## The People's Republic of Bangladesh

FY2022 Ex-Post Evaluation of Private Sector Investment Finance "Sirajganj Combined Cycle Power Plant Project"

External Evaluator: Nobuyuki Kobayashi, OPMAC Corporation

# 1. Project Description



**Project Location** 



Power Station Constructed by this Project

#### 1.1 Project Outline

The objective of this project is to achieve stable power supply by constructing a combined cycle power plant in Sirajganj, thereby mitigating the severe power shortage as well as contributing sustainable economic growth in Bangladesh. The project finance was provided for the construction and operation of an efficient gas-fired power plant. The borrower, Sembcorp North-West Power Company Ltd., was a special purpose company, which was sponsored by the Singaporean company Sembcorp Utility Pte. Ltd. (SCU) and the North-West Power Generation Company Ltd. (NWPGCL) owned by the Government of Bangladesh. This project was cofinanced by JICA, the International Finance Corporation (IFC), the Commonwealth Development Corporation (CDC)<sup>1</sup>, and the private company Clifford Capital.

# 2. Outline of the Evaluation Study

## 2.1 External Evaluator

Nobuyuki Kobayashi, OPMAC Corporation

### 2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

<sup>&</sup>lt;sup>1</sup> The name at the time of appraisal. At the time of ex-post evaluation, British International Investment (BII) was the name of the organization.

Duration of the Study: November 2022 - February 2024

Duration of the Field Study: March 11 - March 21, 2023, July 10 - July 17, 2023

## 2.3 Constraints during the Evaluation Study

To understand the qualitative effects of this project, interviews with end-users were conducted. Based on the opinions of the stakeholders including the borrower, these interviews were conducted in Mymensingh, which received electricity from the Sreepur substation, completed in March 2023. It should be noted that end-users' opinions were influenced substantially by other factors besides this project (power supply from other power plants, stability of power distribution, etc.).

#### 3. Conclusion

The objective of this project is to achieve stable power supply by constructing a combined cycle power plant in Sirajganj, thereby mitigating the severe power shortage as well as contributing sustainable economic growth in Bangladesh. The results of the ex-post evaluation were summarized below.

Relevance: At both the time of the appraisal and that of the ex-post evaluation, the national development strategies and the plan for the power sector intended to increase the installed capacity in Bangladesh in order to satisfy the growing demand for electricity. Private sector investment would play an important role in the achievement of this policy goal. Given the situation of electricity supply and demand, it is concluded that there had been a strong need for a stable supply of electricity from large-scale power plants both at the time of the appraisal and that of the ex-post evaluation. At the time of the ex-post evaluation, the project effects of the Sirajganj Power Station had exceeded the targets, and no problems were found in the project plan or the logic of the project. This project was in line with the development policy and the development needs of Bangladesh and the project plan and approach were appropriate as a highly efficient power plant has been constructed.

<u>Coherence</u>: Based on the scope and the objective of the project, it is considered to be consistent with Japan's ODA policy. Although at the time of the appraisal, collaboration with other projects had not been planned, a collaboration scheme had been established with other projects such as ODA loan projects by the time of the ex-post evaluation. The project was co-financed by JICA, IFC, CDC (at the time of the appraisal), and a private company, this collaboration continuing after project completion. The project was also consistent with Japan's ODA policy, and tangible results were found in the collaboration with other JICA projects. In addition, the project was coordinated

with other organizations and within international frameworks, and tangible results were confirmed.

**Efficiency**: As the major outputs of this project were as planned, there were no changes affecting the effectiveness of this project. The project cost and the project period were within the plan.

**Effectiveness**: Based on the operation and effect indicators for this project (Maximum Power, Power Generation at Sending End, Availability Factor (Generating End), and Power Generation Efficiency), it was confirmed that the expected outcome was achieved more than planned. The stakeholder mentioned an efficient operation of the Sirajganj Power Station in terms of natural gas consumption. The interviews with the end users suggested that not all end-users were uniformly benefiting from the project due to other factors besides the project. However, there were some areas where the power supply had become more stable.

Impacts: It was found that the project had contributed to the stabilization of power supply across Bangladesh. Taking into consideration the Sirajganj Power Station's portion in installed capacity, and power generation for Bangladesh, power supply from the station has played a vital role during the peak times of power demand. The power transmission company suggested that the Sirajganj Power Station contributed to the stability of power supply. During the project implementation, monitoring and mitigation measures were taken place as planned. For this reason, no significant negative impacts had been found in the environmental and social aspect at the time of the ex-post evaluation. The borrower made substantial efforts to improve the livelihoods of nearby residents through a wide range of CSR activities (such as provision of medical services and assistance for women's self-reliance).

<u>Sustainability</u>: The national development strategy and the plan for the power sector at the time of the ex-post evaluation intended to increase power generation capacity and emphasized private sector investment in power generation. The basic policy for IPP did not change significantly after project commencement. At the time of the ex-post evaluation, technical support was being obtained from the sponsor and the maintenance service providers, and the power plant staff were provided with adequate training opportunities. The power plant was staffed with a sufficient number of employees. Based on the financial indicators, it can be seen that there were no notable problems with the financial stability of the borrower. As mentioned earlier, no significant negative impacts on the environmental and social aspect had been found at the time of the ex-post evaluation. Among the risks of the project, the fuel procurement risk and cash flow were being improved in 2023. In the site survey, no serious damage affecting project effectiveness was found

in the facilities constructed by the project.

**END** 

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