

Signing of Japanese ODA Loan Agreements with the People's Republic of Bangladesh

—Largest Loan Ever for Development Assistance in Bangladesh, a Newly Emerging Nation Drawing Much Attention—

1. On February 20, the Japan International Cooperation Agency (JICA) signed Japanese ODA loan agreements with the Government of the People's Republic of Bangladesh at Dhaka to provide an ODA loan of up to a total of 70.693 billion yen for assistance for three projects.

2. Bangladesh has a population of approximately 150 million people, the eighth largest in the world, and it has maintained an economic growth averaging six percent over the past 10 years mainly through the development of the garment industry. The sole Least Development Country (LDC) among the countries designated as the Next 11, ^[1] Bangladesh has attracted attention from foreign companies, including those in Japan, in recent years as a promising newly emerging nation, and one that can be considered part of a China-plus one strategy, in which a company locates a production base or investment in one country outside of China as a way to hedge against manufacturing and other risks. However, as private economic activities have become more active, the inadequacy of infrastructure around the country in terms of quantity and quality has hindered further economic growth and investment. In Greater Dhaka, with approximately 15 million people, the building of urban transportation infrastructure such as public transportation is not keeping pace with the rapidly rising population, and traffic congestion and air pollution are severe. Inadequate capital and other factors have caused delays in constructing new power plants and laying transmission lines, so that the power supply cannot keep pace with the demand, which is rising rapidly with economic development, necessitating long, rolling blackouts. The three projects for which loan agreements were signed will provide assistance to improve these conditions.

3. The characteristics of the three projects financed by the Japanese ODA loans provided by the agreement are described below.

(1) Changing Dhaka, a city of severe traffic congestion—constructing the first urban rapid transit railway in Bangladesh—

Greater Dhaka, which includes the Bangladesh capital of Dhaka, is one of the world's largest cities at eighth in population with approximately 15 million people. However, because the road infrastructure has not kept pace with the growing population and the number of automobiles, acute traffic congestion occurs on a daily basis and is estimated to cost approximately 260 billion yen (2010) per year in economic loss. The Dhaka Mass Rapid Transit Development Project (I) will construct the first Mass Rapid Transit (MRT) system in Bangladesh, alleviating traffic congestion in Dhaka to provide a smooth flow of people and goods, and stimulate economic activity. It is estimated that the system will have about 510,000 users per day (comparable to the approximately 450,000 people who use the Tokyo Metro Namboku Line, which is similar in size). It is projected that Dhaka residents will change their mode of transportation from automobiles and buses to rail, decreasing the number of vehicles on the road. This is expected to reduce the emission of greenhouse gases (GHG) and help alleviate climate change.

(2) Greatly improving the power supply in the lagging west—construction of a gas thermal power station with fewer GHG emissions

Currently in Bangladesh, the power supply meets a mere 70 percent of demand, and rolling blackouts are implemented in every region of the country (a total of about 1,500 hours in 2010). The country is split by the large Padma (Ganges) and Jamuna (Brahmaputra) rivers into eastern and western sections, and most of the power producing capacity is concentrated in the east. The Bheramara Combined Cycle Power Plant Development Project will construct the first large-scale power plant in Western Bangladesh to provide a power supply for economic development and poverty reduction in the region, where a large population of poor people resides. After the plant is complete, it will supply five percent of the total electricity in the country. Also, the gas thermal power station that will be constructed by this project will be more efficient than conventional thermal power stations and produce fewer GHG emissions, so it is expected that the plant will help alleviate climate change.

(3) Supporting daily life and economic activities with a stable supply of electricity—construction of substations and transmission lines on a national scale

Bangladesh faces serious problems with frequent power outages and an unstable power supply, and they particularly hinder the daily and economic activities of general households and small- and medium-sized businesses that cannot use consumer power generators. The demand for power is growing at an annual rate of about 10 percent per year in Bangladesh. Capital investments balanced among power generation, transmission and distribution are needed to meet this growth, and the number of transmission facilities must be increased to accommodate the construction of new power plants. The National Power Transmission Network Development Project will construct substations and lay transmission lines throughout Bangladesh to improve the stability of the power supply, improving the lives of approximately 30 million people and contributing to industrial and commercial development.

4. Since gaining independence in 1971, Bangladesh and Japan have built an exceptionally strong relationship, and Bangladeshis are said to be extremely pro-Japan. In recent years, the two countries have strengthened economic relations, and over the past five years, the number of Japanese companies in Bangladesh has doubled to more than 130 today. Amid these circumstances, JICA continues to provide assistance through strategically linking its three modes of assistance—Japanese ODA loan, technical cooperation and grant aid to accelerate economic growth and social development in Bangladesh.



Md. Abul Kalam Azad, Secretary Economic Relations Division, Ministry of Finance and Takao Toda, Chief Representative JICA Bangladesh Office shook hands after the signing.

Related Link

➤ [Location diagram for the three projects \(PDF/251KB\)](#)

Reference

1. Terms and Amounts of Loans

Project title	Amount (million yen)	Annual interest rate (%)		Repayment (years)	Grace period (years)	Procurement
		Project	Consulting services			
Dhaka Mass Rapid Transit Development Project (I)	10,477	0.01	0.01	40	10	General untied
Bheramara Combined Cycle Power Plant Development Project	41,480	0.01	0.01	40	10	General untied
National Power Transmission Network Development Project	18,736	0.01	0.01	40	10	General untied

2. Project Summaries

(1) Dhaka Mass Rapid Transit Development Project (I)

Background and Necessity

Greater Dhaka, which includes the Bangladeshi capital of Dhaka, is one of the world's largest cities (the eighth largest according to UN statistics) with an estimated population of 14.64 million people in 2010. The roads in Greater Dhaka carry an excessive load of people and goods with inadequate transportation infrastructure. In addition, traffic regulations to control the varied modes of transportation, which include public buses and auto rickshaws (three-wheeled taxis), are lagging behind. As a result, the traffic congestion has become chronic, and the results of one survey indicated that in 2009 the average speed of public buses on major roads in Greater Dhaka during peak times was 14.4 kilometers per hour and as low as 2 kilometers per hour over some intervals. Furthermore, the country suffers from traffic pollution problems such as severe automobile exhaust gases and noise. It is said that the population of Greater Dhaka will reach 20.9 million people in 2025 due to the influx of people from outlying areas and other factors. Accordingly, introducing an MRT system to improve the situation is a priority.

Objective and Summary

This project will construct the first Mass Rapid Transit (MRT) line in Bangladesh, 20.1 kilometers in length, in the Bangladeshi capital of Dhaka to meet the demand for transportation in Greater Dhaka, contributing to the economic development of Bangladesh overall by alleviating traffic congestion. Once the MRT is in place, it is projected that the number of people and amount of goods moving in the transportation network will greatly increase, developing the economy and reducing poverty in Greater Dhaka, and the MRT is expected to also contribute to economic development in the country as a whole. The switch to a public transportation system will curb air pollution in Greater Dhaka, alleviating climate change.

This project will construct Line 6, selected as the highest priority route of the three MRT candidates from the Preparatory Survey for the Dhaka Urban Transport Network Development Project, carried out by JICA between 2009 and 2011. The survey was carried out based on the Dhaka Strategic Transport Plan, a 20-year basic policy of the Government of Bangladesh for its Dhaka urban transportation sector, formulated and approved in 2004.

This project is one of the top priorities of the Government of Bangladesh. It is estimated that the system will have about 510,000 users per day (comparable to the approximately 450,000 people who use the Tokyo Metro Namboku Line, which is similar in size). It is projected that Dhaka residents will change their mode of transportation from automobiles and buses to rail. This is expected to reduce the emission of GHG and help alleviate climate change.

Japan has a record of providing assistance for urban rail construction with the participation of Japanese companies in cities such as Bangkok, Thailand; Delhi, India; Ho Chi Minh City, Vietnam; and Jakarta, Indonesia. Building on those experiences, JICA will provide assistance for the first urban rail construction in Bangladesh.

Executing Agency

Dhaka Mass Transit Company Limited (DMTC)
Address: Nagar Bhaban, (Level 13-14), Fulbaria, Dhaka, Bangladesh
Phone: +880 (2) 956-8831, fax: +880 (2) 956-9262

Planned Implementation Schedule

- (i) Completion of project: September 2021 – when the facilities for all intervals are put into service
- (ii) Issuing of letters of invitation for consulting services: January 2013
- (iii) Tender announcement of initial procurement package for international competitive bidding on project construction:
Procurement package titles: Main Line and Stations, Depot, Electrical and Mechanical (E & M) System, Rolling Stocks and Equipment for Rolling Stocks in Depot
Release date: September 2015

(2) Bheramara Combined Cycle Power Plant Development Project

Background and Necessity

The per capita consumption of electricity in Bangladesh is 170 kilowatt-hours per year (fiscal 2009), one of the lowest rates in the world. However, the supply of power is not able to keep pace with the rapid increase in demand accompanying the economic growth in recent years, and the actual power generation capacity is a mere 4,699 megawatts, only about 70 percent of the peak power demand of 6,454 megawatts (fiscal 2009). Therefore, particularly at peak demand time periods, supply restrictions such as rolling blackouts are imposed in every region of the country (totaling approximately 1,500 hours in fiscal 2010). Bangladesh is split by the large Padma (Ganges) and Jamuna (Brahmaputra) rivers into eastern and western sections, but most of the power generation capacity is concentrated in the east, and there are no large-scale power plants in the west. The insufficient power in the west is supplemented with transmission from the east, but the extremely large scale of power transmission (2,000 to 3,000 gigawatt-hours each year), particularly given the increase in recent years, means the power supply in Western Bangladesh is unstable. There is therefore a demand for a new, large-scale power plant in the west, which has a large poor population, for economic development and poverty reduction.

Objective and Summary

This project will construct a high-efficiency gas combined cycle power plant (360-megawatt class) in Western Bangladesh where the power supply is strained. The power to be supplied by this project will equal approximately five percent of the total power demand in Bangladesh today.

In this project, a Japanese ODA loan was provided in fiscal 2009 for engineering services (E/S) to cover design, bidding assistance, construction supervision and organization capacity building, and consulting services have been being carried out since Japanese companies received orders.

The project will also install a Supervisory Control And Data Acquisition (SCADA) system to control the gas transportation network. A SCADA system monitors and controls the supply of gas in real time (including checking the flow volume and pressure of the pipeline network along with monitoring for leaks) to ensure the proper gas quantity is supplied to important facilities (such as a power plant). Although natural gas provides approximately 75 percent of the energy for power generation in Bangladesh, the increase in demand has resulted in an inadequate supply, so the introduction of SCADA system is quite important from the perspective of a stable supply of gas to the power plant while using limited resources efficiently.

Furthermore, this project will provide consulting services to assist with personnel and organization capacity building at the North-West Power Generation Company, the executing agency that was split off in 2007 from the national power company. The project will also promote reforms in the sector with a focus on separating the generation, transmission and distribution of power, as well as promoting higher power supply efficiency.

This project will also reduce GHG emissions through the introduction of a high-efficiency gas combined cycle power plant, which will reduce the emissions by an estimated 360,000 tons per year in terms of carbon dioxide, alleviating climate change.

Executing Agency

North-West Power Generation Company Limited (NWPGL). The SCADA system will be installed by the Gas Transmission Company Limited (GTCL), under the supervision of NWPGL.

NWPGL

Address: Bidyut Bhaban (13th Floor), 1 Abdul Gani Road, Dhaka-1000 Head Office, Motijheel C/A, Dhaka-1000, Bangladesh
Phone: +880 (2) 951-3527-29, fax: +880 (2) 951-3530

GTCL

Address: Red Crescent – Borak Tower (6th Floor) 71-72 Old Elephant Road, Eskaton, Dhaka-1000, Bangladesh
Phone: +880 (2) 936-2800, fax: +880 (2) 935-8100

Planned Implementation Schedule

- (i) Completion of project: February 2017 – when all of the facilities are put into service
 - (ii) Issuing of letters of invitation for consulting services (for the SCADA system): January 2013
 - (iii) Tender announcement of initial procurement package for international competitive bidding on project construction:
- Procurement package title: Full Turn-key EPC Contract
Release date: December 2012

(3) National Power Transmission Network Development Project

Background and Necessity

The per capita consumption of electricity in Bangladesh is 170 kilowatt-hours per year (fiscal 2009), one of the lowest rates in the world. However, the supply of power is not able to keep pace with the rapid increase in demand accompanying the economic growth in recent years, and the maximum power generation capacity is a mere 4,699 megawatts, only about 70 percent of the peak power demand of 6,454 megawatts (fiscal 2009). Blackouts and severe voltage fluctuations therefore occur frequently, greatly hampering, in particular, the lives and economic activities of small and medium-sized companies, as well as general households which are unable to use domestic power generators. The yearly demand for power is projected to rise between five and 10 percent per year in the target region of the project (where construction or expansion of substations is planned) so that the power supply will fall even further behind, leading to additional blackouts and voltage fluctuations. Accordingly, there is a demand to augment the transmission equipment accommodate the increased power generation from the construction of new power stations in the future.

Objective and Summary

This project will construct new substations and lay transmission lines, as well as expand existing ones throughout Bangladesh, decreasing the transmission loss rate, stabilizing the power system and improving the reliability of the power supply. This will also contribute to the country's economic development. As the project will be implemented throughout the country, some 30 million people will benefit. All of the 19 new and existing candidate locations for substations selected for this project are near major cities in areas throughout Bangladesh, so the project will improve the lives of many people and is expected to contribute to the development of industry and commerce in concentrated industrial and commercial development districts where there is a markedly increasing demand for power.

Executing Agency

Power Grid Company of Bangladesh Limited
Address: Sher-e-Bangla Nager, Dhaka-1207, Bangladesh
Phone: +880 (2) 955-3663, fax: +880 (2) 717-1833

Planned Implementation Schedule

- (i) Completion of project: February 2017 – when all of the facilities are put into service
 - (ii) Issuing of letters of invitation for consulting services: January 2013
 - (iii) Tender announcement of initial procurement package for international competitive bidding on project construction:
- Procurement package titles: 230/132 kV S/S (New and Existing), 230kV Transmission Line (New), 132kV Transmission Line (New), 132/33kV S/S (New and Existing), 132kV Transmission Line (New)
Release date: December 2013

Note

- [1] In 2005, a U.S. investment company identified 11 countries with the potential to have an extremely powerful effect on the world economy in the future. In addition to Bangladesh, the countries identified are Egypt, Iran, Indonesia, Mexico, Nigeria, Pakistan, the Philippines, South Korea, Turkey and Vietnam.

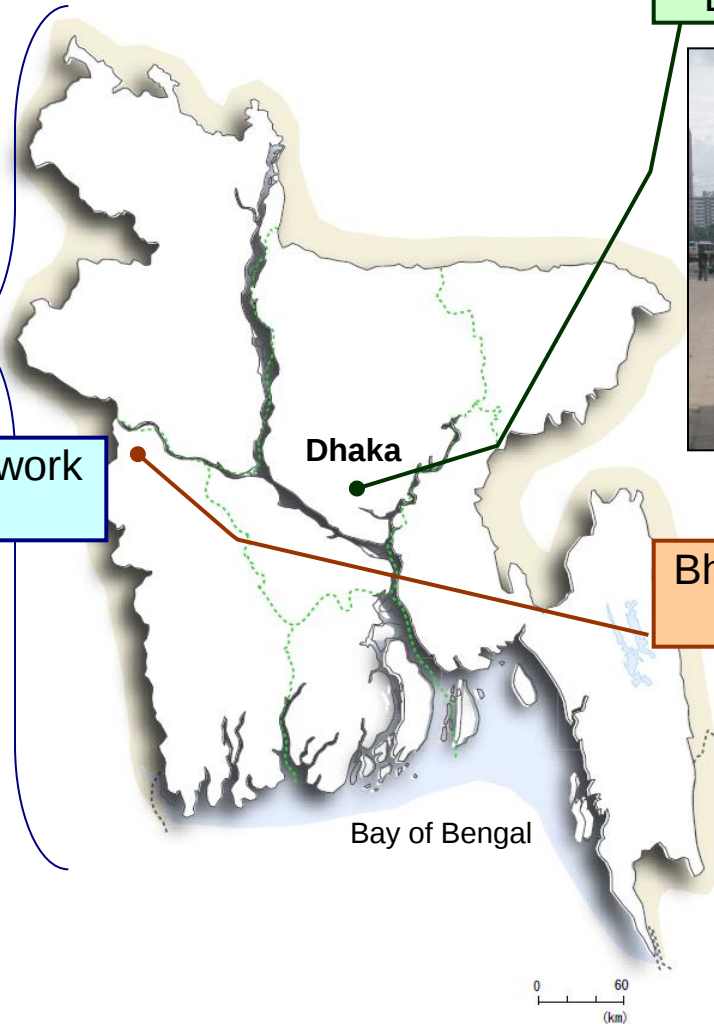
Map of the Yen Loan Project in FY2012 for the People's Republic of Bangladesh

Throughout
Bangladesh

National Transmission Network
Development Project



Existing substation



Dhaka

Bay of Bengal

0 60
(km)

Dhaka Mass Rapid Transit
Development Project (I)



Rendering

Bheramara Combined Cycle Power
Plant Development Project



Existing Bheramara power plant
seen from the construction site