

Japanese ODA Loan

Ex-Ante Evaluation (for Japanese ODA Loan)

South Asia Division 1, South Asia Department

Japan International Cooperation Agency

1. Name of the Project

- (1) Country: India
- (2) Project: Project for the Establishment of Mizoram State Super-Specialty Cancer and Research Centre
- (3) Project Site / Target Area: State of Mizoram (total population: about 1.1 million (2011 India Census))

Loan Agreement: February 27, 2023

2. Background and Necessity of the Project

- (1) Current State and Issues in the Health Sector/Area and the Priority of the Project in India

Non-communicable diseases (NCDs) such as cancer, diabetes, and cardiovascular diseases are a major issue in India across the country, mainly due to changes in lifestyle with increasing economic development. It has become a major challenge in the health sector. The proportion of deaths due to NCDs in India exceeds 60% of all deaths (Government of India, 2016), and among NCDs, the annual incidence of cancer has nearly doubled from about 550,000 in 1990 to about 1.1 million in 2016 (The Lancet, 2018).

State of Mizoram has the second highest incidence of cancer in the country (129.6 females and 113.4 males per 100,000 of the population) after State of Kerala (137.3 females and 133.4 males per 100,000) as of 2016 (The Lancet, 2018), and the mortality rate (number of deaths/number of patients) of cancer patients is 52.4% for men and 39.7% for women as of 2016, the highest in the country (ICMR-NCDIR, 2021). The state government has identified this as the biggest challenge in the state's health sector, and has stated in the Mizoram Health Policy, which is being formulated, that cancer treatment should be completed within the state. The state government also addressed that Mizoram should be a model state for developing a comprehensive cancer control system that includes cancer prevention, screening, treatment, human resource development, and research. At present, however, there is only one tertiary-level public medical facility, the State Cancer Hospital, which faces issues such as the shortage of medical facilities, equipment, and specialized personnel, as well

as a lack of a system for training medical personnel, and thus a comprehensive cancer control system is required.

The objective of the Project is to improve access to cancer prevention, detection, and treatment as well as human resource development and research that support cancer control system, by developing Mizoram State's cancer control system through the establishment of the Mizoram State Super Specialty Cancer and Research Centre in Mizoram state thereby contributing to achieving Universal Health Coverage through strengthening the healthcare system pertaining to cancer in the state.

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

The country-based Development Cooperation Policy for India (March 2016) identifies "support for sustainable and inclusive growth" as a priority issue, and "health and sanitation" is among these key areas. In addition, the key development issue in the JICA Country Analytical Work for India (March 2018) is "inclusive growth in rural areas." Here, the analysis indicates that further expansion of health services is needed to improve the living conditions of the poor. This project is consistent with these policies and analysis. Furthermore, the project will contribute to the strengthening of prevention and treatment systems as stated in the JICA's Initiative for Global Health and Medicine, and is in line with the JICA Global Agenda for Health emphasis on "strengthening diagnosis and treatment capacity in core hospitals".

(3) Other Donors' Activities

The World Bank is implementing the "Mizoram Health Systems Strengthening Project" (loan amount: US\$32 million) in Mizoram for the period from 2021 to 2026. One of the components of the project is "strengthening the quality of health services and support through innovations," which will include the renovation of secondary and primary health care facilities, collaboration with the private sector in medical waste disposal and testing, and strengthening human resource development and management. In addition, the Bank will work on home-based palliative care and screening for NCDs (including cancer) through local communities, etc., and establish comprehensive primary health care services, and so on.

The Asian Development Bank has been implementing a public finance improvement management program (loan amount: US\$94 million) from 2009 to 2015 in Mizoram, under which the state has established its own health

insurance system. In addition, the Bank has provided financing to the National Urban Health Mission, an initiative of the Indian government to improve access to healthcare for the urban poor (amount of financing: US\$300 million).

3. Project Description

(1) Project Description

① Project Objective

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② Project Components

- 1) Building Mizoram state Super-Specialty Cancer and Research center
- 2) Installing medical and training equipment at the Cancer Research Centre.
- 3) Support of Cancer Control System Establishment (strengthening of operational management and medical safety at the Cancer Research Centre, strengthening of diagnostic and surgical capacity, strengthening of facility and equipment maintenance and management capacity, strengthening of prevention and screening capacity for state government officials, school teachers, and medical personnel)
- 4) Consulting services (detailed design, bidding assistance, construction supervision, support for environmental and social considerations)

(2) Estimated Project Cost

12,515 million Yen (including Japanese ODA loan: 9,918 million Yen)

(3) Schedule

February 2022 to August 2033 (127 months). The project will be completed upon the commencement of service of the hospital and university facilities (August 2028).

(4) Project Implementation Structure

- 1) Borrower: President of India
- 2) Guarantor: N/A

- 3) Executing Agency: Government of Mizoram, Health and Family Welfare (HFWD)
- 4) Operation and Maintenance System : HFWD
- (5) Collaboration and Sharing of Roles with Other Donors
 - 1) Japan's Activity

JICA's Long-term Training for UHC program can provide training in oncology, pathology, and other fields related to cancer treatment, etc. So, JICA and HFWD confirmed to seek the possibility of nominating concerned officers/human resource to apply for JICA's long term training for UHC program.
 - 2) Other Donors' Activity

Consider collaboration with the Mizoram Health Systems Strengthening Project (2021-2026), which is being implemented by the World Bank.
- (6) Environmental and Social Consideration
 - ① Category: B
 - ② Reason for Categorization: The project is not located in a sensitive area, nor has sensitive characteristics, nor falls into sensitive sectors under the JICA guidelines for environmental and social considerations (April 2010), and its potential adverse impacts on the environment are not likely to be significant.
 - ③ Environmental Permit: EIA Report of the Project will be prepared by HFWD and the authorized consultant and approved by State Level Environment Impact Assessment Authority (SEIAA) to get an Environmental Clearance by the commencement of the construction.
 - ④ Anti-Pollution Measures: Air quality, water quality, noise, vibration, and waste during construction will meet domestic emission and environmental standards. Dust control through water sprinkling, speed limits for construction vehicles, and other mitigation measures will be implemented. At the time of commissioning, medical wastewater will be discharged into the general sewage system after being detoxified by wastewater and effluent treatment facilities installed at each facility as a unit. Waste from medical facilities will be classified and stored according to laws and regulations, collected by designated contractors, and disposed of at medical waste treatment plants designated by the state government. Radioactive waste will also be disposed of in accordance with the waste management plan

based on the guidelines of the country.

- ⑤ Natural Environment: The project area does not fall in or near sensitive areas such as national parks, etc., and undesirable effects on the natural environment are assumed to be minimal.
- ⑥ Social Environment: Since this project will be implemented entirely on the existing hospital site and land owned by the state government (HFWD), there will be no land acquisition or involuntary resettlement. No particular opposition to the Project has been observed from residents in the vicinity of the Project site.
- ⑦ Other/Monitoring: Contractors will monitor air quality, water quality, noise, vibrations, waste, and other factors during construction, and the implementing agencies will monitor those factors after the commencement of services.

(7) Cross-Sectoral Issues

- ① Poverty Reduction Measures and Consideration for the Poor: Access to cancer control medical services for the poor population is expected to be improved through the establishment of cancer control systems in the public medical institution in the state.
- ② Infectious Disease Control Measures: As an initiative to prevent the spread of COVID-19, a list of measures (36 items in total) to be taken by the implementing agencies at the time of project formulation and project implementation was agreed upon approval. Based on the list, the detailed items to conduct were clearly stated, such as maintenance of quarantine equipment and materials, improvement of the working environment including dissemination of the code of conduct, construction supervision, and awareness-raising. The impact of COVID-19 will be closely monitored throughout the project phase, with the agencies reporting on the status of implementation on a quarterly basis. The agencies will also be monitored so that they take flexible and appropriate actions. In addition, HIV/AIDS prevention measures for construction workers will be taken by the contractor during the construction phase.
- ③ Consideration for Person with Disabilities: In accordance with the National Building Code of India and the Building Ordinance of the Aizawl Municipal Council, the facilities in the Project shall install slopes and handrails and shall be designed taking into account

universal design such as allowing sufficient space in passageways and toilet design allowing the use of wheelchairs. The facility will also be designed to guarantee providing information to visually impaired, hearing impaired, intellectual disabilities, and other people who need to take reasonable care of their communication needs.

(8) Gender Category

■Gender Informed (Significant) (Gender activity integration project)

<Details of Activities/Reason for Categorization>

It has been agreed with HFWD that facility design will incorporate gender specific needs, the Project will ensure women’s participation on every opportunity such as employment and training program and equipment will be selected based on gender-specific needs and usability by both men and women. In addition, this Project has also been confirmed to improve quality of treatment services for female-specific cancers, in collaboration with various clinical departments.

(9) Other Important Issues: None

4 . Targeted Outcomes

(1) Quantitative Effects

1) Outcomes (Operation and Effect Indicators)

Indicator	Baseline (Actual value in 2019)	Target (2030) [2 years after project completion]
Number of treatment (persons/year)		
Radiotherapy	12,082	17,036
Surgery	0	1,027
Chemotherapy	6,646	9,371
Computed Tomography (CT scan)	1,850	2,609
Outpatient Department (OPD) number	11,935	16,839
Inpatient Department (IPD) number	2,776	3,916
Average Number of Occupied Beds (beds/day)	41	71

Number of Referral Cases to outside of the State related to Cancer	1,000	489
Number of trained personnel on cancer care under soft component	0	50 (including 25 females)
Number of awareness raising activities with a gender perspective	0	2
Development of gender-based cancer patient counseling manual	0	1
Proportion of patient diagnosed at early cancer stage (stage I or II)	26.2	37.5
Screening coverage among target population (average)	2.6	15

* Baseline is the actual results at existing State Cancer Hospital.

Target is the number expected at the new Cancer Research Centre.

(2) Qualitative Effects

Improving accessibility to cancer prevention, screening, and treatment services.
Strengthening of quality of Human resource in the field of cancer treatment.
Stimulating cancer research. Raise awareness amongst residents regarding cancer prevention measures.

(3) Internal Rate of Return

Based on the assumptions listed below, the economic internal rate of return (EIRR) for the Project is 17.4%. Cancer Research Centre to be developed under this project will collect only actual costs from patients, such as the cost of cancer tests and the cost of medicines necessary for the tests. Since the project costs are not at a recoverable level, the financial internal rate of return (FIRR) has not been calculated.

【EIRR】

Cost : Project costs, Operation and Maintenance costs, etc. (All excluding taxes)

Benefit : Benefit related to the ability to engage in productive activities due to the extended life period; and Benefit from the reduced treatment costs that would have been required if the project had not been implemented at the private hospitals; and Benefits of reduced travel cost due to the decrease of transport to out-of-state medical facilities.

Project Life : 40 years

5. External Factors and Risk Control

- (1) Preconditions: None
- (2) External Factors: None

6. Lessons Learned from Past Projects

From the results of the ex-post evaluation of the Japanese ODA loan "National Islamic University Health and Medicine Project" for the Republic of Indonesia (evaluation year: 2015), etc., we have learned the lesson that it is important to clarify as much as possible the utilization policy of procured equipment including employment and operation plan of engineers at the time of project formulation for the equipment requiring special skills.

In this project, we have agreed with the HFWD on the staffing plans necessary for the operation of the Cancer Research Centre to be established, and the HFWD has confirmed that it will staff the Centre in accordance with the agreed plans. The staffing plan includes engineers who will manage the medical equipment to be procured under the project. The budget required to implement the staffing plan have also been confirmed with the Mizoram government at the time of the appraisal. In addition, the project plans to manage the progress of the staffing plan and provide support for its implementation as part of the project's support for the establishment of a cancer control system.

7. Evaluation Results

This project is in line with the country's development issues and policies, as well as the cooperation policy and analysis of Japan and JICA, and will contribute to the establishment of a comprehensive cancer control systems in the state through the establishment of the Mizoram State Super-Specialty

Cancer and Research Centre, and support for human resource development and research to support cancer control. The project will contribute to the SDGs' Goal 3, "Ensure healthy lives and promote well-being for all at all ages", and therefore, it is highly necessary 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

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