#### **Ex-Ante Evaluation**

## 1. Name of the Project

Country: The People's Republic of Bangladesh

Project: Maternal, Neonatal and Child Health (MNCH) and Health System Improvement

**Project** 

Loan Agreement: December 13, 2015 Loan Amount: 17,520 million Yens

Borrower: The Government of the People's Republic of Bangladesh

# 2. Background and Necessity of the Project

### (1) Current States and Issues of the Health Sector in Bangladesh

In the health sector in Bangladesh, various measures have been taken to promote maternal and child health. As a result, there has been improvement in some indicators of the Millennium Development Goals (MDGs): the infant mortality rate (declining from 92 in 1990 to 43 in 2011 (per 1,000 live births)); the under-five mortality rate (declining from 146 in 1990 to 53 in 2011(per 1,000 live births)); and the maternal mortality ratio (declining from 574 in 1990 to 194 in 2010 (per 100,000 live births)). However, the proportion of deliveries assisted by skilled birth attendants and the proportion of pregnant women who received ante-natal care (at least four visits) are still low, at 34.4% and 25% (as of 2013), respectively, compared to those of other South Asian countries. In order to achieve the targets on these indicators, Bangladesh needs to make further efforts to provide health, population, and nutrition services as well as promote the use of these services by increasing public awareness. In order to improve the delivery of these services, the country needs to integrate and strengthen the health system, from community level to tertiary level health facilities. The heath system is facing problems mainly due to the lack of health workforce constituting the basis of the health system. In particular, it is urgent to improve nursing services in quantity and quality. Moreover, the demand for medical care has been expanding in recent years, for non-communicable diseases, such as cardiovascular diseases, diabetes, and cancers, have increased (accounting for 68% of the total deaths in Bangladesh) and external injuries. In fact, the number of outpatients visiting the National Institute of Cardiovascular Disease has been growing rapidly (from 86,944 in 2002 to 174,366 in 2012). This shift in disease patterns was mainly caused by changes in diet and lifestyle, rapid urbanization, an increase in traffic accidents, and the spread of smoking habits. Public hospitals cannot provide adequate health services for early diagnosis and treatment. Especially, poor and socially vulnerable people have only limited access to timely medical care. Moreover, examination and treatment at private hospitals are very expensive, imposing a huge economic burden on patients.

(2) Development Policies for the Health Sector in Bangladesh and the Priority of the Project As the most important national development strategy, the Sixth Five Year Plan (from FY2011-2012 to FY2015-2016) identifies the health sector as one of the most important areas in human development, which is the ultimate focus of the development policies of Bangladesh. And it indicates that the target outcome is to attain the MDGs to achieve the sustainable improvement of reproductive health. Meanwhile, the Health, Population and Nutrition Sector Development Program (HPNSDP; from July 2011 to June 2016), a comprehensive development program of the health sector, identifies the following as priority issues: reducing maternal and infant mortality; controlling communicable and non-communicable diseases; improving malnutrition; and controlling population growth. The HPNSDP aims to raise the minimum standards of health care across the country, mainly by improving health services and strengthening health systems. Moreover, the Strategic Plan for Surveillance and Prevention of Non-Communicable Diseases in Bangladesh 2011-2015, a guideline for practical and evidence-based interventions for non-communicable diseases, aims to reduce the mortality rate due to non-communicable diseases by 2% per annum. The Maternal, Neonatal and Child Health (MNCH) and Health System Improvement Project (hereinafter referred to as "this Project") is in line with these policies and objectives of Bangladesh since it is designed to implement activities that can contribute to the HPNSDP as well as to support the efforts to reduce the maternal and child mortality and non-communicable disease mortality rates.

# (3) Japan and JICA's Policy and Operations in the Health Sector

The Japanese Government's Country Assistance Program for Bangladesh (issued in June 2012) identifies "overcoming social vulnerability" as one of the priority areas. The Priority Policy for International Cooperation (issued in May 2014) of the Japanese Ministry of Foreign Affairs indicates that Japan will place a focus of the "ODA to support emerging/developing countries to grow together with Japan" on the "overseas deployment of Japanese medical services" and that the "ODA to promote human security and strengthen trust in Japan" will include the "promotion of universal health coverage (UHC) based on the Strategy for Global Health Diplomacy." Moreover, the JICA Country Analysis Paper for Bangladesh (issued in April 2013) sets the "Maternal and Child Health / Health System Strengthening Program" as a cooperation program to contribute to the priority area of "overcoming social vulnerability." Thus, this Project is consistent with the policy and analysis of the Japanese Government and JICA.

Recent cooperation projects implemented by JICA are listed below.

- Technical cooperation: Safe Motherhood Promotion Project (Phase I: from 2006 to 2011; Phase II: from 2011 to 2016) and a dispatch of Health Advisors (from 2009 to 2013)
- Loan assistance: Maternal, Neonatal and Child Health Improvement Project (Phase 1) (Health, Population and Nutrition Sector Development Program) (from 2011 to 2014)

#### (4) Other Donors' Activities

Currently in Bangladesh, 14 international donor agencies, including JICA, are providing support under the framework of the sector-wide approach (SWAp) to facilitate the

implementation of the HPNSDP. The World Bank has assumed the role to manage and supervise the multi-donor trust funds and relevant procurement processes. The World Bank is also planning to provide more results-oriented support for improvements in the delivery of health services, especially in rural areas.

# (5) Necessity of the Project

This Project is designed to implement activities that can contribute to the HPNSDP, a comprehensive development program of the health sector in Bangladesh, as well as to support the efforts to reduce the maternal and child mortality and non-communicable disease mortality rate so that Bangladesh can achieve the MDGs and other national targets set for the health sector. Therefore, it is highly necessary and relevant to implement this Project.

# 3. Project Description

# (1) Project Objective

1. The objective of the Project is to improve Maternal, Neonatal and Child Health (MNCH) services and strengthen health system of Bangladesh by implementing MNCH related activities and activities to improve service provision at all levels of health facilities under the Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-2016 and beyond, thereby contributing to the improvement of health status of the people of Bangladesh.

# (2) Project Site/Target Area Throughout Bangladesh

### (3) Project Components

- 1) Improvement in maternal and child health and health systems:
  - a) Construction of the primary health care facilities, and academic buildings and hostels of BSc nursing colleges to contribute to the HPNSDP
  - b) Procurement of equipment for maternal and child health (domestic competitive bidding), equipment for secondary health facilities that increased the number of beds, and training equipment for nursing educational institutions
  - c) Training for Community Support Groups and Family Welfare Visitors
- 2) Strengthening diagnostic imaging system fornon-communicable diseases: construction of diagnostic imaging centers, procurement of diagnostic imaging equipment, and training on the procured equipment, etc. for seven medical college hospitals in all of the seven divisions
- 3) Consulting services: detailed design, tender assistance, construction supervision, and capacity development, etc. for the diagnostic imaging centers to be constructed and equipment to be procured

(4) Estimated Project Cost (Loan Amount)

21,497 million Yen (Loan Amount: 17,520 million Yen)

# (5) Schedule

From December 2015 to November 2021 (72 months in total). Project completion is defined as when all the facilities placed in service (in November 2020).

- (6) Project Implementation Structure
  - 1) Borrower: The Government of the People's Republic of Bangladesh
  - 2) Guarantor: N/A
  - 3) Executing Agency: Ministry of Health and Family Welfare (MOHFW) of Bangladesh
  - 4) Operation and Maintenance System: The MOHFW has been implementing health sector program financed by the Government of Bangladesh and international donors. Project implementation unit will be established to support the medical college hospitals for strengthening the diagnostic imaging system. Moreover, JICA is planning to hire consultants to assist the MOHFW through the scheme of Technical Assistance Related to ODA Loan. Therefore, there seems no problem in the operation of this Project. There will be no problem with operation and maintenance because the Government of Bangladesh is committed to allocate maintenance costs necessary for this Project.
- (7) Environmental and Social Consideration/Poverty Reduction/Social Development
  - 1) Environmental and Social Consideration:
  - ① Category: FI
  - 2 Reason for Categorization:

This Project is classified as Category FI, according to the JICA Guidelines for Environmental and Social Considerations (published in April 2010), because its sub-projects cannot be specified prior to JICA's approval of funding and because those sub-projects are expected to have a potential impact on the environment.

3 Other/Monitoring:

In this Project, the executing agency is to classify each sub-project according to the laws and regulations of Bangladesh and the JICA Guidelines for Environmental and Social Considerations and take necessary measures depending on the category while receiving support from consultants hired through this Project. None of the sub-projects will fall under the Category A.

2) Promotion of Poverty Reduction: This Project can contribute to the promotion of the health of the poor since it is designed to provide equipment for and improve the services of public health facilities which are mainly used by poor people. 3) Promotion of Social Development (e.g. Gender Perspective, Measure for Infectious Diseases Including HIV/AIDS, Participatory Development, Consideration for the disabled etc.):

This Project is classified as a women-targeted project since it includes support to create a safe environment for pregnant women to give birth.

### (8) Collaboration with Other Schemes and Donors

This Project is based on the HPNSDP, the sector-wide approach (SWAp) involving 14 donors. The HPNSDP is implemented, monitored, and evaluated jointly by the Government of Bangladesh and the participating donors. Moreover, this Project is implemented in tandem with the on-going JICA technical cooperation project in the maternal and child health sector so as to support activities for the proliferation and dissemination of those cooperation results.

(9) Other Important issues None in particular.

# 4. Targeted Outcomes

## (1) Quantitative Effects

# 1) Performance Indicators (Operation and Effect Indicator)

Indicator	Baseline (Actual value in FY2014)	Target (in 2022) [Expected value two years after project completion]
Number of community support groups trained *1	37,731	48,000 (in 2016)
Percentage of delivery by skilled birth attendants (%) *1	34.4	50 (in 2016)
Antenatal care coverage (at least 4 visits) (%) *1	25	50 (in 2016)
Graduation rate of seven BSc nursing colleges *2	-	Increased
Number of examinations by each diagnostic imaging equipment *3	-	Increased
Radiation exposure level at the waiting rooms in the diagnostic imagingcenters	-	Maintain stable under the safe level
Radiation exposure level of radiologists and radiographers working in the diagnostic imaging centers	-	Maintain under the safe level

Patients' out of pocket payment		
for diagnostic imaging	-	Reduced
examination *3		

- \*1. The activities contributing to the HPNSDP are to be implemented by the Government and evaluated against the same targets as those of the HPNSDP; therefore, the targets are aimed to be achieved by the end of the HPNSDP (in 2016). The ex-post evaluation of this Project will assess their accomplishment against their target values set for 2016.
- \*2. The indicators to be set in the Technical Cooperation Project for Capacity Building of Nursing Services, which is planned to be launched in FY2015, are used as target values to evaluate effectiveness of the Project.
- \*3. The baseline values are to be determined by the consultant team hired through this Project.

### (2) Qualitative Effects

Higher satisfaction of patients with medical services provided at the diagnostic imaging centers, improvement in the quality of medical professionals working at the diagnostic imaging centers, promotion of evidence-based treatment, and improvement in the quality of clinical research and education

## (3) Internal Rate of Return

The Internal Rate of Return was not calculated because it was difficult to identify the benefits originated only from this Project.

## 5. External Factors and Risk Control

(1) Preconditions: None in particular.

(2) External Factors: None in particular.

## 6. Evaluation Results and Lessons Learned from Past Projects

### (1) Results of Evaluation of Similar Past Projects

The ex-post evaluation of 'the Rural Health Infrastructure Strengthening Project' in Thailand indicated that when the project provides equipment to different medical institutions, it is more effective to strengthen the management capacity of the hospitals to ensure the effective use of the equipment because the capacity varies among the medical institutions.

#### (2) Lessons for the Project

Because this Project will provide equipment to a number of medical institutions, it is planned to examine the capacity of users in the hospitals and assist them in developing necessary capacity, such as the capacity to properly operate and maintain the equipment and use it to provide more accurate diagnoses, so that they can make the best use of this Project.

#### 7. Plan for Future Evaluation

(1) Indicators to be Used

- 1) Number of community support groups trained
- 2) Percentage of delivery by skilled birth attendants (%)
- 3) Antenatal care coverage (at least 4 visits) (%)
- 4) Graduation rate of seven BSc nursing colleges
- 5) Number of examinations by each diagnostic imaging equipment
- 6) Radiation exposure level at the waiting rooms in the diagnostic imaging centers
- 7) Radiation exposure level of radiologists and radiographers working in the diagnostic imaging centers
- 8) Patients' out of pocket payment for diagnostic imaging examination

# (2) Timing of Next Evaluation:

Two years after the completion of the Project (ex-post evaluation)