Ex-Ante Evaluation

1. Name of the Project

Country: The Democratic Socialist Republic of Sri Lanka

Name of the Project: Health and Medical Service Improvement Project

Loan Agreement: July 11, 2018

2. Background and Necessity of the Project

(1) Current State and Issues of the Health Sector in Sri Lanka and the Priority of the Project

The government of the Democratic Socialist Republic of Sri Lanka (hereinafter referred to as "GOSL") has promoted various policies such as a free basic medical service and medical staff development to form a healthy society, and it has made remarkable achievements for communicable diseases as well as maternal and child health over the past few decades. Despite these measures, however, Sri Lanka has faced an increase in non-communicable diseases (hereinafter referred to as "NCDs") since the 1980s, due to an aging population and lifestyle changes. Approximately 81 percent of deaths in Sri Lanka were caused by NCDs in 2015, and the major cause of death was cardiovascular diseases, which account for approximately 35 percent of the total (the second was malignant neoplasm, and the third was respiratory disease).[1] The "National Health Policy (2016–2025)" includes a strategy of providing comprehensive cardiac care services in an equitable manner. It encourages improvement of diagnostic facilities and research and training institutions, and the provision of effective medical equipment to relevant medical facilities. GOSL has been working to improve medical services including NCDs according to the above policy, but improving medical facilities and equipment as well as training medical professionals to treat an increasing number of NCD patients are priorities.[2] Rural tertiary hospitals are not able to provide necessary diagnosis and treatment due in particular to a lack of medical facilities and equipment for cardiovascular diseases.[3] Catheter laboratories, which are used for diagnosis and treatment of cardiovascular diseases, have been introduced in only 6 hospitals among the total of 39 tertiary hospitals.[4] Given this situation, there are urgent needs to maintain medical facilities and equipment at rural tertiary hospitals as well as for capacity development of tertiary hospitals.

Equipment at the training institutions for medical laboratory technologists (hereinafter referred to as "MLT") is either insufficient or in poor condition.[5] The

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1 Institute for Health Metrics and Evaluation (2015)

2 "National Health Strategic Master Plan (2016–2025)," Ministry of Health, Nutrition and Indigenous Medicine (hereinafter referred to as "MOH")

3 "National Health Strategic Master Plan (2016–2025)," MOH

4 "Preparatory Survey on Health and Medical Service Improvement Project in Sri Lanka (2017)," interview with MOH

5 "Preparatory Survey on Health and Medical Service Improvement Project in Sri Lanka (2017)," based on the results of investigation by the study team

improvement of MLT training institutions thorough equipment maintenance is needed due to the increasing number of examinations for NCD patients in the near future.

The Bio-medical Engineering Services (hereinafter referred to as “BES”) Unit of the MOH manages the maintenance of medical equipment; however, equipment for maintaining and managing existing medical equipment is insufficient. Furthermore, BES does not cooperate well with BES branches located in each medical institution. Therefore, it is necessary to address the above-mentioned situations.[6]

This project contributes to the improvement of medical services for diagnosis and treatment, which is one of the prioritized fields in the health policy in Sri Lanka, by improving medical facilities and equipment at tertiary hospitals and training institutions for medical professionals, and strengthening the maintenance and management system for medical equipment.

(2) Japan’s and JICA’s Policy and Operations in the Health Sector

In Japan’s “Country Assistance Policy for the Democratic Socialist Republic of Sri Lanka (2012),” the government of Japan sets “alleviation of vulnerability” as the priority area, and it indicates that “Japan supports the improvement of social service infrastructure such as capacity development and maintenance of related facilities in the health and medical sector.” In addition, the “JICA Country Analysis Paper for the Democratic Socialist Republic of Sri Lanka (2014)” identifies that it is expected to rectify disparities within the country by improving and maintaining medical institutions properly, and developing and assigning medical professionals. Furthermore, the government of Japan aims to promote international expansion of the health and medical sector, so this project is aligned with this policy and analysis. Moreover, the improvement of medical facilities for cardiovascular department at tertiary hospitals will contribute to SDGs goal 3 “Good health and well-being,” so the necessity and validity of this project is high.

(3) Other Donors’ Activity

The World Bank (WB) has implemented the Health Sector Development Project (2004–2011), which supported improvement of district-level health administration, and strengthening the administrative capacity of MOH. Since 2014, phase 2 of the project, which supports capacity development for prevention of NCDs and improvement of the medical information system, has been launched. The World Health Organization (WHO) has been assisting human resource development and policy making in the areas of health system development, administration of communicable diseases, NCDs, maternal health and reproductive health. The United Nations Children’s Fund (UNICEF) is assisting in the field of child nutrition, improvement of basic health services in conflict-affected regions and facilities for pediatric services. There is currently no duplication between these activities and the project, and likewise none in the future.

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[6] “Preparatory Survey on Health and Medical Service Improvement Project in Sri Lanka (2017),” based on the results of investigation by the study team

3. Project Description

(1) Project Objectives

The objective of the project is to improve medical service for diagnosis and treatment of NCDs including cardiovascular diseases by improving medical facilities and equipment in tertiary hospitals and training institutions for medical professionals as well as strengthening the maintenance of medical equipment in Western, North Western, Central, North Central, Eastern and Uva Provinces, and it would contribute to health improvement of citizens in the target area.

(2) Project Sites/Target Area

Western (Colombo and Kalutara Districts), North Western (Kurunegala District), Central (Kandy District), North Central (Anuradhapura District), Eastern (Trincomalee District) and Uva (Badulla District) Provinces

(3) Project Components

1) Construction of facilities and procurement of equipment (e.g., angiography systems) for tertiary hospitals (Procurement of equipment in Western, North Western, Central, North Central, Eastern and Uva Provinces, construction of facilities in the above provinces except Uva Province. A facility in Badulla Provincial General Hospital in Uva Province will be constructed using the budget of GOSL.)
2) Procurement of equipment (e.g., microscopes) for MLT training institutions (Western and Central Provinces)
3) Procurement of equipment for operation and maintenance in BES
4) Consulting services (detailed design work, bidding assistance, construction supervision, technical assistance for medical equipment maintenance and management)

(4) Estimated Project Cost (Loan Amount)

11,428 million yen (Loan Amount: 10,639 million yen)

(5) Schedule

July 2018 to September 2024 (75 months in total)

Project completion is defined as when the facility service is commissioned (scheduled in September 2023).

(6) Project Implementation Structure

1) Borrower: The government of the Democratic Socialist Republic of Sri Lanka
2) Executing Agency: Ministry of Health, Nutrition and Indigenous Medicine
3) Operation and Maintenance: Ministry of Health, Nutrition and Indigenous Medicine

(7) Collaboration with Other Schemes and Donors

1) Collaboration with Other Schemes

Not applicable.

2) Collaboration with Other Donors

WB is planning to support strengthening the referral system focused on prevention and awareness as the Health Sector Development Project phase 3. JICA and WB are considering strategy for enhancing the efficiency of the overall health system in Sri Lanka. It has the potential to increase the validity of the project.

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

1) Environmental and Social Considerations

i) Category: B

ii) Reason for Categorization: The project is classified as Category B because it does not fall under a sector likely to have any significant impact on the environment or have characteristics that are liable to cause adverse impacts, and is not located in or near sensitive areas, as specified in the “JICA Guidelines for Environmental and Social Considerations” (published in April 2010).

iii) Environmental Permit: Sri Lankan law does not mandate the preparation of environmental impact assessment (EIA or IEE) reports for this project. However, acquiring an Environmental Protection License and a Scheduled Waste Management License, which all medical institutions are obliged to acquire, is necessary to operate the intended facilities and equipment of this project.

iv) Anti-Pollution Measures: While gas emissions, noise, vibration and other aspects can conceivably arise during construction, there are plans to alleviate them by measures such as limitations on construction time. Infectious clinical solid waste may be generated after use of the facilities and equipment, but there are plans to properly dispose of this waste using sterilizers and incinerators introduced with the assistance of Australia. Waste liquid and reagents contain silver, barium, gadolinium and so on, but there are plans to ensure water treatment before draining using sewage septic tank equipment introduced by this project.

v) Natural Environment: The project is not located in sensitive areas such as national parks or world heritage sites. Therefore, the impact on the natural environment is presumed to be minimal.

vi) Social Environment: The project is conducted on the grounds of existing facilities and uses government-owned land. Also, it does not require the resettlement of people and acquisition of private land.

vii) Other/Monitoring: In the project, contractors will monitor air quality, noise, vibration, waste, water quality and other matters during the construction, and subsequently the Infection Control Unit in each medial institution and Public Health Services Department Director General will conduct regular monitoring of waste, water quality and other aspects, under the supervision of the MOH.

2) Cross-cutting Issues

The project targets provinces which have higher rates of poverty than other provinces (Eastern and Uva Provinces), and it will promote improvement of access by poor people to public health services.

3) Gender Classification: GI (S)

Equitable access to medical services for all citizens is guaranteed in Sri Lanka, so the facilities (separate male and female wards, toilets and locker rooms) and the services (e.g., a female nurse is present when male doctors examine female patients) show gender-based considerations. The intended facilities of the project will be designed with gender-based considerations in the same manner as the existing facilities.

(9) Other Important Issues

Special Terms for Economic Partnership (STEP) apply to the Japanese ODA loan for this project, and Japanese technology including advanced medical equipment such as angiography systems and CT scanners will be utilized in the project.

4. Targeted Outcomes

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicator)

Indicators	Name	Original (2016/2017) *1	Target (2025)
Number of diagnoses with angiography (per year) *2	Badulla PGH	0	1,300
	Trincomalee DGH	0	1,300
	Kandy TH	2,624	3,300
	Kurunegala TH	999	3,200
	Anuradhapura TH	160	2,000
Number of catheter interventions (per year) *2	Badulla PGH	0	300
	Trincomalee DGH	0	300
	Kandy TH	603	2,200
	Kurunegala TH	243	800
	Anuradhapura TH	3	1,400
Number of students per microscope	Colombo	3.20	2.17
	Kalutara	3.90	2.29
Number of lessons using a safety cabinet *3	Colombo	0	5
	Peradeniya	0	5
	Kalutara	0	5
Number of equipment items which can be repaired by BES	BES	34	57

*1 Baseline data for angiography diagnoses and catheter interventions are the records for 2016, and 2017 for the other indicators.

*2 Targets for each hospital were set in consideration of the facility condition and the necessary number of medical professionals based on the original indicator of Kandy TH.
*3 A safety cabinet is a kind of sterile equipment for examinations.

(2) Qualitative Effects

1) Improvement of the medical services (e.g., improvement of access to medical services in rural areas, reduction of waiting time at hospitals, etc.)
2) Improvement of the health of the people

(3) Internal Rate of Return

Economic Internal Rate of Return (EIRR) is not calculated as it is difficult to accurately calculate economic benefit (such as a reduced mortality rate). Also, Financial Internal Rate of Return (FIRR) is not calculated as the project does not assume fee collection from users.

5. Pre-conditions and Important Assumptions

(1) Pre-conditions

A facility in Badulla Provincial General Hospital in Uva Province will be constructed by the budget of GOSL, according to the planned schedule.

(2) Important Assumptions

Not applicable.

6. Lessons Learned from Past Projects

(1) Lessons learned from similar projects in the past

It has been cited in an ex-post evaluation of the Rural Health Infrastructure Strengthening Project (evaluation year: 2005) in the Kingdom of Thailand that special attention must be paid to unequal management skills of intended institutions; therefore, capacity development through human resource development is effective for hospitals which have inadequate management skills. Also, it is important for medical equipment to be selected based on the management skills of the medial professionals and the budget of each institution. Furthermore, it has been cited in an ex-post evaluation of the Project for Improvement of Anuradhapura Teaching Hospital (evaluation year: 2013) in the Democratic Socialist Republic of Sri Lanka that it is effective to introduce a prioritizing system for patients who need advanced treatments when mildly symptomatic patients rush to the intended hospitals due to the inadequate referral system.

According to the above lessons, the project will pay attention to the selection of equipment with consideration for accessibility of spare parts. Also, technical support is planned for the capacity development of equipment maintenance through consulting services based on the current technical management skills of each institution. Furthermore, strengthening of the referral system will be considered through the cooperation of the Health Sector Development Project phase 3 by WB.

7. Evaluation Results

The project is consistent with Japan's and JICA's Policy, and contributes to improving medical service for diagnosis and treatment of NCDs by improving medical facilities and equipment at tertiary hospitals and training institutions for medical professionals, and strengthening the maintenance and management system for medical equipment. Furthermore, it contributes to SDGs goal 3 "Good health and well-being," and therefore there is a substantial need for the assistance.

8. Plan for Future Evaluation

(1) Indicators for Future Evaluation

As shown by 4. (1) to (2).

(2) Timing

Two years after project completion.

(End)