

Ex-Ante Evaluation
Private Sector Investment Finance Division 1,
Private Sector Partnership and Finance Department, JICA

1. Name of the Project

- (1) Country: Republic of the Philippines (hereinafter referred to as "the Philippines" or "this country")
- (2) Project Site/Target Area: Metro Manila
- (3) Project Name: LRT Line 1 Operation, Maintenance and Improvement Project (hereinafter referred to as "the Project")
- (4) L/A Signing Date: April 25, 2024

2. Background and Necessity of the Project

- (1) Current Status and Issues of Railway Sector Development in the Country

Despite being a relatively small urban area of 620km², the population of Metro Manila in the Philippines has grown rapidly from 7.92 million in 1990 to 12.87 million in 2015 (1.6 times the 1990 population), and 13.48 million in 2020 according to the latest census (source: Philippine Statistics Authority). The Metropolitan Manila area, where 12% of the country's population is concentrated, is the largest concentration of economic activity in the country and continues to undergo rapid urbanization. In addition, in the region that includes the provinces of Laguna, Bulacan, and Pampanga in the suburbs of Metro Manila, the population has increased rapidly from 16.01 million to 21.81 million in the 15 years since 2000, and the amount of traffic flowing into Metro Manila has been increasing. As a result, traffic congestion has become a serious problem, and the social cost of traffic congestion is estimated at 2.5 billion pesos (approximately 5.7 billion yen) per day, which is a factor that reduces the country's international competitiveness (Source: Study to Support the Development of a Transportation Road Map for the Sustainable Development of Metro Manila, the Philippines). Some of the three elevated railway lines in the metropolitan area (total length of approximately 50 km) are losing transportation capacity due to aging facilities, and are not fully fulfilling the role expected of public transportation in alleviating traffic congestion.

Light Rail Transit Line 1 (hereinafter referred to as "LRT Line 1"), one of the three main lines, is an elevated railway that runs approximately 20 km from north to south in Metro Manila. As of 2020, before the COVID-19 pandemic, the line was the backbone of the Metro Manila area, with an average daily ridership of approximately 450,000 passengers. The number of passengers declined during

the pandemic, but had recovered to about 400,000 as of December 2023.

In 2014, following the signing of a concession agreement, a private operator, Light Rail Manila Corporation (hereinafter referred to as "LRMC"), was appointed to provide operation and maintenance (hereinafter referred to as "O&M") services to the project and has been engaged in the renovation of existing facilities, increase in the number of trains in operation, and improvement of connections with other lines, etc. The LRT Line 1 is also scheduled to be partially extended to the south by 2024, and the average daily ridership is expected to increase to approximately 630,000 passengers by 2026. On the other hand, the facilities are aging, and it is necessary to further improve operation, maintenance, and passenger safety by reducing the time between trains, improving operation speed, renovating station premises, and upgrading regular maintenance facilities.

Following the former President Duterte administration, the new President Marcos administration has announced the "Build, Better, More" policy, which aims to steadily implement and improve infrastructure projects, and the Medium-Term Development Plan (2023-2028) announced in December 2022 also calls for an increase in public investment in infrastructure to 5-6% of GDP (from 4.2-5.8% in 2017-2021 under the previous administration) and further promotion of investment through the use of Public Private Partnerships. The plan aims to address the current issues of convenience, safety, and quality of infrastructure in the Philippines by utilizing private sector resources and technology, as well as funds and technology from partners in other countries. Based on this policy and plan, strengthening the railway network in Metro Manila and its suburbs, including this project, is positioned as one of the top priorities of the current administration.

(2) Japan's and JICA's Policies for the Railway Sector and the Positioning of the Project

The Country Assistance Policy for the Philippines(April 2018) stipulates "strengthening the foundation for sustainable economic growth" as a priority area, and specifically states that Japan will provide assistance for the development of high-quality infrastructure, including a transportation network, mainly in metropolitan and regional cities.

Japan has been supporting the railroad sector through technical cooperation for development planning, ODA loans, and technical cooperation for the

development of a track-based transportation network in Metro Manila. In terms of technical cooperation for development planning, Japan has been supporting a survey on the actual transportation situation, etc. through the "Supplementary Study on the Study to Support the Preparation of a Transportation Roadmap for the Sustainable Development of Metro Manila" (2019) and other projects. As yen loan projects, "LRT Line 1 Enhancement Project (I) (II)" (LA signed in 1994 and 2000), "Metropolitan Manila Mass Passenger Transport System Expansion Project" (LA signed in 2013), "Metropolitan Area Railway Line 3 Rehabilitation Project (Phase I) (Phase II)" (LA signed in 2018 and 2023), "North-South Commuter Rail Project (Malolos-Tutuban) (Phase I) (Phase II)" (LA signed: 2015, 2023), "North-South Commuter Rail Extension Project (Phase I) (Phase II)" (LA signed: 2019, 2023), "Metro Manila Project (Phase 1) (LA signed: 2018, 2022)", etc. have been implemented in the Philippines.

As for technical cooperation, JICA is supporting human resource development in the railroad sector through the "Project for Supporting the Establishment and Strengthening the Operational Capacity of the Philippine Railway Training Center" (2018 - 2024). In the JICA Country Analysis Paper for the Republic of the Philippines (July 2020), one of the areas of assistance is "efforts to increase the thickness of the middle class in terms of both quality and quantity," and the project aims to promote the development of necessary socioeconomic infrastructure in urban areas (further improvement of mass transit networks). One of the support approaches is to work in collaboration and partnership with the private sector. In addition, the "Infrastructure System Overseas Infrastructure Deployment Strategy 2025 (June 2022 Supplement)" mentions the importance of promoting the overseas deployment of O&M by Japanese companies, and the JICA Global Agenda "Transportation" states that Japan needs to focus on areas where it has a comparative advantage, and that it is particularly important in the area of railways where it can demonstrate its superiority, in particular, urban railroads that are responsible for mass transportation and on-time transportation.

(3) Other Donors' Activity

The Asian Development Bank (hereinafter referred to as "ADB") in its Country Partnership Strategies (2021-2023), places emphasis on accelerating infrastructure projects that bring economic synergies and long-term growth, and is co-financing the above-mentioned North-South Commuter Rail Extension Project with JICA and is also supporting the procurement of private sector

operators for the operation and maintenance of the Project and the North-South Commuter Rail Project (Malolos-Tutuban) through the ADB's Transaction Advisory Service. In addition, ADB is providing procurement support to the private sector for the operation and maintenance of the project and the North-South Commuter Rail Project (Malolos - Tutuban). The ADB has also provided a technical assistance loan, the "Infrastructure Preparation and Innovation Facility" (signed in November 2017 L /A signed in November 2017).

3. Project Description

(1) Project Objective

① Purpose of the Project

This project aims to strengthen urban transportation connectivity in Metro Manila and its suburbs by promoting improved operation and maintenance of the LRT Line 1, which connects Metro Manila and the surrounding area, thereby contributing to alleviating traffic congestion, air pollution and climate change in the Philippines.

② Project Details

Operation and maintenance of LRT Line 1 and related facilities.

③ Beneficiaries of the Project (Target Group)

Residents in and around Metro Manila

(2) Project implementation schedule: not disclosed

(3) Project Implementation Structure

① Investors: Light Rail Transit One Partners, LLC

② Guarantor: None

③ Executing agency: Light Rail Manila Corporation

④ Operation and maintenance agency: Same as above

(4) Cooperation with other projects, other donors, etc. and division of roles

(5) Environmental and Social Considerations

① Category Classification : C

② Rationale for categorization : The project is considered to have minimal undesirable effects on the environment under the "Guidelines for Environmental and Social Considerations of the Japan International Cooperation Agency" (promulgated in April 2010).

(6) Cross-cutting issue: climate change action

(7) Gender classification :

【Not applicable】 ■ GI (Gender Mainstreaming Needs Assessment and Analysis)

<Reason for classification> Although social and gender analysis was conducted in the screening process, it did not lead to the establishment and planning of initiatives and indicators that contribute to gender mainstreaming.

4. Targeted Outcomes

(1) Quantitative Effects

- Passenger traffic (passengers/ day)
- Operating distance (accumulated kilometers traveled by trains/day)

(2) Qualitative Effects

Domestic economic development through logistics facilitation and reduction of economic losses, climate change mitigation, air pollution avoidance, and private sector priming effects

5. External Factors

None in particular

6. Lessons Learned from Past Projects

In the ex-post evaluation of the "Railway Modernization Project (2)" (evaluation year: 2001) for Myanmar and the "LRT Line 1 Reinforcement Project (II)" (evaluation year: 2012) for the Philippines, it was pointed out that, for proper maintenance of rolling stock, it is essential to maintain sufficient spare parts on a permanent basis. In this project, the examination confirmed that the subject company has established its own operation and maintenance management system. Hankyu Corporation is scheduled to provide advice on operation and maintenance management in the future, and it is expected that the system will be further strengthened.

7. Evaluation Results

This project is highly significant because it is in line with the country's challenges, development policies, and cooperation policies of Government of Japan and JICA, and also meets SDG Goals 9 (building resilient infrastructure) and 13 (combating climate change).

8. Plan for Future Evaluation

- (1) Indicators to Be Used: As listed in Section 4
- (2) Timing: 2 years after completion of the project