

## Japanese ODA Loan

### Ex-Ante Evaluation(for Japanese ODA Loan)

#### South Asia Division 4, South Asia Department Japan International Cooperation Agency

#### 1. Name of the Project

- (1) Country: The People's Republic of Bangladesh (Bangladesh)
- (2) Project: Project for the construction of dual gauge double line between Joydebpur-Ishurdi section (Engineering Service)
- (3) Project Site: Gajipur District (5.26million), Tangail District (4.04 million), Shiraganj District (3.36 million), Pabna District (2.91 million), Natore District (1.86 million) (Census, 2022)
- (4) Loan Agreement: March 29, 2023

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

- (1) Current State and Issues of the Railway Sector/Area and the Priority of the Project in Bangladesh

The Eighth Five Year Plan (FY2021-FY2025) (8FYP) states the importance of addressing over-dependence on road transportation and shifting from road transportation to other transportation modes such as railways, although current share of rail transport is marginal (only 5.1% in passenger transport and 6.5% in freight transport respectively as of 2019). According to 8FYP and Railway Master Plan (MP), the capacity of rail transportation in Bangladesh is not sufficient to meet the increasing transportation demand because most of the rail lines remain single tracked, track gauge is not standardized all over the country, etc. With solid economic growth of Bangladesh and neighboring countries, the transportation demand in Bangladesh for both freight and passenger has been growing at about 8% per year, and the government of Bangladesh plans to strengthen rail transportation capacity by taking measures such as double-tracking of trunk rail lines.

The railway section between Joydebpur and Ishurdi, which is although still single tracked, is a part of trunk line between Dhaka and cities in the western part of Bangladesh, and the section also connects with the line from/to the North Bengal region. Based on such importance and high transportation demand, in average 36 trains run on the section between Joydebpur and Ishurdi every day, which far exceeds the track capacity (25 trains per day) and deteriorates the level of service (such as frequent delays) due to repeated layovers caused by

alternating operations.

The “project for the construction of dual gauge double line between Joydebpur- Ishurdi Section” (the Project), aims to enhance railway capacity by double tracking of the existing rail between Joydebpur and Ishurdi, thereby contributing to improved connectivity within Bangladesh and with neighboring nations. When the Project is implemented, the entire section from Dhaka to Kolkata will be double tracked and the transportation capacity between Dhaka and the western part of Bangladesh, as well as neighboring countries, will be enhanced, which contributes economic development all over the country including local economies. The Project is the most prioritized project in MP, along with the Jamuna Railway Bridge Construction Project which is currently under construction funded by Japanese ODA loan.

## (2) Japan’s and JICA’s Policy Cooperation Policy and Operations in the Railway Sector

The Country Development Cooperation Policy for the People's Republic of Bangladesh (February 2018) aims to contribute to the development of high-quality transportation and traffic infrastructure in order to promote the efficient movement of people and goods and to eliminate regional disparities.

In addition, the JICA Country Analysis Paper for the People's Republic of Bangladesh (March 2019) identifies the importance of enhancing inland transportation capacity with an awareness of the linkage with the surrounding nations and establishing a rational and balanced transportation mode. The Project is, thus, consistent with this analysis and policy as well as contribute to one of goals, "Building a Global Network", set in the JICA Global Agenda (June 2022) policy in the field of transportation.

Furthermore, the Project will also contribute to the “Pursuit of economic prosperity” in the “Free and Open Indo-Pacific Strategy (FOIP)” from the perspective of strengthening intra-regional connectivity.

JICA has implemented ODA projects, “Dhaka-Chittagong Railway Development Project” (FY 2007), “Jamuna Railway Bridge Constuction Project” (FY 2016 (I), FY 2020 (II)) and else, in the railway sector of Bangladesh.

## (3) Other Donors’ Activities

ADB, a major donor to Bangladesh’s railway sector, has been supporting conversion to dual gauge, privatization of Bangladesh Railway (BR) in some areas, and update of fare system.

Indian government has been supporting the procurement of rolling stock and

the construction of new lines and bridges, while the Chinese government has been supporting the construction of new lines mainly.

### 3. Project Description

#### (1) Project Description

##### ① Project Objective

The objective of the Project is to enhance railway capacity by double tracking of the existing rail between Joydebpur and Ishurdi, thereby contributing to improved connectivity within Bangladesh and with neighboring nations.

The loan for Engineering Service (E/S) (the Loan) covers consulting service for detailed design, tender assistance, and else to implement the Project smoothly.

##### ② Project Components

A) Construction of double line (about 170km: including building bridges), track work, signaling and communications facilities, renovation and new construction of stations

B) Consulting service: Detail design, tender assistance, construction supervision, environmental and social consideration, else.

##### ③ Project Beneficiaries (Target Group)

Direct beneficiaries: Total users of the subject section (approx. 17 million annually) (Based on Feasibility study prepared by Bangladesh government)) (Details will be confirmed in the preparatory survey and finalized at the time of the main loan procedure.)

#### (2) Estimated Project Cost

5,781 million Yen (Japanese ODA loan: 4,228 million Yen)

#### (3) Schedule

March 2023-March 2026 (37 months). The Project completion is defined as the completion of all disbursements.

#### (4) Project Implementation Structure

1) Borrower: The Government of the People's Republic of Bangladesh

2) Guarantor: N/A

3) Executing Agency: Bangladesh Railway

4) Operation and Maintenance System : Bangladesh Railway

#### (5) Collaboration and Sharing of Roles with Other Donors

##### 1) Japan's Activity

A dedicated railway bridge is under construction over the Jamuna river in the middle of the section covered by the Project funded by Japanese ODA loan, and the Project will double track the subject line connecting with the

east and west sides of the bridge. It is expected to further enhance transportation capacity by the Project.

2) Other Donors' Activity: N/A

(6) Environmental and Social Consideration

① Category: A

② Reason for Categorization: The Project falls into the railway sector (likely to have significant adverse effects due to its characteristics) under the JICA Guidelines for Environmental and Social Considerations (published in April 2010).

③ Environmental Permit: the Environmental Clearance Certificate for the Project has been issued. The details will be confirmed in the preparatory survey.

④ Anti-Pollution Measures: Since impacts on air quality, noise, vibration, etc. are expected during construction, the details of undesirable impacts on the environment and society will be assessed and measures to avoid or mitigate them will be confirmed in the preparatory survey and E/S.

⑤ Natural Environment: The target areas of the Project does not include the sensitive areas of national parks or else. The details of undesirable impacts on the environment and society will be assessed and measures to avoid or mitigate them will be confirmed in the preparatory survey and E/S.

⑥ Social Environment: Involuntary resettlement due to the Project is expected, and legal procedures for land acquisition have already been partially initiated. The executing agency intends to proceed with the procedures in accordance with the resettlement plan being prepared based on the Bangladesh domestic procedures and JICA Guidelines, the details will be confirmed in the preparatory survey and E/S.

⑦ Other/Monitoring: Details of specific monitoring items, methods, etc. will be confirmed in the preparatory survey and E/S. In accordance with 3.2.1.(5).2 of JICA Guidelines, an environmental review of the Project is scheduled to be conducted by the time of the appraisal of the main loan.

(7) Cross-Sectoral Issues: The Project may contribute to climate change measures (mitigation measures). The discussion with the executive agency will be implemented and the amount of GHG emission reductions will be estimated in the preparatory survey.

(8) Gender Category: **【To be confirmed】** ■ Projects with Gender Mainstreaming Needs Survey and Analysis (Gender Informed: GI)

<Details of Activities/Reason for Categorization>: Details of specific needs, activities, and indicators during the procedure of the main loan.

(9) Other Important Issues: N/A

#### 4. Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	(Reference) Without the Project implementation*	Baseline (Actual value in 202X)	Target (20XX) [2years after project completion]
Passenger (Annual pax-km, Million)	5,696	To be set by the time of the appraisal of the main loan	
Freight (Annual gross tonne-kilometre, Million)	2,575		
Passenger train (car/ day)	48		
Freight train (car/day)	10		
Trip time (minutes)	322**		

\*Source: Feasibility study prepared by Bangladesh government in 2019 (To be confirmed in the preparatory survey)

\*\* Schedule time in the current timetable

(2) Qualitative Effects

Smoothing transportation within Bangladesh and with neighboring countries by increasing railway transportation capacity, easing road congestion, and improving regional disparities, etc..

(3) Internal Rate of Return

To be set by the appraisal of the main loan

#### 5. External Factors and Risk Control

(1) Preconditions: N/A

(2) External Factors: N/A

#### 6. Lessons Learned from Past Projects

The results of the ex-post evaluation of “Railway Double Tracking On Java South Line (I) (II)” (evaluation year 2010), a Japanese ODA Loan project for the Republic of Indonesia, revealed that the construction was completed promptly

while ensuring the normal train operation by switching of numerous processes between the existing and newly constructing tracks. In the Project, the operation of the existing line will be secured as well, and the efficiency of the construction work will be examined in the preparatory survey and E/S.

## **7. Evaluation Results**

The Project is consistent with the development issues and development policies of Bangladesh, as well as the assistance policies and analyses of the Government of Japan and JICA. Through the implementation of the double tracking, the Project will enhance railway transportation capacity, thereby contributing to the achievement of SDGs Goal 9 (Industry, Innovation and Infrastructure) and 13 (Climate Action). Therefore, the necessity for JICA to support the Project is substantial.

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

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

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