

1. Name of the Project

Country: Republic of India

Project: Tamil Nadu Urban Health Care Project

Loan Agreement: March 31, 2016

Loan Amount: 25,537 million yen

Borrower: The President of India

2. Background and Necessity of the Project

(1) Present State of Development and Problems of the Health Sector in India

While India is enjoying rapid economic growth in recent years, its health sector has undertaken the National Rural Health Mission (hereinafter referred to as the “NRHM”) under the leadership of the government since 2005, along with individual programs to fight tuberculosis, HIV/AIDS, and other diseases. As a result, India has seen improvements in its health indicators, such as reductions in the prevalence of infectious diseases. Meanwhile, due to lifestyle changes along with economic growth, the prevalence of non-communicable diseases (hereinafter referred to as “NCDs”), such as cardiovascular diseases and cancers, has been on the rise. Deaths from NCDs have overtaken deaths from infectious diseases, and NCDs have become the most common causes of death in urban areas (According to the WHO’s 2012 statistics, the top three causes of death are ischemic heart disease, chronic respiratory disease, and cerebral and myocardial infarction, in descending order). NCDs are estimated to account for 60% of all deaths and carry a 26% risk of death in people aged between 30 and 70 years old (WHO, 2015). As the prevalence of these diseases is expected to continue to increase, NCD interventions (prevention and control) have become an important issue that will require long-term efforts, along with primary health care such as maternal and child care and infectious disease control.

(2) India’s Development Policies for the Health Sector and the Role of the Current Project

Most of poor people can only afford public health care services though they are limited both in quality and quantity. In light of this, the Twelfth Five Year Plan (from April 2012 to March 2017) identifies the strengthening of public health care services for the urban poor including slum dwellers as a national priority issue. The National Urban Health Mission (hereinafter referred to as the “NUHM”), launched in 2013 to improve public health care services mainly for the urban poor, proposes to achieve its objectives by strengthening the existing medical facilities and developing the capacity of health care personnel. The NUHM has been integrated with the NRHM into the National Health Mission (hereinafter referred to as the “NHM”), under which measures

are being taken to strengthen primary medical facilities across the country to deal with NCDs.

Tamil Nadu State (with a population of 72 million according to the 2011 census) is the most urbanized in India (with an urban population accounting for 48.5% of the total population). It is estimated that around 8.64 million (2011 census) poor people are living in slums, and the number is expected to continue to increase. The urban poor can only afford public health care services, but the supply cannot meet the demand which is growing along with the continuous inflow of population into cities. Therefore, it is becoming increasingly urgent to improve the access of the urban poor to public health care services. Meanwhile, the prevalence of NCDs has been on the rise due to lifestyle changes. Especially, the incidence of cancer and diabetes in Tamil Nadu has reached a higher level than the national average. Thus, the demand is growing for NCD interventions (including early identification and treatment), in addition to conventional maternal and child health and infectious disease control mainly targeted at the poor. To be more specific, there is a growing need for the development of secondary medical facilities to provide emergency treatment and perform tests for the diagnosis of NCDs as well as the development of tertiary medical facilities and equipment to provide an accurate diagnosis of cardiovascular and other diseases and carry out treatment, surgeries, and other medical interventions. In light of the above, the Tamil Nadu Urban Health Care Project (hereinafter referred to as “this Project”) will be implemented, mainly aiming to develop secondary and tertiary medical facilities. Designed to raise the quality of urban health care systems to provide public health care services for the urban poor and control NCDs prevailing in Tamil Nadu, this Project is positioned to promote the NUHM.

(3) Japan and JICA's Policy and Operations in the health Sector in India

The Government of Japan released its Strategy on Global Health Diplomacy in May 2013, emphasizing the importance of support for the health sector to achieve universal health coverage (UHC). The Country Assistance Program for India (May 2006) also identifies the “Health and Sanitation Sector” as a priority target. Moreover, JICA's Country Analysis Paper for India (March 2012) identifies support for the “Health Care and Sanitation Sector” as a priority issue. Thus, this Project is in line with these policies and analysis results. Meanwhile, no ODA loans have been approved for the health sector in India. As of the end of January 2015, Japan has implemented seven grant aid projects amounting to 16,010 million yen and four technical cooperation projects worth 1,011 million yen in total.

(4) Other Donors' Activity

The Asian Development Bank is planning to provide the Government of India with a loan of 500 million USD to support the NUHM. The World Bank implemented a project

to strengthen health systems in Tamil Nadu (Phase 1 from 2005 to 2010 with a cost amounting to approx. 110 million USD; Phase 2 from 2010 to 2014 with a cost amounting to 210 million USD).

(5) Necessity of the Project

This Project is highly urgent as it aims to improve the quality of urban health systems to provide public health care services and control NCDs in Tamil Nadu in the face of a growing urban poor population and changing disease patterns. This Project is also consistent with the development policies of the Government of India and the assistance policies of Japan and JICA. Therefore, it is highly necessary and relevant for JICA to implement this Project.

3. Project Description

(1) Project Objective

By developing health care facilities and equipment and building the capacity of medical personnel for NCD interventions in Tamil Nadu State, this Project aims to improve urban health care systems, thereby contributing to the health promotion of residents in the state.

(2) Project Site/Target Area

The state of Tamil Nadu

(3) Project Components

- 1) Development of health care facilities (renovation of three tertiary medical institutions and construction four new secondary medical institutions)
- 2) Procurement of medical equipment (MRIs, CT scanners, x-ray equipment, angiography equipment, hemodialyzers, endoscopes, etc.)
- 3) Capacity building of health care personnel (training on hospital facilities management, medical equipment maintenance, NCD screening, etc.)
- 4) Consulting services (detailed design, bidding assistance, construction supervision, etc.)

(4) Project Cost

30,060 million yen (Loan amount: 25,537 million yen)

(5) Project Implementation Schedule

March 2016 – September 2021 (67 months in total). The project completion is defined as the commencement of the service (September 2020)

(6) Project Implementation Structure

- 1) Borrower: The President of India
- 2) Executing Agency: Health and Family Welfare Department, Government of Tamil Nadu
- 3) Operation and Maintenance System: The Health and Family Welfare Department will operate and maintain as planned all medical facilities provided and medical equipment procured in the Project in accordance with the standard maintenance procedures.

(7) Environmental and Social Considerations/Poverty Reduction/Social Development

1) Environmental and Social Considerations

- ① Category: B
- ② Reason for Categorization: This project is classified as Category B because it is not in a sector nor does it have characteristics likely to exert impact, nor is it in a sensitive region, and so no significant adverse impact on the environment is considered likely, under JICA guidelines for environmental and social considerations (April 2010).
- ③ Environmental Permit: The Environmental Impact Assessment (EIA) report is required for this Project under the Indian laws. The report is expected to be approved by the state authorities (State Environmental Impact Assessment Authority of Tamil Nadu) by July 2016.
- ④ Anti-Pollution Measures: During the construction period, air, water, noise, and vibration pollution will be reduced to meet the legal standards of India by such measures as sprinkling water to prevent dust emissions and limiting the speed of construction vehicles. Moreover, in order to reduce the impact of water pollution and waste disposal, the design and construction supervision consultants will supervise appropriate treatment. These measures are expected to prevent significant negative impacts on the natural environment. After the commencement of services, the medical waste is to be separated into infectious, physiological, and sharp-edged wastes and collected by licensed waste collectors; therefore, this Project is not likely to cause environmental impacts.
- ⑤ Natural Environment: The Project sites are not located in or around susceptible areas, such as national parks. Moreover, this Project is designed to construct buildings in lands owned by the State Government. Therefore, this Project is likely to have a minimal adverse impact on the natural environment.
- ⑥ Social Environment: This Project will not involve involuntary resettlement or land acquisition from private owners as it will be implemented within existing facilities, using lands owned by the State Government.
- ⑦ Other/Monitoring: During the construction, the contractors will monitor the quality of air and water, the level of noise and vibration, and waste disposal,

and after the commencement of services, the implementing agencies will monitor waste disposal on a regular basis.

2) Promotion of Poverty Reduction:

The Project is expected to improve the access of the poor to public health care services.

3) Promotion of Social Development

Barrier-free considerations: The hospitals to be constructed will be designed according to the principles of universal design. For example, the hospitals are to be equipped with slopes, handrails, wide passages, and spacious restrooms for wheelchair access.

Gender considerations: Although this Project mainly aims to control NCDs, it is expected to improve health care services for pregnant women and infants by strengthening the capacity of medical personnel and renovating secondary medical facilities which serves as hubs to provide health care services for expectant and nursing mothers. Moreover, it is generally said that women tend to take care of NCD patients at home, and this Project is expected to reduce the burden of women's domestic labor by improving prevention, treatment, and other health care services for NCDs. Therefore, this Project is classified as a gender-integrated project.

Prevention of HIV/AIDS and other infectious diseases: During the construction period, the contractors will take HIV/AIDS prevention measures for the construction workers.

(8) Collaboration with Other Donors

The World Bank implemented the Tamil Nadu Health Systems Project until 2015 to strengthen health systems in Tamil Nadu. The project implementation unit established by the project will be utilized for this Project.

(9) Other Important Issues:

None in particular

4. Targeted Outcomes

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicator)

Indicators	Baseline (actual value in 2014)	Target (2023) [2 years after project completion]
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Number of surgeries with catheter interventions (cases)	Madurai Medical College Hospital: 336 Kilpauk Medical College Hospital: 0 Coimbatore Medical College Hospital: 0	Madurai Medical College Hospital: 700 Kilpauk Medical College Hospital: 150 Coimbatore Medical College Hospital: 150
Number of surgeries performed in hybrid operating rooms (cases)	Madurai Medical College Hospital: 46 Kilpauk Medical College Hospital: 0 Coimbatore Medical College Hospital: 5	Madurai Medical College Hospital: 280 Kilpauk Medical College Hospital: 200 Coimbatore Medical College Hospital: 100
Number of mammography examinations (cases)	Vellore: 0 Tirunelveli: 10 District headquarters hospitals: 0	Vellore: 1000 Tirunelveli: 1000 District headquarters hospitals: 650
Number of hemodialysis treatments (cases)	<Tertiary medical facilities> Tirunelveli: 460 Nagercoil: 62 Tuticorin: 202 Trichy: 294 <Secondary medical facilities> Erode: 1,249 Cuddalor: 694 Other district headquarters hospitals: 0	All hospitals as listed on the left: 600
Inpatient bed occupancy rate (%)	Avadi: 85.4 Other hospitals: NA	All hospitals as listed on the left: 90
Number of seats in a training course for cardiologists (persons)	Madurai Medical College Hospital: 2 Kilpauk Medical College Hospital: 0 Coimbatore Medical College Hospital: 0	Madurai Medical College Hospital: 4 Kilpauk Medical College Hospital: 2 Coimbatore Medical College Hospital: 2
Fill rate of cardiology positions (%)	Madurai Medical College Hospital: 100 Kilpauk Medical College Hospital: NA Coimbatore Medical College Hospital: NA	All hospitals as listed on the left: 100
Number of certified (*) tertiary and secondary medical facilities (hospitals)	Number of certified secondary medical facilities: 0 Number of tertiary medical facilities with certified cardiology, radiology, nephrology, and anesthesiology units: 0	Number of certified secondary medical facilities: 4 Number of tertiary medical facilities with certified cardiology, radiology, nephrology, and anesthesiology units: 3

(*) Refers to the third-party certification for quality assurance by the Government of India.

(2) Qualitative Effects

Health promotion of local residents; poverty reduction through participation in economic activities as a result of health promotion

(3) Internal Rate of Return

Not calculated as the Project does not contain profitability.

5. External Factors and Risk Control

Political and economic instability and natural disasters will not occur in India or areas surrounding the Project sites.

6. Evaluation Results and Lessons Learned from Past Projects

(1) Results Similar Past Projects

The ex-post evaluation of Rural Health Infrastructure Strengthening Project in the Kingdom of Thailand extracted a lesson that in a project which provides equipment to different medical institutions, the enhancement of their hospital management capacity can contribute to their effective use of the equipment to be installed because their capacity levels are different.

(2) Lessons for the Project

In order to ensure the effective use of the equipment to be provided to different medical institutions, this Project is designed to examine the ability of those who will use the equipment at the hospitals and then provide technical assistance to enhance their capacity so that they can operate and maintain the equipment properly and help to make accurate diagnoses.

7. Plan for Future Evaluation

(1) Indicators for Future Evaluation

- 1) Number of surgeries with catheter interventions (cases)
- 2) Number of surgeries performed in hybrid operating rooms (cases)
- 3) Number of mammography examinations (cases)
- 4) Number of hemodialysis treatments (cases)
- 5) Inpatient bed occupancy rate (%)
- 6) Number of seats in a training course for cardiologists (persons)
- 7) Fill rate of cardiology positions (%)
- 8) Number of certified tertiary and secondary medical facilities (hospitals)

(2) Timing

Two years after project completion