

## CHAPTER 4 EVALUATION RESULTS

### 4.1 Relevance

The relevance of the Project is highly maintained at the time of the Terminal Evaluation for the following reasons.

- 1) Consistency of the Project Purpose with the Laotian Health Policies and the needs of target group

The Government of the Lao PDR stated in “Health Strategy 2020” to ensure that all Lao people have access to health care services, and one of the important principles to achieve this goal is to improve the capacity of health staff at each level in order to ensure high quality services. In the Strategy, human resource development for health personnel is placed as one of six priority areas.

Additionally, “*The 7th Five-Year Health Development Plan 2011-2015*”, which is placed as an incoming action plan, is being conferred with Sector Working Groups (SWG) amongst the MOH and development partners to finalize. Issues with regard to human resource development are technically dealt with at the subordinating “Human Resource for Health- Technical Working Group: HRH-TWG”. The HRH-TWG also recognized MTU, of which the Project assisted to establish the practical operation, as an important and effective element for the capacity development of health personnel, especially for medical doctors. Therefore, it is considered that the purpose of the Project, aiming to improve the quality of clinical training for medical students as well as early graduates by MTU system under TMC administration, closely meets Laotian health policies, especially for capacity development for medical doctors at the time of the Terminal Evaluation.

On the other hand, the Lao PDR is suffering from a human resource shortage of health personnel working in hospitals as well as health centers at community level. Besides, the density of health worker, except for officers in authorities and educational facilities, is around 1.6 per 1,000 populations that falls to well below the WHO recommendation of 2.3 per 1,000 populations. Given these circumstances, the MOH set up goals of (1) to staff at least 1 medical doctor at all health centers by 2020, (2) to staff at least 1 medical doctor at two thirds of health centers by 2010, and (3) to increase the number of general doctors and specialist in accordance with standards of hospital at central, regional, provincial and district levels. In response, the MOH increased the enrollment of medical students to UHS in a rapid manner to fulfill the demand, and it resulted in the expansion of hospitals at regional and provincial levels to receive medical students for their clinical training. Since the number of medical students who is going to participate clinical training is increasing over the year ahead, demand and necessity for the improvement of clinical training is ever-increasing, and it is widely recognized that the least they should do is to maintain the quality of clinical training even in the regional and provincial hospitals.

Meanwhile, the results obtained from baseline survey and on-site direct observation revealed that the performance of medical doctors responsible for clinical training was insufficient as well as medical students and early graduates. Furthermore, teaching ability of clinical trainers was also insufficient due to inexperience of clinical pedagogy. In addition, management system and educational environment were also weak for effective practice of clinical training.

As noted above, reinforcement of management system, improvement of educational environment and capacity strengthening of clinical trainers, which were expected outputs of the Project, were



highly reasonable for the improvement of clinical training and for up-coming increase of medical students as well. Simultaneously, it is considered that the Project Purpose is highly consistent not only with needs from medical students and doctors but also with practical necessity of human resource development plan in Lao PDR.

## 2) Consistency of the Project Purpose with Japan's Aid Policy

As the basic policy of Japan's assistance for Lao PDR, it is written about supports for the self-help efforts of Laos for human development in the Country Assistance Program for Lao PDR, issued on September 2008. In "Improving healthcare services" that is one of the 6 priority areas for the achievement of the basic policy, it is stated that Japan supports the efforts by the Laos towards 3 developing agenda of "improving maternal and child health services", "developing human resources and institution building related to the field of healthcare", and "raising the capacity for health management of local communities", in accordance with the "Health and Development Initiative (HDI)" and "Health Strategy 2020" announced by Japan and by Lao PDR, respectively.

The Project aiming for future quality reinforcement of medical doctors through the improvement of quality of clinical training as the Project Purpose should be placed at "Program for strengthening of human resource development in health" under "developing human resources and institution building related to the field of healthcare".

## 3) Appropriateness of implementation method

It is considered to be appropriate to select medical students who participate clinical training at the Setthathirath Hospital as direct beneficiaries due to the urgent needs as aforementioned. On the other hand, the number of early graduates, envisaged as one of major target groups, was reduced beyond expectation. Most of early graduates who receive clinical training at teaching hospitals can be considered to be participants of "Family Medicine Specialist Program". As shown in Fig. 3, the number of early graduated enrolled in the course for the Program was 7 in 2008 whereas 36 in 2005 at the first year of the Program, and the number of the course participant who received training at the Setthathirath Hospital was only one in 2007. Less academic and monetary incentives as well as less promotional activities are considered to be major cause of this enrollment decrease. However, it is considered that this enrollment decrease had less impact on the achievement of the Project Purpose, since the proportion of early graduates to total beneficiaries were rather small originally.

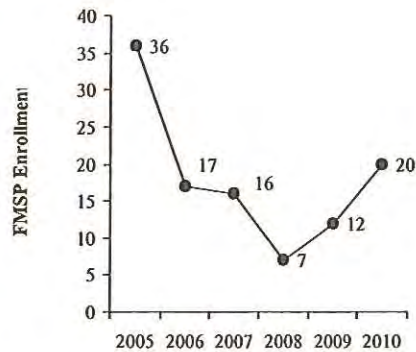


Fig. 3 Trend of Enrollment in Family Medicine Specialist Program

Recently, UHS is addressing to raise the Family Medicine Specialist Program to give approval of master's degree program. The number of the enrollment demonstrated an upward trend in 2009.

On the other hand, the Family Medicine Specialist Program is the only training course for early graduates to be nurtured as general medicine experts, while the Institute of Francophonie for Tropical Medicine has a master's degree program for tropical medicine. Since the Project did not focus on the quality enhancement of early graduates in terms of clinical skills directly, it is considered to be of importance for the MOH, UHS and other authorities to address this issue for

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further betterment of clinical training by any means.

#### 4.2 Effectiveness

**The effectiveness of the Project is considered to be high on average at the time of the Terminal Evaluation for the following reasons.**

##### 1) Achievement of Project Purpose

The purpose of the Project was to improve clinical training for medical students and early graduates who bear the important role in medical services in Lao PDR.

Activities under Output 1 were set out to accumulate clinical cases as good references systematically for sufficient opportunity to see the cases even in a short period of clinical training at hospitals, at the time of preliminary survey of the Project. However, description in medical charts was generally immature, and clinical treatment was provided on the basis of individual knowledge and experiences, rather than standardized clinical evidences. Therefore, the priority of promoting evidence-based clinical practice was confirmed over the case accumulation at the time of the Mid-term Review. Then, Lao and Japan side mutually agreed to modify the approach to achieve the Output 1 from “systematic accumulation of clinical cases” to “improvement of educational environment with enrichment of reference materials and study spaces”. The modification enabled the Project to conduct their activities, which was appropriate to the real-world condition of clinical training. In other words, the modification of approaches of the activities under Output 1 was fairly relevant, and contributed to achieve the Project Purpose through the attainment of Output 1.

Meanwhile, it is of importance to operate clinical training efficiently under the systematic administration for the quality clinical training. Though the concept of MTU, as a methodology of systemic operation for clinical training, has been introduced by the University of Calgary in 2005, it was malfunctioning due to the lack of experiences and know-how for practical operation. Under the circumstances, the Project activated the clinical training in the Setthathirath Hospital by assisting counterparts to put the concept of MTU such as (1) team organization, (2) team activities (ward rounds, case conferences, etc.), (3) clarification of job description and (4) schedule management of activities and teaching program, into reality. In addition, the Project also assisted them to formulate TMC for better coordination and administration of MTU. Therefore, it is considered that the foundation of operational management for quality clinical training at the Setthathirath Hospital.

Furthermore, the Project, under PMEL initiative (described herein below), organized TOT workshops to give lectures with regard to teaching methodology as well as administration of clinical training for medical doctors including preceptors with fewer experiences about standardized teaching methodology. TOT workshops were held at the Setthathirath Hospital in the initial phase of TOR related project activities. Then the project expanded their TOT related activities to other teaching hospitals, followed by regional/provincial hospitals where newly assigned as a teaching facilities for medical students. Through aforementioned activities, the Project simultaneously distributed the idea of necessity of educational environmental improvement (Output 1) and quality management of clinical training (Output 2), resulting in positive impacts on clinical training system in Lao PDR.



As described above, three Outputs, set out in PDM, constitute necessary and sufficient conditions mutually for the achievement of the Project Purpose (Fig. 4). Additionally, there found no logical error in the relation between the Project Purpose and Outputs, and objectively verifiable indicators for Outputs as well as the Project Purpose are favorably fulfilled at the time of the Terminal Evaluation Survey. Thus, it is highly expected that the comprehensive achievement of the project purpose by the end of the project purpose. Especially for the practical MTU foundation that was established by the Project, authorities of human resource development emphasized the importance of MTU in future quality clinical training in Lao PDR. Thus, it is implied that the Project implemented their activities effectively.

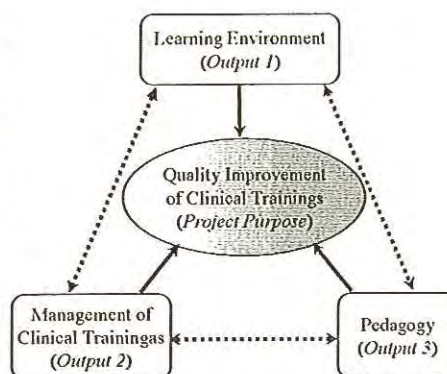


Fig 4. Logical Relationship amongst Outputs and Project Purpose

However, the MOH emphasizes on the importance of simultaneous improvement of four teaching hospitals for nurture of quality doctors nationwide, and also gives emphasis on quality assurance of teaching hospitals as a whole. While the MTU system under the efficient management of TMC has established at the Setthathirath Hospital, other teaching hospitals and other three teaching hospitals is considered to be in a introduction stage in the process of TMC establishment. Moreover, the Project provided TOT workshops at regional and provincial hospitals where was newly assigned as available facilities for clinical trainings, prior to receiving trainees to cope with the rapidly increased medical students. Under this challenging situation, the Project focused on expansion and acceleration of TOT to meet the urgent needs with flexibility. Therefore, it is relevant to consider that establishment and actual operation of comprehensive monitoring for clinical training in teaching facilities will be one of remaining problems that should be addressed after the establishment of implementation system of clinical training at teaching hospitals as a whole.

Meanwhile, even the Setthathirath Hospital established the organizational foundation for quality clinical training, yet to be consolidated. Thus, it is of necessity to advance the quality of clinical training in terms of organizational system. On the other hand, since the project period was only 3 years, the Project was not directly engaged in improvement of clinical capabilities of medical doctors as well as students. Nevertheless, it is supposed that the Project generated indirect positive impacts on the clinical services through the improvement of organizational and educational environments for clinical training (see "Impact" section below), and there were several collaborative activities with other cooperation organizations such as Freiburg University and Health Frontier that provide direct technical guidance to resident doctors in Lao PDR. The approach of the Project, "How to teach", makes a collaboration with donors above, using the approach of "What to teach." This collaboration activates these approaches each other.

## 2) Important assumptions for the achievement of Outputs

- ① Confirmation of the current status of "Clinical trainers continue working as teaching doctors".

There was no major turnover and/or resignation. Thus, few influences for the achievement of the Project Purpose were observed.

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- ② Confirmation of the current status of “*The number of patients not reduced drastically at the Sethathirath Hospital*”.

There was no drastic increase or reduction in number of patients was observed as of the time of the Terminal Evaluation. However, the rapid increase of the medical students is getting a serious issue facing future clinical training, since it is considered as a relative decrease in number of patients against the number of medical students. Relevant authorities should take necessary countermeasures for it by any means because this trend supposed to continue for several years at least.

- 3) Important assumptions for the achievement of the Project Purpose

Confirmation of the current status of “*The MOH continues to secure the budget for the clinical training at the educational hospital*”.

The budget for clinical training at educational hospital was secured as of the time of the Terminal Evaluation.

- 4) Contributing Factors for Effectiveness

The need was arisen to nature core personnel who are capable to develop teaching materials and to give lectures in Lao language at TOT workshops at hospitals in regional and provincial levels for better efficiency. In response to this issue, “Project for Medical Education in Laos: PMEL” was organized consisting of representatives from UHS and four teaching hospitals with encouragement of the Project, and the function of PMEL was expected to lead TOT workshops with developing theme of training and acting as lecturers and facilitators.

PMEL is playing an important role in organizing and implementing TOT workshops at teaching hospitals including regional/provincial hospitals. And, PMEL has acquired the capability for organize TOT workshop autonomously. Thus, it is considered that cross-organizationally formulated PMEL will contribute future sustainability.

The MOH and UHS officially approved Medical Education Committee including PMEL members to get engaged to clinical education on the 29<sup>th</sup> of December 2009.

- 5) Inhibitory Factors against Effectiveness

A part of CLC and its equipment was burned-out and damaged by fire on the 26<sup>th</sup> of October 2009, attributed to the delay in full-scale use. Details will be described at “*Efficiency*” section.

#### 4.3 Efficiency

The efficiency of the Project is generally high though several external factors vitiated the progress of the project activities.



### 1) Progress Management of the Project Activities

As described in "Implementation Process" section, several external factors affected its progress though the project activities have been implemented in accordance with the project annual action plan. It is particularly worth noting that curriculum for D6 medical students was postponed from September to December 2009. After the re-start of clinical training with new curriculum from January 2010, usage of library and CLC was get accelerated as well as clinical training.

### 2) Beneficial utilization of provided equipment and materials

Construction of CLC was incorporated into the framework of the Project after the series of discussions at the time of Med-term Review to fulfill the urgent demand of spaces for lectures, sheetworks, case conferences, etc. Construction of a part of CLC was completed on July 2009, and get started its operation gradually. Unfortunately, a part of CLC and its equipment was damaged by fire happened on the 26<sup>th</sup> of October 2009, and it took some awhile for re-procurement of damaged equipment, resulting in the delay of official transfer of CLC to the Setthathirath Hospital. However, Lao side repaired CLC as of the time of the Terminal Evaluation, and the transfer is scheduled on the final year of the project period. Undamaged rooms were continued to be used for lectures, and the administration of CLC is currently in the process of complete transfer to the Setthathirath Hospital.

CLC is efficiently used not only by hospital staff and medical students but also by other organizations such as UHS, cooperating partners, etc. Moreover, teaching materials and text books are utilized by other teaching hospitals as well as UHS, which was also confirmed through the direct observation by the Terminal Evaluation Team. It is notable that medical doctors and students effectively use medical reference books written in Thai language provided by the Project. Medical students are getting accustomed to utilize library for issues arising from their clinical training under the guidance of preceptors and clinical trainers. Thus, inputs from the Project were efficiently turned into the achievement of Outputs of the Project.

### 3) Collaboration with Existing Resources

#### ① Collaborative activities with other Japanese resources

There was no direct collaborative activity for the achievement of Outputs with other Japanese resources such as other JICA projects, Japan Overseas Cooperation Volunteers (JOCV) and so on, whereas occasional information sharing was continued.

#### ② Collaboration with Other Resources

##### University of Calgary, Canada

Japanese experts of the Project contributed the revision of "Guidebook for Basic Clinical Capability" and "Handbook for Diagnostic Algorithm" promoted by the University of Calgary. And, a doctor from the University of Calgary attended TOT workshops at Champasak and Luang Phabang provincial hospital as a guest member. Moreover, the Project provided space and equipment for them to implement life-long learning program for graduates of the Family Medicine Specialist Program. Occasional information sharing was continued throughout the project period.

##### Albert-Ludwigs-Universität Freiburg, Germany



Dr. Michael RUNGE is providing lectures and technical guidance for Obstetrics-Gynecology resident doctors at bedsides at the Setthathirath Hospital and Luang Phabang provincial hospital. The Project provided space and equipment for him to implement Obstetrics-Gynecology Seminar held on February 2010. Occasional information sharing was continued throughout the project period.

#### Khon Kaen Regional Hospital, Thailand

Dr. Satang SUPPAPON, from Center for Medical Education, Khon Kaen Regional Hospital, gave lectures regarding to “*Professionalism*” at the 3<sup>rd</sup> Medical Education Seminar held on October 2009, and provided a teaching material of “*Humanistic Care*”. After the Seminar, the project employed the content of professionalism at TOT workshops.

#### Health Frontier, USA

Health Frontier is sending forth doctors to the Setthathirath Hospital and other teaching Hospitals, and providing OJT at Internal Medicine and Pediatrics Wards. Information sharing about the status of MTU is continued through occasional meeting on the ground, the Joint Coordinating Committee (JCC) meetings and the medical Education Seminars.

#### 4) Contributing Factors for Efficiency

##### ① Efficient collaboration with other cooperating partners

As described before, effective collaboration with the university of Calgary and other cooperating partners contributed to the efficient implementation of the project activities. It is particularly worth noting that the Project and the University of Calgary developed a learning material in collaboration, by modifying existing material that was developed by the university of Calgary on the basis of their experiences. Therefore, it is considered the learning material should meet the actual conditions of clinical practices in Lao PDR. In addition, other learning materials are also developed on the basis of existing materials, which contributed the efficiency of the Project.

##### ② Efficient information sharing amongst relevant parties

The Project has been trying to share the information about the progress of the activities and achievements of the Project through the biannual JCC, Medical Education Seminars, HRH-TWG, newsletters and a poster developed by the Project. As the results from these activities, the Health Minister and other authorities expanded the understanding of effectiveness of MTU and other benefits generated by the Project. The Minister of Health and vice-Minister reached at the level enough to explain the concept of MTU correctly.

#### 5) Inhibitory Factors against Efficiency

As aforementioned, SEA Games and fire accident of CLC had influenced on the efficient progress of the Project. But fortunately, there was little impact on the eventual achievement of the Project Purpose.



#### 4.4 Impact

The following positive and/or negative impacts are confirmed and/or expected by the implementation of the Project.

##### 1) Probability of achievement of the Overall Goal

The Government of Lao PDR focuses on the enhancement of the capability of health professionals for the improvement of the medical conditions of the country. Activities in the Setthathirath Hospital that is promoting enhancement of the quality of clinical training are regarded as a base for the doctor training with guaranteed quality by the future. In this Project, activities are conducted with the emphasis on sustainability in the participant for the purpose of future prevalence of benefits through the activities. In particular, PMEL was formed by UHS and the representatives of four education hospitals and is conducting the activities enthusiastically including the implementation of TOT. Through TOT, the training management method in the Setthathirath Hospital is shared among other education hospitals and regional/provincial hospitals that were newly appointed for providing internship. In this way, the impact such as formulation of TMC in the three provincial hospitals is confirmed (described later). That is, the foundation of clinical training that has been established by the Setthathirath Hospital has evolved during the project period with the emphasis on the sustainability within Lao PDR, which means that the basis for achievement of the overall goal has been established.

As described above, the clinical training method is currently in high demand and there is no failure in the causal association. As this project sets out dissemination of the achievement of the Setthathirath Hospital across the whole of entire Lao PDR, the legitimacy of the current overall goal is maintained, and the overall goal is likely to be achieved if the current activities are maintained and important assumptions (very significant at the current point) are satisfied. Both the MOH centering and the Minister of Health highly appreciates MTU as a tool for realizing high-quality clinical training and strong commitment at the policy level can also be expected.

Although MTU is practiced in four teaching hospitals, the other three hospitals have not reached establishment of TMC. Establishment of TMC will be supported by the remaining term of the Project. TMC has been established in three provincial hospitals and the training management has commenced. In provincial hospitals despite the absence on middle-level teaching staff members who form MTU the hospitals already started to modify the system to make it suitable for the organization at each level.

On the other hand, a sharp increase of the number of medical students that is set as the important assumption is detected and some doubt remains about the capacity of the training management by TMC and the MTU system itself to cope with the sudden increase in the number of the students. The number of preceptors available for the drastic increase of the number of students is assumed to remain unchanged, and this is considered to be a key for the sustainability of the system.

##### 2) Important Assumption for Overall Goal

Current status of *"The number of medical students are not increase drastically"*.

As described above, the number of students accepted in the Faculty of Medicine has already



increased dramatically during the project period. The four education hospitals alone already cannot cope with the number of students to facilitate the students who are to receive clinical training and the additional three regional hospitals and one provincial hospital are assigned as available facilities.

As the number of students has continuously increased until this year, the number of medical students who will receive training is expected to increase for the next five years so that obviously, the current important assumptions will not be satisfied. Currently, the scope of facilities made available to the training has expanded to the regional hospitals. With the implementation of TOT prior to the commencement in regional hospitals in response to the strong request from the MOH, training at a certain level is maintained. According to the interview survey conducted to concerned parties by the evaluation inspection team, the number of students accepted by the Faculty of Medicine is expected to decrease from the next year, however, the actual measures are indecisive. The clinical training in Laos may fail and this may become a critical assumption. The measure for coping with increasing participants for clinical training is requested as well as the realization of a restriction on the number of students accepted by the Faculty of Medicine based on the demand.

### 3) Other Positive Impacts

#### ① Future development of MTU

The technical aspect is heading in the right direction with smooth progress of institutionalization of TMC and PMEL. The MOH regards MTU as a model for fostering health professionals in the 5-year plan (2010-2015) of the next national health sector.

#### ② Introduction of MTU/TMC in regional (provincial) hospitals

TOT was conducted in four provincial hospitals in Savannakhet, Champasak, LuangPhabang, and Vientiane and the result of the interview survey conducted in hospitals other than the Vientiane province hospital indicates an improvement of the quality of the education training by preceptors. In the three provincial hospitals, MTU started to function as a clinical training system following TOT, and TMC is installed in the Savannakhet provincial hospital and the Champasak provincial hospital.

#### ③ Contribution to improvement of clinical capabilities of doctors

Although this project is not directly engaged in improvement of clinical capabilities of doctors, OJT is implemented in the education opportunities such as visits to patients. CLC has been built as a Skills Labo and for providing space for conferences and it is becoming more widely used by other support organizations. Doctors have started to spend more time for teaching preparation and some doctors also indicate that it is beneficial for improving their own knowledge. In this way, this project indirectly contributes to the improvement of medical technology and knowledge that are not directly supported.

#### ④ Contribution to improvement of medical examination services

In MTU, medical records are to be entered by medical students and preceptors provide counter signatures to give the students the sense of responsibility for certain medical examinations. In this way, preceptors can allocate the time spent for entering medical cards to case conferences and student guidance in OJT. Thus, MTU contributes to the improvement of student ability. The inspection team directly observed that medical students were carefully



recording the history of medical examinations, medical assessments, and the setting of treatment policies while checking the details in the libraries. It is assumed that the system indirectly contributes to the improvement of the "quality of the medical examination service" as well as standardization of information associated with the use of the libraries and the improvement of attitudes to patients based on the guidance on ethics.

#### 4) Other Negative Impact

No negative impact attributed to the activities of this project is observed by the evaluation at completion.

### 4.5 Sustainability

A self-sustainability as well as a self-deployment of the benefits provided by the Project can be expected in some degree if continuous small-sized assistances are obtained by any means.

#### 1) Political and Institutional Aspects

As mentioned in "legitimacy", the Laotian Government regards development of human resources as one of the most important policies in the "Health Strategy 2020", which is the health and medical strategy to be achieved by 2020. In the 7th Five-Year Health Development Plan 2011-2015, the Government also regards MTU as an important element for enhancing the capabilities of health professionals.

In the subcommittee meeting, the Minister of Health pronounced, in the CHIPU (Complex of Hospital, Institute, Project and University) scheme, the promotion for the enhancement of the capabilities of health professionals with the cooperation from medical service supply organizations (hospitals, and so on), medical education research organizations (universities, research organizations, healthcare specialist schools), and development partner organizations. The Minister stated that the MTU system, which was established in this project, would become a common term for connecting CHIPU. The Minister of Health sent a letter to JICA, requesting continuous technical support for upgrading the scale to include local hospitals in the next plan under CHIPU. In this way, a strong political commitment from the Laotian Government can be expected on a continuous basis.

On the other hand, MOH has had a framework, HRH-TWG of SWG. However, so far, the specific issues about medical education had not been discussed in this framework. The MOH can promote efficient coordination among developing partners for quality improvement of medical education.

Therefore, the importance of capability enhancement of health professionals based on doctors is maintained politically. In particular, the sustainability of political support for MTU is highly probable as it meets the CHIPU scheme that is promoted by the Minister of Health and the MOH.

#### 2) Financial Aspects

After the shift from the control under the Ministry of Education to the control under the MOH in 2007, the budget allocated by the MOH covers only payrolls of the public servants, that is, the payrolls of the staff members of the Setthathirath Hospital. Other expenses incurred for medical equipment and its maintenance are to be financed from the revenue of the hospital. However, the



revenue of the hospital is unstable and no special budget is allocated to teaching materials for students. However, as far as the Setthathirath Hospital is concerned, adequate medical reference materials and training equipment have become available through this project. The medical education technique for learning basic clinical capability that is introduced by this project does not require expensive equipment and can be introduced to local hospitals comparatively easily. Therefore, the cost for managing training can be maintained at a comparatively low level. However, education hospitals and provincial hospitals that accept internship other than the Setthathirath Hospital may find it difficult to access information. As shown in Fig. 4, to achieve effective improvement of the quality of clinical training, the environment such as libraries and space for learning needs to be improved in association with the introduction of the training management system.

As repeatedly mentioned before, further increase in the number of medical students who will receive internship in hospitals is clearly anticipated at least for the next several years. To respond to this issue, the MOH has included regional hospitals for accepting interns and is unofficially planning to include two new provincial hospitals to accept interns to handle any further increase. To prepare facilities that are far distant from the university as accepting hospitals, sustainable budget allocation is necessary including TOT training cost and preparation of the living environment such as accommodation facilities as well as preparation for the academic environment that is indicated above.

Although TOT is implemented based on PMEL, its training cost, traveling and transport expenses, and accommodation expenses are assisted by the project. Doctors available at a clinical site in provincial hospitals including preceptors constantly change due to transfer, resignation, and new recruitment. TOT requires some degree of sustainability for the acquisition of new knowledge and monitoring preceptors. In this project, estimation is under way for the cost required for the activities that need to be continued by the Laotian Government after completion of the project, as well as the cost for implementation of such training.

The result of the interview survey conducted for Laos indicated that MTU is particularly emphasized at the policy level and the increase in the number of students was based on the policy. Therefore, the conclusion of the survey indicates that necessary budget allocation can be expected. Although some degree of budget allocation can be expected from the government, the concrete cost estimation has not commenced and urgent preparation is necessary.

### 3) Technical Aspects

The status of MTU has reached the level of sustainable operation under TMC management and MTU functions with limited presence of Japanese specialists. This means that the technical foundation of organizational management of the clinical training in the Setthathirath Hospital has been nearly established. These management systems are currently being introduced into the other education hospitals and provincial hospitals and are making substantial contributions to training management for the students that have increased in number. For the monitoring of preceptors, evaluation is implemented with the combination of (1) On-site review by Japanese expert and (2) Monitoring progress by outsourcing. Currently, training is continuously provided so as to enable the Laotian Government to implement sustainable management.

Through this project, information access has been improved including the improvement of libraries and the collection of books, and the commencement of a loan system. Teaching materials have also been improved by the project and hardware facilities have been enhanced. CLC that was constructed



in this project not only functions as a Skills Labo but also is expected to be used for conferences. The use by various diagnostics and treatment departments and other support organizations is being promoted. Thus, CLC is expected to contribute to the maintenance and the improvement of knowledge and the skills of doctors and students.

The operation foundation in the Setthathirath Hospital has been established and further improvements are necessary for the flexible handling of medical students whose number will increase in the future. The system has not been introduced in other education hospitals and regional hospitals and sustainable technical assistances are necessary for the stability of the system.

#### 4) Comprehensive Sustainability

The Laotian Government highly evaluated the improvement of the quality of the clinical training implemented by this project. Highly comprehensive sustainability can be expected in the political and institutional viewpoints also as MTU are expected to be incorporated in the strategic plan for human resource development.

In the technical aspect also, although the Setthathirath Hospital can independently provide clinical training with the guarantee of a certain quality, it is still at the primary stage regarding the training. Other education hospitals and training hospitals of the provincial level are at the initial stage of introduction and the necessity for sustainable technical assistances even on a small scale is signaled.

To achieve the quality of clinical training across the whole of Laos, it is necessary to improve the learning environment and to train instructors. The necessity for some sort of financial assistance is suggested for proper implementation of clinical training for the increasing number medical students.

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