

## Ex-ante Evaluation

### **1. Name of the Project**

Country: People's Republic of Bangladesh

Project: Telecommunication Network Development Project

Loan Agreement: June 29, 2006; Loan Amount: 8,040 million yen; Borrower: The Government of the People's Republic of Bangladesh

### **2. Necessity and Relevance of JBIC's Assistance**

The Bangladesh Telegraph and Telephone Board (BTTB) is the main provider of fixed-line telephone services within Bangladesh, and possesses equipment such as backbone infrastructure, interconnection and international exchange facilities. However, due to delays in the infrastructure development, the current facilities do not possess sufficient capacity to meet demand, and there is an enormous backlog of customers waiting for service. As a result, the telephone density for fixed-line telephones in Bangladesh is 0.66%, remaining in a low position relative to the country's neighboring low income countries. Furthermore, there are also significant problems in the quality of telecommunications services, such as the low call completion rate, due to the increasing deterioration of facilities. Moreover, due to insufficient capacity of international lines, the situation for communicating with foreign countries is remarkably poor in terms of both quality and quantity.

Though the telephone density for fixed-line telephones remains in an extremely low position, the telephone density rate for mobile telephones on the other hand is advancing rapidly (mobile telephone density: 4.79%), including in rural areas, through private operators. However, interconnection facilities for the mobile telephone network with the fixed-line telephone network are lacking. Because of this, the number of mobile telephones able to connect to the fixed-line telephone network is limited, and this serves to restrict increases in the telephone density of mobile telephones. In addition, mobile telephones which cannot connect to the BTTB's fixed-line telephone network are unable to communicate with the fixed-line telephones in such places as administrative organizations and businesses, as well as with international telephones. This is not only inconvenient, but also has the effect of hampering the smooth exchange of information.

These delays in the development of backbone telecommunications infrastructure and the low degree of convenience for users hinders the development of the private sector and the luring of foreign investment, as well as the elimination of disparities between urban and rural areas. They serve as major obstacles to Bangladesh in terms of further accelerating its economic growth.

In 1998, the Government of Bangladesh released the National Telecommunication Policy, whose objectives include universal access of telecommunication. In October 2002 the National ICT Policy was formulated, which confirmed that promotion of ICT (information communications technology) sector was an important policy of the government as a driving force for the nation's economy.

Reform of the telecommunications sector is being assisted by the consulting services of the World Bank (approved in June 2003). In particular, following the corporatization of the BTTB, further

assistance will be required for the BTTB's organizational enhancement and capacity building of its employees.

At the 2000 Kyushu-Okinawa Summit the Government of Japan announced Japan's Comprehensive Co-operation Package to Address the International Digital Divide, which included the development of information and telecommunications infrastructure. Assistance for the development of IT infrastructure in developing countries constitutes a part of "infrastructure development for sustainable growth," which is one of the priority areas in the Japan Bank for International Cooperation (JBIC)'s Medium-Term Strategy for Overseas Economic Cooperation Operations (FY2005-FY2007).

Based on the above, JBIC's assistance in this project is highly necessary and relevant.

### **3. Project Objectives**

This project will increase the interconnection capacity among the fixed and mobile networks and construct an international exchange network and backbone transmission infrastructure in major cities of Bangladesh and their surrounding areas, in order to improve existing telecommunication services in terms of quantity as well as quality, thereby contributing to the development of the private sector and the country's economy

### **4. Project Description**

#### (1) Target Area

Sites for laying telecommunications lines in major cities like Dhaka, Chittagong, Khulna and their surrounding areas

#### (2) Project Outline

The project will carry out the procurement of the following necessary materials and equipment, construction work, and the procurement of services in the target area mentioned above.

(a) Development of the telecommunications network and interconnection facilities (installation of additional facilities for interconnecting the mobile and fixed-line telephone networks, installation of additional international switchboard equipment, and expansion of backbone infrastructure, etc.)

(b) Consulting services for engineering services (detailed design, tendering support, and construction management for 1. listed above)

(c) Consulting services for institutional development (assistance for initiatives such as the modernization of financial and accounting systems in particular based on an administrative improvement plan which is being formulated with the assistance of the World Bank for the BTTB, following the BTTB's corporatization)

#### (3) Total Project Cost/Loan Amount

11,411 million yen (ODA Loan Amount: 8,040 million yen)

#### (4) Schedule

Planned for June 2006-September 2009 (40 months in total)

(5) Implementation Structure

- (a) Borrower: The Government of the People's Republic of Bangladesh
- (b) Executing Agency: The Bangladesh Telegraph and Telephone Board (BTTB) or its successor corporation following its conversion to a public corporation
- (c) Operation and Maintenance System: Same as (b)

(6) Environmental and Social Considerations

(a) Environmental Effects/Land Acquisition and Resident Relocation

(i) Category: B

(ii) Reason for Categorization

This project does not fall under the category for sector or attribute prone to produce effects and areas which are easily affected as listed in the JBIC Guidelines for Confirmation of Environmental and Social Considerations (established April 2002). For this reason, and because it has been judged that undesirable effects on the environment will not be significant, this project falls into Category B.

(iii) Environmental Permit

Bangladesh's national legislation does not require the preparation of an environmental impact assessment (EIA) report for this project

(iv) Anti-Pollution Measures

For operations such as construction work for laying cables measures will be taken such as spraying water to prevent the scattering of soil, sand, and other materials.

(v) Natural Environment

Since the project target areas and the surrounding areas do not fall under the heading of locations earmarked for conservation (such as national parks), nor being habitats for valuable species or similar designations, it is not foreseen that the project will have any particularly negative impacts.

(vi) Social Environment

It is not anticipated that this project will require the acquisition of land or the relocation of residents.

(vii) Others/Monitoring

The executing agency will monitor air quality during the construction work.

(b) Promotion of Poverty Reduction

None in particular.

(c) Promotion of Social Development (e.g. Gender Perspective)

None in particular.

(7) Other Important Issues

Consideration is underway for training on the new technology (IP technology) to be introduced, to be implemented in cooperation with Japan International Cooperation Agency (JICA).

**5. Outcome Targets**

Evaluation Indicators (Operation and Effect Indicator)

Indicator	Baseline (2005)	Target ( 2010 [one year after completion of project])
Call completion rate (%)	26.48	40.00
Fault Ratio (%)	1.50	1.00
Waiting Applicants	140,586	100,000
Telephone Density (Fixed: %)	0.66	1.48
Telephone Density (Mobile: %)	4.8	8.2
Number of Mobiles Connected to Fixed lines	1.57 million	12 million
Number of internet users	400,000	1 million

**6. External Risk Factors**

A downturn in the number of private sector enterprises entering the market, considering the lack of ability on the part of independent regulatory bodies related to matters such as the setting of interconnections fees.

**7. Lessons Learned from Findings of Similar Projects Undertaken in the Past**

The lesson has been acquired from similar projects in the telecommunications sector from the past that quick decision-making on the part of the executing agency is important for the preparation and execution of the project due to the rapid technological innovations in this sector. Based on this lesson, human resources at the general manager-level are scheduled to be appointed as officials responsible for the Project Management Unit (PMU). Moreover, through the corporatization of the BTTB, the authority for matters such as procurement will be transferred away from the government, which is expected to expedite decision-making. In addition, the lesson has been acquired that in the case that the executing agency is scheduled to be converted to be corporatized, sufficient monitoring on the development will be important. Based on this lesson, for this project the plan is underway to ascertain the development toward corporatization, and provide conversion assistance through management consulting services.

**8. Plans for Future Evaluation**

(1) Indicators for Future Evaluation

- (a) Call completion rate (%), (b) Fault ration (%), (c) Waiting applicants, (d) Telephone density (fixed) (%), (e) Telephone density (mobile: (%), (f) Number of mobiles connected to fixed lines (people), (g) Number of internet users (people)

(2) Timing of Next Evaluation

After completion of project