

Lao People's Democratic Republic

FY2016 Ex-Post Evaluation of Japanese Grant Aid Project

"The Project for the Improvement of School Environments in Three Southern Provinces"

External Evaluator : Yudai NISHIYAMA, INTEM Consulting Inc.

0. Summary

The objective of this project is to enhance learning environment by developing school facilities for 74 schools in six districts in three southern provinces of Laos, thereby contributing to improving the quality of primary education in three southern provinces.

At the time of the ex-post evaluation, expanding access to high quality primary education in the three southern provinces continued to be a priority issue. The project is consistent with development policy. In the three provinces, there is still a high need to support the rebuilding of school buildings. Since this project is also consistent with Japan's ODA policy at the time of planning, the relevance of this project is considered to be high.

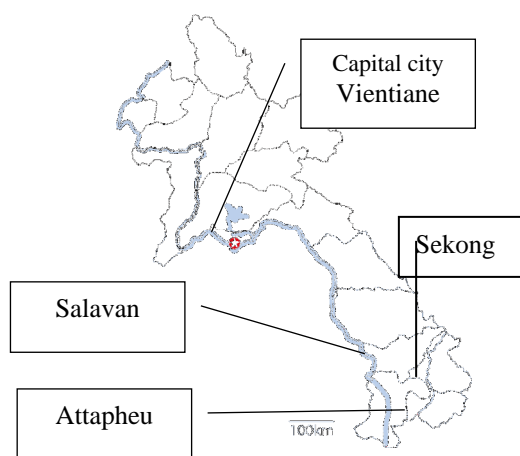
Although the project cost was within the plan, the project period exceeded the plan. Therefore, efficiency of the project is fair.

In this project, some problems remain in terms of the actual achievement rate against the indicator target of "Number of students in decent classroom" which is one of the quantitative effect indicators. But other quantitative and qualitative effects indicators, such as the number of classrooms in a decent environment or the students' satisfaction with school facilities etc. are generally high. Regarding the impact, the indicators were set according to quantitative effects and qualitative effects in which the planned effect was observed, such as with an improvement of the net enrollment rate within the target schools and with an increased students' awareness of sanitation due to the improvement of the toilets. Also, other observed impacts included students' willingness to attend school, improving teachers' motivation for teaching, female students' willingness to attend school and synergy effect of cooperation with the JICA technical cooperation project. Therefore, the effects are generated almost as planned through implementation of the project and the impact are considered high.

The executing agencies and communities of this project do not have any institutional, technical, financial and current status of problems on operational and maintenance system of this project. Therefore sustainability of the project effects is high.

In light of the above, this project is evaluated to be highly satisfactory.

1. Project Description



Project Locations



Donchan Primary school
built under this Project
(Sekong, Lamam)

1.1 Background

“The Sixth National Socio-Economic Development Plan (NSED: 2006-2010)” of Lao PDR adopted the goal of “the qualitative and quantitative improvement of human resources through educational reform” in the educational sector, which ranks priority sector. In particular, dissemination and improvement of basic education is a prerequisite for sustainable economic growth and poverty reduction in the future, positioned as a priority for promoting human resource development to support the fundamental solution of poverty and national development. As a result of these efforts, the primary NER (Net Enrollment Rate¹) was improved from 79.0% in 2000 to 82.4% in 2005.

However, the southern region close to the Cambodian-Vietnamese border positioned as the CLV (Cambodia, Laos, and Viet Nam) Development Triangle Area still has a high poverty rate² compared to the national average. Particularly in the three provinces of Salavan, Sekong and Attapheu in this area, the net enrollment rates of primary education are less than the national average, which are 74.0%, 70.7%, and 67.3% (2005)³ respectively. At first the Provincial Education and Sports Service (hereinafter referred to as “PESS”) is to confirm the need through the District Education and Sports Bureau (hereinafter referred to as “DESB”) and is planning to develop a reinforced concrete school. However, the area is dominated by wooden schools built by the community and many of them are dilapidated and/or temporary ones requiring urgent rebuilding. Overall, the education environment is quite poor in the provinces⁴.

¹ Net enrollment rate (NER) = (corresponding education level school enrollment population ÷ relevant education level population) × 100

² Source: Final report on Lao PDR poverty profile survey (2010) p.8

³ Source: Ministry of Education Annual Report 2004/2005

⁴ Hearing from MoES

Based on these background, the Government of Lao PDR has requested the Government of Japan to provide grant aid for the construction of facilities and provision of equipment for the primary schools in Salavan, Sekong and Attapeu provinces, to further improve the school environment in the southern region.

1.2 Project Outline

The objective of this project is to enhance learning environment by developing school facilities for 74 schools in six districts in three southern provinces of Laos, thereby contributing to improving the quality of primary education in three southern provinces.

G/A Grant Amount / Actual Grant Amount		685 million yen / 685 million yen
Exchange of Notes Date		February 2009/ February 2009
Executing Agency		Ministry of Education and Sports ⁵ , Department of Planning
Project Completion		September, 2011
Contracted Agencies	Main Contractor(s)	Construction: PHOUNETHAVY CONSTRUCTION Co., LTD, VILAYVONE CO., LTD and SANPO CO.,LTD,DOUANGPHACHANH,CONSTRUCTION CO., LTD,STS CONSULTANTS AND CONSTRUCTION CO., LTD, HONGKHAM CONSTRUCTION Co., LTD, LOUMKHAM CONSTRUCTION Co., LTD, Khamphouang Construction Co., LTD, Mexaypaseurth Construction Company LTD, Samakkhixay Co., LTD and Phosy Construction Company, Khampasong Construction Co., LTD and Khonexay Construction Company, ST Construction Co., Ltd, Khamphoiang Construction Co., Ltd, Phosy Constructing Co., Ltd, PHOUNETHAVY CONSTRUCTION Co., LTD Equipment: Kongseng Furniture, JV Kongseng Furniture & Lao Chaluan Sin Co., Ltd
	Consultant	Mohri, Architect & Associates, INC

⁵ At the time of project implementation, it was called as "Ministry of Education (MOE)" reorganized in 2011.

	Procurement Agent	Japan International Cooperation System (JICS)
	Outline Design	February 2008 - November 2008
	Related Projects	<p>【Technical Cooperation】: Supporting Community Initiatives for Primary Education Development in the Southern Provinces (2007-2011), Project for Supporting Community Initiative for Education Development (Phase 2) (2012-2016), Project for Improving In-service Teacher Training for Science and Mathematics Education (2010~2013)</p> <p>【Grant Aid】: The Project for the Improvement of School Environments in Champasack and Savannakhet Provinces (2010)</p>

2. Outline of the Evaluation Study

2.1 External Evaluator

Yudai NISHIYAMA, INTEM Consulting Inc.

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: July 2016– December 2017

Duration of the Field Study: November 1, 2016 – November 30, 2016

March 1, 2017 – March 10, 2017

2.3 Constraints during the Evaluation Study

Although attempts were made to collect the education statistics data (NER, NIR (Net Intake Rate)) on the target schools necessary for an analysis of the impact, no reliable data could be obtained from DESB partly. The analysis for achievement of the impact was therefore carried out using data for the target district as complementary information.

3. Results of the Evaluation (Overall Rating: A⁶)

3.1 Relevance (Rating : ③⁷)

3.1.1 Consistency with the Development Plan of Laos

“The Sixth National Socio-Economic Development Plan (NSED: 2006-2010)” of Lao PDR adopted the goal of “the qualitative and quantitative improvement of human resources through educational reform” in the educational sector, which ranks priority sector. Also, the

⁶ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁷ ③: High, ②: Fair, ①: Low

Ministry of Education (MOE) has set “Education Sector Development Framework (ESDF, 2009-2015)” in 2009 as a comprehensive framework on educational effort. The ESDF specified the equal access of educational services as one of the strategies. The development of educational facilities targeting the provision of multi-grade classrooms in the villages that could not provide five-year primary education was one of the measures for achieving this.

At the 8th NSEDP (2016 - 2020) at the time of the ex-post evaluation, the education sector continues to be a priority area, and efforts to expand opportunities for access to high-quality education are continuously conducted. Construction and refurbishment of educational facilities are cited as one mean for that. The 8th Education Sector Development Plan (hereinafter referred to as "ESDP") (2016-2020) also put the education sector as one of the top priorities in order to move from least developed country status by 2020.

As mentioned above, development policy of education sector in Laos have not changed at the time of the planning and the ex-post evaluation, and the development policy of Laos is consistent with this project.

3.1.2 Consistency with the Development Needs of Laos

In the southern area close to the Cambodian-Vietnamese border, there were many pre-school children. Especially in the three provinces of Salavan, Sekong and Attapeu in this area, NER of primary education as of 2005 was lower than the national average of 84.2% and were 74.0%, 70.7% and 67.3% respectively. As a result of interviews with the Ministry of Education and Sports (hereinafter referred to as “MoES”), NER of primary education for FY 2015 was 98.4% on average nationwide, 98.7% in Salavan, 97.9% in Sekong and 98.5% in Attapeu province. The school environment and access to education had both been improved due to the steady increase in the number of schools and NER had increased. On the other hand, regarding the learning environment, most of the schools were wooden school buildings built by the community in the area. There were many facilities requiring urgent reconstruction due to aging, and the learning environment was remarkably poor⁸. As a result of interviews with PESS in three provinces to gather information on the condition of the existing schools, 16.9% of schools in Salavan, 21.2% in Sekong and 37.4% in Attapeu in the FY2015 (September 2015 - August 2016) were classified as temporary wooden school buildings or semi-durable school buildings and in many aging was prominent. The learning environment has continued to be subject to adverse conditions. Although improvements are seen compared with the ex-ante evaluation in 2008, school aging in each province is still noticeable, and there is a need for refurbishment in situations where the learning environment is poor.

⁸ According to the outline design survey report p.1 to 5, for example, in Salavan district in Salavan province, only 39.3% of existing classrooms were durable school buildings (reinforced concrete structures) as of 2008.

From the above, there is no difference in consistency with the development needs from planning through to ex-post evaluation; these development needs continue to be high

3.1.3 Consistency with Japan's ODA Policy

In the Official Data Book for Official Development Assistance (ODA) in FY2008, one of Lao three aid goals, "To support capacity development as a prerequisite for self-help efforts of Lao side in achieving poverty reduction and economic growth" was set up and "enhancement of basic education" was a priority field. Therefore, this project was consistent with Japan's aid policy at the time of planning.

Therefore, this project has been highly relevant to the Lao development plans and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

3.2 Efficiency (Rating: ②)

3.2.1 Project Outputs

The output from the Japanese side for this project was the development of educational facilities (classrooms, teacher's room, and toilets) and the procurement of educational equipment (furniture). The output from Lao side was to secure land, maintain and improve the road, and the dismantling and removal of existing facilities and obstacles, etc. Table 1 outlines the output of this project. Regarding the output from the Japanese side, the number of target classrooms was increased by 12 and the number of toilets was increased by 21 after the project. This is because the construction of toilets at the two schools where toilets had been constructed with the aid of the United Nations Children's Fund (UNICEF) was cancelled. In addition, using the remaining money due to foreign exchange gains⁹, the additional 23 toilets were constructed in 23 schools. Those 23 schools were selected as the schools which had not been subject to the construction of the toilet building as no water source was secured at the time of the outline design survey but after the outline design survey, water source were developed by the community and those schools which had not had existing toilet buildings. In addition to this, the additional construction of four classroom buildings (12 classrooms) was implemented by using residual money in three schools where the number of students had increased significantly after the outline design survey.

⁹ Penalty of 9,010.5 dollars (0.7 million yen) for the lot that was delayed in construction was incorporated into the remaining money. Japanese yen is converted at JICA control rate (\$ 1 = ¥ 81.23) in November 2010 when penalty fee was collected.

Table 1 Planned / Actual number of educational facilities

	Number of schools	Number of classrooms	Number of teacher's room	Number of toilet
Salavan Province				
Salavan	14/14	56/59	13/13	6/13
Laongam	14/14	42/45	14/14	2/11
Subtotal	28/28	98/104	27/27	8/24
Sekong Province				
Lamam	9/9	35/35	9/9	1/1
Thateng	12/12	35/41	10/10	5/5
Subtotal	21/21	70/76	19/19	6/6
Attapheu Province				
Samakixay	13/13	43/43	13/13	3/6
Sanamxay	12/12	55/55	12/12	1/3
Subtotal	25/25	98/98	25/25	4/9
3Provinces Total				
	74/74	266/278	71/71	18/39

Source: Information provided by MoES

Note: Shaded areas are numbers where changes (increases) were made in planned and actual results

In addition, we confirmed as a result of interviews with the MoES that the quantities of items such as blackboards, desks, chairs and shelves that had been delivered were more than what was planned for. In addition to the initial plan, as described above, residual funds occurred. Thus output of equipment also increased by developing additional 12 new primary school classrooms

Regarding the output from Lao side, as a result of interviewing MoES to see if the input was implemented as planned, there was a response that the output was carried out as planned. At the time of the school visit by the evaluator, it was verified that the items born by and inputs from the Lao side had been implemented by visual confirmation of the site¹⁰.

3.2.2 Project Inputs

3.2.2.1 Project Cost

At the time of planning, the project budget was 685 million yen, and the actual expenditure was 685 million yen, which was as planned. The details of project costs borne by Laos were not obtained.

3.2.2.2 Project Period

As the project period, 21.5 months¹¹ was expected in the plan from signing of G/A to

¹⁰ The items to be borne by Lao side such as dismantling of existing facilities and obstacles, external construction work, connection of electricity, securing of water supply etc. were visually checked on the site by evaluator.

¹¹ Including two months from Exchange of Note (E/N) to procurement agency contract in 19.5 months of implementation as described in the project preliminary planning sheet

completion, whereas the actual project period was 32.5 months, and it exceeded the plan significantly (151% compared to the plan). The main reasons for the difference in the project period are: 1) the construction of additional schools due to the generation of surplus (an output increase), 2) delay in the procedures concerning the construction of additional schools. The extension procedure itself was in accordance with the formal procedures, which was an extension of the inevitable construction period to use up the remaining budget. Even if remaining budget had not been generated, the plan was slightly exceeded by actual results as 102%¹² of the planned amount. This is because the commencement date for project implementation was delayed due to a change in the Cabinet meeting period. So, the planning of target schools that had been divided into two groups needed to be reconsidered taking into consideration the accessibility at the site in the rainy season as well as the bid lot division within the group. And the time of bidding/contracting to construction work/construction management was also slightly delayed from the planned 19.5 months to an actual 20 months. The actual result of only residual budget was 113%¹³ which was almost as planned by the contractor.

Although the project cost was within the plan, the project period exceeded the plan. Therefore, efficiency of the project is fair.

3.3 Effectiveness¹⁴ (Rating: ③)

3.3.1 Quantitative Effects (Operation and Effect indicators)

Regarding the effectiveness, to confirm the improvement of the school environment at the target schools, the following indicators of qualitative effects were set at the ex-ante evaluation; 1) Number of schools conducting overcrowded classes and two-shift classes, 2) Number of the decent¹⁵ classrooms, 3) Number of schools with newly provided toilets and that are actually used¹⁶. In addition, the following indicators were set and evaluated at this ex-post evaluation; 4) Number of schools with newly provided staffrooms that are actually used, 5) Number of students in decent class rooms. Furthermore, as an indicator of the qualitative

¹² 102% = 22 months / 21.5 months (including E / N)

¹³ 113% = 9 months / 8 months

¹⁴ It is rated by taking impact on the judgment of effectiveness.

¹⁵ The indicator of the ex-ante evaluation of this project is "a classroom in a decent environment", and its definition is presumed to be "Not aged / temporary school building". On the other hand, the target number of the students described in the effect indicator is the number of classrooms multiply 32 students which is the number of students per classroom in the Lao education quality standards (In the ex-ante evaluation, the development for small scale school with less than 40 students were planned. Capacity of 12 small scale classrooms planned for small scale schools with less than 40 students in the ex-ante evaluation is defined as 24 students per classroom.). Therefore, in this ex-post evaluation, this indicator is set as "number of classrooms in a decent environment" and it is defined as "number of classrooms that are used within 32 students per classroom according to Lao education quality standards in not aged / temporary school buildings"

¹⁶ In the ex-ante evaluation, the construction of the toilets was set as an indicator. But because it is the output level, we evaluated whether it was constructed and is currently used properly. The target of the evaluation is 39 schools with newly constructed toilet in this project.

effects¹⁷, 1) Students' satisfaction towards the school facility, was conducted.

Table 2 Comparison between target and actual operation indicators

	Baseline		Target		Actual	
	2008	2010	2011	2015	2016	Achievement Level (2016)
	Planned Year	Planned Completion Year	Completion Year	4 Years After Completion	5 Years After Completion	Actual /Target
Number of schools with overcrowded classrooms ¹⁸ or 2 shift classrooms	46	0	Over crowded 58/74 2 shift 0/74	Over crowded 40/74 2 shift 0/74	Over crowded 36/74 2 shift 0/74	Over crowded 51.4 % ¹⁹ 2 shift 100 %
Number of decent classrooms	39	317	173/317	236/317	239/317	75.4 %
Number of schools with newly provided toilets which were actually used	21	60	39/39	36/39	36/39	92.3 %
Number of schools with newly provided staffroom which was actually used	NA	71	71/71	71/71	71/71	100.0 %
Of the constructed 278 classrooms, the number and percentage of classrooms used	NA	NA	NA	NA	253/278	91.0 %

Source: Baseline and target are provided by JICA, actual is provided by executing agencies.

Primary schools conducting two shift classes at the target schools became zero and the indicator target was achieved. The number of schools conducting overcrowded classes was 36

¹⁷ At the time of the ex-ante evaluation, no indicator of the qualitative effect was set.

¹⁸ Based on the project ex-ante evaluation sheet, more than 33 students / classroom in the Primary school is calculated as overcrowded class.

¹⁹ 38 schools (74 schools - 36 schools) are schools where overcrowded classes are not held, and the ratio is 51.4% (38 schools / 74 schools).

schools for Primary (out of 74 schools). The average number of students in classroom where overcrowded classes are being conducted is 44 students/ classroom²⁰, and the average class size of all classrooms was 26 students / classroom²¹. As a result of analyzing the number of students per classroom with the frequency distribution, as shown in Fig. 1, the number of students who are studying in overcrowded classes (red line in the figure) has not exceeded the standard largely.

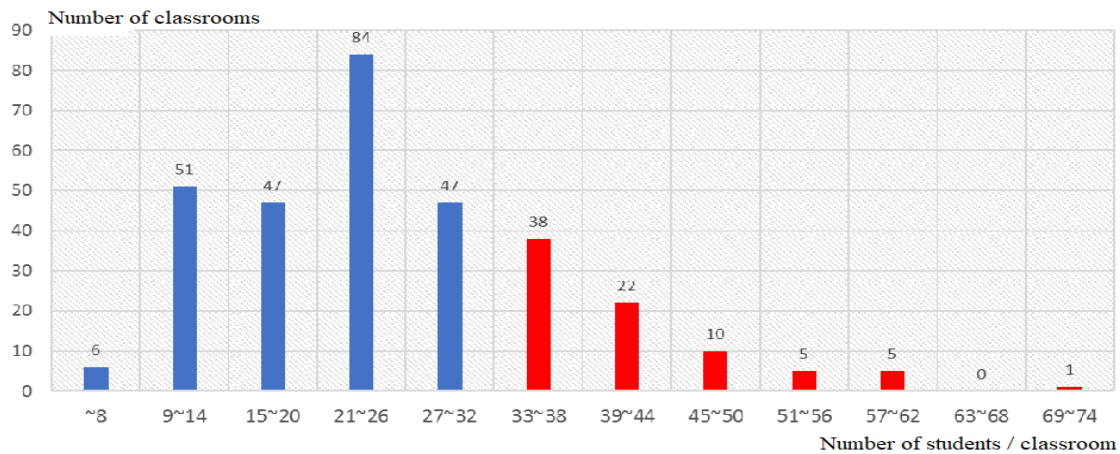


Figure 1 Frequency distribution of the number of students per classroom

Source: Information provided by schools

With respect to the number of decent classrooms in the target schools, 239 out of 317 classrooms in primary schools were in a good condition in 2016, which is 5 years after project completion against the target number of 317 classrooms. Therefore 75.4% of the target numbers were in the appropriate environmental condition and the indicator had not been achieved.

In this project, toilets were provided and actually used at 36 schools (92.3%) at primary level out of 39 target schools. So, the indicator was achieved.

Staffrooms were provided at 71 target primary schools in this project. The indicator was achieved since staffrooms were provided and used as planned.

Of the 278 classrooms constructed in this project, 253 classrooms have been used in total. The main reasons which these classrooms are not being used are as follows with the results of the interview from the principals of each school; 1) There is a shortage of teachers 2) Decreases in the number of students since planning

²⁰ There are 3,407 total students in the classroom where overcrowded classes are held and 77 total overcrowded classrooms. Therefore, the average number of students per overcrowded classes is 44 students.

²¹ The target school has 8,219 total students and has 316 classrooms. Average number of students per classroom is 26.

Table 3 Comparison of target and actual number of effectiveness indicator

	Baseline	Target	Actual			
	2008	2010	2011	2015	2016	Achievement Level (2016)
	Planned Year	Planned Completion Year	Completion Year	4 Years After Completion	5 Years After Completion	Actual /Target
Number of students in decent classrooms (Upper: Number of students in decent classrooms Lower: Total number of students)	1,248 ²² / 9,118 (13.7%)	10,048 ²³	4,011/ 9,747	5,033/ 8,413	5,872/ 8,219	58.4 %

Source: Baseline and target are provided by JICA, actual is provided by executing agencies.

For the number of students in decent classrooms, the actual number at 5 years after completion in FY2016 is 5,872 against the target of 10,048. So, the achievement level is 58.4%. The actual number of students in target schools in 2016 was 8,219. Thus 71.4% of all students were provided with a decent environment. At the project completion year in 2010, a target number of 10,048 students was set. But the recent actual number of students in 2016 was 8,219. The fact that the total number of students has not increased as expected is one of the factors that lowered the achievement level. The population of Lao PDR nationwide increased steadily from 1985 to 1995 at an annual rate of 2.47%, and from 1995 to 2005 at an annual rate of 2.08% which is more than 2%. However, from 2005 to 2015, the population growth rate declined to an annual rate of 1.45%. It is pointed out that the population is draining out to the neighboring country of Thailand for economic reasons. Also, the population increase of the three provinces in the project is 2.0% in Salavan, 2.9% in Sekong and 2.2% in Attapeu. In addition, it is pointed out that the population concentration in the center of the provinces has progressed in all three provinces, especially in Sekong and Attapeu provinces in which it has gone from about 20% (2005) to 35% (2015)²⁴.

²² This figure is not a real number but a number of students who can be accommodated (39 classes × 32 students / classroom)

²³ Capacity of the students in classrooms is calculated as the target number of classrooms × capacity of the students per classroom (305 classrooms × 32 students / classroom + 12 small classrooms × 24 students) and used as the target number of the effect indicator.

²⁴ Lao Statistic Bureau (2015) Result of population and housing census (National Census), p.11, p.21-30.

3.3.2 Qualitative Effects (Other effects)

(1) (Additional indicator) Improvement in students' satisfaction²⁵ with school facilities

The construction of classrooms and the procurement of classroom furniture have led to an improvement of the students' satisfaction level of the school facilities. Beneficiary survey²⁶ was conducted and it was measured the "satisfaction level of the students with classrooms". Satisfactory results for all items of classroom size, ventilation/temperature, floor and walls, educational furniture (chairs, desks) were high; 4 out of 5. However, all of the students who experienced the situation before the project²⁷ had already graduated from school. So, it is difficult to compare the data before and after the project and it is an absolute evaluation. This was a restriction on the evaluation.

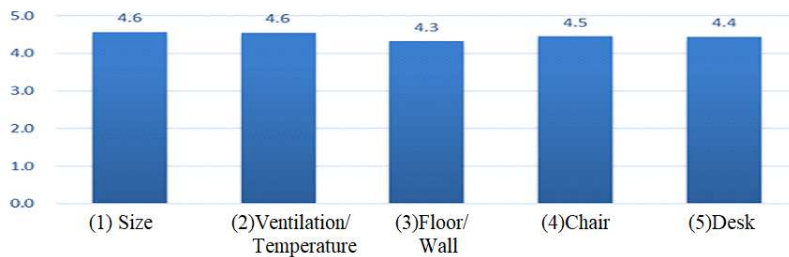


Figure 2 Satisfaction level of students with classrooms

Source: Beneficiary survey

Figure 3 below analyzes whether there is a significant difference in students' satisfaction as to whether the classroom is overcrowded or not. Out of the sample of 180, the number of students taking classes in overcrowded classrooms is 47. As a result of comparing the degree of satisfaction with the classroom, whether the classroom is overcrowded or whether the classroom is not overcrowded, it does not have a significant influence on the students' satisfaction with classrooms.

²⁵ The degree of satisfaction was surveyed in five stages of "very agree", "I think so", "moderate", "do not agree", "not at all".

²⁶ Beneficiary survey was conducted on sites visited by evaluators in Salavan, Sekong and Attapheu provinces. 18 schools were selected by random sampling (3 provinces × 2 districts × 3 schools / district). The questionnaire survey was entrusted to a consultant. Total sample number of students is 180. Total sample number of teachers is 73. 3 classrooms were randomly selected at each school. After that student's samples were randomly selected from student's list considering the ratio of male and female. Teachers were randomly selected from teacher's list. The ratio of students' samples is 90 in boys and 90 in girls.

²⁷ In or before 2008

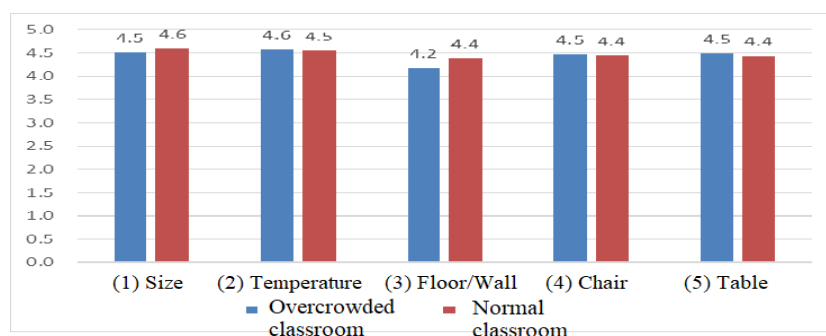


Figure 3 Comparison of satisfaction levels of students with classrooms which are overcrowded or not

Source: Beneficiary survey

3.4 Impacts

This project was expected to contribute to improving of the quality of education in the three southern provinces through an improvement of the school facilities. The enrollment rate, which is commonly used to evaluate how the improvement of education quality has impacted on education access, was set as an indicator for this evaluation survey. The following indicators were set as quantitative effect indicators for this ex-post evaluation and evaluated; 1) NER of target schools 2) NIR of target schools 3) Enrollment rate of female in the schools in which toilets were developed.

In addition to this, as indicators of qualitative effects the following indicators were set for this ex-post evaluation and evaluated; 1) With the provision of toilet, students' awareness of hygiene has been improved, 2) With the improvement of school facilities the community has been better motivated to participate in supporting school education.

3.4.1 Intended Impacts

(1) Quantitative effect

1) Improvement of the net enrollment rate of target schools

NER is an indicator of “access to education”. Figure 4 shows the result of comparing the previous year of the project in 2007, the year when the project was completed in 2011 and four years after the project in 2015. Comparing the previous years of the project and the years when the project was implemented, it can be seen that NER of all target districts²⁸ have increased. From the above results²⁹, some impact on educational access is recognized. In the interview survey with the principals and the communities, the following opinions were obtained; “The

²⁸ The proportion of the target school to the number of all schools in the district is 9.1% in Salavan, 14.9% in Laongam, 17.3% in Lamam, 24.0% in Thateng, 37.1% in Samakixay and 26.1% in Sanamxay.

²⁹ Since some schools' reliable data could not be obtained in only Thateng, the statistical data at district level was used to analyze as complementary data.

learning environment has improved and the schooling of children has become established more than before” and “Thanks to the improvement of classrooms, the safety for child has been improved so that I can send the child to school with peace of mind”. It can be seen that this project contributed to some extent in improving the enrollment rate.

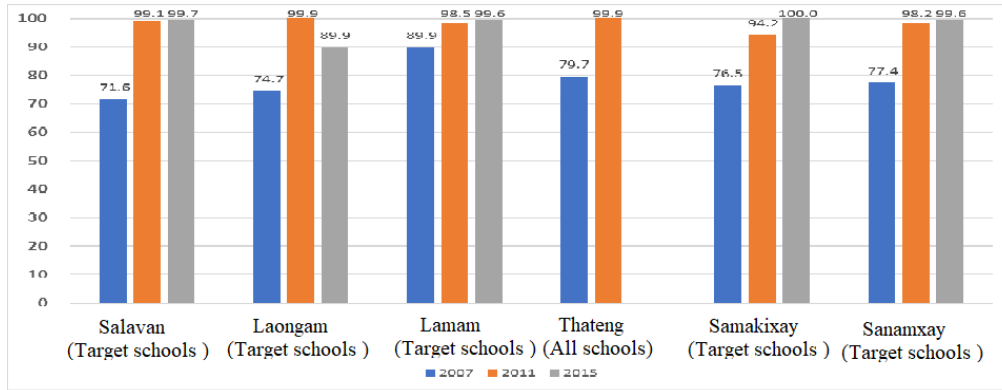


Figure 4 NER of target schools at each target district

Source: Data provided by DESB

Note: (No relevant data for Thateng in 2015)

2) Improvement of NIR of the target schools

NIR of the target schools is shown in Figure 5 below. According to the analysis in this figure, NIR of all the target districts has improved compared with before the project. As for NIR as well as NER, the following opinions from principals were obtained; “Because of a newly built school building it became easier to promote students’ enrollment for the community.” From the above, it can be said that this project contributed to some extent in improving NIR.

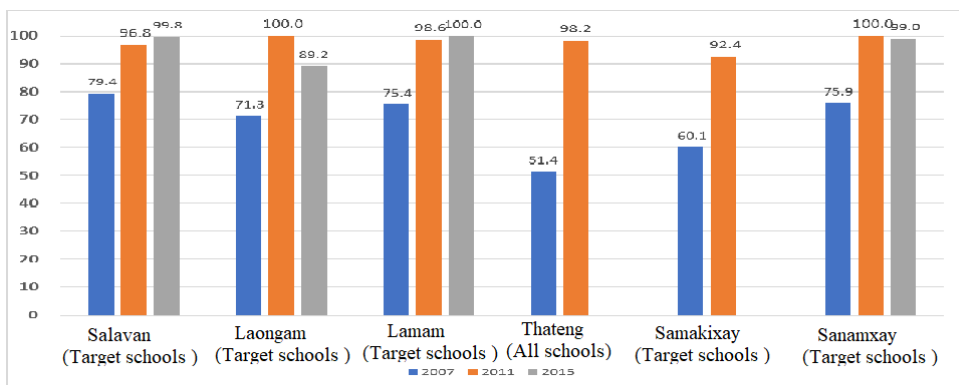


Figure 5 NIR of target schools at each target district

Source: Data provided by DESB

Note: (No relevant data for Thateng and Samakixay in 2015)

(2) Qualitative effects

1) With the provision of new classrooms students have increased willingness to attend school

As a result of the beneficiary survey, students' willingness to attend school due to the classroom improvement has improved to be 3.9 out of five levels. The following answers were obtained from students; "The school is clean and I am well motivated for study." "When the desks and chairs are well installed, I am well motivated for schooling."

2) With the provision of new teaching staffrooms teachers have experienced increased motivation for teaching.

As a result of the beneficiary survey, teachers' motivation for teaching has improved to be 4.3 out of five levels. Its result was quite high. The following answers were obtained from teachers; "Ventilation got better and I can teach lessons intensively.", "A classroom has enough space for teachers to look around the students."

3) With the provision of new toilets female students have increased motivation for schooling

A survey was conducted with 40 primary female students in all primary schools with the provision of new toilets. As a result, female students in the schools with the provision of new toilets have shown increased motivation for schooling by 3.6 in primary schools at the certain high score. However, six students answered, "not at all" or "do not agree". Similarly, four out of those six students answered that "Existence of the toilet is not related to my schooling because I don't have custom of using a toilet since long ago." Thus, it is not necessarily an answer from a negative reason. Likewise, as a result of the survey with 33 teachers of schools where toilets were developed whether the motivation for female students' schooling has improved, the result was high as 4.6.

4) With the provision of toilets, students' awareness of hygiene has been improved

It was confirmed that students' awareness of hygiene was improved by improving the toilets. We conducted a beneficiary survey on the change in awareness of students' sanitation concerning 32 teachers³⁰, the result was 4.7³¹ in the five levels³². Comments were obtained from the teachers such as "Students who did not have a habit of washing hands began to wash." and "Students wash their hands before meals and became conscious of hygiene".

³⁰ The number of teachers of the school with newly provided toilet is 32 among 73 samples.

³¹ There are 3 schools where toilets are not used, and they are included in survey conducted by random sampling of all schools. Regarding this question, they answered about the situation when the toilet was available.

³² The degree of satisfaction was surveyed in five stages of "very agree", "I think so", "moderate", "do not agree", "not at all".

3.4.2 Other Positive and Negative Impacts

(1) Impact on the Natural Environment, Land Acquisition and Resettlement

In this project, as a result of an interview with the executing agency, it was confirmed that no particular impact was observed on the natural environment and resettlement of residents and land acquisition.

(2) Other Impacts

1) With the improvement of school facilities the community has been better motivated for school education

This project was responsible for a positive impact that has led to an improvement of the community's participation in school education. A beneficiary survey was conducted with 73 teachers of visited schools to evaluate if that community's participation in school education had changed or not after participating in the project. The results show that primary schools had a score of 4.5 out of five levels. In addition, as a result of interviewing the principal and the Village Education Development Committee (hereinafter referred to as "VEDC³³") at 18 visited schools³⁴, monthly subscriptions have been collected from the 15 community out of 18 schools.

Table 4 Awareness of community's participation in school education

	Number of schools	Percentage
Percentage of schools with regular monthly collections from the community	15/18	83.3%

Source: Created from interviews with schools

In addition to this, in four out of 18 schools visited, the impact of active participation in especially school management was confirmed such as constructing school buildings and VEDC offices, cultivating vegetables and rice at constructed school gardens, and others by VEDC's active participation in community after implementation of this project. Construction was carried out not by support from districts, provinces nor donors but by financial support collected consensually from communities. Before this project was implemented, community's participation in these four schools had never occurred. Construction costs were not based on support from districts, provinces or donors, but the funds from the community obtained by agreement. It can be said that the project has impacted positively to a certain extent on improving the community's participation in school education.

³³ VEDC members consist of seven people, village chief, elder's organization representative, principal, faculty representative, female alliance representative, youth alliance representative, and parents' association representative, and they are engaged in the administration of the school.

³⁴ 18 out of 74 target schools (target 3 provinces × 2 districts / province = 6 districts, 3 primary schools per 1 district) were selected by random sampling and visited and investigated.



Conference site of community built after this project (Phakkout Nyay Primary school, Laongam)



Vegetable cultivation started after this project (Phakkout Nyay Primary school, Laongam)

One of the factors that improved community's participation in school education is the effect of cooperation with the JICA technical cooperation project. In total 74 out of the 90 schools in the technical cooperation project "Supporting Community Initiatives for Primary Education Development (hereinafter referred to as "CIED (2007 - 2011)"³⁵)" were selected as the target schools with needs for facility construction. According to the interview with the principals and VEDC, it was found that the management of community organizations was strengthened by the technical cooperation project. In particular by holding regular meetings, conducting periodic inspections of the facilities, and writing and implementing a school development plan which are being conducted by schools and VEDC. For example, it was confirmed that the school has a system to cooperate with community when minor damage occurs. In addition, the school has a system for requesting support to DESB by writing a school development plan with community when a serious damage occurs.

Based on the above, the implementation of this project generally shows the effect as planned, and its effectiveness and impact are high.

³⁵ Technical cooperation project aiming at improving the learning environment of the primary education by the active participation with community and teachers for 3 southern provinces (Salavan, Sekong and Attapheu provinces.)

【Column: Contribution to quality of education through grant aid through cooperation with technical cooperation project】

In this ex-post evaluation, we considered how the improvement of school facilities contributes to improving the quality of education from the comparison result between schools with and without school construction at the CIED target schools. Detailed analysis³⁶ was conducted with the aim of deriving effective lessons from the plan and its implementation in developing school facilities with grand aid project.

Based on the analysis results, it was found that when the facility improvement (remodeling / expansion) was carried out by grant aid in addition to the technical cooperation project, it contributed to an improvement of teachers' teaching activities with the effect of reducing the absence of the students. It is confirmed that by improving the motivation of the teachers and the satisfaction of the students through the school construction, teachers' teaching activities and VEDC organization management which supported by the technical cooperation project were strengthened. As a result, it is highly probable that the student's absence days were also reduced. Furthermore, as a result of the survey from the viewpoint of the primary education quality standards prescribed by MoES, the improvement of the motivation of teachers and the improvement of the quality of education by facilitating school construction could be seen more clearly in the area where teacher's activities are active. For example, with regard to activities supported by technical cooperation projects schools constructed by the project in Sanamxay district are more actively engaged in teaching material creation activities. On the other hand, in the schools in Thateng district, teaching materials are created with or without school construction. In addition to that schools constructed by the project are more active in the continuing promotion of education³⁷.

In the ex-post evaluation of similar projects in the past, implemented as soft components or in collaboration with technical cooperation projects were conducted in the most of the school construction projects. As a lesson, it was pointed out that strengthening the capacity of the organization should be supported by a technical cooperation project and not by a soft component which has large time constraints. Regarding the improvement of the quality of education, it is confirmed that there are no examples of school construction projects which improve the qualitative effect beyond the effect of "reducing the overcrowded classroom" or

³⁶ From Thateng district in Sekong province and Sanamxay district in Attapeu province, following 12 school were selected and analyzed; (1) 3 schools at each district which had both grant aid of school construction and technical cooperation project (2) 3 schools at each district which had only technical cooperation project without grant aid of school construction. Schools with the needs of school construction are selected among the schools supported by technical cooperation project in this grant aid project. So survey was not conducted at schools with only grant aid project which do not exist.

³⁷ This is an activity to evaluate students' achievement of learning and to support promotion through supplementary lessons etc. for students who are lag behind in understanding. It is stipulated that it should be conducted at least three times a month in the Ministerial Ordinance of MoES.

“eliminating the two-shift classroom” etc. Such as improving the capacity of teachers or improving the community’s participation in education could not be found in school construction project alone.

One of the lessons learned through this analysis is the need to support the capacity building of the school committee according to the government's system through collaboration between school construction project and technical cooperation project. Like VEDC in Laos, in many countries where similar projects were implemented in the past, creation of school development plan by the community participating in school committee (name is different from country to country) was promoted by the administration. It is being institutionalized as a necessary activity even when receiving subsidies from the administration. In order for the constructed school building to be properly maintained and managed even after completion of the project and to contribute to the qualitative improvement of education, it is important to position the school maintenance management activity in the school development plan according to the country's system. As a result, strengthening the capacity of the school committee supported by the technical cooperation project will further enhance the outcome of the school construction project.

This project can be an example of promoting the effect of the collaboration between the school construction project and the technical cooperation project.

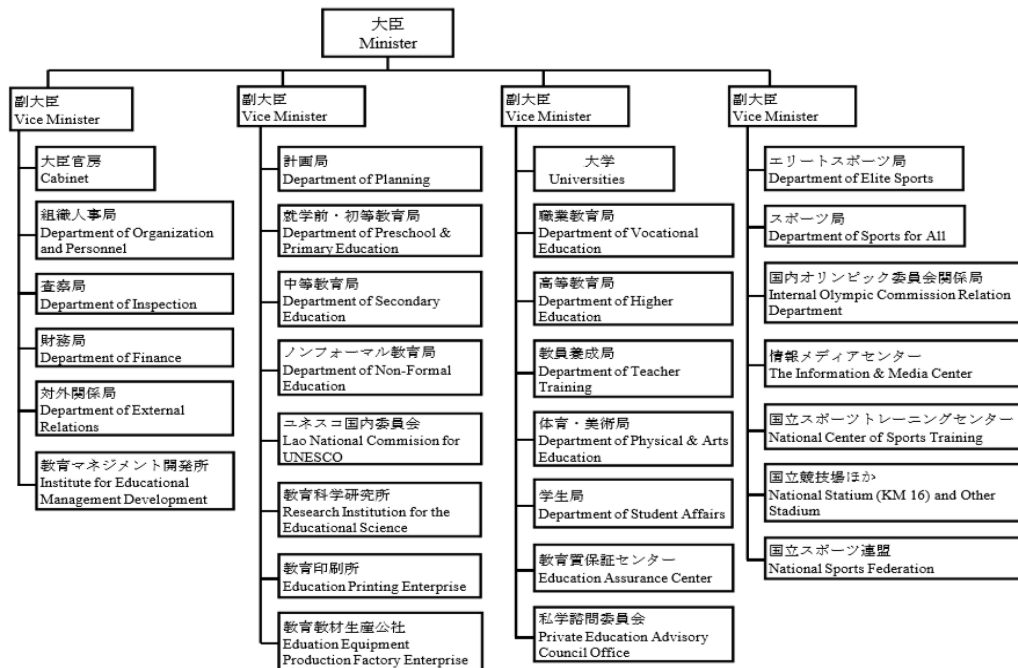
3.5 Sustainability (Rating: ③)

3.5.1 Institutional Aspects of Operation and Maintenance

(1) Institutional Aspects of Operation and Maintenance at MoES

From the time of the ex-ante evaluation to the time of the ex-post evaluation, there has been no changes in the main functions such as the operation duties, etc in the institutional aspects of operation. In carrying out the project, under the direction of the Department of Planning of MoES, PESS implement the budgetary measures for projects implemented such as the arrangements of teachers for school management and secures of budget for teacher’s salary, etc. Regarding the teacher placement, the shortage of teachers at additionally constructed classrooms is not sufficiently supplemented due to the lack of budget. However, in the hearing from the Director of PESS and DESB, the current number of teachers is enough for the current operation and maintenance of schools. Also, it was confirmed by MoES that the improvement policy to eliminate non-regular teachers will be implemented with a high probability during the 8th ESDP implementation. So, the lack of teachers is minor problem. The organizational chart of MoES is shown in Figure 6.

Figure 6 Organization chart of MoES



Source: Confirmed to MoES

The provincial education administration is managed by PESS which is under MoES. Regarding the maintenance and management of the school facilities when the major damages are found in facilities and equipment, schools contact to DESB belonging to PESS. DESB is responsible for coordination and communication between the school and PESS. It was confirmed with the director of PESS and DESB that the number of staff who is presently placed is appropriate for operation and maintenance. Regarding the maintenance and management of the school facilities of this project, VEDC contacts DESB when major damages occurs and DESB is responsible for coordination and communication between the schools and PESS. Thus it can be said that operation and maintenance at MoES is generally functioning.

(2) Institutional Aspects of Operation and Maintenance at the community level

Collaboration systems and instructive system in the organizational management at the community level are functioning. Active participation in school management by the VEDC was recommended in the 8th ESDP and a ministerial decree³⁸ which requires VEDC to be set up in each village. VEDC regularly inspects school facilities or holds a meeting on school management. They collect contributions from each students' family and use it for repairing

³⁸ It was obliged to set VEDC in Minister of Education Order No. 2300 (September 3, 2008) in 2008.

facilities etc. In total 74 schools covered by this project have experience receiving technical cooperation through CIED. In the 18 schools visited by the evaluator, there were 15 schools that operated the school under the community’s participation. So, the system of operation and maintenance at the community level was generally functioning. Some problems can be seen in the remaining three schools. Such as when the principal retires the financial statements and statistical data are not handed over to the next principal, or the school has difficulty with cash management as they don’t write expenses items in their financial statements. However, VEDC activity itself has continued.

3.5.2 Technical Aspects of Operation and Maintenance

(1) Technical Aspects of Operation and Maintenance at MoES

Regarding the maintenance of school facilities, DESB institutionally is to provide technical assistance including cost sharing. However, due to the limited budget, VEDC is often forced to conduct repairs for small breakages and to do daily maintenance. If there are major damages to facilities and equipment, the school contacts DESB and DESB provides the expenses and technical assistance. MoES is engaged in the operation and maintenance of the school through the distribution of the budget to the provinces and districts instead of directly to the schools, which is limited to contact among districts, provinces and MoES. DESB is not only involved in this project but also in other school construction projects supported by other donors and NGOs. Thus, DESB has certain experience and know-how. For example, the principal of each school reports the current situation of the school to DESB by holding monthly meetings and periodical training. At the same time DESB also reports on the status of the whole district or provides workshops to schools. As far as this project is concerned, large-scale repairs have not occurred so far.

(2) Technical Aspects of Operation and Maintenance at community level

The community has sufficient technical capability in the operation and maintenance of facilities. Concerning the operation and maintenance at the community level, the result of conducting an interview survey with the principal and the VEDC is shown in Table 5 below.

Table 5 Community level operation and maintenance situation

Number of schools which understand the procedure when repairing	18/18	100.0%
Number of schools which have a meeting with VEDC more than once a month	13/18	72.2%
Number of schools which maintain the school facilities with VEDC more than once a month	17/18	94.4%

Source: Created from interviews with schools

As Table 5, all schools become familiar with the procedure at the time of a repair occurring. If minor repairs occur to school facilities, a principal will hold a meeting with the VEDC to discuss future repair policies, whether they can be repaired within the budget, whether to support the supplies from the community and whether additional funding is required. If serious repairs occur in the school, the school reports this to the DESB and submits a document stating the improvement plan. In addition, 13 out of 18 schools conducted regular meetings at least once a month between the school and the VEDC. At regular meetings, they check the current situation and discuss future plans including school administration, student instruction and community activities. There were 17 out of 18 schools that conducted maintenance of facilities more than once a month. Maintenance tasks such as inspecting the door knobs in the classrooms, confirming that windows close and confirming the cleanliness of the toilets, etc. are carried out at each school. In addition to this, after the project, 4 of 18 schools proceeded to rebuild their old school buildings as a dining hall and built a VEDC office and conference room on the school grounds.

In the technical cooperation project, CIED, direct trainings related to operation and maintenance were not carry out. However it was confirmed that CIED provided VEDC with capacity building trainings aimed at improving access to and quality of primary education. Implementation of regular meetings for the school development plan and the implementation of the school development plan through VEDC's capacity building training were confirmed.

3.5.3 Financial Aspects of Operation and Maintenance

(1) Financial Aspects of Operation and Maintenance at MoES

The finance of MoES operation and maintenance is expected to be secured to a certain extent in the future. So, the sustainability of finance is generally high.

According to the data of the Department of Finance, the annual budget of MoES is as shown in the table below.

	2012/2013	2013/2014	2014/2015	2015/2016
Education budget	3,811,910	3,951,526	3,714,502	4,416,806
(Ordinary expenses)	2,785,180	2,940,721	2,997,217	3,623,110
(Capital expenses)	1,026,779	1,010,806	717,285	793,696
Ordinary expenditure rate	73.0 %	74.4 %	80.0 %	82.0 %
Government budget ratio	16.7 %	15.5 %	15.5%	17.0 %

Source: MoES Department of Finance (2016), 2015/16 data is based on budget

³⁹ 1Kip=¥ 0.01402(as of December 2016)

Although the education budget doubled in the past five years, the government budget ratio has been in the range of 14 to 16%. The 18% targeted goal listed in the Education Law has not yet been achieved. In the 8th ESDP, the goal is to increase the share of educational expenses in the government budget from 13% to 18%. Since other donors' financial support is also provided, certain finances related to education are expected to be secured. The maintenance costs of the facilities are included in the maintenance costs of the current budget. According to the Department of Finance, nearly 90% of the current budget has been occupied by employee salaries and allowances. It was confirmed that the proportion of the maintenance budget to the entire education budget and the current budget is extremely small. However, an improvement policy (elimination of non-regular teachers) is expected to be implemented during the 8th ESDP period.

On the other hand, the additional number of necessary teachers for target schools and the actual number of employed teachers are as shown on Table 7. We confirmed that the additional teaching staffs have to be managed by MoES budget. Due to the improper placement of teachers, teachers are oversupplied in urban areas, but teachers are in shortage in rural areas. However, it is confirmed by interview with the MoES that the improvement policy is expected to be implemented with a high probability by the 8th ESDP.

It was confirmed by interviews with the school and the VEDCs that distribution of chalk and repainting of blackboards were carried out by own budget of MoES.

Table 7 (Existing school) Additional number of necessary teachers for target schools and the actual number of employed teachers

Province	Primary school		
	Necessary	Actual	Fulfillment rate
Salavan	28	10	35.7%
Sekong	23	11	47.8%
Attapheu	15	13	86.7%
Total	66	34	51.5%

Source: Interviews with target schools

(2) Financial Aspects of Operation and Maintenance at community level

The financing of the operation and maintenance at the community level is to be secured to a certain extent for the future. So, the sustainability of finance is generally high.

Regarding the school administration budget as an ordinary budget, in primary schools 70,000 kip per student will be allocated as the budget which are transferred from the DESB to the schools through MoES and PESS. In addition to this, many of the schools collect 5,000 to 50,000 kips per student for school operating expenses. In schools which do not collect money from families, there is a shop in the school or the school plows the fields and sells the vegetable

so that the school can secure other income sources. In all the visited schools, the maintenance costs are decreased after the project.

3.5.4 Current Status of Operation and Maintenance

Classrooms, toilets, equipment, etc. of the target schools are generally used appropriately, and maintained and managed. Table 8 below shows the condition of the classrooms, teachers' rooms, and toilets constructed in this project.

Table 8 Condition of the classrooms, teachers' rooms, and toilets

(% is the ratio of facilities in a good condition)

	Classrooms		Teachers' rooms		Toilet	
	Construction	Good condition	Construction	Good condition	Construction	Good condition
Primary school	278	275 (98.9%)	71	71 (100%)	39	36 (92.3%)

Source: Interviews with target schools

Situations such as the breakdown of door knob and a little cracks on the floor were seen at some of the visited school. Floor cracks can be repaired by the VEDC, and it is usually possible to repair in a short period of time. Other than that, it is mostly minor repairs and schools are mostly in a good situation. It was confirmed with an oral survey of schools that the MoES have been carrying out improvements concerning the distribution of textbooks and chalk, and with the regular exchange of blackboards. Regarding the removal of sediments in the toilets, 36 out of 39 schools that had installed toilets have eliminated them themselves using the original budget of the school last year or existing equipment. In the remaining 3 schools' toilets could not be used at the time of ex-post evaluation. It was confirmed with a hearing survey with schools and the DESB that the reason why it is not possible to use toilets in three schools is as follows; 1) 1 school cannot use water during only dry season because the water supply is not sufficient and water from the area is not supplied 2) In two other schools, there are water sources in the area. However, it is difficult to maintain sufficient amount of water because the depth of the water source is not enough.

No problems have been observed in the institutional, technical, financial aspects and current status of the operation and maintenance system. Therefore sustainability of the project effects is high.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The objective of this project is to enhance learning environment by developing school facilities for 74 schools in six districts in three southern provinces of Laos, thereby contributing to improving the quality of primary education in three southern provinces.

At the time of the ex-post evaluation, expanding access to high quality primary education in the three southern provinces continued to be a priority issue. The project as such is consistent with development policy. In the three provinces, there is still a high need to support the rebuilding of school buildings. Since this project is also consistent with Japan's ODA policy at the time of planning, the relevance of this project is considered to be high.

Although the project cost was within the plan, the project period exceeded the plan. Therefore, efficiency of the project is fair.

In this project, some problems remain in terms of the actual achievement rate against the indicator target of “Number of students in decent classroom” which is one of the quantitative effect indicators. But other quantitative and qualitative effects indicators, such as the number of classrooms in a decent environment or the students’ satisfaction with school facilities etc. are generally high. Regarding the impact, the indicators were set according to quantitative effects and qualitative effects in which the planned effect was observed, such as with an improvement of the net enrollment rate within the target schools and with an increased students’ awareness of sanitation due to the improvement of the toilets. Also, other observed impacts included students’ willingness to attend school, improving teachers’ motivation for teaching and female students’ willingness to attend school. Therefore, the effects are generated almost as planned through implementation of the project and the impact are considered high.

The executing agencies and communities of this project do not have any institutional, technical, financial and current status of problems on operational and maintenance system of this project. Therefore sustainability of the project effects is fair.

In light of the above, this project is evaluated to be highly satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

(1) Securing education budget to expand teacher's new employment

There are some schools where classrooms constructed by this project are not used due to a lack of teachers and schools where one teacher teaches many students which causes overcrowded classes. It is desirable that MoES should also take into consideration ways to secure education budgets to resolve disproportionate teacher placement in urban areas and rural areas using the financial support from donors and others.

4.2.2 Recommendations to JICA

None

4.3 Lesson Learned

(1) Collaboration with JICA technical cooperation project

The sustainability of this project was “high” because of the contribution that the communities had the necessary operational and maintenance systems, techniques and finances. The reasons of good operation and maintenance at a community level are that VEDC’s organizational management was strengthened and the community’s participation in education was promoted comprehensively by the technical cooperation projects. With the support focused on strengthening the operation and maintenance of technology by the soft component of grant aid, it is judged that it was difficult for the community to contribute as seen in this project.

When school construction is supported in the countries which have high importance of the community involvement in the school management like Laos, it is desirable to consider the collaboration with a technical cooperation from the viewpoint of ensuring the sustainability.