

**Ex-Ante Evaluation Report**  
**Southeast Asia Division 3, Southeast Asia and Pacific Department**  
**Japan International Cooperation Agency**

**1. Basic Information**

Country: The Socialist Republic of Viet Nam (Vietnam)

Project: Public Transport Infrastructure Improvement Project in Binh Duong Province

Loan Agreement: July 4, 2023

**2. Background and Necessity of the Project**

(1) Current State and Issues of Transportation Sector in Vietnam and the Positioning of the Project

Vietnam has high dependence on roads for passenger transport, at 62.4% (as of 2019) (26.2% for freight transport). From 2010 to 2020, along with the steady economic growth, passenger transport has increased from 69.197 billion people/km to 116.932 billion people/km (an increase of 69%), while freight transport has continued to increase from 36.179 billion tons/km to 75.163 billion tons/km (an increase of 108%).

Binh Duong Province (population of 2.56 million, 2022), which is located within commuting distance from Ho Chi Minh City, Vietnam's largest city, has seen a significant influx of population and rapid urbanization. In Binh Duong Province, residents rely heavily on motorcycles and private cars, and road transportation holds 99.9% of passenger traffic and 99.1% of freight transportation (General Statistics Office of Vietnam, 2017).

Given this situation, the Vietnamese government, under its "Socio-economic Development Strategy for 2021-2030" and "Land Transport Development Plan by 2020 and Vision to 2030 for the Key Southern Economic Area," has designated Ho Chi Minh City as a key economic area in the southern region. The government has a policy of increasing connectivity through high-quality transportation, progressively developing transportation infrastructure to meet the rapid increase of traffic demands in the region.

Under these strategies and plans, Ho Chi Minh Ring Road No.3, including My Phuoc-Tan Van road, has been designated as a priority project. In Binh Duong Province's "Transport Development Master Plan by 2020 and vision to 2030", the construction and development of a mass transit public transportation system, such as fixed-route buses on the ring road that will connect the new provincial

capital of Binh Duong New City with surrounding satellite cities, and the My Phuoc-Tan Van road public transportation infrastructure improvement project (“Public Transport Infrastructure Improvement Project in Binh Duong Province”, hereinafter “the Project”) are designated as priority projects.

(2) Japan and JICA’s Cooperation Policy, etc. for the Urban Transportation Sector and the Positioning of the Project

In Japan’s Country Assistance Policy for the Socialist Republic of Viet Nam (December 2017), “Promotion of Economic Growth and Strengthening International Competitiveness” is specified as a priority area, and supports the development of trunk and urban transportation networks to meet the increasing demand for economic infrastructure associated with economic growth. Also, in JICA Country Analysis Paper for the Socialist Republic of Viet Nam (June 2020), development of urban transportation networks has been identified as a priority area. The Project is thus consistent with these policies and analyses.

(3) Other Donor’s Activities

The World Bank has cooperated in public transportation, roads, highways, and inland water transportation projects. Regarding public transportation, it supported the bus rapid transit systems in Hanoi and Ho Chi Minh City (Hanoi in 2018, and Ho Chi Minh in 2015).

The Asian Development Bank (ADB) has cooperated in public transportation, road, and highway projects. It has supported the development of highways and national roads to strengthen intra-regional connectivity, including the North-South Expressway Construction Project (Ben Luc-Long Thanh Section) in cooperation with JICA. In addition, functional reinforcement and support are being implemented for the Vietnam’s Ministry of Transport and the Vietnam Expressway Corporation, which is responsible for highway maintenance.

The Project will not have any overlap with support from other donors.

### **3. Project Description**

(1) Project Objective

The objective of the Project is to improve road traffic safety and improve the connectivity with Ho Chi Minh City in response to increasing traffic demand within the province, and to contribute to the economic development of the Ho Chi Minh metropolitan area, by developing an flyovers, a public transportation

priority system (PTPS), and median strips, etc. on the main road connecting Binh Duong New City and the Suoi Tien Terminal Station (on the My Phuoc-Tan Van Road).

(2) Project Site/Target Area

Binh Duong Province

(3) Project Components

- 1) Construction of flyovers, construction of pedestrian bridges, installation of closed median, and installation of PTPS on My Phuoc-Tan Van Road
- 2) Consulting services (bidding assistance, construction supervision, etc.)

(4) Estimated Project Cost

7.37 billion yen (including 6.244 billion yen in Japanese ODA loan)

(5) Project Implementation Schedule

From May 2023 until June 2029 (total of 73 months). Project shall be completed at the start of the operation of the facility (May 2028)<sup>1</sup>.

(6) Project Implementation Structure

- 1) Borrower: The Government of the Socialist Republic of Viet Nam represented by the Ministry of Finance of the Socialist Republic of Viet Nam
- 2) Guarantor: None
- 3) Executing Agency:
  - ① Line Agency: Binh Duong Province People's Committee (hereinafter "BDPPC")
  - ② Executing Agency: Binh Duong Province Traffic Construction Investment Project Management Board, under the direct supervision of the BDPPC
- 4) Operation and Maintenance Agency: BDPPC

(7) Collaboration and Sharing of Roles with Other Projects and Donors

1) Japan's Assistance Activities

For the First Phase of the Japanese ODA loan for the "Ho Chi Minh Urban Railway Construction Project (Line 1)" signed in March 2007, construction is under way for an urban railway between Ben Tanh in central Ho Chi Minh and Suoi Tien Terminal Station, the terminal point of the main road supported by the Project (My Phuoc-Tan Van Road). With the development of the urban railway project, this Project and the route bus project that is planned to be financed by Binh Duong Province, a modal shift is expected in passenger

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<sup>1</sup> Actual Schedule will be discussed with executing agency in consideration of actual progress.

traffic between Ho Chi Minh City and its suburbs, and particularly to the Ho Chi Minh City center.

2) Other Donors' assistance activities

None in particular.

(8) Environmental and Social Considerations/Cross-sectional Issues, Gender Category

1) Environmental and Social Considerations

① Category: B

② Reason for Categorization: The project does not fall under any of the sensitive sectors or characteristics, nor is in any sensitive area that are likely to be impacted as specified in the "JICA Guidelines for Environmental and Social Considerations" (published in April 2010), and there is determined to be no significant impact on the environment.

③ Environmental Approval and License

The executing agency has prepared an Environmental Impact Assessment (EIA) and this was approved by the Ministry of Natural Resources and Environment in June 2022.

④ Pollution Control Measures:

There are concerns about air pollution, noise, and vibration during construction, but the impact is expected to be limited with mitigation measures such as dust covers, water sprinkling, and the installation of fences and soundproof walls, etc. Noise and vibrations, etc. during operation are expected to fall within standard values, but mitigation measures such as the planting of trees or installation of soundproof walls will be taken, if monitored results exceed standard values.

⑤ Natural Environmental Aspects:

The target area of the Project does not correspond with sensitive areas such as national parks, and any undesirable impacts on the national environment are expected to be minimal.

⑥ Socio-Environmental Aspects

The project will be implemented within existing road sites, and no involuntary resettlement nor land acquisition will be involved.

⑦ Others/Monitoring

For this project, during construction, a contractor will monitor air quality, noise, and vibrations, etc. under the support by consultants, and during operation this will be consigned to the bus operator.

2) Cross-sectional issues

The Project is positioned as a mitigation measure as it contributes to the reduction of GHG emission.

3) Gender Category: Gender Informed (Significant) (GI (S))

<Details of activities/reasons for classification> For the construction work, the plan is to refer targeting 20% women in the employment of unskilled workers in the bidding documents of each package of contracts. The same pay for the same work will also be promoted, along with the development of facilities for female workers.

(9) Special Remarks

None in particular.

**4. Targeted Outcomes**

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

| Indicator                                                                                       | Baseline<br>(Actual Value in 2018) |            | Target (2030)<br>[2 years after project completion] |            |
|-------------------------------------------------------------------------------------------------|------------------------------------|------------|-----------------------------------------------------|------------|
|                                                                                                 | To My Phuoc                        | To Tan Van | To My Phuoc                                         | To Tan Van |
| Annual Average Daily Traffic Volume (PCU/day)                                                   |                                    |            |                                                     |            |
| IS-5                                                                                            | 1,393                              | 2,215      | 10,743                                              | 11,969     |
| IS-13                                                                                           | 2,446                              | 2,436      | 5,469                                               | 7,232      |
| IS-22                                                                                           | 2,731                              | 2,391      | 6,581                                               | 5,662      |
| IS-29                                                                                           | 3,406                              | 3,419      | 5,955                                               | 6,157      |
| IS-33                                                                                           | 2,163                              | 1,610      | 6,853                                               | 7,766      |
| IS-37                                                                                           | 2,563                              | 2,800      | 7,481                                               | 3,447      |
| Travel time (mins)<br>Between Binh Duong New City (IS-38) and Suoi Tien Terminal Station (IS-1) | 36 (Daily average)                 |            | 27 (Daily average)                                  |            |

(2) Qualitative Effects

Realizing scheduled route operation that alleviates traffic congestion in the target area, improving road traffic and pedestrian safety, and enhancing connectivity with neighboring Ho Chi Minh City

(3) Internal Rate of Return

Based on the following assumptions, the economic internal rate of return (EIRR) for the project will be 45.3%. The financial internal rate of return (FIRR) for the project is not calculated as this project does not assume the collection of tolls from users, etc.

[EIRR]

- Costs: Project cost, operation and maintenance costs (both excluding tax)
- Benefits: Reduced vehicle operating costs, shortened vehicle travel time
- Project life: 30 years

## **5. Preconditions and External Factors**

- (1) Preconditions: None in particular
- (2) External Factors: None in particular

## **6. Lessons Learned from Past Projects and Application to this Project**

In the ex-post evaluation of the “Urban Arterial Roads Improvement in Metropolitan and Large Cities Project” (year of evaluation: 2009), a similar public transportation infrastructure improvement project in the Republic of Indonesia, in terms of the method of measuring project effectiveness for the overhead crossing construction project, it was noted that no reference values (baseline data) values about the alleviation of traffic congestion at the overhead crossing construction site had been obtained. Due to lack of values , it was not possible to properly assess the project effectiveness at the ex-post evaluation stage.

Given that this project also involves the construction of an overhead crossing, applying this lesson, baseline data has been taken regarding the alleviation of traffic congestion at the overhead crossing construction site, and this data will be used to assess the project effectiveness.

## **7. Evaluation Results**

The Project is consistent with the development issues and policies of Vietnam and the cooperation policies and analyses of Japan and JICA. The alleviation of traffic congestion through the development of an urban transportation network leads economic development through the creation of investment environment and contributes to SDGs Goal 9 (“Build resilient infrastructure, promote sustainable industrialization and foster innovation”), and reducing the number of pedestrians crossing the road by installing a pedestrian bridge will contribute to halving the number of traffic accident fatalities (SDGs 3.6). Therefore, there is a strong need to support the implementation of the project.

## **8. Plan for Future Evaluation**

- (1) Indicators to be Used:

As indicated in Section 4.

(2) Future Evaluation Schedule

Ex-post evaluation two years after the project completion

END