, which is a National Priority Development Project in Indonesia.

Feasibility study (F/S) of this access toll road (total approx. 37 km in length) was conducted by an Indonesian state-owned enterprise in 2017 based on self-finance with a view to implementing it as a PPP project; in 2019, JICA conducted a PPP F/S (Preparatory Survey for the Patimban Port Toll Road Project [PPP Infrastructure Project] in Republic of Indonesia) in response to a proposal from a Japanese company that was interested in the same PPP project. In 2021, based on the outcomes of these preparatory surveys, the Ministry of Public Works and Housing decided on a plan to implement part of the construction section (approximately 23 km) as a public project from the perspective of improving profitability, and to construct the remaining approximately 14 km and operate the entire section as a PPP project.

The Patimban Access Toll Road Construction Project (hereinafter referred to as the "Project") is to develop approximately 23 km of the public works portion of the toll road linking Patimban Port and the existing Cipali Toll Road, in accordance with the said decision, using an ODA loan. The project is positioned as a national strategic project ("PSN") as stipulated in Presidential Decree No. 3/2016.

(2) Japan's and JICA's cooperation policy, etc. for the road/port sector and the positioning of the Project

"Country Assistance Policy for the Republic of Indonesia" (September 2017) defines "Assistance for enhancing international competitiveness" as a priority area of focus and sets out support for the development of quality infrastructure, such as transportation and logistics, in order to achieve economic growth

through improving the international competitiveness of private sector enterprises. In addition, the JICA Country Analysis Paper for the Republic of Indonesia (revised in June 2018) stated that it is important to provide support for infrastructure development to reduce the congestion of ports and roads in the metropolitan area, and the Project is consistent with these. Furthermore, the Project will promote the realization of a "Free and Open Indo-Pacific", which was reaffirmed at the Japan-Indonesia Summit Meeting in November 2022, from the perspective of improving connectivity.

The Project also contributes to strengthening inter-regional connectivity and stimulating the economy of the region through the improvement of transport infrastructure with high-quality infrastructure and will contribute to SDG Goals 8 (Promote sustained, inclusive and sustainable economic growth) and 9 (Build resilient infrastructure).

(3) Responses of other donor agencies

The Export-Import Bank of China has been assisting toll road projects in Indonesia (Balikpapan-Samarinda Section V Project (USD 53 million), Cileunyi-Dawuan-Sumedang Phase II (USD 215 million), Manado-Bitung CSU-01 Project (USD 78 million) and Solo-Kertosono Phase I Project (USD 199 million)). The World Bank has granted a program loan (USD 400 million, approved in November 2016) to improve port cargo handling efficiency and logistics functions, and is currently in the process of formulating a case for an Eastern Region Port Development Project (USD 187 million) to 10 ports in Maluku, East Nusa Tenggara, Papua and West Papua provinces. The Asian Development Bank is implementing port facility improvements at the three ports as emergency assistance in response to the 2018 earthquake in the province of Central Sulawesi.

3. Project Description

(1) Project Overview

① Project Objective

The objective of the Project is to improve the transportation network in response to the estimated growth of traffic demand resulting from the Patimban Port development by constructing a new access road between Patimban Port and Cikampek – Palimanan toll road, and thereby contribute to enhancing the interregional connectivity and vitalizing the regional economy on Java.

Project Components

- a) Construction of new expressways (two lanes on each side, total of approx. 23 km including overpasses, small bridges and interchanges)
- b) Consulting services (construction supervision, implementation of

safety measures associated with the construction, environmental and social considerations, etc.)

② Beneficiaries of the Project (target groups)

Direct beneficiaries: Users of this access toll road

Final beneficiaries: Residents of Subang Regency, West Java Province
(Population of Subang Regency: approx. 1.38 million people (2020))

(2) Estimated Project Cost

60,049 million yen (of which the amount covered by ODA loans: 42,120 million yen)

(3) Schedule (period of cooperation)

Scheduled from March 2023 to February 2025 (24 months in total). The project shall be deemed complete when construction is completed (February 2025).

(4) Project Implementation Structure

1) Borrower: The Republic of Indonesia

2) Guarantor: None

3) Executing Agency: Directorate General of Highways, Ministry of Public Works and Housing (“DGH”)

4) Operation and Maintenance System: the PPP operator is responsible for the operation and maintenance of all sections, including the loaned sections.

(5) Collaboration and Sharing of Roles with Other Donors

Following the section covered by the Project, a separate approximately 14 km expressway is planned to be built under the PPP project, and the PPP project contract was signed in January 2023. The Indonesian Government is currently targeting completion of the PPP project section in December 2024.

(6) Environmental and Social Considerations

① Category: A

② Reason for Categorization: the Project falls under the road sector and sensitive characteristics listed in the “Japan International Cooperation Agency Guidelines for Environmental and Social Considerations” (promulgated in January 2022) (hereinafter referred to as “JICA Guidelines for Environmental and Social Considerations”).

③ Environmental Permits and Approvals: The Environmental Impact Assessment (EIA) report for the Project was prepared in February 2022 and approved by the Subang Regency Environmental Agency in May of the same year.

④ Pollution Control: During the construction work, measures such as

watering, leachate treatment, and work time restrictions will be taken to ensure that air quality, water quality, and noise meet the national emission and environmental standards, while measures such as planting trees and installing sound barriers will be taken to minimize the effects of air quality and noise after the start of the project.

- ⑤ Natural Environmental Aspects: The target area of the Project does not fall in or around sensitive areas such as national parks, etc., and undesirable impacts on the natural environment are assumed to be minimal.
- ⑥ Socio-Environmental Aspects: The Project involves the acquisition of approximately 186 ha of land and the involuntary resettlement of 273 households (865 people) (The entire section, including the PPP section, will cover approximately 340 ha and 484 households (1,553 people), respectively), which will be carried out based on a resettlement plan (LARAP) prepared in accordance with the domestic procedures and the JICA Guidelines for Environmental and Social Considerations. In the community consultation on the resettlement, requests for adequate compensation, prior disclosure of information, etc. were identified, but no specific objections to the Project have been confirmed by the affected residents at present.
- ⑦ Other/Monitoring: The contractor is responsible for monitoring air quality, water quality, noise and vibration during construction, and DGH is responsible for monitoring site acquisition, resettlement and livelihood restoration support. Monitoring of air quality, water quality, noise, planting and livelihood restoration support implementation during the in-service period will be carried out by the PPP operator under the responsibility of the DGH.

(7) Cross-Sectional Issues

① Climate Change Mitigation Project

Through the Project, the average speed of vehicles on the road will be increased, thus the Project will contribute to climate change mitigation. The amount of greenhouse gas emission reductions is 233,590 tCO₂/year in 2045. In addition, as measures will be taken against heavy rainfall and flooding, which are expected to increase due to climate change in the future, the Project will contribute to climate change adaptation.

② Measures against AIDS/HIV and other infectious diseases

Since the construction site of the Project involves a large concentration of a significant number of construction workers, labor health and safety

activities will be implemented for the workers, including HIV/AIDS prevention activities. In addition, measures to prevent COVID-19 infection at the construction site will be included in the technical specifications, taking into account the measures against COVID-19 infection required by local laws and regulations.

(8) Gender Category: GI (S) gender informed (Significant)

<Details of activities/reasons for classification> Given that the Project also has to consider the loss of livelihoods of female-headed households and women due to the acquisition of land, a gender specialist is to be assigned as part of the consulting service under the livelihood restoration program and to provide training for rural women in production activities, sewing training to acquire qualifications, training in rice, cassava, and banana chip processing, and training in craft industries, etc. with content that women can easily access for jobs. Other planned measures include the installation of facilities exclusively for women, such as nursing rooms and rest rooms at construction sites and at toll stations and other facilities to be set up, as well as the promotion of women's employment at construction sites and the proactive appointment of female staff in the implementing agencies and operation and maintenance management, to ensure convenience from a gender perspective and promote women's participation in the Project implementation phases.

(9) Other Important Issues

None in particular.

4. Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	Baseline (Actual value in 2021)	Target (2027) [2 years after project completion]
Traffic Volume	N.A.	Passenger cars, buses and light trucks: 1,489 cars/day Trucks (2 axes): 1,948 cars/day Trucks (3 axes): 1,450 cars/day Trucks (4 axes): 598 cars/day Trucks (5 axes): 1,121 cars/day (From IC Pasir Bungar to IC Pusaka Negara)

Travel time	Passenger cars: 54.7 mins/car Bus: 59.3 mins/car Light truck: 54.7 mins/car Trucks: 60.8 mins/car (Approx. 51 km from IC Cikopo via National Route 1 to IC Pusaka Negara)	Passenger cars: 33.6 mins/car Buses: 35.3 mins/car Light trucks: 33.6 mins/car Trucks: 37 mins/car (Approx. 53 km from IC Cikopo to IC Pusaka Negara via approx. 16 km of the Cipali Toll Road and approx. 37 km of the PPP section and the Project section)
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*The planned construction sites of IC Pasir Bungar and IC Pusaka Negara are illustrated in the attached map.

(2) Qualitative Effects

Improving the investment environment, including logistics, in the Jakarta metropolitan area, strengthening inter-regional connectivity, and stimulating the region's economy.

(3) Internal Rate of Return

According to the following preconditions, the Project's Economic Internal Rate of Return (EIRR) will be 25.1%. The Financial Internal Rate of Return (FIRR) will be 6.7%.

(EIRR)

Cost: Project costs (excluding tax, including PPP sections and yen loan sections), operation/maintenance costs

Benefit: Reductions of trip time and costs, etc.

Project Life: 30 years

(FIRR)

Cost: Project costs (including PPP sections and ODA loan sections), operation/maintenance costs

Benefit: Revenue from toll road fees

Project Life: 30 years

5. Preconditions and External Factors

(1) Preconditions

Completion of land acquisition on-schedule, completion of construction and full-scale operation of the PPP Project section and Patimban Port, etc.

(2) External Factors

No significant changes in policy after the presidential election in February 2024, no large-scale natural disasters, etc.

6. Lessons Learned from Past Projects

During the Subic Bay Port Development Project, an ODA loan to the

Philippines, a new container terminal was built and existing port facilities were renovated to ease congestion at the Port of Manila, but cargo volumes remained stagnant for a prolonged period due to delays in the construction of expressways and other factors. The delay in the construction of the expressway can be attributed to the fact that the two agencies with different responsibilities for the promotion of the use of Subic Bay Port and the port development were not in dialogue on the confirmation of the division of roles and mutual cooperation on the development plan.

This Project has a close relationship with the Patimban Port Development Project, which is supported by an ODA loan. However, as the implementing agencies in charge of the Patimban Port Development Project and this Project are not the same, mutual cooperation between the two implementing agencies and project stakeholders will be ensured through regular joint monitoring meetings between the parties concerned.

7. Evaluation Results

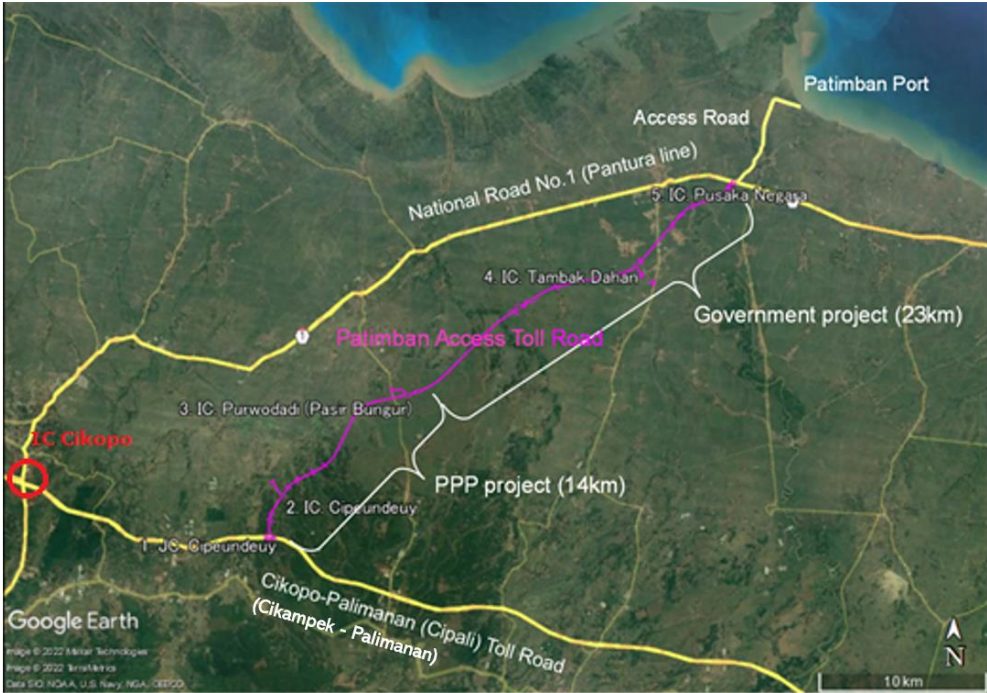
The Project has a high priority in the development issues and policies of the government of the country and is consistent with the cooperation policy of Japan and JICA, contributing to strengthening inter-regional connectivity and stimulating the economy of the region by improving transport infrastructure through the development of high-quality infrastructure, thus contributing to the SDG Goals 8 (Promote sustained, inclusive and sustainable economic growth) and 9 (Build resilient infrastructure), so there is a high degree of necessity to support the implementation of the Project.

8. Plan for Future Evaluation

- (1) Indicators to be Used: As indicated in Sections 4.
- (2) Future Evaluation Schedule: Ex-post evaluation: Two years after the Project completion

END

Attachment: Map of the Patimban Access Toll Road Construction Project



Source: Google Maps