

Ex-Ante Evaluation

1. Name of Project
Country: The Republic of Indonesia Project: Development of World Class University at the University of Indonesia Loan Agreement: March 28, 2008 Loan Amount: 14,641 million yen Borrower: The Republic of Indonesia
2. Necessity and Relevance of JBIC's Assistance
<p>The Government of Indonesia is currently taking steps to improve the quality of healthcare provided by the country's healthcare sector. One area of concern is the level of infant and maternal mortality. As of 2006 the rate of infant mortality in Indonesia stood at 30.8 per 1,000 births, which is higher than the target figure set by the Millennium Development Goals (MDGs) of 26 deaths per 1,000 births by 2009. The maternal mortality rate as of 2006 was at 262 per 100,000 births, also higher than the MDG's target figure of 226 per 100,000 births by 2009. The Indonesian government is seeking to strengthen the functions of Puskesmas (public health centers), which focus on primary care, through measures such as enhancing provincial governments' capacity to enact and implement healthcare plans, and providing health education. Improving the quality and quantity of healthcare personnel working in public health centers is an important means of ensuring improvements in terms of the indicators cited above. The Ministry of Health's mid-term plan (Rencana Pembangunan Kesehatan: 2005-2009) states that rapidly improving the quality and quantity of healthcare personnel is the highest priority and stresses the importance of further expanding medical and healthcare education by improving the curriculum, educational methods and the administration of education in order to realize this priority.</p> <p>The 1999 national health program "Healthy Indonesia 2010" established by the Government of Indonesia sets the objective of training 40 doctors per 100,000 people (totaling approximately 80,000) by 2010. However, as of 2004, the actual number of doctors trained reached only about half that of the figure at 40,000, or not even reaching 20 per 100,000 people. Under the present situation in which the 53 public and private university medical schools produce 3,500 graduates a year, reaching the target figure by 2010 appears to be impossible. With a view to achieving the above targets, applications for the establishment of 20 new medical schools have been submitted to the Ministry of National Education.</p> <p>If the establishment of medical schools is approved by the Ministry of National Education, universities with existing medical schools will provide consultations to newly-established university medical schools to speed preparations and facilitate the administration of these new schools with a view to dispatching lecturers and professors and sharing curricula. The University of Indonesia (UI) has a long history in the medical education field and produces approximately 10% of the country's doctors. For this and other reasons, it has played a guiding role for many other medical schools. UI also practices progressive medical education and has adopted such advanced educational techniques as problem-based</p>

learning.

Up to now, the clinical training of medical students has been provided by general hospitals that have been designated as training hospitals and that are under the jurisdiction of the Ministry of Health or provincial governments. As of 2005, 22 hospitals were designated as training hospitals. With the increase in newly-established medical schools, however, these training hospitals no longer have the capacity to accept all students. General hospitals are concerned primarily with providing medical services, and because they are unable to assure the quality of education and research, the Ministry of National Education has developed a plan to have universities with medical schools establish affiliated hospitals. In this connection, the University of Indonesia has played a guiding role for medical education in Indonesia. For instance, 40% of its graduates go on to teaching positions in new medical schools, and the university has supported many new schools by dispatching lecturers and sharing curricula. For this reason, the Ministry of National Education will have the first university-affiliated hospital established at UI.

Indonesia's National Medium Term Development Plan (RPJM: 2004-2009) calls for the establishment of an educational infrastructure of sufficient capacity to allow continuous improvement of the quality of both the educational process and university graduates and to meet the need for qualified educators. The plan also advocates implementation of the three principles of institutions of higher education (i.e., education, research and service to citizens). Furthermore, the national education strategy plan (2005-2009) emphasizes the necessity of expanding educational facilities, improving the quality of education, and increasing research activity. In addition, the Ministry of Health's mid-term plan (Rencana Pembangunan Kesehatan: 2005-2009) states that rapidly improving the quality and quantity of healthcare personnel is the highest priority and stresses the importance of further expanding medical and healthcare education by improving the curriculum, educational methods, and the administration of education in order to realize this priority. The aim of this project is to support the establishment of university-affiliated hospitals, facilitate the relocation of medical-related departments, and promote a strengthening of their facilities in order to expand the medical and healthcare education and research of the University of Indonesia. It also seeks to improve the quality of training provided to healthcare personnel by the University of Indonesia and the quality of medical and healthcare education provided by regional universities through collaboration between UI and regional universities. As such, it is consistent with the objectives outlined above.

Japan's Country Assistance Program for Indonesia (November 2004) specifies that the improvement of healthcare services to support efforts to reduce poverty is the priority issue/area for assistance aimed at building a fair and democratic society. This project is consistent with these objectives.

JBIC's Medium-Term Strategy for Overseas Economic Cooperation Operations (April 2005) designates support for human resources development as a priority area. It also emphasizes that effective support for infrastructure improvement will be provided from the standpoint of education service quality improvement.

The aims of this project are to improve and expand healthcare education provided by the University of Indonesia and also to improve the quality of medical and healthcare education in the regions through collaboration between UI and regional universities. In addition, with a view to the construction of affiliated hospitals by other universities with medical schools, it is also highly significant to build through this project a model university-affiliated hospital capable of full-scale clinical training and research. For these reasons, the necessity and relevance of JBIC's assistance is high.

3. Project Objectives and Outline

The objective of this project is to expand the medical-related education and research of the University of Indonesia by improving its medical-related faculties (including medicine, dentistry, nursing and public health), by establishing a university-affiliated hospital at UI, and by promoting collaboration between UI and regional universities, with a view to contributing to improving healthcare services in Indonesia.

4. Project Description

(1) Target Area

West Java Province

(2) Project Outline

- (a) Construction of facilities, development of basic infrastructure (new construction of medical and dentistry schools, renovation of public health and nursing schools, new construction of a university-affiliated hospital and development of related infrastructure)
- (b) Collaboration between University of Indonesia and regional universities (collaboration aimed at improving clinical training and joint research)
- (c) Procurement of equipment (equipment and materials used in education, research and healthcare activities, and IT equipment for use in the university-affiliated hospital)
- (d) Consulting services (overall project management, detailed design, tender assistance, construction supervision, support for start-up of university-affiliated hospital, preparation of guidelines for university-affiliated hospitals, assistance for collaboration and joint research with regional universities, assistance for joint research and training in collaboration with Japanese universities)

(3) Total Project Cost/Loan Amount

17,227 million yen (Japanese ODA Loan Amount: 14,641 million yen)

(4) Schedule

February 2008-June 2016 (101 months). The project will be regarded as completed upon the conclusion of construction, equipment installation, and consulting services.

(5) Implementation Structure

- (a) Borrower: The Republic of Indonesia
- (b) Executing Agency: Directorate General of Higher Education , Ministry of National Education
- (c) Operation and Maintenance System: University of Indonesia

(6) Environmental and Social Considerations

(a) Environmental Impacts/Land Acquisition and Resettlement

(i) Category: B

(ii) Reason for Categorization: This project is classified as Category B because, based on Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations (established April 2002), it is considered that any adverse effects on the environment it may have would not be serious since the sector it concerns and its characteristics are not likely to have an impact, and the region is not susceptible to such impacts.

(iii) Environmental Permit: The environmental impact assessment (EIA) report concerning this project will be prepared following detailed design, and approval will be obtained from the City of Depok.

(iv) Anti-pollution Measures: Medical wastewater from department laboratories and the university-affiliated hospital will be treated in a manner that meets Indonesia's domestic standards and will be discharged into rivers. It is not expected that the discharge of this treated water will have any significant impact. In addition, flammable substances included in medical waste removed from department laboratories and the university-affiliated hospital will be incinerated in the furnace on the campus and residual ash and non-flammable medical waste will be suitably disposed of at the hazardous substances treatment center in Bogor Regency. Therefore, it is not expected that there will be any significant impact.

(v) Natural Environment: The target area of this project is on the campus of an existing university and thus it is expected that any adverse impact on the natural environment will be minimal.

(vi) Social Environment: The target area of this project is on the campus of an existing university and thus the project will not involve the acquisition of sites or the resettlement of residents.

(vii) Other/Monitoring: For this project, the University of Indonesia will monitor noise, vibrations, and so on during construction.

(b) Promotion of Poverty Reduction: None

(c) Promotion of Social Development (gender perspective, measures for infectious diseases including AIDS, participatory development, consideration for the handicapped, etc): The design of school buildings and the hospital will not create any barriers to access by disabled or elderly persons. In addition, the Directorate General of Higher Education of the Ministry of National Education and the University of Indonesia will include measures against AIDS toward construction workers in the bidding documents of construction contracts and the contractor employed will take measures against AIDS in cooperation with the NGO, the University of Indonesia and other organizations.

(7) Other Important Issues

(a) The university-affiliated hospital will be the first in Indonesia equipped with a seismic isolation function.

(b) An IT system will be installed to enable efficient hospital administration.

5. Outcome Targets

(1) Evaluation Indicators (Operation and Effect Indicators)		
Indicator Name	Baseline (2007 actual)	Target (2018, 2 years after project completion*)
Area per student (m ²)	M: 8.45、 D: 9.61 N: 4.42、 P: 6.00	M: 14.40、 D: 17.33 N: 7.77、 P: 8.70
Students' grade point average (GPA)	M: 3.26、 D: 3.00 N: 3.01、 P: 3.26	M: 3.50、 D: 3.75 N: 3.50、 P: 3.50
Evaluation by national certification agency (BAN-PT) (Baseline figures are those recorded at time of 2002 evaluation)	M: A、 P: A N: B、 D: B	M: A、 D: A N: A、 P: A
Yearly number of research papers produced by instructors	M: 233、 D: 23 N: 12、 P: 42	M: 466、 D: 45 N: 24、 P: 50
Bed occupancy ratio of university-affiliated hospital (%)	-	60%
Average number of outpatients seen per day by university-affiliated hospital	-	700
Percentage of patients referred by other healthcare organizations (hospitalized patients) (%)	-	30%
Number of instructors dispatched in collaboration with regional universities		24
Number of joint research projects conducted in collaboration with regional universities	-	4
Faculty abbreviations: M: Medical, D: Dentistry, N: Nursing, P: Public health		
(2) Internal Rate of Return (Economic/Financial Internal Rate of Return) These figures were not calculated because calculation of profitability is not appropriate in the case of an educational project.		
6. External Risk Factors		
None.		
7. Lessons Learned from Findings of Similar Projects Undertaken in the Past		
The lessons learned from ex-post evaluations of similar projects include the following: (1) "As seen in the transition of system followed by becoming a fully acting legal entity at IPB, it is believed that the systems employed in operating national universities will diversify as they gain legal autonomy"; (2) "To ensure the sustainability, it will be necessary to monitor the structural reforms being undertaken by individual establishments and to figure out what operation and maintenance systems are being employed for facilities		

and equipment.” In accordance with this advice, this project will develop operation and maintenance organizations for schools and the university-affiliated hospital based on the future progress of reorganization of the University of Indonesia as a corporation.

8. Plans for Future Evaluation

(1) Indicators for Future Evaluation

- (a) Area per student (m²)
- (b) Students’ grade point average (GPA)
- (c) Evaluation by national certification agency (BAN-PT)
- (d) Yearly number of research papers produced by instructors
- (e) Bed occupancy ratio of university-affiliated hospital (%)
- (f) Average number of outpatients seen per day by university-affiliated hospital
- (g) Percentage of patients referred by other healthcare organizations
- (h) Number of instructors dispatched in collaboration with regional universities
- (i) Number of joint research projects conducted in collaboration with regional universities

(2) Timing of Next Evaluation

Two years after project completion