

## Summary of Terminal Evaluation

<b>1. Outline of the Project</b>	
<b>Country</b> : Lao People's Democratic Republic	<b>Project Title</b> : Improving In-service Teacher Training for Science and Mathematics Education (ITSME)
<b>Issue/Sector</b> : Basic Education	<b>Cooperation Scheme</b> : Technical Cooperation Project
<b>Division in Charge</b> : JICA Laos Office	<b>Total Cost</b> (At the time of evaluation) : 302 Million Yen
<b>Period of Cooperation</b>	(R/D): 19 Nov. 2009 22 Feb. 2010- 31 Oct. 2013
	<b>Partner Country's Implementing Organization</b> : Department of Teacher Education (DTE), Ministry of Education and Sports (MOES)
	<b>Supporting Organization in Japan</b> : NA
	<b>Related Cooperation</b> : The Project for Improvement of School Environments in Champasack and Savannakhet Provinces (Japan's Grant Aid for Community Empowerment)
<b>1-1 Background of the Project</b>	
<p>As one of the top prioritized sectors in contributing to poverty reduction in Lao PDR, various efforts have been made in the education sector under the following three pillars: (1) improvement of equitable access; (2) improvement of quality and relevance; and (3) improvement of administration and management. Although the enrollment rate in the primary education has been improved, other indicators that are related to the quality of education, for example, repetition, dropout, and completion rates have not been improved as expected.</p> <p>With these backgrounds, the Education Sector Development Framework (ESDF) places an emphasis on the improvement of teachers' quality by strengthening the capacity of in-service training.</p> <p>The Japan International Cooperation Agency (JICA) has supported the improvement of teacher education through the Project for Improving Science and Mathematics Teacher Training (SMATT) from 2004 to 2008, which aimed at improving quality of science and mathematics lecturers at teacher education institute (TEI). Training contents and learner-centered approaches of SMATT have been recognized as relevant and useful for persons and organizations concerned. Recognizing these achievements and impacts of SMATT project, the Government of Lao PDR requested the continued support to enhance and expand the outputs of SMATT project to the school level.</p>	
<b>1-2 Project Overview</b>	
<b>(1) Overall Goal</b>	
Quality of lessons in target provinces is improved.	
<b>(2) Project Purpose</b>	
Quality of science and mathematics lessons in target schools is improved.	

**(3) Output**

Output 1: Mechanism for improving lessons is strengthened.

Output 2: Human resources to promote improvement of lessons are strengthened.

Output 3: Materials for improving lessons are developed.

**(4) Inputs (At the time of evaluation)****【Japanese Side】**

Expert: 6 person

Training in Japan: 30 participants

Equipment: A total of US\$273,950

Local activity cost: A total of US\$196,866

**【Lao Side】**

Counterparts (C/P): A total of 40 persons

Local activity cost: A total of 746,623,000 KIP

Provision of office space for the Project and utilities

**2. Evaluation Team**

<b>Member</b>	Ms. Machiko KAMIYA, Team Leader, Senior Representative, JICA Laos Office Dr. Keiko MIZUNO, Teacher Education, Education Policy Advisor to MOES Mr. Kazuyuki KAKUDA, Cooperation Planning, Representative, JICA Laos Office Ms. Tomoe TAIRA, Evaluation Analysis, Consultant, IC Net Limited	
<b>Period of Evaluation</b>	1 July – 19 July, 2013	<b>Type of Evaluation:</b> Terminal Evaluation

**3. Results of Evaluation****3-1 Achievement of the Project****(1) Outputs**

Output 1: The Output 1 is mostly achieved. The extent of achievement will be higher if the indicator 1-4 is met by the end of the Project.

The Indicator 1, i.e., “An official document agreed between TTC and PES to establish a professional network for supporting IS activities in target provinces” is achieved. The “ITSME Future Plan and Implementation Strategy,” which clarified the roles and functions of the DTE, PESSs, DESBs, and TTCs in supporting IS activities that could also serve as a professional network, was signed by the director of the DTE on April 1, 2013 and agreed among the DTE, target PESSs, DESBs, and TTCs. The Indicator 2, i.e., “MOES budget approved to operationalize the mechanism in target provinces” is also achieved. At the central level, the DTE budget of LAK 746,623,000 in total was allocated for the Project activities throughout the Project years except the period from June 2013 onward. At the local level, the PESSs and DESBs bore necessary expenses for school monitoring, and all schools bore necessary expenses for IS. The Indicator 3, i.e., “Utilization of developed model lesson plan in target schools,” is fully achieved. Compared to the status at the baseline, all the target schools came to utilize the model lesson plans developed by the Project in the IS activities. The Indicator 4, i.e., “Feedback on the utilization of the model lesson plan to PES through DEB,” is expected to be achieved. Verbal reporting has been conducted fully by all the target eight DESBs. Periodic reporting using the

monitoring form is also conducted by four DESBs. Since the Project has instructed the remaining four DESBs to submit the form and received positive reactions from them, it is expected to be conducted by the end of the Project.

Output 2: Overall, the Output 2 is mostly achieved.

The Indicator 1, i.e., “Quality of developed model lesson plans is improved,” is fully achieved.

According to the analysis by the Project experts, on a scale of 0 to 9, the score on the quality of 25 model lesson plans in total developed by ITSME trainers by group improved from 7.0 in the first year to 7.3 in the second year, and 8.8 in the third year. The analysis shows that the developed lesson plans met the target quality in which i) objectives, ii) learning process /student activities, and iii) evaluation questions of a lesson are clearly set and appropriately formed. The Indicator 2, i.e., “ITSME trainers’ subject knowledge” is achieved at a satisfactory level. Compared to the pre-test, the average scores of 22 ITSME trainers in the post-test on their subject knowledge has increased in all the seven targeted units of Mathematics and Science. Although the ideal level of achievement would have been 100%, it is fair to say that the level of improvement is satisfactory given the constraints such as a few inappropriate textbook contents and the limited learning environment of the ITSME trainers. Enhancing knowledge on the other units remains a future challenge.

Output 3: The Output 3 is expected to be achieved by the end of the Project.

The Indicator 1, i.e., “The number of model lesson plans developed against the target in the plan stated in activities” (First and second year: no target; third and fourth year: 10 units each) is expected to be fully achieved by the end of the Project. The target number of model lesson plans was already developed in the first to the third year (First year: three units; second year: nine units; and third year: 10 units). The number of model lesson plans exceeding the target has been mostly developed in the fourth year (14 units) as of June 2013 and is expected to be fully developed by the end of the Project. The Indicator 2, i.e., “Compilation of materials for improving lessons developed by activities in 3-7,” is expected to be achieved by the end of the Project. The Project has started compiling the developed materials such as model lesson plans and manuals. The Indicator 3, i.e., “A document prepared and submitted by the project to propose to MOES for their consideration to adopt the developed materials as national standard,” is expected to be achieved by the end of the Project. The Project has started preparations for a set of concrete recommendations on how to utilize the Project materials in the existing MOES training materials and activities.

## **(2) Project Purpose**

The Project Purpose has been achieved. The level of achievement is expected to be higher if the above-mentioned outputs are fully produced by the end of the Project.

The Indicator 1, i.e., “Improvement of the quality of lesson performed by target school teachers,” is achieved. According to the analysis of lesson observation in the 32 target schools of the end-line survey and interview surveys at the eight schools visited in the Terminal Evaluation, in general, the target school teachers became able to i) set clear objectives, ii) lead students’ activities in an appropriate order, and iii) summarize and evaluate the lessons. Therefore, the quality of lessons, especially the skills in forming lessons, by the target school teachers has improved. The teachers are expected to become able

to teach accurate subject knowledge to students by utilizing the gained skills of forming lessons. The Indicator 2, i.e., “Improvement of the quality of lesson plans made by target school teachers,” is fully achieved. According to the analysis by the Project experts and ITSME trainers of 26 lesson plans developed by the target teachers, the quality of lesson plans are improved in the above-mentioned three points, especially the point i) mentioned above. A more appropriate arrangement of the points ii) and iii) based on accurate subject knowledge remains a challenge. In addition, the questionnaire survey in the Terminal Evaluation shows that vitalization of IS through the utilization of model lesson plans is effective for improving the quality of lessons (100 % of the respondents or 36 trainers in total strongly agree or agree on the effectiveness.)

### **3-2 Summary of Evaluation Results**

#### **(1) Relevance: 【Very High】**

Relevance is evaluated as very high. The Project has been highly consistent with the national and educational policies of Laos as well as the Japan’s assistance policy for Laos, which prioritize the Basic Education and improvement of education quality for achievement of MDGs. According to several target DESBs, the improvement of quality of lessons through IS activities has contributed to reducing the student dropout rate. Given this, the Project is consistent with one of the important agendas of reducing the dropout rate mentioned in the mid-term review of ESDP. Although the MOES has encouraged schools to use IS to improve teachers’ skills, effective activities have not been available to teachers. The Project has been providing effective materials and their usage to boost IS activities for quality lessons, therefore has responded to on-the-ground needs. Japan has enriched knowledge and experience of IS. The Project’s approach to improve the quality of lessons through IS with the usage of Japan’s experience was effective for helping overcome a major educational challenge.

#### **(2) Effectiveness: 【High】**

Effectiveness is evaluated as high for the following reasons: 1) two indicators of the Project Purpose have been achieved; 2) the approach to improve the quality of lesson plans as well as lessons through IS activities have functioned well and contributed to the achievement of the Project Purpose; and 3) all the three Outputs have contributed to the achievement of the Project Purpose.

#### **(3) Efficiency: 【High】**

Efficiency is evaluated as high. The level of achievement of all the three outputs is mostly high. In general, the inputs from both the Japanese and Lao sides are also utilized efficiently. Most activities at the local level, such as TOTs, monitoring of schools by DESBs, and IS activities at schools are conducted as regular work therefore within the regular budget framework (with budget assistance by the Project for TOTs). These activities have contributed to the achievement of the Outputs which in turn have helped achieve the Project Purpose. The preconditions in the PDM ver. 1 for the commencement of the Project were not fully met before the implementation of the Project. However, the Project has achieved the Outputs with the existing budget and has utilized the training in Japan to maximize the Project outputs.

**(4) Impact: [High]**

It has not yet come the time for the two indicators of Overall Goal, i.e., “Improvement of the quality of lesson performed by teachers in the target provinces” and “Improvement of the quality of lesson plans made by teachers in the target provinces” are achieved. However, according to the interview surveys in the Terminal Evaluation, some non-target schools have started utilizing the model lesson plans, therefore it is predicted that the quality of their lesson plans are being improved to some extent.

Impact towards the direction of Overall Goal has also seen as followings: 1) target PESSs and DESBs have developed plans for expanding the Project activities and started distributing the Project materials to non-target areas; and 2) several DESBs have shared the model lesson plans in their organization and prepared the implementation structure for continuing and expanding the Project activities. In addition, the following noteworthy impacts are seen: 1) ITSME materials have been utilized in the Mathematics and Science lessons of the two target TTC; and 2) in all the eight schools visited in the Terminal Evaluation, teachers have developed lesson plans for the subject of the Lao language, which is not a target subject.

The Project showed that the utilization of IS has contributed to the improvement of the quality of lessons. Therefore, the Overall Goal is expected to be achieved if the necessary measures are taken by the MOES for securing the Important Assumption, i.e., “IS is conducted in all the schools in the target provinces by the Lao side.” Negative impacts are not found.

**(5) Sustainability: [High] (Central Level: Satisfactory, Local Level: High)**

Sustainability is totally evaluated as high for the following reasons: 1) although sustainability at the central level is evaluated as satisfactory, there is clear common understanding among people concerned on future direction and measures to be taken for that after the completion of the Project, and 2) sustainability at the local level is evaluated as high.

Central (DTE) Level:

Considering the political/institutional, organizational/financial, and technical aspects, central-level sustainability is evaluated as satisfactory. IS continues to be the activities to be conducted at schools and monitored by PA as stated in the MOES’s guideline on Pedagogical Advisor. It is hoped that the DTE will develop concrete action plans along with the signed “ITSME Future Plan and Implementation Strategy” and link the Project activities and materials with the existing MOES systems, such as PA guideline, EQS training, in-service teacher upgrading training, and TTC pre-service training curriculum, to ensure the continuation and expansion of the Project activities. It is also required for the DTE to assign the necessary number of human resources and secure the budget in the future, by considering incorporating the Project activities into the budgeted ESDP and the existing training courses. The DTE is required to consider measures to ensure quality dissemination to non-target areas.

Local (TTC/PESS/DESB/School) Level:

Local-level sustainability is evaluated as high. The ITSME trainer team among TTCs, PESSs, and DESBs in the Project activities for improving the quality of lessons performed well and is expected to continue performing well. The decision makers of the target TTCs, PESSs, and DESBs have committed to assign ITSME trainers to continue and expand the Project activities. Since PESSs and DESBs have conducted school monitoring and schools have conducted IS with their own budget, the Project activities are expected to be financially sustained in the future as well. Capacities of ITSME trainers

have been enhanced to the level that they can develop model lesson plans by group with instruction by the Project experts. It is expected that PESS/DESB/TTC keep learning among themselves to upgrade their capacity and ensure the high quality of lesson plans in the future. All target schools are now conducting IS activities through utilization of model lesson plans. Therefore, it is expected that the quality of lesson plans and lessons will be continuously improved at the target schools.

### **3-3 Contributing Factors**

#### (1) Factors regarding the contents of plan

- 1) Utilizing the ITSME trainer team composed of those from different organizations as the core implementation unit helped each of the organizations to play a distinct role. The ITSME trainer team played the main role in achieving all Outputs thus contributed to the achievement of the Project Purpose.
- 2) The Project has taken the approach to enhance capacity of the teachers through utilizing the existing system of IS. This approach has contributed to achievement of the Project Purpose, improving the quality of lessons and lesson plans.

#### (2) Factors regarding the implementation process

- 1) The Project has made it clear that TOT, monitoring, and IS are routine tasks in the regular budget framework. This contributed to securing financial sustainability.
- 2) The Project showed enjoyable lessons by demonstrating lessons based on model lesson plans. This undertaking boosted the interest of the ITSME trainers and teachers in developing such lesson plans, therefore contributed to emergence of the positive impacts. In fact, many target schools have started developing at their own initiative the lesson plans of units and subjects not covered by the Project.

### **3-4 Constraining Factors**

#### (1) Factors regarding the contents of plan

The initial PDM did not take into consideration such factors as a few inappropriate textbook contents and the poor learning environment of the ITSME trainers and teachers. Consequently, they caused delays in the activities.

#### (2) Factors regarding the implementation process

It took time to modify the PDM ver.1, causing difficulties in conducting the Project activities as planned, especially at the beginning. However, after the PDM ver.1 was modified as needed (ver. 2), the remaining activities since then have been mostly implemented as planned.

### **3-5 Conclusions**

The Project has achieved the Project Purpose as planned with very high relevance together with high effectiveness and efficiency. Impact is also high. The Overall Goal is expected to be achieved if necessary measures are taken, especially those by the MOES. The Project has given some positive impacts on non-target areas. Sustainability is expected to be satisfactory at the central level and high at the local level. Thus sustainability at the central level is one of the key issues in ensuring the continuation and expansion of the Project activities in the future.

Given the conclusion above, it is appropriate to terminate the Project in October 2013 as planned, and

consider conducting some follow-up activities a few years after the termination in order to further facilitate the achievement of the Overall Goal and maximize the Project outcome.

### **3-6 Recommendations**

The Team concludes that the Project has achieved the remarkable results.

In order to strengthen the continuous efforts on the ground and further expand its achievement to non-target areas, the following are recommended for future (and continuous) tasks to be pursued by relevant stakeholders.

(1) Sharing ITSME approach, its impact and outcomes at national level (Tasks to be led by the Experts)

A national dissemination seminar should be organized to share ITSME experiences and achievements, and to discuss the way forward for future dissemination with relevant central authorities of MOES as well as Development Partners. A comprehensive dissemination package should be consolidated including all the developed materials accompanied with recommendations on how to utilize or integrate such materials in different programs, standards, or guidelines.

(2) Maximizing the existing channels and systems for dissemination and monitoring (Tasks to be facilitated by DTE with support of the Experts, in collaboration with concerned MOES departments and TTCs.)

<Trainings and Guidelines>

The efforts to incorporate ITSME approach into relevant training programs, guidelines and nationally set standards for teachers' evaluation and certification have been initiated and should be concretized. EQS trainings for principal and teachers, PA guidelines and IS manuals, monitoring tools for teachers, are some examples. Since different departments are involved in such trainings and development of guidelines targeting at the quality improvement, a workable coordination mechanism should be discussed, agreed and supported by relevant authorities of different departments concerned. It is expected that the Experts facilitate this process to the extent possible in the remaining cooperation period.

<TTC pre and in-service trainings>

It is recommended that discussions among TTCs should be facilitated by DTE to maximize TTC pre and in-service trainings for nationwide dissemination. The experience, expertise and initiatives by target TTCs (Champasak and Savannakhet) should be widely shared and utilized by other TTCs as part of "ITSME Future Plan and Dissemination Strategy", with appropriate guidance and orientation to be provided by DTE.

(3) Strengthening and expanding key human resources (MOES, TTC, PESS, DESB)

Bringing up the professional capacity of the core human resources beyond the cooperation period shall be a key challenge to quality dissemination of ITSME approach. Opportunities to share expertise and experiences among trainers of different programs should be ensured. A joint working mechanism based on the professional network among TTC, PESS and DESB should be continued and strengthened. In this regard, it is suggested that issuance of a ministerial guidance or decree should be sought to support and facilitate such a joint working mechanism.

The following are additional suggestions that might be considered by relevant authorities for the effective

dissemination.

(4) Utilizing district or school “clusters” for dissemination and monitoring

According to the results of questionnaire survey to ITSME trainers, it is confirmed that the school cluster mechanism is well functioning in the target areas, and recognized as an efficient means of dissemination and monitoring. It is encouraged that this mechanism should be further strengthened so that it can provide meaningful opportunities for principals and teachers to share experiences in the classroom and to discuss common issues and challenges relating to teaching learning practice for finding appropriate solutions.

(5) Identifying and promoting “reference site” for good practice of conducting IS and ES activities applying ITSME approach at school and district levels. (DTE in collaboration with DPPE, PESS, DESB, and schools)

In the evaluation, the Team was impressed to learn many good practices and initiatives made at the field level for making the best use of ITSME materials and approach. In this respect, DESB and PESS with "good practice" should be identified and recognized by MOES as “reference sites” for the effective external supervision.

As for the school, since many ITSME target schools have been identified as “model schools”, they should be further strengthened to be utilized as good “references sites” to disseminate ITSME approach on the ground.

(6) Expanding collaboration with trainers of TTC in Lao language

Since the target schools have started to apply ITSME lesson planning approach to Lao language subject, appropriate technical guidance in Lao language might be useful, involving TTC lecturers who are Lao language specialists.

### **3-7 Lessons-learned**

(1) Effective utilization of the existing framework

As basic policy of the project, the project activities have been planned and implemented in alignment with the existing framework in Lao PDR, which MOES had developed in order to introduce in-service training at the school level, namely Internal Supervision. Therefore, these activities were accepted relatively smoothly by the C/P, and now are becoming as a part of their regular work. This contributed to the establishment and encouragement of their ownership during the whole period of the Project, and will contribute to secure the sustainability after the termination of the Project.

(2) Establishment and reinforcement of the partnership at the field level

In implementation of the Project, some of the lecturer from TTC and some of the PAs from PESS/DESB in the target provinces were assigned as C/P at the field level, namely ITSME trainer, and formed ITSME trainers’ team. Under the technical support from the Japanese experts, ITSME trainers have worked collaboratively while sharing their specific knowledge and experience each other, and have strengthened the unity as a team steadily. The mechanism of this team not only contributed to the sustainable as well as effective implementation of the project activities during the cooperation period and after the termination of the Project.



(3) Dissemination and sharing of information on the Project

While the C/P department in MOES is DTE, other departments and organization in MOES such as DPPE, RIES and ESQAC also have important roles in order to secure the smooth and effective implementation of the Project, especially in terms of impact and sustainability. However, information on the progress, outcomes and challenges of the Project have not been shared enough among the departments and organization concerned, and also have not been disseminated enough to development partners concerned for further collaboration. It should be considered that projects disseminate and share information effectively and efficiently with person, departments and organizations concerned from an early stage.

(4) Contents of the Baseline/End-line survey

In order to improve teaching and learning at the school level, the Project has been implemented with focus on activation of IS and ES. Therefore, it should be clarified how IS and ES have been improved by the intervention of the Project as an evidence on relevance and effectiveness regarding the approach of the Project. However, data related to IS and ES has not been collected nor analyzed by the Project to show the evidence because necessary items were not included in the contents of the Baseline/End-line survey. It should be considered that projects specify data/ indicators appropriate to measure an effect of intervention at the beginning of its cooperation period, and monitor them regularly during its cooperation period.