

Signing of Japanese ODA Loan Agreements with Bangladesh: Provision of Japanese ODA loans on the largest scale for accommodating an increase in demand for electric power and public transportation and for raising rural incomes

On June 29, the Japan International Cooperation Agency (JICA) signed loan agreements with the Government of the People's Republic of Bangladesh to provide Japanese ODA loans of up to a total of 178.223 billion yen for six projects.

Bangladesh is one of the most populous countries in the world (eighth in the world ranking) with a population of 160 million people. It has continued to grow at an average pace of six percent per annum due to the development of sewing and other ready-made garment related industries. In recent years, Bangladesh has attracted increasing attention from overseas enterprises including Japanese firms due to competitive labor costs, an abundant work force and a potential market size as an upcoming manufacture base and an investment destination.

In the national "7th Five-Year Plan (2016–2020)," the Government of Bangladesh establishes the goal ("Vision 2021") of achieving middle-income status as a country by 2021. JICA will continue to support efforts in Bangladesh to address challenges toward further economic growth and overcome social vulnerability.

The six yen loan projects are summarized below.

- (1) Hazrat Shahjalal International Airport Expansion Project (I) (loan amount: 76.825 billion yen)
- (2) The Kanchpur, Meghna and Gumti 2nd Bridges Construction and Existing Bridges Rehabilitation Project (II) (loan amount: 52.73 billion yen)
- (3) Dhaka Mass Rapid Transit Development Project (Line 1) (E/S) (loan amount: 5.593 billion yen)
- (4) Matarbari Ultra Super Critical Coal-Fired Power Project (III) (loan amount: 10.745 billion yen)
- (5) Dhaka Underground Substation Construction Project (loan amount: 20.477 billion yen)
- (6) Small Scale Water Resources Development Project (Phase 2) (loan amount: 11.853 billion yen)

Details for the projects are provided below.

(1) Hazrat Shahjalal International Airport Expansion Project (I)

(a) Objective and Summary

The objective of the project is to meet the future demand of air transportation and to improve airport capacity, convenience and safety, by constructing a new international passenger terminal, cargo terminal and other infrastructure and facilities at the Hazrat Shahjalal International Airport in Dhaka, thereby contributing to further economic growth in Bangladesh.

(b) Background and Necessity

Located in Dhaka, Hazrat Shahjalal International Airport is utilized by about 75 percent of domestic and international air passengers in Bangladesh. The airport plays an important role as one of the key pieces of infrastructure that support the rapid growth of socioeconomic activities in Bangladesh.

With this stable economic growth, the number of international passengers at the airport is forecasted to exceed eight million per annum in 2018, which is the maximum capacity of the existing international terminals T1 and T2. The number of international passengers of the airport is predicted to reach 22 million by 2035. The volume of import and export cargo at Hazrat Shahjalal International Airport increased by nine percent and 14 percent, respectively, between 2011 and 2015, and the air cargo demand is expected to further increase.

As the demand for passenger and freight air travel is thus projected to further grow, expanding the airport to ensure convenience and safety while meeting that demand is a priority.

(c) Executing Agency

Civil Aviation Authority, Bangladesh, Ministry of Civil Aviation and Tourism
Address: Kurmitola, Dhaka, 1229
Phone: +880-2-8901400, fax: +880-2-8901411

(d) Planned Implementation Schedule

1. Completion of project: July 2021 – when the facilities are put into service
2. Issuing of letters of invitation for consulting services (including detailed design review): Already hired
3. Tender announcement of initial procurement package for international competitive bidding on project construction:
Construction package title: Construction of New Passenger Terminal Building (Terminal 3) etc.
Release date: January 2018

(2) The Kanchpur, Meghna and Gumti 2nd Bridges Construction and Existing Bridges Rehabilitation Project (II)

(a) Objective and Summary

The objectives of the project are to strengthen the capacity and the efficiency of transport and to improve the safety of bridges in Bangladesh by rehabilitating the existing Kanchpur, Meghna and Gumti Bridges, and constructing second new Kanchpur, Meghna and Gumti bridges adjacent to the existing bridges on Dhaka-Chittagong National Highway No. 1, thereby contributing to the sustainable economic development of Bangladesh.

(b) Background and Necessity

The region surrounding the economic corridor on National Highway No. 1 between Dhaka and Chittagong, the country's second largest city, accounts for 30 percent of the country's population and 50 percent of the gross domestic product, driving the country's economic development. Accompanying the economic growth of recent years, the amount of freight and passengers on the highway has increased, and the number of vehicles on the road passing over the target bridges exceeded the design capacity by a maximum of 60 percent in 2012 and is projected to be three times the design capacity by 2025.

In addition, there is severe damage to the road surface that hinders traffic, and the bridges are no longer compliant with the domestic earthquake resistance standards that were made more stringent after the existing bridges were completed. Safety is also a concern as river flow continues to scour the bridge piers.

Given these conditions, there is a need to rehabilitate the existing bridges and construct new bridges to meet the transportation demand that is expected to grow rapidly.

A Japanese ODA loan was provided for the first phase of the project (loan signed in March 2013 for 28.945 billion yen), and Japanese steel-pipe sheet-pile foundation work (suitable for soft ground and providing durability against river sediment scouring) has been adopted for the bridge pier foundations for the first time in Bangladesh.

(c) Executing Agency

Roads and Highways Department, Ministry of Road Transport and Bridges
Address: Sarak Bhaban, Tejgaon Industrial Area, Dhaka
Phone: +880-2-8879299, fax: +880-2-8879199

(d) Planned Implementation Schedule

1. Completion of project: April 2020 – when the facilities are put into service

2. Issuing of letters of invitation for consulting services (including detailed design work): Already hired
3. Tender announcement of initial procurement package for international competitive bidding on project construction: Already contracted

(3) Dhaka Mass Rapid Transit Development Project (Line 1) (E/S)

(a) Objective and Summary

The objective of the project is to alleviate the traffic congestion and mitigate the air pollution in Dhaka by constructing the country's first mass rapid transit system, thereby contributing to the economic development and improving urban environment. The loan will be for the engineering services (E/S) required for the study, design and tender stages of the project, and the loan funds will be allocated to the collection of detailed site data, detailed design work, the preparation of bidding documentation and the like.

(b) Background and Necessity

The population of Dhaka increased from 6.62 million people to 16.98 million people between 1990 and 2014, and the resulting rapid increase in traffic demand is causing chronic traffic congestion, air pollution and other problems. As a result, the average vehicle travel speed in Dhaka is 6.4 kilometers per hour, less than half the speed in central Tokyo (16 kilometers per hour). The PM10 concentration, which is the concentration of particulate matter between 2.5 and 10 micrometers in diameter, is 158 micrograms per cubic meter, greatly exceeding the standard of 20 to 70 micrograms for urban areas recommended by the World Health Organization.

The economic loss due to traffic congestion is said to be 3.868 billion US dollars per year, and traffic congestion also degrades the investment environment and greatly hinders socioeconomic development in the country; thus addressing the challenges of traffic congestion and air pollution is a priority.

The project is a priority initiative in the Revised Strategic Transport Plan For Dhaka, the master plan for urban transportation in Dhaka.

(c) Executing Agency

Dhaka Mass Transit Company Limited
Address: 71-72 Old Elephant Road, Eskaton Garden, Dhaka 1000
Phone: +880-2-55138672 , fax: +880-2-9358589

(d) Planned Implementation Schedule

1. Completion of project: October 2021 – with completion of the loan disbursement
2. Issuing of letters of invitation for consulting services (including detailed design work): September 2017
3. Tender announcement of initial procurement package for international competitive bidding on project construction: This does not apply as the project falls under an engineering services loan.

(4) Matarbari Ultra Super Critical Coal-Fired Power Project (III)

(a) Objective and Summary

The objective of the project is to counter the rising demand for power while mitigating greenhouse gas emissions in Bangladesh by constructing the first ultra-supercritical coal-fired power plant (capable of producing 1,200 megawatts of power in total) in the Matarbari area of Maheshkhali Upazila, which is located in Cox's Bazar District in Chittagong Division, thereby contributing to nationwide economic development and climate change alleviation.

(b) Background and Necessity

The electricity demand is rising in Bangladesh due to the electrification and industrialization as a result of recent rapid economic growth and is estimated to continue to grow by 10 percent per annum over the next decade. While the current latent demand is estimated to be 8,920 megawatts, the power supply is limited to 8,177 megawatts (as of 2015), or approximately 90 percent of the latent demand. About 60 percent of the power supply in Bangladesh is provided by thermal power plants powered by domestic natural gas but domestic natural gas supplies are nearly depleted and the industrial and household demand for natural gas is rising. As such, a transformation to mixed sources of power is an upcoming challenge. The Government of Bangladesh is targeting the development of thermal power based on imported coal as the next source of power to counter the rising demand for power and to thereby contribute to further economic growth.

Japanese ODA loans have been disbursed for the first phase of the project (loan signed in June 2014 for 41.498 billion yen) and the second phase (loan signed in June 2016 for 37.821 billion yen).

(c) Executing Agencies

Coal Power Generation Company Bangladesh Limited
Address: CPCBL, Unique Heights Level 17, 117 Kazi Nazrul Islam Avenue, Eskaton Garden Road, Dhaka-1217
Phone: +880-2-9338529, fax: +880-2-9348306

Power Grid Company of Bangladesh Limited
Address: IEB Bhaban 3rd Floor & 4th Floor, 8/A Ramna, Dhaka-1000
Phone: +880-2-9560883, fax: +880-2-9582382

Roads and Highways Department, Ministry of Road Transport and Bridges
Address: Sarak Bhaban, Tejgaon Industrial Area, Dhaka
Phone: +880-2-8879299, fax: +880-2-8879199

(d) Planned Implementation Schedule

1. Completion of project: January 2024 – when the facilities are put into service
2. Issuing of letters of invitation for consulting services (including detailed design work): Already hired
3. Tender announcement of initial procurement package for international competitive bidding on project construction: Construction of Access Road
Release date: July 2017

(5) Dhaka Underground Substation Construction Project

(a) Objective and Summary

The objective of the project is to improve the electric supply reliability and the balance between the electric power supply and demand by constructing two underground substations in Dhaka, the first in Bangladesh, thereby contributing to improvement of investment environment of Bangladesh and nationwide economic development.

(b) Background and Necessity

With the economic growth and industrialization in Bangladesh in recent years, the demand for power has grown rapidly, from 4,230 megawatts in 2005 to 8,920 megawatts in 2015, taking into account latent demand, more than doubling in a decade. Dhaka Metropolitan Area in particular, which accounts for approximately 45 percent of the country's demand for power, is projected to see an average increase in demand of nine percent per year going forward. In six to seven years, the maximum demand will outstrip the substation capacity, which risks regular wide-ranging power outages, and strengthening the equipment for Dhaka overall, including the construction of new substations, is a priority. Being the most overcrowded city in the world, however, Dhaka has less than one percent of its land unoccupied, and due to challenges such as soaring land prices and few landowners who are willing to relinquish their lands, acquiring land for constructing substations is a difficult challenge.

Given these circumstances, it is necessary to increase the power capacity on the land where substations already exist while maintaining the power supply without a suspension in operation those substations, and the construction of underground substations is an effective response.

(c) Executing Agencies

Dhaka Electric Supply Company Limited
Address: House-22/B, Faruk Sarani, Nikunja-2, Khilkhet, Dhaka-1229
Phone/fax: +880-2-8900110

Dhaka Power Distribution Company Limited

Address: 1, Abdul Gani Road, Dhaka 1000
Phone/fax: +880-2-9563520

(d) Planned Implementation Schedule

1. Completion of project: September 2023 – when the facilities are put into service
 2. Issuing of letters of invitation for consulting services (including detailed design work): September 2017
 3. Tender announcement of initial procurement package for international competitive bidding on project construction: Design and Installation of Electric Facilities for Underground Substation etc.
- Release date: June 2019

(6) Small Scale Water Resources Development Project (Phase 2)

(a) Objective and Summary

The objective of the project is to increase agricultural production and farmers' incomes by providing infrastructure for small-scale water resource management, agri-business-related facilities/equipment and rural infrastructure, and training and technical support to the Water Management Cooperative Associations in four divisions, i.e., Dhaka, Mymensingh, Sylhet and Rangpur in Bangladesh, thereby contributing to poverty reduction and food security as well as socioeconomic development.

(b) Background and Necessity

Although Bangladesh has achieved rapid economic development in recent years, and reduced the number of people living in poverty, about 30 percent of the population, or 48 million people, still lives below poverty line. The poverty rate in rural areas where approximately 70 percent of the population lives is particularly high, 35.2 percent, compared to 21.3 percent for urban areas. In order to raise farmer incomes, stable agricultural production must be ensured while increasing productivity. However, as industrialization and urbanization progress, the amount of farmland available decreases, and there is a need to improve the agricultural productivity on the limited arable land available to achieve food security as there is a growing need for food to feed the rising population.

In order to raise the agricultural productivity, a stable supply of agricultural water must be secured, but the amount of groundwater that is widely used for agriculture in Bangladesh has been declining due to excessive pumping and other factors, and the use of surface water must be promoted. While the country suffers frequent flooding during the rainy season because a major part of the land in Bangladesh is below sea level, the country has inadequate water during the dry season. Therefore, water resource management facilities have significant roles to conserve rainwater during the rainy season while preventing farmland from being inundated, and to utilize the rainwater during the dry season.

(c) Executing Agency

Local Government Engineering Department, Ministry of Local Government, Rural Development and Cooperatives
Address: LGED Bhaban, Agargaon, Sher-e-Bangla Nagar, Dhaka, 1207
Phone: +880-2-8114804, fax: +880-2-8116390

(d) Planned Implementation Schedule

1. Completion of project: March 2023 – when all of the facilities are put into service
2. Issuing of letters of invitation for consulting services (including detailed design work): August 2017
3. Tender announcement of initial procurement package for international competitive bidding on project construction: As procurement will be made within Bangladesh, international competitive bidding is not planned for this project.

Terms and Amounts of Loans

Project title	Amount (million yen)	Annual interest rate (%)		Repayment period (years)	Grace period (years)	Procurement
		Project	Consulting services			
Hazrat Shahjalal International Airport Expansion Project (I)	76,825	0.70	0.01	30	10	General, untied
The Kanchpur, Meghna and Gumti 2nd Bridges Construction and Existing Bridges Rehabilitation Project (II)	52,730	0.70	0.01	30	10	General, untied
Dhaka Mass Rapid Transit Development Project (Line 1) (E/S)	5,593	N/A	0.01	30	10	General, untied
Matarbari Ultra Super Critical Coal-Fired Power Project (III)	10,745	0.70	0.01	30	10	General, untied
Dhaka Underground Substation Construction Project	20,477	0.70	0.01	30	10	General, untied
Small Scale Water Resources Development Project (Phase 2)	11,853	0.70	0.01	30	10	General, untied
Total	178,223					