

Ex-Ante Evaluation (for Japanese ODA Loan)

Southeast Asia Division 2,
Southeast Asia and Pacific Department
Japan International Cooperation Agency

1. Name of the Project

- (1) Country: Kingdom of Cambodia (Cambodia)
 - (2) Project: Regional Hospital Development Project
 - (3) Project Site/Target Area: Siem Reap Province and Kampong Cham Province (population: approx. 1.91 million in total)
- Loan Agreement: March 14, 2024

2. Background and Necessity of the Project

- (1) Current State and Issues of the Health Sector and the Priority of the Project in Cambodia

In Cambodia, the basic public healthcare service system has been developed to improve basic health indicators for the health of mothers and children, leading to a reduction of the under 5 mortality rate (2000: 106, 2021: 25, per 1,000 live births) (2021, World Bank (WB)) and maternal mortality ratio (2000: 488, 2017: 160, per 100,000 live births) (2017, WB), etc. On the other hand, the number of beds, medical care functions, and medical practitioners in healthcare facilities remains insufficient, and there is particularly striking disparity between the capital, Phnom Penh, and provincial areas. Furthermore, in Cambodia, non-communicable diseases (NCDs) such as stroke, ischemic heart disease and cirrhosis of the liver account for 64% of the causes of death, and the increase in NCDs is becoming more serious (2019, World Health Organization (WHO)). Hospitals that can provide advanced diagnosis and treatment are limited to certain national hospitals in Phnom Penh, and provincial residents need to travel to the capital or neighboring countries for medical examinations, so there is an urgent need to correct regional disparities in relation to the quality of and access to medical services toward achievement of Universal Health Coverage (UHC).

In its *National Strategic Development Plan 2019-2023*, the Cambodian government positions improvement of the quality of healthcare services as a key policy. Likewise, in the *Pentagonal Strategy - Phase I* formulated by the new administration in 2023, improvement of the health and well-being of the people is listed under development of human resources which is one of five pillars. Also, the *Fourth Health Strategic Plan 2023-2032* currently being formulated by

Cambodia's Ministry of Health (MOH) with support from WHO, is expected to set forth correction of regional disparities in healthcare as a priority policy, including the development of health infrastructure and medical equipment as well as ensuring the necessary quality and quantity of health personnel. Additionally, the *National Strategic Plan for the Prevention and Control of NCDs (2022-2030)* aims to reduce the morbidity and mortality rate of NCDs and outlines the training of health workers and new application of digital and ICT, etc. Furthermore, based on the *Investment Plan for Regional Hospital Development (2022)*, among the 25 provincial hospitals throughout Cambodia, there are plans to upgrade 7 provincial hospitals (Phnom Penh, Kampong Cham Province, Svay Rieng Province, Kampot Province, Battambang Province, Siem Reap Province, Stung Treng Province) as "regional hospitals" from the perspectives of geographical distribution, population scale, and the clinical skill level of hospitals, etc., with the aim of establishing a system for delivery of high-quality advanced healthcare in the provinces. This is also expected to alleviate congestion at national hospitals, strengthen comprehensive regional health systems, and enhance healthcare personnel training and practice facilities.

Under these circumstances, the Regional Hospital Development Project for Siem Reap Province and Kampong Cham Province (this Project) was requested by the Cambodian government. Of the 7 hospitals to be upgraded as regional hospitals, this Project focuses on the two above-mentioned provincial hospitals, which have large population of beneficiaries and high priority to be upgraded, and is also positioned as a high-priority project in the Cambodian government's national development plan.

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

Japan's Country Assistance Policy for Cambodia (July 2017) positions healthcare as a priority area that will contribute to the improvement of quality of life. Also, the *Global Health Strategy of Japan* (May 2022) sets forth ensuring access to quality services as an important strategy connected to the enhancement of health systems toward UHC. Strengthening Diagnosis and Treatment Capacity of Core Hospitals is stated under Health in the JICA Global Agenda, as is the enhancement of systems to provide medical services through new establishment/expansion of core hospitals and medical personnel training, and this Project is consistent with these policies and analyses. Furthermore, this Project is expected to contribute to Goal 3 of the Sustainable Development Goals (SDGs), "Ensure healthy lives and promote well-being for all at all ages", since it will support the achievement of UHC through correction of regional disparities in relation to quality healthcare services.

(3) Other Donors' Activities

Donors such as WB, Australia's Department of Foreign Affairs and Trade, and the Korea International Cooperation Agency are supporting the improvement of healthcare service quality and development of health insurance for low-income citizens through co-financing. Also, WHO provides technical support for diseases control, UHC, health security, and inter-sectoral cooperation and coordination, while various partners such as United Nations Children's Fund, the United Nations Population Fund, Asian Development Bank, the United States Agency for International Development, and the German Agency for International Cooperation (GIZ) are providing technical support and equipment.

3. Project Description

(1) Project Description

① Project Objective

This Project aims to improve access to advanced healthcare in provincial areas and thereby contribute to improvement of the health of the local population by developing medical facilities and equipment that are necessary for upgrading provincial hospitals in Siem Reap and Kampong Cham provinces to regional hospitals.

② Project Components

- a) Construction of medical facilities: New establishment of outpatient/inpatient ward and advanced healthcare ward, etc. (2 buildings in Siem Reap Province (total floor area approx. 27,000 m²) and 2 buildings in Kampong Cham Province (total floor area approx. 29,000 m²))
- b) Procurement of medical equipment (MRI, CT scanners, angiographic devices, endoscopes, etc.)
- c) Development of hospital information patient management systems
- d) Consulting services (detailed design, bidding support, construction supervision, support for environmental and social considerations, enhancing the abilities of medical practitioners, etc.)

③ Project Beneficiaries (Target Group)

Direct beneficiaries: Hospital staff receiving personnel training and organizational ability enhancement (577 persons) (Siem Reap Provincial Hospital: 97 doctors, 154 nurses, 56 midwives; Kampong Cham Provincial Hospital: 71 doctors, 131 nurses, 68 midwives)

End beneficiaries: Residents of provinces and neighboring provinces using

Regional Hospitals (approx. 3.95 million people) (Siem Reap Province and neighboring provinces of Oddar Meanchey, Preah Vihear, Kampong Thom: approx. 1.93 million people; Kampong Cham Province and neighboring provinces of Tboung Khmum, Kratie, Monduliri: approx. 2.02 million people)

(2) Estimated Project Cost

25,457 million yen (Japanese ODA loan: 21,104 million yen)

(3) Schedule

March 2024 - July 2031 (89 months)

The opening of the facilities for use (in July 2030) is considered as the completion of the Project.

(4) Project Implementation Structure

- ① Borrower: The Royal Government of Cambodia
- ② Guarantor: None
- ③ Executing Agency: Ministry of Health, Cambodia
- ④ Operation and Development System: Siem Reap Provincial Hospital and Kampong Cham Provincial Hospital

(5) Collaboration and Sharing of Roles with Other Donors

① Japan's Activity

For the two hospitals targeted by this Project, equipment and facilities were developed through grant aid in the Project for Improvement of Referral Hospitals in Siem Reap Province (E/N signed in 2020) and the Project for Improvement of Kampong Cham Hospital in Kampong Cham Province (E/N signed in 2008), contributing to the enhancement of a basic health services delivery system. This Project will build on this asset to add advanced medical care systems. This Project will also contribute to capacity building of nursing personnel as well as tangible enhancement in the diagnosis and treatment of NCDs, linking with the Project for Strengthening In-service Training System in Cambodia (2021-2026) and the Noncommunicable Disease Control Project (2024-2027) targeting Kampong Cham province.

② Other Donors' Activity: N/A

(6) Environmental and Social Consideration

① Category: C

② Reason for Categorization: This Project has been deemed to have minimal negative impact on the environment under the *JICA Guidelines for*

Environmental and Social Considerations (announced January 2022).

(7) Cross-Sectoral Issues

- ① Poverty considerations: The poverty rate in Siem Reap Province is 27.9%, the ninth highest among 24 provinces (2013, Ministry of Planning), and this Project is expected to improve access to medical services for the poor.
- ② Disability considerations: Outline of design has been developed to make the facilities accessible to disabled persons (e.g., installation of ramps, securing pathways and sufficiently wide passages for wheelchairs, etc.), and it was agreed with the Cambodian government that the same consideration would be paid in the detailed design. It was also agreed on the provision of reasonable accommodation for persons with disabilities in the capacity building of implementing agencies and on the provision of advice on reasonable accommodation and non-discrimination against persons with disabilities to medical professionals in the consulting services.
- ③ Measures against HIV/AIDS, etc.: This is a large-scale infrastructure development project in a region where there is concern regarding the spread of HIV infection, so clauses on HIV/AIDS measures (provision of information, education on prevention, etc.) will be included in the bidding documents which will be implemented for the construction workers.

(8) Gender Category

<Details of Activities/Reason for Categorization>

- ① Gender Categorization: [N/A] ■ GI (Gender Informed)
- ② Reason for Categorization: Although the risk of NCDs was analyzed by gender in a survey, this did not go as far as gender equality and women's empowerment initiatives and the indicator setting/planning. However, it was agreed with the executing agency to design facilities from a gender perspective and to identify medical equipment with regard to gender needs. It was also agreed to promote the employment of female staff and appointment of female personnel to management positions within the project management unit of this Project and in the operation and maintenance of the hospital, and to collect gender-disaggregated data for monitoring and evaluation.

(9) Other Important Issues

This Project is expected to introduce advanced Japanese technology for medical equipment. Furthermore, the hospital information patient management system should be developed with a view to introducing the same system to the provincial hospitals other than the two target hospitals of this Project.

4. Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	Baseline (Actual value in 2022)		Target (2032) [2 years after project completion]	
	Siem Reap Provincial Hospital	Kampong Cham Provincial Hospital	Siem Reap Provincial Hospital	Kampong Cham Provincial Hospital
No. of outpatients (persons/year)	90,883	29,857	112,533	38,684
No. of in-patients (persons/year)	24,455	19,508	31,333	23,469
No. of CT scans (cases/year)	4,320	1,042	5,389	1,312
No. of MRI scans (cases/year)	0	0	2,567	625
No. of catheter operations (cases/year)	0	0	360	360
No. of malignant tumor operations (cases/year)	108	0	392	371
No. of neurosurgical operations (cases/year)	91	0	114	107
No. of heart operations (cases/year)	0	0	86	81
No. of patients referred from lower-level medical facilities (persons/year)	7,156	3,355	8,861	4,347

(2) Qualitative Effects

Improvement of medical services provided by regional hospitals, nurturing of quality health workers, health promotion of local residents, improvement of patient satisfaction, alleviation of congestion in national hospitals in the capital, and reduction of referring patients from provincial areas to the capital

(3) Internal Rate of Return

Based on the assumptions listed below, the economic internal rate of return

(EIRR) for the Project is 10.5%. On the other hand, the financial internal rate of return (FIRR) is -6.1%, because the initial investment and the cost of major repairs and medical equipment replacement assumed every 10 years far exceed the projected revenue. Since this Project is not expected to be profitable due to its nature, it has been agreed with the Cambodian government that government budget will be set aside for the period until 7 years after opening the hospitals, which is when the current account balance is predicted to return to annual profitability.

[EIRR]

Cost: Business, management, maintenance and operation expenses (all excluding tax)

Benefit: Reduction of opportunity cost/travel expenses for patients and attendants, reduction of NCD-related cost, reduction of newborn infant/maternal mortality rate, added value produced by health workers

Project Life: 38 years

[FIRR]

Cost: Business, management, maintenance and operation expenses

Benefit: Medical care revenue, government budget

Project Life: 38 years

5. External Factors and Risk Control

(1) Preconditions

N/A

(2) External Factors:

N/A

6. Lessons Learned from Past Projects

From the ex-post evaluation of the Rural Health Infrastructure Strengthening Project for the Kingdom of Thailand (evaluation year: 2005), the level of hospitals' management capacity is connected to effective use of the equipment provided, indicating that enhancement of management capacity is a useful endeavor. Also, the ex-post evaluation of the Regional and Provincial Hospital Development Project for the Socialist Republic of Vietnam (evaluation year 2014) has taught us that achieving project outcomes at an early stage requires systematic training

on the use of equipment provided. Based on these lessons, this Project aims to enhance the management capacity of the target hospitals through a consulting services and technical cooperation, and to plan and implement systematic training on the use of equipment by applying existing resources of the national hospitals that have been providing advanced medical care.

7. Evaluation Results

This Project is consistent with Cambodia's development issues and policies as well as Japan and JICA's cooperation policy and analysis. By developing medical facilities and equipment necessary for upgrading the provincial hospitals in Siem Reap and Kampong Cham provinces to regional hospitals, the Project aims to improve access to advanced healthcare in the provinces and contribute to the health of the local population, thereby contributing to the SDGs Goal 3, "Ensure healthy lives and promote well-being for all at all ages". Therefore, there is a strong need to support the implementation of this Project.

8. Plan for Future Evaluation

(1) Indicators to be Used

As indicated in Sections 4.

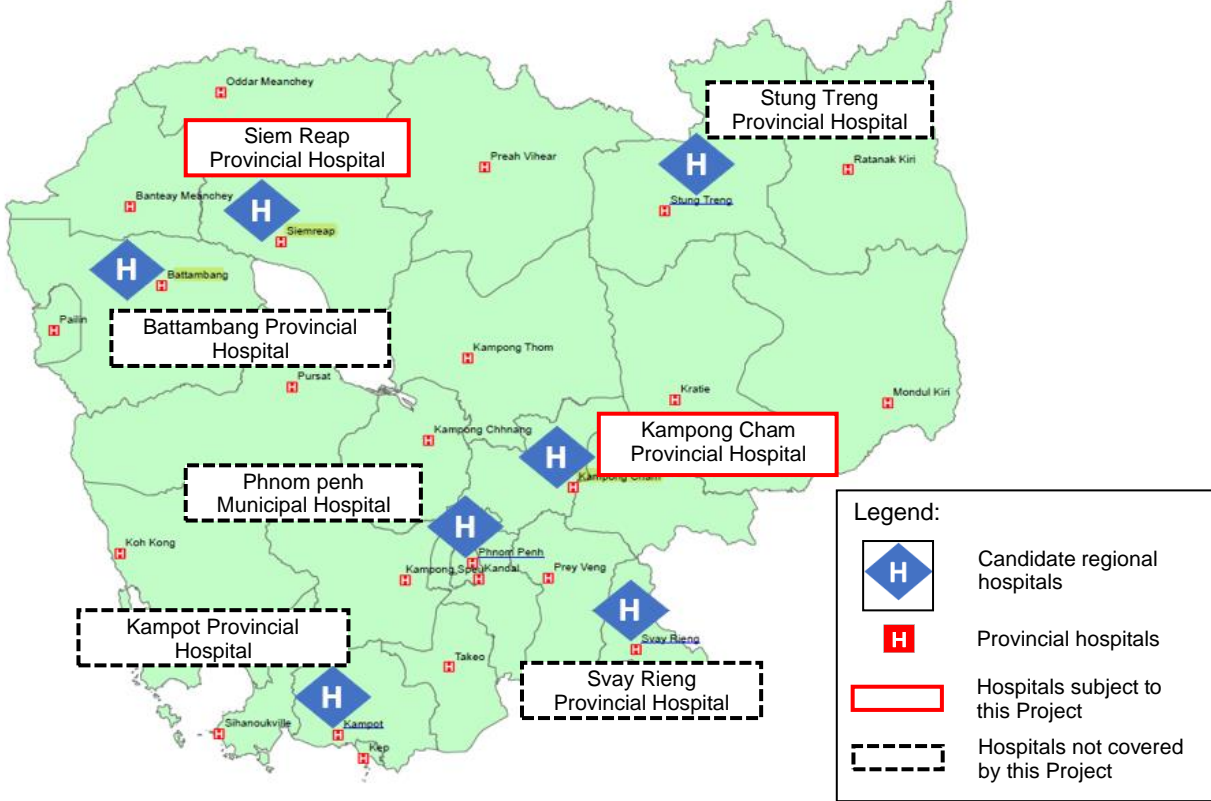
(2) Future Evaluation Schedule

Ex-post evaluation: 2 years after the project completion

END

Attachment: Regional Hospital Development Project Map

Regional Hospital Development Project Map



Source: JICA “The Data Collection Survey on Project for Upgrading Quality of Health Services of Selected Provincial Hospitals”