

Simplified Ex-Post Evaluation for Grant Aid Project

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Project Name	The Project for Renovation of Technical School for Medical Care in the Kingdom of Cambodia	January 2010 – December 2010

I Project Outline

Country Name	The Kingdom of Cambodia	
Project Period	August 2004-February 2006	
Executing agency	Technical School for Medical Care (TSMC)	
Project Cost	Grant Limit: 774 million yen	Actual Grant Amount: 773 million yen
Main Contractors	Obayashi Corporation	
Main Consultants	Pacific Consultants International	
Basic Design	July 2004	
Related Projects (if any)	JICA, “The Project for Human Resource Development of Co-medicals” (2003-2010) (Technical Cooperation Project) JICA, “The Project for Strengthening Human Resources Development System of Co-medicals“ (2010-2015) (Technical Cooperation Project)	
Project Background	In light of the first and second Socio-Economic Development Plans, the Government of Cambodia was consistently addressing the need to promote medical workers' knowledge and skill through enhancement of the educational system. Furthermore, the Health Workforce Development Plan explicitly called for introduction of a new training course for medical X-ray technique. However, to respond to a call for support for the agenda above, the Technical School for Medical Care needed to be upgraded so as to provide the adequate level of training and to accommodate a suitably large number of students. The Cambodian government requested Japan to install upgraded facilities and educational equipment at Technical School for Medical Care (TMSC) as it was considerably urgent and was given high priority for action.	
Project Objective	To renovate the existing facilities, construct new facilities and procure educational equipment for training at the TSMC, in order to improve the quality of overall health care services in Cambodia.	
Output[s] (Japanese Side)	<ol style="list-style-type: none"> 1. Construction of school building <ol style="list-style-type: none"> (1) Main building (Administration, X-ray Technology Course, Laboratory Technology Course, Midwifery Course, Physiotherapy Course etc.) (2) Renovation work for the nursing course building, Seminar House, toilet. 2. Provision of equipment <ol style="list-style-type: none"> (1) Human anatomical model, Human skeleton model, Delivery simulator, Injection simulator (2) Wheel chair, Skeleton model, Joint model (3) Electronic balance, Hematocrit centrifuge, Binocular microscope, Teaching microscope, Deep freezer (4) General X-ray system, Mobile X-ray system, Automatic film processor, Manual film processor, Accessories for X-ray system, Ultrasound diagnostic system, Cranial phantom for X-ray, Joint phantom (5) Other equipment to produce teaching materials 	

II Result of the Evaluation

Summary of the evaluation
<p>The relevance of this project is extremely high. Regarding its efficiency, it took a bit longer than the original plan. Its effectiveness, in terms of the indicators and their target numbers identified in the project plan, while it notably appears in newly established X-ray technician training course, from the viewpoint of improving learning environment by the project, achievements have been limited on the whole, as the number of students has increased. Further, regarding its sustainability, while we note that there is a high degree of usage of equipments and facilities, there is concern and room for financial improvement regarding the operation and maintenance of several diagnostic equipments in particular.</p> <p>In light of the above, this project is evaluated to be fairly satisfactory.</p> <p><Recommendations></p> <p>As recommendations to the implementing, mentions is made of some concerns regarding operation and maintenance (O&M) of the equipment provided as part of the project. The role of the TSMC as an institution dedicated to medical care education is certain to increase in the future, resulting in greater demand for O&M of its equipment and facilities. The consequent increase in the importance of asset management suggests that for the TSMC to fulfill its mandate. It is essential to pay more attention on O&M and mobilize adequate funding for it. If this is done, greater results in terms of quantitative and qualitative education become possible.</p> <p>Concerning effectiveness of the project, there is a physical constraint on ability to accommodate the large number of students. Thus, it is necessary for TSMC to recruit more qualified full-time staff (including nurses, midwives, and lab technicians) with sufficient clinical experiences. Doing so will make it easier to produce high-quality graduates. Close cooperation with UHS will be valuable in this connection.</p>

<Constraints of this evaluation study>

It was not possible to obtain quantitative information on the TSMC's financial condition because UHS controls the TSMC budget as the latter is an affiliate of the UHS. No detailed analysis of expenditures or the major source of funds placed available to the TSMC.

1 Relevance

(1) Relevance with the Development Plan of Cambodia

At the time the project was planned both the First and Second Socio-Economic Development Plan (plan periods, 1996~2000 and 2001-2005) included elevation of the technical skills of health care and medical workers by the improvement of education and training. Specifically, in the First Plan, mention was made of the goal of promoting the training of lab technicians and X-ray technicians (at the time, there were no courses of instruction available for X-ray technicians).

Further, at the time of the ex-post evaluation, top priority was assigned in the Health Sector Strategic Plan for 2008~2015 (HSSP, successor to the HSSP for 2003~2007). From the context of the National Health Workforce Development Plan 2006~2015 and the National Policy and Strategies for Human Resources for Health 2006-2010, mention is made of the project in connection with the improvement of health care and medical services and development of human resources in these fields. Thus the project has relevance in connection with the nation's development planning.

(2) Relevance with the Development Needs of Cambodia

At the time the project was planned, there was high need for development of human resources (HR), notably for nursing, midwifery, lab technology, and X-ray technicians for work in the areas of basic health care. At the time of the ex-post evaluation, there was indisputable need for improvement of health care and medical services. It was recognized that broad benefits were accruing to the nation from the improvement of HRD by the TSMC, as the central national institution devoted to preparing people for work in the health care and medical services fields. The project had clear relevance to the development needs of Cambodia.

(3) Relevance with Japan's ODA Policy

As stated in the Japan's Country Assistance for Cambodia released in 2002, improvement of basic education and of the medical care fields were assigned high importance as being fundamental to support the socially vulnerable at the time of project planning. Thus, this project is consistent with prior policy.

This project has been highly relevant with Cambodia's development plan, development needs, as well as Japan's ODA policy, therefore its relevance is high.

2 Efficiency

(1) Project Outputs

The following changes were made regarding outputs from the Japanese side, according to JICA.

Configuration of the roof of the Main Building and generator room; placing the wooden pergola, restoration of the existing pond, addition of painted white lines in the parking area, increase in some general management costs in connection with the foregoing; change of the location of septic tank 2, partial change in the renovation method for buildings to be renovated (nursing course building, Seminar House), change in the location of rain water and waste water drainage; change in the materials for partitions in the toilet building), and changes in the air conditioning and ventilation system for the instruction materials preparation room in the Seminar House.

According to the responses from the questionnaires by the executing agency, the reasons for changes and delays were not clarified.

(2) Project Period (Project Inputs)

The project period was planned as starting August 2004 (at the time of the E/N) to January 2006, or 17 months; but required one month more than that and the project was completed slightly later, in February 2006 (106%).

(3) Project Cost (Project Inputs)

Total project cost was 773 million yen; the amount in the E/N was 774 million yen, so it was mostly accomplished as planned (100%).

Although the project period was longer than planned, the project cost was mostly as planned, therefore efficiency of the project is fair.

3 Effectiveness / Impact

(1) Quantitative Effects

The targets that had been established at the time the project was planned had the target year of 2010. Comparison is made below for the following with 100 as the score for cases when the 2010 target has been reached. At the TSMC, in addition to existing nursing, lab technology, physiotherapy, and midwives courses, an X-ray technician course was started after the project completion.

- Increase in actual study hours per student for practical training (cover ratio of curriculum requirement)
 - Increase in the number of people who received postgraduate education (per year)
 - Increase in the floor area (m²) for learning and practice per student
 - Increase in the number of users of the library
 - Increase in the pass rate for the graduation examination, and reduction of the number of times of re-examination
- (a) Because of the importance of the improvement of facilities particularly for on-hands education and training through this project, inquiry was made into the increase in practical training time per student required by the curriculum. The cover ratio of curriculum requirement was about 90~95% for all courses.
- (b) However, regarding postgraduate education at the TSMC, the base value in 2004 was 9,240 students and the target for 2010 was 35,000 students, but results for 2010 came to only 8,207 students. Achievement thus fell short of the target. The reason for this low result was given by the TSMC as a shortage of space for education and a shortage of equipment as well as insufficient educational materials/equipment to match diverse clinical needs.
- (c) Regarding the area of classroom and practice room space per student, scores for almost all courses were below target. Values were low relative to the 2004 base values, indicating that the smaller space per student meant some deterioration of the environment for learning. It is thought that this is due either to an error in projection of the estimated number of students toward the target year at the time of the project planning, or because the number of students turned out to be much higher than it was expected at the time.
- (d) Data for library usage in 2010 was not provided to us and therefore the achievement of this target could not be measured.
- (e) Regarding the graduation examination pass rate, the initial target at the time the project was planned was 80%. The rate in 2004, before project implementation, was 42%, but by 2008 it had risen to above 95%, indicating excellent results. This, and the synergistic effect of a JICA technical cooperation project that was begun in 2003 and completed in 2008, suggests that there has been improvement of the quality of education.

(2) Impacts (Impacts on the natural environment, Land Acquisition and Resettlement, Unintended Positive/Negative Impact)

As to direct effects of the supply of healthcare and medical services, we inquired into relations with regional medical entities, hospitals and the like, with regard to the hiring of TSMC graduates and possible improvement in the abilities or quality of health care workers. According to response to the questionnaires, the outstanding difference in TSMC graduates subsequent to project implementation is that there has been a clear increase in the number of persons who have qualified as nurses and midwives, as well as a trend for physiotherapists to increase in number. Regarding X-ray technicians, 14 persons have been trained since the course for this specialty was created. Moreover, in relation to the relationship between the TSMC and other institutions, responses indicated that trainees had been received from all of the 24 provinces. A high level of demand in the regions outside the capital for persons who had been trained in each of the courses established at the TSMC had been known to exist, and the persons who have been trained as X-ray technicians are engaged in out-reach activities, through both formal and informal means, for major hospitals, clinics and regional hospitals.

No adverse effect with regard to the natural environment, land acquisition, resettlement of residents, or other matters has been reported.

This project has somewhat achieved its objectives, therefore its effectiveness is fair.

4 Sustainability

(1) Structural Aspects of Operation Maintenance

The response received indicates that support for this project after its completion, by medical institutions, hospitals, etc. has continued. Further, after completion, since 2007 it has been possible for the TSMC to use its own funding source, as it has been promoted to be the semi-autonomous body under the management of UHS, the authority for making decisions on disbursement of money has been expanded and the process of disbursement has been speeded up. In comparison to the situation when the project was planned, the arrangement for O&M management has been changed; seven persons had been in charge and now reduced to five (one director and four vice directors).

(2) Technical Aspects of Operation Maintenance

Plans called for including in the curriculum of training courses routine checking and simple maintenance work for equipment not requiring special skills and used for instruction in the practice sessions for lab technicians and X-ray technicians, but the response stated that at the time of the ex-post evaluation such training in equipment O&M was not being provided.

(3) Financial Aspects of Operation Maintenance

The response stated that at present TSMC requests a budget allocation from the UHS for the expenses of management of O&M, and the future of that funding depends on UHS policy. Because the response also indicated that there was difficulty in the O&M of the equipment due to insufficient funds from the budget and TSMC earnings, and that funds from TSMC's own resources are not made available for project-related O&M. Thus, there is concern over the financial aspects of O&M of the project equipment.

(4) Current Status of Operation Maintenance

According to the executing agency, while the supplied equipment and facilities are being fully used, O&M was a challenge because of a shortage of O&M staff and a very high rate of usage of the equipment. In particular, among the equipment cited in the project plan as requiring technical support from outside the TSMC and equipment for which routine checks and repairs are difficult, the general X-ray system and the film processing system necessary for instruction of X-ray technicians are in need of repair, and there is a

shortage of spare parts for the ultrasound diagnostic system. In the event that this situation persists for a long time, it is expected that it will work as a constraint on the supply of trained X-ray technicians and on the diffusion of the use of X-ray technology. According to a report by JICA, support has begun to be provided for O&M through a technical cooperation project. JICA also reported that X-ray equipment has been repaired after the response made by the TSMC.

Some problems have been observed in terms of technical and financial aspects as well as current status of operation and maintenance, therefore sustainability of the project effects is fair.