

Ex-Ante Evaluation (for PSIF Loan)

Private Sector Investment Finance Division,
Private Sector Partnership and Finance Department, JICA

1. Name of the Project

Country: The People's Republic of Bangladesh
Project: Green Finance Promotion Project ("Project")
Signing Date of Loan Agreement: January 10, 2023
Borrower: BRAC Bank Limited (BRAC Bank)

2. Background and Necessity of the Project

(1) Current State and Issues of the Renewable Energy, Energy Efficiency and wastewater management sectors in Bangladesh

In 2020, Bangladesh Bank, the central bank of Bangladesh, has developed and published the "Sustainable Finance Policy for Banks and Financial Institutions", and it defines green finance as "promoting environment and resource conservation by reducing consumption of resources" and encourage financial institutions to expand their portfolios to the sector.

In Bangladesh, the domestic production of the natural gas, on which the country is depending on approximately 60% of its primary energy source, has been declining and it is necessary to alleviate its heavy dependence. In the "Renewable Energy Policy of Bangladesh" formulated in 2008, the government of Bangladesh set a target of meeting 10% of domestic electricity demand from renewable energy sources by 2020, and has been aggressively introducing renewable energy sources, including the construction of a 500 MW solar power plant by 2016. In addition, the "Revisiting Power System Master Plan," prepared in 2018 as a continuation of the policy aforementioned, states that the country will reduce its dependence on natural gas around 60% and continue and expand the target of 10% renewable energy generation ratio until 2041. To achieve this goal, it is called for roughly 31 GW of renewable energy capacity developed. However, as of April 2021, renewable energy (solar and wind) and hydropower account for only about 1% of domestic power generation capacity each. And it is estimated that \$31 billion in public and private investment (\$1.6 billion per year on average) will be required approximately over the 20 years from 2021 to 2041, which means the huge financial gap existing compared to \$141 million, the actual amount of financing for such sectors for the five years until 2019.

The "Perspective Plan of Bangladesh 2021-2041" released in 2020 based on the "Energy Conservation Master Plan" developed with the assistance by JICA in 2015 and set the target of the 20% energy demand reduction per GDP by 2031 as well as 25% by 2041.

The demand for primary energy, however, has been increasing significantly due to strong economic growth, and further energy conservation efforts are needed due to rising energy prices and the global trend towards the decarbonization.

Moreover, as the steady economic development in the country, the population has been flowing into urban areas in search of job opportunities, resulting in an increase of the sewage discharge, as well as the effluent from the sewing and leather industries, which are two major export industries, discharged into nearby waterfront without treatment of toxic substances. Companies are now regulated to install wastewater treatment facilities by themselves.

This project provides the long-term funding to a local commercial bank, BRAC Bank, to encourage the bank for financing of renewable energy, energy efficiency, and wastewater management projects which are in line with the issues in the sectors and the policy of the Bangladeshi government.

(2) Japan and JICA's Policy and Operations in the renewable energy, energy efficiency, and wastewater management sector

In "Country Assistance Policy for the People's Republic of Bangladesh"

(February 2018), it is identified "a sustainable development pathway that is resilient to disaster and climate change; entails sustainable use of natural resources; and successfully manages the inevitable urbanization transition" as one of the priority sectors, and JICA is to support the country's efforts to address issues in regard with resources and environmental/climate change. The "JICA Country Analysis Paper" (March 2019) also analyzes the importance of expanding electricity supply and increasing efficiency in energy usage, etc., hence this project is consistent with these policies and analysis. JICA has been supporting the introduction of energy efficient equipment through the "Energy Efficiency and Conservation Promotion Project" (approved in FY2016) and the "Energy Efficiency and Conservation Promotion Financing Project (Phase 2)" (approved in FY2019). These supports are expected to promote the introduction of energy efficient equipment and reduce electricity consumption by 43,721 MWh per year. In addition, the "Integrated Energy and Electricity Master Plan Development Project" (technical assistance, FY2021-23) is being implemented with the aim of ensuring a stable energy supply and economic rationality, and contributing to the establishment of the system for a low-carbon energy supply and demand.

In terms of the wastewater management, the support is being conducted through the dispatch of experts with the "Advisor on Urban Sanitation Improvement" (approved in FY2021), for the implementation of sewerage system development in Chattogram.

(3) Other Donors' Activity

International Finance Corporation (IFC) has been lending to the borrower of the Project.

3. Project Description

(1) Project Objective

The objective of the Project is to improve financial access of renewable energy projects, energy saving projects, and wastewater management projects, etc. (collectively the "Green Finance"), by providing a long-term financing to BRAC Bank Limited ("BRAC Bank") in Bangladesh, thereby contributing to sustainable economic growth and climate change mitigation in the country.

(2) Project Site/Target Area

The whole country of Bangladesh

(3) Project Components

Through a long-term financing to BRAC Bank, it is expected to improve financial access and increase financing to the renewable energy, energy efficiency, and wastewater management projects.

(4) Estimated Project Cost

300,000,000 U.S. dollar

(5) Project Implementation Structure

- 1) Borrower: BRAC Bank Limited
- 2) Co-lender: Citibank, N.A.

(6) Environmental and Social Consideration / Cross-sectoral Issues / Gender Categorization

1) Environmental and Social Consideration

① Category: FI

② Reason for Categorization: A sub-project of this Project could not be identified in the JICA Guidelines for Environmental and Social Considerations (announced in April 2010) before the financing approval of JICA, and such a sub-project is expected to have impact on the environment.

③ Other: In this Project, BRAC Bank will categorize each sub-project based on their environmental and social consideration policy and the JICA Guidelines, and necessary measures will be taken for each sub-project. It has been agreed that each sub-project will not include Category A. Funds will be used mainly for financing to renewable energy, energy efficiency, and wastewater management projects.

2) Cross-sectoral Issues: This project will promote projects in fields of renewable energy, energy saving, and wastewater management in Bangladesh through financing to BRAC Bank, thereby contributing to the mitigation of climate change impact.

3) Gender Categorization: [N/A] GI (Gender Mainstreaming Needs Survey, Analysis Project)

<Reason> Gender mainstreaming needs were confirmed in the review, but it was not

decided to carry out specific activities that contribute to gender equality or women's empowerment.

4. Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	Baseline (Actual Data in 2022)	Target (in 2026) (within a year after the availability period)
Volume of outstanding Renewable Energy loans (USD million)	0.16	25
No. of Renewable Energy sub-borrowers (No. of companies)	1	1
Volume of outstanding Energy & Resource Efficiency loans (USD million)	3.74	185
No. of Energy & Resource Efficiency sub-borrowers (No. of companies)	6	15
Volume of outstanding Liquid Waste Management loans (USD million)	0.58	5
No. of Liquid Waste Management sub-borrowers (No. of companies)	2	2

Following figures will be monitoring as the reference:

- (Renewable Energy) maximum output (MW) and transmission end generation (MWh),
- (Energy Efficiency) CO₂ emission reduction (t/year), and
- (Wastewater Management) wastewater facility capacity (m³/year), and water quality improvement status (BOD/COD).

(2) Qualitative Effects

- Improvement of sanitation with the introduction of wastewater treatment facilities
- Strengthening screening and implementation capacities for green finance projects by BRAC Bank

5. Preconditions and External Factors

No in particular

6. Lessons Learned from Past Projects

Lessons learned in the ex-post evaluation of an ODA loan project for India, the “New and Renewable Energy Development Project” (FY2011-16), was that support should be provided to the establishment of a monitoring system for the credit management of the

intermediate financial institution, since renewable energy and energy saving projects are likely to be affected by changes of political, economic, and natural circumstances. Through the due diligence, it is checked that staff of BRAC Bank regularly visited the sub-project sites of the loan recipients to inspect and confirm the implementation of the projects, also receive reports and confirmed the implementation status of the projects.

7. Evaluation Results

This Project is consistent with the development issues and development policy of Japan as well as cooperation policies and analyses of Japan and JICA, and contributes to climate change management through improvement in financial access of businesses in fields of renewable energy, energy efficiency, and wastewater management, etc. Therefore, the Project contributes to SDGs Goal 6 (Clean Water and Sanitation), 7 (Affordable Clean Energy), and Goal 13 (Climate Action). Hence, the significance of providing the support can be acknowledged.

8. Plan for Future Evaluation

(1) Indicators to be Used

As described in Section 4.

(2) Timing

Ex-post evaluation: 3 years after the signing date

End