

**Ex-Post Project Evaluation 2014:
Package I-9
(Vietnam, Myanmar)**

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Socialist Republic of Viet Nam

Ex-Post Evaluation of Technical Cooperation Project

“The Project on Strengthening the Capacity of ITSS Education at Hanoi University of
Technology (Phase 1) (Phase 2)”

External Evaluator: Takako Haraguchi, International Development Associates, Ltd.

0. Summary

This project aimed to provide human resources that would meet needs of industry by opening and managing a practical education program in information technology (IT), based on the Japan’s Skill Standards for IT Professionals (ITSS¹), at Hanoi University of Science and Technology (HUST, formerly known as Hanoi University of Technology (HUT) till May 2010). The division of roles in the creation of the education program was as follows: (i) HUST was responsible for construction of school facilities and providing teaching and administration staff; (ii) a Japanese ODA Loan project, “Higher Education Development Support Project on ICT” (hereafter called “the ODA Loan project”) was responsible for procurement of equipment, supporting students to study in Japan and hiring of/ technical transfer to lecturers in Japanese language; and (iii) this technical cooperation project was responsible for development of the program management system, development of the curriculum, syllabi and education materials as well as technical transfer to lecturers in IT-related subjects.

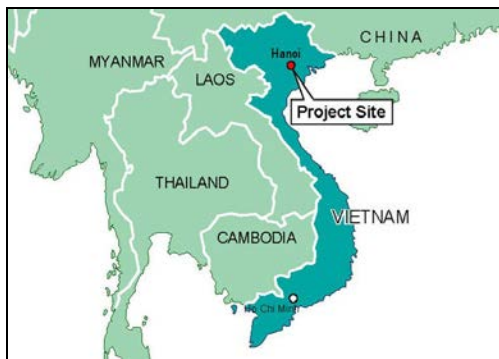
Relevance of this project is high since the project objectives were consistent with the Vietnam’s development policies and development needs related to enhancement of higher education and promotion of IT as well as Japan’s assistance policies. Effectiveness is also high considering that despite challenges such as delays in procurement of equipment, the management system and program contents were developed under Phase 1 and the program got off the ground under Phase 2, and accordingly, graduates who had both Japanese language skills and IT technical knowledge based on ITSS were produced. After project completion, it was observed that the program was run smoothly and many graduates were active as IT engineers. Regarding impacts, however, there is no objective means to verify the extent to which graduates reached the expected “ITSS level 3 equivalent.” Therefore, effectiveness and impact as a whole are evaluated to be fair. Efficiency is high as both project cost and cooperation period were within the plan. Sustainability is evaluated to be fair as prospects for the institutional, technical and financial aspects of program management

¹ ITSS is a set of indicators defined by the Ministry of Economy, Trade and Industry of Japan to clarify and systematize skills required for provision of IT-related services. ITSS consists of the indicators ranging among Levels 1 and 2 (entry level), Levels 3 and 4 (middle level), and Levels 5 to 7 (high level) for each of 35 areas of specialization in 11 job categories (source: Information-Technology Promotion Agency, Japan (IPA) website).

after completion of the ODA Loan project in 2016 are somewhat unclear at the time of ex-post evaluation.

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

1. Project Description



Project Location



Students of the Vietnam-Japan Program (HEDSPI Program) of the School of Information and Communication Technology (SoICT), HUST

1.1 Background

In Vietnam, higher education institutions including those in the field of IT had objectives of conducting research and development and developing human resources of high quality in order to respond to the advancement of science and technology and to demand of society. However, higher education institutions were facing challenges such as excessive emphasis on study and acquisition of theory and knowledge, exercises/ laboratory work using older equipment and systems than those used in industry due to lack of facilities, equipment and funds, and insufficient knowledge among lecturers and technicians to make full use of advanced facilities and equipment. On the other hand, there was an increasing demand for Japanese-speaking IT engineers following the expansion of Japanese enterprises to the IT market in Vietnam.

Under such circumstances, the Vietnamese and Japanese ministers in charge announced a joint statement in June 2004 including a plan to provide IT engineering education in line with ITSS as part of the Asia IT Initiative, a Japan's international IT strategy. Within the framework of that statement, the Japan International Cooperation Agency (JICA) conducted the "Special Assistance for Project Formulation for the Higher Education Development Support Project (IT Sector)" (hereafter called "the SAPROF study") in June 2005, and developed a plan to establish an ITSS-based university education program in HUST as well as a draft curriculum for that program. This project constitutes the technical cooperation portion of an integrated JICA project, "Higher

Education Development Support Project on ICT” (hereafter called “HEDSPI” in distinction from the same-titled ODA Loan project that was the other component of HEDSPI) based on the above-mentioned plan. In this report, the education program that HEDSPI supported in establishment and management is called “HEDSPI Program” in accordance with the project plan as of ex-ante evaluation, while it is often called the “Vietnam-Japan Program” at HUST.

1.2 Project Outline

		Phase 1	Phase 2
Overall Goal		ITSS 3 equivalent level IT human resources are sufficiently provided to the IT and IT related fields.	
Project Purpose		The capacity to conduct the activities towards the establishment of the “School ² ” or its equivalent is developed.	1) Administration of HEDSPI Program functions as an educational body. 2) HEDSPI Program produces IT engineers who have enough basic knowledge on IT and Japanese language.
Output(s)	Output 1	The organization and the system for the “Program ³ ” management are established.	The organization and the management system of the HEDSPI Program are established and strengthened.
	Output 2	The skills of staff (Teaching staff and Administration staff) are improved.	Collaboration system with industries is established.
	Output 3	The curriculum, syllabus and teaching materials, IT equipment for 1-3 grades undergraduate and some intensive courses are prepared in accordance with ITSS.	The syllabi, lecture scenarios, teaching materials and learning materials for undergraduate degree course are well prepared and revised regularly.
	Output 4	The 1-2 grades and some intensive courses are implemented.	The syllabi, lecture scenarios, teaching materials and learning materials for intensive course are well prepared and revised regularly.
	Output 5	The collaboration system with industries and other institutes is established.	Students are trained to have basic IT knowledge and Japanese language for IT industry through HEDSPI Program.
	Output 6	Information on IT and its related areas is collected from the market to improve the courses.	
	Output 7	Information on program is disseminated inside and outside of HUST.	

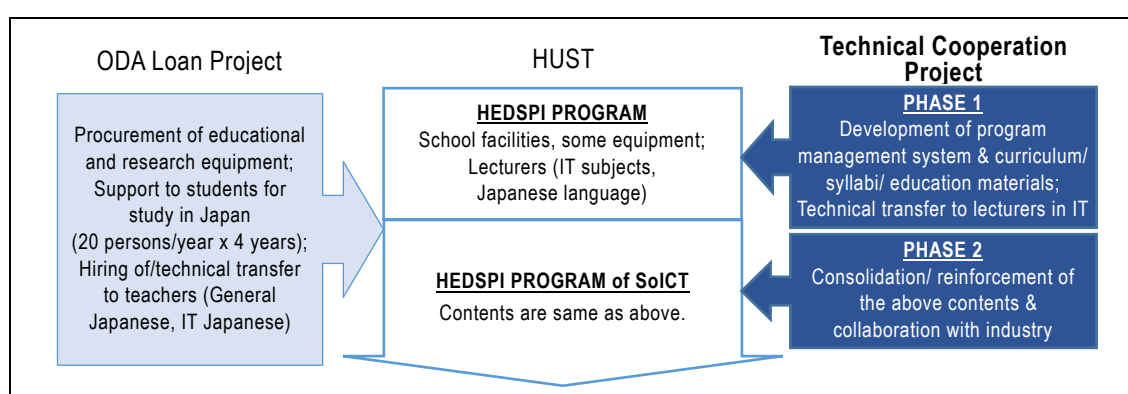
² School: an education / research institution that is independent (i.e. has its own official stamp and account) within a university. While placed in the same level as faculties in the organizational structure, schools enable high quality human resource development, integrated technical transfer and research. The school targeted by this project is called “School of ICT (SoICT)” after its official establishment.

³ Program: a set of special education courses (undergraduate or postgraduate programs) offered at a faculty or school of a university. In each program, students selected from successful applicants to the university receive high quality education. Special programs with international cooperation such as HEDSPI Program are typical ones.

(Continued)

		Phase 1	Phase 2
Output(s)	Output 8	The preliminary works for establishing the “School” are carried out.	
Total cost (Japanese Side)		261 million yen	453 million yen
Period of Cooperation		October, 2006 – September, 2008	March, 2009 – February, 2012
Implementing Agency		Hanoi University of Science and Technology (HUST)	
Other Relevant Agencies / Organizations		Ministry of Education and Training (MOET) (Oversight Agency)	
Supporting Agency/Organization in Japan		Ritsumeikan / Keio Gijuku (Incorporated educational institutions entrusted with project implementation)	
Related Projects		“Higher Education Development Support Project on ICT” (Japanese ODA Loan project; Loan Agreement signed in March 2006; scheduled to be completed in 2016)	

Figure 1 shows the division of roles in implementation of HEDSPI: (i) HUST was responsible for construction of school facilities and providing teaching and administration staff; (ii) the ODA Loan project was responsible for procurement of equipment, supporting students to study in Japan and hiring of/ technical transfer to lecturers in Japanese language; and (iii) this technical cooperation project was responsible for development of the program management system, development of the curriculum, syllabi and education materials as well as technical transfer to lecturers in IT-related subjects.



Sources: Prepared based on JICA documents, etc.

Figure 1 Composition of HEDSPI

1.3 Outline of the Terminal Evaluation (Phase 2)⁴

1.3.1 Achievement Status of Project Purpose at the time of the Terminal Evaluation

Based on the finding that students equipped with capacity in IT and Japanese language were produced through establishment of the organizational structure of HEDSPI program and the system of collaboration with industry, it was evaluated that the project purpose was “almost achieved.”

1.3.2 Achievement Status of Overall Goal at the time of the Terminal Evaluation (Phase 2)

Based on the findings such as graduates’ high academic achievement and good employment situation, students’ high motivation for learning Japanese language, increase in Japanese companies’ expectations for HEDSPI Program, and utilization of the curriculum of HEDSPI Program in another education program, it was evaluated that the project was “progressing toward achievement (of the overall goal)” and “impact is high.”

1.3.3 Recommendations at the time of the Terminal Evaluation (Phase 2)

In order to strengthen the HEDSPI Program’s employment support and thus to enhance sustainability of the project, it was recommended that (i) the project carry out necessary activities for making use of the consortium of companies by the time of project completion, and that (ii) the Vietnamese side take over the employment support task from the Japanese expert team. In response to these recommendations, the Japanese expert team implemented technical transfer to the Project Implementation Unit (PIU) on the matters including procedures of organizing job fairs in cooperation with the consortium. At the time of ex-post evaluation, PIU continued the transferred activities such as job fairs inviting the consortium of companies (see “3.2.2 Impact”).

2. Outline of the Evaluation Study

2.1 External Evaluator

Takako Haraguchi, International Development Associates, Ltd.

2.2 Duration of Evaluation Study

Duration of the Study: July, 2014 – June, 2015

Duration of the Field Study: September 27, 2014 – October 9, 2014 and January 11,

⁴ As the result of the terminal evaluation for Phase 1 was not available, this section describes the result of terminal evaluation for Phase 2 only. The information source was the terminal evaluation summary.

2015 – January 16, 2015

2.3 Constraints during the Evaluation Study

As this project shared the common objectives and was implemented together with the ODA Loan project, the positive changes observed as effects and impacts of this project were effects and impacts of the ODA Loan project as well. In particular, it was hard to determine which part of benefits to students was attributable to this project. Also, this evaluation was too early to examine the institutional aspect of the implementing agency after project completion in a real sense, as the ODA Loan project has not been completed yet, and the organizational setting of the implementing agency is same as the one during the project implementation period, i.e., PIU that was established for implementation of the JICA project (HEDSPI) still exists at the time of ex-post evaluation.

3. Results of the Evaluation (Overall Rating: B⁵)

3.1 Relevance (Rating: ③⁶)

3.1.1 Relevance to the Development Plan of Vietnam

This project is consistent with the development policies at the times of both ex-ante evaluation and project completion in each phase. First, regarding higher education policies, national development plans such as the Socio-Economic Development Strategy (2001-2010), the Five-Year Socio-Economic Development Plan (2011-2015) and education sector plans such as the Education Development Strategic Plan (2001-2010) and the Education Strategic Development Plan (2011-2010) all aim to respond to the nation's requirement for modernization and industrialization through development of high quality human resources including those in IT by higher education institutions. For example, the Five-Year Socio-Economic Development Plan (2011-2015) places emphasis on promotion of the high-tech industry and utilization of high technology in all industries. Also, the Human Resources Development Plan (2011-2020) emphasizes development of internationally competitive human resources in business and industry, strengthening of research in science and technology, and strengthening of human resources taking a sight on international standards.

Second, IT policies such as “IT 2000” (the information sector master plan developed in 1995), the Five-Year Plan for Development of Software Industry (2006-2010), the Scheme to Early Make Vietnam a Country Strong in Information and

⁵ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁶ ③: High, ② Fair, ① Low

Communication Technologies (1755/QD-TTg; approved by Minister of Information and Communications of Vietnam; Government Decision dated September 22, 2010) consistently aim at promotion of IT as a growth area and development of IT human resources of international standard.

3.1.2 Relevance to the Development Needs of Vietnam

This project is consistent with the development needs at the times of both ex-ante evaluation and project completion in each phase. First, regarding higher education needs, there was a continuous need for improvement of education and research to respond to demand for industrialization of Vietnam as mentioned in “1.1 Background.” Higher education enrollment ratio continued to rise during the period between the time of ex-ante evaluation of Phase 1 and completion of Phase 2 (16% in 2006 and 25% in 2012). However, higher education was still theory and knowledge-centered, and its quality did not meet human resource development demand in rapid industrialization and modernization. Therefore, besides 2.26 million students enrolled in higher education in 2012, around 110 thousand students were studying at universities abroad (mainly in Australia, the United States and China) in the same year. Also, universities jointly established with foreign universities appeared in Vietnam⁷.

Second, regarding IT-related needs, the IT industry has been a fast-growing sector with high potential in Vietnam: during the implementation period of this project (2006-2012), both sales and labor force of the IT industry showed constant increase (Figure 2). While the hardware export (direct investment from Japan and Korea) accounted for majority of IT sales, the software industry and digital contents industry expanded as well, and high demand for human resources was seen following the development of web business⁸. Also, more Japanese companies started business in the Vietnam’s IT market⁹. Expansion of offshore development by Japanese IT companies continued in Vietnam: according to the “IPA White Paper on IT Human Resources

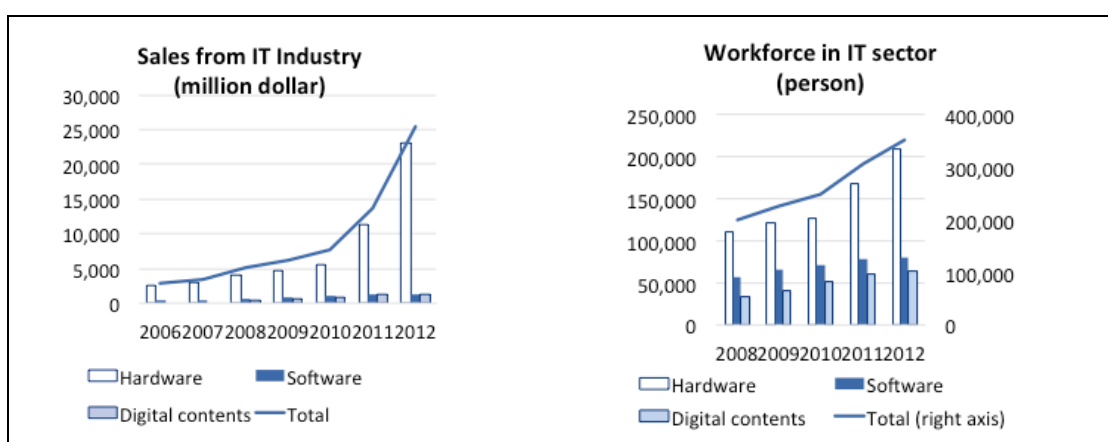
⁷ For example, there are Vietnamese-German University (2008-), University of Science and Technology of Hanoi (between Vietnam and France, 2009-) and Vietnam-Japan College (2011-). The statistics mentioned in this paragraph were taken from the database of United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics.

⁸ The information source is the “Information and Data on Information and Communication Technology (White Book on ICT)” 2009-2013 editions. According to this book, while the number of enterprises increased more than threefold between 2008 and 2012, the increase rate of the number of employees was 24% during the same period.

⁹ According to Teikoku Databank, “*Betonamu Shinshutu Kigyo no Jittai Chosa* (survey on Japanese enterprises doing business in Vietnam) 2012,” there were 1,542 Japanese-affiliated companies in Vietnam in 2012. Besides 725 companies in the manufacturing industry, 71 companies (4.6%) belonged to the software industry, which was the largest sub category of business.

2012” published by the Information-Technology Promotion Agency, Japan (IPA), Vietnam ranked top among the countries which Japanese IT companies were considering/ interested in as a place for offshore development. Similarly, in the interviews for the ex-post evaluation with parties related to Japanese companies, it was confirmed that there had been high demand for engineers equipped with high-level skills of Japanese language and IT throughout the project period¹⁰.

Suitability of HUST as the implementing agency was high, too. HUST was a top university in engineering in Vietnam, and it was not only good for deploying advanced IT education in international cooperation but also good as a potential model to other universities¹¹.



Source: Prepared based on Ministry of Information and Communications, “Information and Data on Information and Communication Technology (White Book on ICT)” 2009-2013 editions.

Figure 2 Trends in the Size of the IT Industry in Vietnam

3.1.3 Relevance to Japan’s ODA Policy

As stated in “1.1 Background,” this project was to realize the “Asia IT Initiative” in Vietnam, and was thus relevant at the time of ex-ante evaluation of Phase 1. Also, assistance policies such as the Japan’s Country Assistance Program for Vietnam

¹⁰ The demand has been continuously high by the time of ex-post evaluation. According to Japan External Trade Organization (JETRO) Hanoi Office, different Japanese IT companies visit Vietnam almost every week. Also, it is envisaged that in addition to offshore development, demand for business targeted to the domestic market in Vietnam (e.g. computer-aided design (CAD) on contract, call centers, digitization of books, etc.) will increase.

¹¹ The initial targeted university was Vietnam National University, Hanoi (directly under the Prime Minister) at the time of the SAPROF study. In the course of project formulation, it was decided to change the targeted university to the one under the jurisdiction of MOET, and HUST was selected from among several candidates. In regard to the role of HEDSPI Program as a model program of advanced IT education to demonstrate to other universities, some documents related the SAPROF study and the ODA Loan project describe about such role. However, neither of the ex-ante evaluation reports of this project and the ODA Loan project clearly states the development and dissemination of a model as its objective. Therefore, at least in this ex-post evaluation, the question, “whether HEDSPI Program played a role of a model education program” is dealt with in “3.2.2.3 Other Impacts.”

(2004) held IT and human resource development as the priority areas for “promotion of growth,” one of the three pillars for Japan’s assistance to Vietnam.

This project was highly relevant to Vietnam’s development plan and development needs, as well as Japan’s ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impact¹² (Rating:②)

3.2.1 Effectiveness

3.2.1.1 Achievement of Project Purpose of Phase 1¹³

This project was implemented with the idea of launching an education program (HEDSPI Program) under Phase 1, and once it becomes ready, setting up a school as a more permanent institution to position HEDSPI Program within it, and then consolidating the management of HEDSPI Program under Phase 2. Toward such an idea, Phase 1 planned activities including development of the program management system and course contents, management of undergraduate courses and trial run of adult education courses, and transfer of teaching methods.

In September 2006, right before the start of Phase 1, the undergraduate education of HEDSPI Program started with 121 students of Batch 1 selected from among those who got excellent scores in the examination to enroll to HUST. The project faced hardship in carrying out course management and development of the management system simultaneously, particularly under circumstances where the implementation of the ODA Loan project and the arrival of Japanese experts were delayed.¹⁴ Nevertheless, the management system of the program to learn ITSS-based knowledge and technologies and Japanese language was developed mostly as planned. This was made possible through technical transfer mainly on development of curriculum, syllabi and course materials by the Japanese side, organizational arrangement and preparation for establishment of a school by the

¹² Sub-rating for Effectiveness is to be put with consideration of Impact.

¹³ It was not clear from the ex-ante evaluation report what the indicators of the project purpose specifically meant. In this ex-post evaluation, based on the text of the project purpose, “The capacity ... is developed,” its two indicators were put together and interpreted as the situation of development of institutional settings of HUST toward establishment of a school. Accordingly, the degree of achievement of the project purpose was assessed in the light of the degree of achievement of the outputs, each of which represents different aspects of the institutional settings to be developed (Table 1). In doing so, more weight was given to the undergraduate component rather than intensive courses (adult education) between the two constituents of HEDSPI Program, as the former was the main component of university education. For the statuses of achievement of individual outputs, see the table at the end of this report.

¹⁴ The delays were mainly due to the MOET’s belated approval of the feasibility study (F/S), the master plan of HEDSPI. As stated in Footnote 11, MOET became the responsible ministry for this project in the middle of the project formulation process. Therefore, it was hard for them to proceed with the plan that they had not prepared (information source: interview with MOET). In the first year of HEDSPI Program, classes were conducted using the draft curriculum developed in the SAPROF study and existing syllabi/ education materials of the Faculty of IT (to which most of the lecturers of HEDSPI Program belonged).

Vietnamese side, and procurement of education equipment, etc., hiring of teaching staff in Japanese language, and sending selected students to Japan for study by the ODA Loan project.

Negative effects of the implementation delays were minimized in the following ways: the same Japanese universities had consistently been involved in project implementation since drafting of the curriculum in the SAPROF study; subject-specific Japanese experts who were teaching personnel of the above-mentioned Japanese universities proposed and took countermeasures against non-arrival of equipment in a way, based on the understanding of the aims of HEDSPI Program, that was most suitable to the characteristics of each subject; and Japanese experts specialized in university administration undertook overall progress management. Other issues include failure to fully introduce the management system that the Japanese expert team had initially intended¹⁵, and slow progress of development of intensive courses for working people¹⁶. Nevertheless, the successful part of the outputs (i.e. provision of undergraduate education) constituted the central factor of the project purpose (i.e. program management system), which enabled students to receive education as planned. Then, at the time of completion of Phase 1, HUST was ready to establish a school integrating HEDSPI Program and the existing Faculty of IT. Therefore, it can be said that the project purpose of Phase 1 was mostly achieved while there were some issues.

Table 1 Achievement of Project Purpose (Phase 1)

Project Purpose	Indicator	Actual
The capacity to conduct the activities towards the establishment of the “School” or its equivalent is developed.	1) The Inputs are made according to the plan.	If interpreting “The Inputs” as the inputs to this project, they were implemented mostly as planned on both Japanese and Vietnamese sides (see “3.3 Efficiency”).
	2) The function of the “Program” is improved enough to establish the “School” or its equivalent.	HUST (mainly Faculty of IT) prepared the proposal to establish a school and submitted it to MOET on May 22, 2008 (same as the achievement status of Output 8).

Sources: Response from the implementing agency; JICA documents.

¹⁵ This project aimed to introduce the administration system of Japanese universities, propose the system to be introduced in HEDSPI Program, and strengthen capacity of the administration section necessary for such a system. However, the Japanese side could not fully conduct technical transfer as initially expected due to high confidentiality in some areas such as personnel and budget affairs. Nevertheless, the management system was clearly identified as both the Vietnamese side and the Japanese side played their own roles that were clarified by a manual.

¹⁶ It was planned that intensive courses would provide the contents of the summer intensive courses for undergraduate education to working people. However, such a plan was abandoned for the following reasons: (i) development of undergraduate courses were prioritized; (ii) lecturers of HEDSPI Program had little experience in IT industry, and thus they were reluctant to teach applied IT technologies to engineers in the field; and (iii) procurement of communications equipment was delayed (under the ODA Loan project).

3.2.1.2 Achievement of Project Purpose of Phase 2¹⁷

Under Phase 2, HEDSPI Program was continuously run as a special program of SoICT, which was established as planned (opened in the academic year 2009). Collaboration with companies was fully deployed in internship and job placement through establishment of a consortium of Japanese companies. While the issue of management continued from Phase 1, HEDSPI Program itself was run almost steadily. Intensive courses remained an issue from Phase 1 as well: the project finally managed to start offering intensive courses, but some of them were cancelled due to an insufficient number of applicants.

Academic performance of undergraduate students was mostly good in terms of both Japanese language and IT knowledge. By the time of project completion, 111 students of Batch 1 graduated from HEDSPI Program (91 students from HUST and 20 students from universities in Japan). Two of them graduated at the top of their classes at Ritsumeikan University and Keio University, respectively, in Japan. Most graduates got jobs in IT companies, majority of which were Japanese companies. Current students and graduates are satisfied with HEDSPI Program because of its richer educational environment and curriculum than the existing Faculty of IT, opportunity to learn both Japanese language and IT knowledge of international standard and large opportunity for studying in Japan and finding good jobs. Based on these findings, it can be said that the first project purpose (management of the program) and the second project purpose (production of IT engineers) were mostly achieved.

Table 2 Achievement of Project Purpose (Phase 2)

Project Purpose	Indicator	Actual
1. Administration of HEDSPI Program functions as an educational body.	1) HEDSPI Master Plan is approved by HUST.	Achieved. The proposal to establish SoICT was approved by HUST and then submitted to MOET. Based on the ministerial decree dated May 19, 2009, SoICT was established as a school including HEDSPI Program.
	2) Progress of the action plan is monitored periodically and revised when necessary.	Mostly achieved with some issues. Some management issues specifically for the Japanese side continued from Phase 1 (e.g. some information was not shared by the Vietnamese side unless inquired by the Japanese side, meetings proposed by the Japanese side did not function as expected, etc.). Nevertheless, HEDSPI Program itself was run smoothly based on the division of roles between the Vietnamese side and the Japanese side and through joint undertakings of progress management by means of weekly PIU meetings.

¹⁷ While all indicators of the project purpose of Phase 2 were considered to be equally important, this ex-post evaluation applied the same judgment criterion to both phases, i.e., among the program components, more importance was placed on achievements of undergraduate education (a main part of university education) rather than intensive courses for adult education, taking into consideration of logical connection between the project purpose and the outputs.

(Table 2 continued)

2) HEDSPI Program produces IT engineers who have enough basic knowledge on IT and Japanese language.	1) Students are satisfied with HEDSPI Program itself.	Achieved. In the interview with students before going to Japan at the time of terminal evaluation, students showed their satisfaction with the facilities/equipment, syllabi, opportunity to study in Japan, etc. that were largely different from other universities in Vietnam.
	2) The percentage of graduate who can get job in IT related fields as their choice.	Achieved. Most graduates chose their places of employment according to their own wishes. Students' career after graduation was as follows: <ul style="list-style-type: none"> • Batch 1 graduates from HUST (not sent to Japan for study) (79 persons): 21 joined Japanese-affiliated companies, 32 joined Vietnamese companies mainly doing business with Japanese companies, 19 joined other foreign companies, etc., 7 went on to graduate school. • Batch 1 graduates from universities in Japan (20 persons): 16 joined private companies (breakdown of nationality not available), 3 joined universities, 1 joined MOET. The companies were all in IT related fields.
	3) Number of graduate students working in Japanese IT companies in using Japanese language.	Mostly achieved. 21 of Batch 1 graduates from HUST (not sent to Japan for study) joined Japanese-affiliated companies, of which 9 persons chose to work in Japan. According to PIU, most graduates, including Batch 1 graduates from universities in Japan who got jobs at non Japanese-affiliated IT companies, used Japanese language at work. Therefore, it is considered the degree of achievement of this indicator is satisfactory.
	4) The number of the applicants to HEDSPI Program increases.	Not achieved. The number of applicants remained unchanged. However, that is not a cause for concern as the number was always high (2-3 times as many as the enrollment limit).

Sources: Terminal evaluation report of Phase 2; response from the implementing agency; JICA documents.

Note: In the indicator statement of the PDM, HUST was called "HUT" as it was at that time of ex-ante evaluation.

As above, the project mostly achieved its purposes in both Phase 1 and Phase 2.

3.2.2 Impact

The overall goal common to Phases 1 and Phase 2, "ITSS 3 equivalent level IT human resources are sufficiently provided to the IT and IT related fields," was expected to be achieved in 3-5 years after graduation of Batch 1 students, namely, in 2014-2016. This section first describes the status of HEDSPI Program after completion of this project, and then examines the degree of achievement of the overall goal mainly based on the data as of 2014.

3.2.2.1 Status of HEDSPI Program toward Achievement of Overall Goal after Project Completion

After completion of this project, the undergraduate component of HEDSPI Program has been run mostly well. As an extension of the ODA Loan project (up to 2016)¹⁸ is expected, the program is still managed by PIU. Similarly to during project implementation, students are selected from among 2-3 times as many applicants as the enrollment limit of 120 persons. As of the academic year 2014, HEDSPI Program enrolled students up to Batch 9 and produced a total of 382 graduates of Batches 1-4. Current students (Batches 5-9) are mostly satisfied with HEDSPI Program except with its facilities and equipment (Table 3).

There are some concerns on managing the undergraduate courses. The first is a decrease in students' motivation due to the loss of opportunity to study in Japan after the ODA Loan project fulfilled its plan of sending Batch 1-4 students to Japan. The second is a decrease in students' willingness to learn and skill level of Japanese language since (i) the termination of contract with Japanese lecturers in Japanese language (General Japanese and IT Japanese) following the expiration of the project implementation period, and (ii) the leaving of Vietnamese lecturers in General Japanese due to unstable employment status (see also "3.4 Sustainability"). In response to such a situation, PIU has tried to maintain the motivation level of students by means such as arranging Japanese IT engineers as advisors in IT Japanese classes (based on an agreement concluded with a Japanese-affiliated company) and providing more opportunity of internship. The consortium of companies created under this project has continued, providing opportunity of

Table 3 Students' Satisfaction with HEDSPI Program and Degree of Fulfillment of Their Expectations upon Application

Question		Score
Satisfaction of current students with HEDSPI Program (n=48): "I'm satisfied with..."		
Course contents of General Japanese		4.4
Capacity of lecturers in General Japanese		4.4
Capacity of lecturers in IT subjects		4.3
Capacity of lecturers in IT Japanese		4.3
Course contents of IT Japanese		4.1
Opportunity to contact companies		4.1
Administration office (PIU)		3.7
Course contents of IT subjects		3.6
Facilities and equipment (including library books)		3.0
"My expectation for HEDSPI Program upon application was met."	Current students (n=48)	4.1
	Graduates (n=24)	4.2

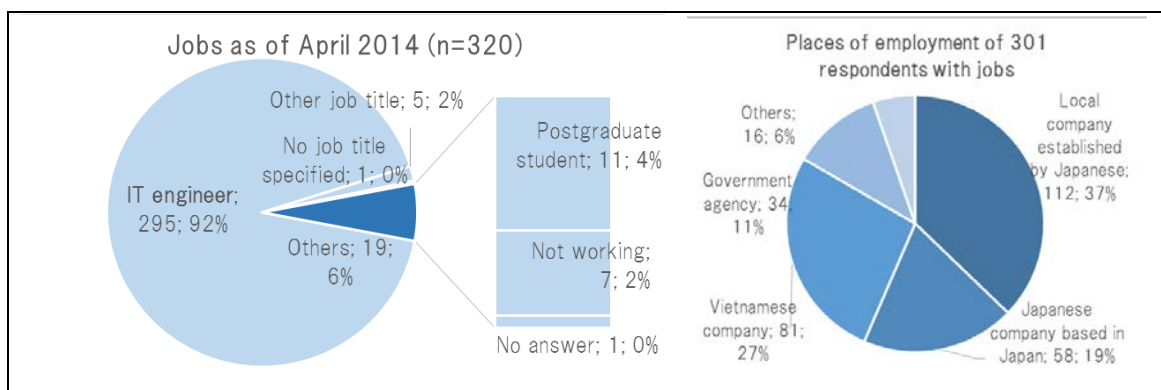
Source: Beneficiary survey.

Note: Each score is the average of responses to the concerned question ranging from 1 point ("Strongly Disagree") to 5 points ("Strongly Agree"). Many respondents also pointed out that they were satisfied with brilliant classmates with whom they worked hard and learned from each other.

¹⁸ The implementation period of the ODA Loan project expired in June 2014, while leaving some uncompleted equipment procurement plan and an additional plan. At the time of this ex-post evaluation, the project is in a process of requesting the Vietnamese government for extension of the implementation period up to August 2016, i.e., by the end of the Loan Agreement period.

internship and employment. Upon completion of the project, a Japanese lecturer in IT Japanese took over the coordination task for the consortium. After the contract with Japanese lecturers was terminated, the coordination is undertaken by PIU.

Regarding graduates' employment status, a study conducted by PIU in April 2014 found that 295 (92%) out of the 320 respondents¹⁹ from Batches 1-3 were working as IT engineers mostly at Japanese-affiliated and Vietnamese companies (Figure 3)²⁰. Similarly, the questionnaire survey conducted for this ex-post evaluation in November 2014 showed that 22 out of the 24 respondent graduates were IT engineers of either Japanese-affiliated companies or Vietnamese companies whose customers were Japanese companies. Interviews with some of them also revealed graduates were active in their respective workplaces²¹.



Source: Prepared based on data provided by the implementing agency.

Note: No difference by year of matriculation was seen.

Figure 3 Employment Situation of Batch 1-3 Students of HEDSPI Program

On the other hand, no intensive courses have been organized since project completion. According to PIU, while SoICT has provided adult education courses focused more on core technology a few times a year, it would be difficult for

¹⁹ 291 out of 320 respondents were graduates. It was explained that the study covered students who started working without graduating from HUST as well.

²⁰ Out of the 295 IT engineers, 60 persons (20%) were living in Japan and 234 persons (79%) were living in Vietnam. There was no significant difference in this ratio by year of matriculation. According to JETRO Hanoi Office that coordinates meetings where Japanese companies and Japan-related companies exchange views on IT, participating companies' demand for graduates of HEDSPI Program is still very high, and there is a path in which Japanese companies train HEDSPI Program graduates they recruited as executive candidates for a few years in their head offices in Japan, and then assign them as presidents of their local subsidiaries.

²¹ Careers of the nine graduates interviewed were as follows: founder of a software company mainly targeted to Japanese companies; employees of that company; one who joined the head office of a Japanese system integration company where he had worked part-time during his study in Japan, and then came back to Vietnam to take up the post of president of the newly-founded Japanese subsidiary of that system integration company; ex-employees of the local subsidiary of a Japanese game development company now working at its head office in Japan; a graduate student in Japan after working in Japan; etc.

university lecturers to teach front line engineers in courses such as the ones developed under this project that dealt with applied technology.



IT Japanese class.

Posters made by students in IT Japanese class, where. In IT Japanese, students learn not only IT terminology in Japanese but also project management through model projects of systems development in Japanese.

Software company funded by a graduate. It employed a number of graduates.

3.2.2.2 Achievement of Overall Goal²²

As mentioned above, it is estimated that majority of graduates are active as IT

²² The ex-ante evaluation report did not clearly describe specific means to measure the indicator of the overall goal as well as the target year and target value. In this ex-post evaluation, the judgment was made with reference to the followings:

- Measurement: To check whether graduates reached the ITSS Level 3 “equivalent,” this evaluation first used (i) the number of passers of the Information Technology Professionals Examination Council (ITPEC) Common Examination as the most objective indicator. The ITPEC Common Examination is an examination that IPA has disseminated to Asian countries as a compatible to the Japan’s Information Technology Engineers Examination (ITEE). In Vietnam, the Vietnam Training and Examination Center (VITEC) administers the ITPEC Common Examination. Next, as a qualitative indicator, the evaluation used (ii) the number of graduates who satisfied the requirements for Level 3 defined by IPA as the “evaluation indicator without using ITEE,” namely, “Can accomplish all required tasks without help. Trying to establish a specialized area of one’s skills. Has applicative knowledge and skills necessary to be a professional. Continuous improvement of one’s skills is required in skill development.” (Source: IPA, “IT Sukiru Hyojun Hayawakari (quick guide to ITSS),” 2011).
- Target year: The overall goal aimed to “sufficiently” provide Level 3 equivalent engineers. Also, according to JICA documents, it seemed that this project had an idea to set the target year at 3-5 years after graduation of students. On the other hand, the ODA Loan project set the operation and effect indicators as “10% of graduates pass the examination on ITSS Level 3 equivalent in 2 years after graduation.” Putting these together, this ex-post evaluation checked the result in 3 years after graduation. The ex-post evaluation was conducted in the academic year 2014, which was after 3 years since the graduation of Batch 1 students.
- Target value: (i) For the quantitative indicator, the operation and effect indicator of the ODA Loan project was used and the target value for ex-post evaluation was set at 10% of graduates. (ii) For the qualitative indicator, considering that the overall goal is to “sufficiently” provide Level 3 equivalent IT engineers, the target value was roughly set at 80% of graduates.

engineers at Japanese companies or Vietnamese companies doing business with Japanese companies. However, that finding is not enough to prove the achievement of the indicator of the overall goal. First, the degree of achievement of the quantitative indicator cannot be accurately judged using the result of the Information Technology Professionals Examination Council (ITPEC) Common Examination (corresponding to the Information Technology Engineers Examination (ITEE). See the footnote 22), which is an objective measure of knowledge and skills of “ITSS Level 3 equivalent.” This is because the number of examinees is small as the examination has not been widespread in Vietnam.

Second, as for the qualitative indicator, it was confirmed from the questionnaire/interview survey with graduates and their employers that some graduates satisfy the requirements for Level 3. However, they did not account for 80% of respondents (the rough target), and the number of respondents was too small to correctly estimate how many of the total number of graduates are qualified that way. Also, several interviewed companies commented that there was no difference in technical capacity between HEDSPI Program graduates and IT engineers who graduated from other universities in Vietnam. Therefore, it is difficult to identify the impact specifically brought about by this project.

With regard to the ITPEC Common Examination, expectations on spread of ITSS is increasing as it was arranged that starting in November 2013, passers of the ITPEC Fundamental Information Technology Engineer Examination (FE Exam, equivalent to ITSS Level 2) or higher-level examinations in member countries of ITPEC including Vietnam are qualified for Japanese engineer visas for 3 years or longer²³.

As stated above, despite the observation of the effect that most graduates of HEDSPI Program were active as IT engineers, it cannot be confirmed whether such graduates well reached ITSS Level 3 as expected. Therefore, the project has achieved its overall goal at a limited level.

²³ Source: Public Notice of the Ministry of Justice, No. 437. According to VITEC, workers without engineer visas have to come back to Vietnam every six months.

Table 4 Achievement of Overall Goal

Overall Goal	Indicator	Actual
ITSS 3 equivalent level IT human resources are sufficiently provided to the IT and IT related fields.	Number of graduated students who have already been engaged in IT related fields in having the skill of ITSS 3 equivalent level	(i) Achievement level is not clear. While in school, 11 HEDSPI Program students took the Level 3 equivalent examination, namely, Software Design and Development Examination (SW Exam, until April 2010) or Applied Information Technology Examination (AP Exam, after November 2011), and two of them (Batch 2 and Batch 3) passed it. While the number of passers among graduates is unknown, it was confirmed that at least one of them passed. During the same period, however, 16 out of 157 examinees passed the same exam in the entire country. (Reference information) The number of HEDSPI Program students who passed the Level 2-equivalent FE Exam while in school (its proportion to the total number of students in their respective batch): 79 students (77%) of Batch 1; 64 students (60%) of Batch 2; 46 students (35%) of Batch 3; and 37 students (36%) of Batch 4 (those studying in Japan were not counted since they did not take the exam in Vietnam).
	(i) (Quantitative indicator) Number of passers of ITPEC Common Examination (IEEE)	
	(ii) (Qualitative indicator) Number of graduates who can accomplish all required tasks without help as IT engineers	(ii) The number is not available. Out of the 24 graduates who responded to the questionnaire survey at the time of ex-post evaluation, 6 persons agreed to the statement, “I have skills equivalent to ITSS Level 3.” Also, 3 out of the 5 persons from IT companies who responded to the survey (the part for employers) agreed to the statement, “Recruited HEDSPI Program graduates have skills equivalent to ITSS Level 3.” (Reference information) Respondents from IT companies commented as follows: “Graduates with sense reach the mentioned level in one year after joining my company;” “Graduates reach the mentioned level after in-house training;” “The answer depends on definition of “required tasks;”” “The overall level is not clear because we only recruit graduates from universities in Japan;” “The level depends on individuals;” “The overall level can be Level 2, but in some specific areas such as software development for personal computers, it is possible to say graduates have Level 3 skills;” “It is not only that HEDSPI Program graduates have high skill levels but graduates from IT faculties / departments of other universities in Vietnam are on the same level.” (The last opinion was heard from all of the three Japanese employers interviewed.)

Source: Ministry of Economy, Trade and Industry, “*Joho Shori Gijutsusha Shiken to IT Sukiru Hyojun (ITEE and ITSS)*,” 2004; IPA website; response from the implementing agency; response from ex-Japanese experts; beneficiary survey; response and data from VITEC.

Note: Descriptions of (i) and (ii) in the “Indicator” column are definitions by the evaluator.

3.2.2.3 Other Impacts

1) Impact on other universities in Vietnam

For one case, SoICT opened a new special program in 2009 using the curriculum of HEDSPI Program and conducting classes in English. 40 students are enrolled in the program every year. For another case, a Vietnamese leading IT company established a private university that provides education based on the HEDSPI

Program's concept of "teaching IT in Japanese," to address an issue that in spite of recruiting many HEDSPI Program graduates every year, the number of new hires cannot fulfill its target. Although within the same school, the former case shows expansion of HEDSPI Program as a model education program (in the latter case, the curriculum of HEDSPI Program is not used). However, "expansion of the program to other universities," the expected status at the beginning of the project, has not taken place yet²⁴.

2) Impact on universities in Japan

As impacts on Japanese universities, ex-Japanese experts (teaching and administrative staff of universities in Japan) pointed out that the universities secured good foreign students (transferred to the third grade) and that participating in this project became one of the universities' achievements in large-scale international cooperation. Primarily, these are directly attributed to the fact that (i) the students sent to Japan were the best 20 students of each batch (every year) of HEDSPI Program students, who were all selected from among top-level students and that (ii) under the ODA Loan project, the component of supporting students for study in Japan was implemented in accordance with the plan. Nonetheless, the impacts may not have materialized if this project did not support, in terms of curriculum and program management, the education of each of those students for three years from matriculation to departure for Japan.

Since this project has to some extent achieved the project purpose and overall goal, effectiveness and impact of the project are evaluated to be fair. For the project purpose, while there were problems in intensive courses for working engineers, the undergraduate courses were established and managed mostly as planned. As for the achievement of the overall goal, more than 90% of graduates were active as IT engineers after project completion, and some of them are considered to have reached "ITSS Level 3 equivalent," the expected target. However, there was no means to correctly measure such

²⁴ According to PIU, it received inquiries from some universities on the curriculum of HEDSPI Program, but such universities did not adopt the curriculum due to their insufficient teaching and learning conditions (e.g. equipment and lecturers). On the other hand, Keio University, which was entrusted with implementation of this project, is planning to start an exchange program with another university in Vietnam based on the experience of accepting students from Vietnam (transferred to the third grade) under HEDSPI Program. In addition, although it was primarily an impact of the ODA Loan project, there were cases in which lecturers of HEDSPI Program who were sent to Japan for postgraduate degree became lecturers of other universities after their return to Vietnam (3 persons who got the doctoral degree and 9 persons who got the master's degree.) According to PIU, research outputs of lecturers (e.g. the number of research projects engaged and the number of papers published) have increased, but it is not be associated to this project.

results, and the observed improvement of the skills of graduates was not identified as impact of this project.

3.3 Efficiency (Rating: ③)

3.3.1 Inputs

Table 5 Planned and Actual Inputs

Inputs	Plan	Actual (Project completion)
(1) Experts	Number not mentioned	Total 138 MM* (Phase 1) 21 persons (49 MM) (Phase 2) 33 persons (89 MM)
(2) Trainees received	Number not mentioned	Total 38 persons (Phase 1) 14 persons (Phase 2) 24 persons
(3) Equipment	Not mentioned	(Phase 2) 1 million yen (office equipment, etc.)
Japanese side Total Project Cost	Total 740 million yen (Phase 1) 270 million yen (Phase 2) 470 million yen	Total 714 million yen (Phase 1) 261 million yen (Phase 2) 453 million yen
Vietnamese side Operational Expenses	Not clear	Preparation of office and meeting rooms necessary for project implementation; purchase of equipment 23,763 million dong (approx. 174 million yen)

Sources: Ex-ante evaluation report; JICA documents.

Notes: * MM stands for man month. Exchange rate applied was 1 dong = 0.0073 yen (2006).

3.3.1.1 Elements of Inputs

The elements of inputs of this project are considered to be mostly appropriate to produce the outputs. First, on the Japanese side, the areas of cooperation by experts consisted of the management areas and the technical areas (common subjects such as mathematics and electronic engineering, IT-related subjects and ITSS/ETSS (Embedded IT Skill Standard) practice/ intensive courses), which were flexibly adjusted to cope with a change in policy of the organization entrusted with project implementation and additional work items during project implementation period²⁵. It can be said that the inputs implemented for the unproduced part of the outputs (i.e. those related to the intensive courses that were not realized) were wasted, although

²⁵ For example, in response to a policy change that made it difficult for teaching staff to leave their university in Japan for long period, each expert (teaching staff) covered several subjects. Also, to develop the syllabus of IT Japanese that was added to the scope of work of experts, assignment of IT-related subjects was adjusted.

the volume of such inputs was only a small part of the total inputs²⁶.

Next, no major problem was seen in the Vietnamese side inputs, either. In the initial stage of project implementation, the implementing agency's understanding of the project was not high enough due to some factors including transfer of the vice rector (who played a central role in the project formulation stage) right after the commencement of the project. Such a situation affected technical transfer, but as the activities progressed, the implementing agency deepened their understanding. The construction of a new school building and renovation of existing buildings on HUST budget had been implemented as planned.

3.3.1.2 Project Cost

The project cost was lower than planned in each phase as well in total (96% of the planned total of Phases 1 and 2 costs).

3.3.1.3 Period of Cooperation

The cooperation period was also shorter than planned in each phase as well as in total (90% of the planned total period from the start of Phase 1 to the completion of Phase 2)²⁷.

Both the project cost and project period were within the plan. Therefore, efficiency of the project is high. Although the intensive courses were partly delayed or not implemented, that is not a big factor in evaluation judgment as intensive courses constituted only a small part in terms of both inputs and outputs.

3.4 Sustainability (Rating: ②)

Overall, sustainability should be checked in terms of (i) continuous operation of HEDSPI Program and (ii) consequent good performance of IT human resources equipped with Japanese language and ITSS-based technical knowledge.

²⁶ In Phase 1, the volume of inputs related to intensive courses (calculated at 7 MM or less by the ex-post evaluator) was not enough in a sense that the syllabi for intensive courses were not completed in time. However, it is also possible to say the volume was enough considering that intensive courses were not the main courses of HEDSPI Program. In Phase 2, on the other hand, some of the intensive courses were not implemented despite the course development was completed. In that sense, part of the expert input (calculated at 6 MM or less) was wasted.

²⁷ Some JICA documents related to Phase 2 reported about transition from Phase 1 and Phase 2 as follows: the discontinuation of technical cooperation during the transition period between Phase 1 and Phase 2 (there was a five-month blank period between the two phases) led to taking of time in Phase 2; and as assistance from Japan once stopped, it took time to restore the trust relationship between the Vietnamese and Japanese sides of the project. According to PIU at the time of ex-post evaluation, there was no particular problem of that kind as they were aware that there would be Phase 2. Although the real situation at that time is not clear, the activities of Phase 2 completed within the planned period and did not affect production of the outputs.

3.4.1 Related Policy and Institutional Aspects for the Sustainability of Project Effects

For sustaining project effects in the policy and institutional aspects, development policies in higher education and IT should place emphasis on development of IT human resources. First, the policies mentioned in “3.1 Relevance” are all still effective at the time of ex-post evaluation. Next, the National Strategy for Science and Technology Development (2011-2020) (announced in April 2012) holds IT as the most important area for development, promoting research and development and technology transfer in each field of hardware, software and digital contents. In addition, as described in “3.2.2 Impact,” a preferential treatment in issuing Japanese visas for passers of the ITPEC Common Examination started in 2013, which enhanced advantage of HEDSPI Program that offers ITSS-based courses and encourages students to take the Common Examination.

Therefore, conditions are secured for sustainability of project effects in the policy and institutional aspects.

3.4.2 Organizational Aspects of the Implementing Agency for the Sustainability of Project Effects

In the organizational aspects, a management system of HEDSPI Program is required within HUST for sustainability of effects of this project.

At the time of ex-post evaluation, HUST has 22 faculties or schools and 20 research institutions. Among them, SoICT consists of five departments (former Faculty of IT,) HEDSPI Program and English Program on IT (using the curriculum of HEDSPI Program). No major changes have occurred to organization of HUST/SoICT since the project implementation period.

Since the time of establishment of HEDSPI Program, PIU has functioned as a project office of HEDSPI (a JICA project) and as the administration office of HEDSPI Program (an education program) simultaneously. At the time of ex-post evaluation, the number of PIU staff is 12 persons of whom 9 persons are SoICT staff members and 3 persons are hired by the ODA Loan project. According to PIU, there is no problem in assignment of personnel.

There are some concerns. The first is on the prospect of continuation of HEDSPI Program and its implementation set-ups after completion of the ODA Loan project in 2016. The vice rector (in charge of HEDSPI) of HUST and the dean of SoICT said that they plan to continue HEDSPI Program and maintain the current form of PIU as the administration office of SoICT. However, as it will be in 2016 when the implementation structure needs to be changed, there is no official document on the

future of HEDSPI Program at the time of ex-post evaluation²⁸.

The second concern is on the prospect of securing Japanese language lecturers. As mentioned in “3.2.2 Impact,” the contract with Japanese lecturers was terminated and several Vietnamese lecturers left their jobs one after another. According to PIU, HUST is a university in engineering subjects and therefore it is difficult to hire more than one Japanese language lecturers as permanent employees. As a solution, it is planned to conclude an agreement with a foreign language department of another university on dispatch of Japanese language lecturers, although the plan has not been concretized yet.

The third concern is on the prospect of continuing collaboration with industry. Although companies have kept accepting interns and participating in job fairs, the interviews revealed that many of them are solely interested in recruiting graduates of HEDSPI Program. Therefore, continuity of collaboration may depend on whether HEDSPI Program can keep producing high quality human resources without JICA’s assistance. At the time of ex-post evaluation, it is not clear whether the loss of Japanese language lecturers in the academic year 2014 will affect the teaching level of HEDSPI Program. Besides that, considering the current circumstances that multifaceted cooperation relationship such as participation in intensive courses and joint research has not been built, it is difficult to conclude the prospect of collaboration is certain²⁹.

Therefore, the organizational aspect has some problems to sustain project effects.

3.4.3 Technical Aspects of the Implementing Agency for the Sustainability of Project Effects

For sustainability in the technical aspect, SoICT/HEDSPI administrative personnel need skills in program management and maintenance of facilities/equipment, lecturers in IT subjects need knowledge and skills for updating of the curriculum and syllabi, and lecturers in Japanese language need skills of Japanese language and Japanese language teaching.

²⁸ Based on the responses to the questionnaire and interview. The Faculty of IT (predecessor of SoICT) once opened a French special program with assistance from the government of France, but the program was closed in 2009 following the termination of financial assistance. According to PIU, HEDSPI Program would not follow the same path, as demand for Japanese-speaking engineers is higher than French-speaking engineers.

²⁹ Under the ODA Loan project, a component named “IT Laboratories” is being planned as an additional activity for 2015-2016. The purpose is to facilitate joint research with companies through development of research laboratories. It is planned to start the activity as soon as the government of Vietnam approves the proposal for extension of the implementation period of the ODA Loan project.

No problem is seen in skill level of administrative staff and teaching staff in IT subjects at the time of ex-post evaluation. PIU staff has managed the courses without trouble after completion of this project. After completion of the ODA Loan project, SoICT plans to continuously assign the same staff members as administrative officers of HEDSPI Program. Lecturers in IT subjects have revised their syllabi and education materials in response to feedback from students and have incorporated information on up-to-date IT trends³⁰.

Table 6 Lecturers' Opinions on the Curriculum, Syllabi, etc. (n=12)

Question	Score
The curriculum can meet current human resource demand in IT sector.	4.4
The syllabi and education materials I use can meet current human resource development demand in IT sector.	4.3
"The Syllabus/Education Materials Manual" is still useful.	4.2
The syllabi and education materials are updated upon necessity after completion of assistance from Japanese experts in May 2012.	4.0

Source: Beneficiary survey.

Note: Each score is the average of responses to the concerned question ranging from 1 point ("Strongly Disagree") to 5 points ("Strongly Agree").

There is a small concern on revision of the curriculum. The latest version of the curriculum was published for the academic year 2011. According to a rule of HUST, curriculums should be updated every 3-4 years. While the part of the curriculum related to Japanese language was updated in 2014, there is no immediate plan to update the part related to IT subjects. Comments provided by IT-related informants (ex-Japanese experts, Japanese-affiliated companies, an IT engineer of a Vietnamese company who is not related to Japan, etc.) on appropriateness of the IT-related part of the curriculum are divided in the two arguments. On one hand, opinions are summarized, "The curriculum is good enough for learning the basics at the undergraduate level. Lecturers can reflect advanced knowledge and technologies by updating syllabi and education materials (as they currently do in HEDSPI Program) and by taking up such topics in graduation work." "Different companies require different advanced technologies. Therefore, it is enough for students to learn necessary technologies after they are employed." On the other hand, opposite opinions can be summarized, "The curriculum is old for producing industry-ready engineers in the mainstream technology areas today." Considering these opinions, the present curriculum may not be necessarily too old but it had better be updated before too long.

³⁰ Some informants including ex-Japanese experts and Japanese-affiliated companies pointed out that technical level of lecturers is high enough to teach in undergraduate courses, but the level of their research is not necessarily so if considering development of HUST/SoICT toward a research university as it aims. This point may affect sustainability of project effects in a sense that if HEDSPI Program develops into a high quality education and research program, collaboration with industry will also be promoted and diversified. The ex-post evaluation, however, did not take account of this point as a direct ground for judgment. In this regard, HUST once requested JICA for assistance, as Phase 3 of the technical cooperation project, in extending HEDSPI Program to postgraduate education. However, JICA did not take up the request on the grounds that the remaining balance of the ODA Loan project should be used.

There is a concern on the level of Japanese language lecturers teaching General Japanese. The level of Japanese teaching is being questioned due to high turnover of Vietnamese lecturers who received technical transfer. All but one who had been with the project from the beginning left SoICT. Several (ex-) Japanese language lecturers and employers of graduates of the program also pointed out a decrease in language ability of recent students.

Regarding IT Japanese, although contract with lecturers from Japan was not renewed for the academic year 2014, a certain technical level was being maintained by the above-mentioned Vietnamese lecturer (who received technical transfer), another Vietnamese lecturer who was about to return to Vietnam after receiving PhD, and engineers from a Japanese-affiliated company who teach at HEDSPI Program on voluntary basis, and through instruction in model projects that need hands-on knowledge, skills and experience of project management.

There is also a small concern on equipment maintenance skills. In the questionnaire survey for the ex-post evaluation, almost all respondent lecturers and students pointed out the problem of maintenance (e.g. some equipment are not in a good condition, some are left unrepaired, etc.). PIU replied on this point that while the staff in charge of facilities and equipment still uses the equipment maintenance manual developed under this project, PIU is only responsible for checking, and broken equipment have to be sent to the department of equipment of HUST for repair that usually takes a few months. Several other informants from universities also commented that such a situation is a common response in universities in Vietnam. In fact, the troubles of air conditioners and projectors pointed out by many respondents at the time of the first site visit in October 2014 were repaired by the time of the second site visit in January 2015. In this way, the problem mentioned by the lecturers and students is not peculiar to HUST or HEDSPI Program. Nevertheless, from the viewpoint of providing a program with higher quality than regular faculties and departments, more prompt and proper response to troubles than normal is desirable. As for a concern for the future, it is not clear whether SoICT can secure sufficient maintenance skills for the new equipment, i.e., the research equipment delivered in January 2015 under the ODA Loan project as well as the research laboratories that are planned to be developed once extension of the project period of the ODA Loan project is approved. Failure to secure such skills may affect the collaborative relationship with companies to be strengthened through the above-mentioned research laboratories.

Therefore, the technical aspect has some problems to sustain project effects.

3.4.4 Financial Aspects of the Implementing Agency for the Sustainability of Project Effects

Sustainability in the financial aspect needs securement of budget to continuously run HEDSPI Program, especially the budget to secure lecturers and maintain the facilities and equipment after completion of the ODA Loan project.

Although specific information on revenues and expenditures of HEDSPI Program was not available, PIU confirmed that there is no major problem at the time of ex-post evaluation³¹. To run HEDSPI Program, PIU manages to compensate the loss of funding from the ODA Loan and the corresponding project budget borne by the Vietnamese side with the tuition increase³².

Replacement of the existing equipment may not cost much because the procurement was not fully implemented as planned. However, with the current budget size of HEDSPI Program at the time of ex-post evaluation, it is considered difficult to allocate spending to maintenance and replacement of the above-mentioned new equipment (including those to be procured in the “IT Laboratory” component that is in the planning stage). Such maintenance and replacement may need another arrangement of budget by HUST/SoICT as well as acquisition of more research grants and other financial inputs from industry by improving the research skills.

Therefore, the financial aspect has some problems to sustain project effects.

Some minor problems have been observed in terms of the organizational, technical and financial aspects of the implementing agency. Therefore, sustainability of the project effects is fair.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This project aimed to provide human resources that would meet needs of industry by opening and managing a practical education program in IT, based on the Japan’s ITSS, at HUST. The division of roles in the creation of the education program was as follows: (i) HUST was responsible for construction of school facilities and providing teaching and administration staff; (ii) the Japanese ODA Loan project was responsible for

³¹ According to the financial information provided by PIU, HUST allocated 6.5 billion dong (approx. 39 million yen) to SoICT in each fiscal year 2012 and 2013, and most of that budget accounted for personnel cost (6.3 billion dong in 2012 and 5.9 billion dong in 2013). Information on the use of the difference was not available.

³² PIU explained that it raised the tuition from the level of normal undergraduate courses to the level of other special programs.

procurement of equipment, supporting students to study in Japan and hiring of/ technical transfer to lecturers in Japanese language; and (iii) this technical cooperation project was responsible for development of the program management system, development of the curriculum, syllabi and education materials as well as technical transfer to lecturers in IT-related subjects.

Relevance of this project is high since the project objectives were consistent with the Vietnam's development policies and development needs related to enhancement of higher education and promotion of IT as well as Japan's assistance policies. Effectiveness is also high considering that despite challenges such as delays in procurement of equipment, the management system and program contents were developed under Phase 1 and the program got off the ground under Phase 2, and accordingly, graduates who had both Japanese language skills and IT technical knowledge based on ITSS were produced. After project completion, it was observed that the program was run smoothly and many graduates were active as IT engineers. Regarding impacts, however, there is no objective means to verify the extent to which graduates reached the expected "ITSS level 3 equivalent." Therefore, effectiveness and impact as a whole is evaluated to be fair. Efficiency is high as both project cost and cooperation period were within the plan. Sustainability is evaluated to be fair as prospects for the institutional, technical and financial aspects of program management after completion of the ODA Loan project in 2016 are somewhat unclear at the time of ex-post evaluation.

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

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agency

HUST/SoICT is recommended the followings for sustaining the project effects:

- 1) Prepare an official document and have it approved within the university as soon as possible to articulate its policy to continue HEDSPI Program after the academic year 2016, when the completion of the ODA Loan project is scheduled.
- 2) Secure Japanese language lecturers as soon as possible. For this, further develop and implement the existing plan such as concluding an agreement with a foreign language department of another university (see "3.4.2 Organizational Aspects of the Implementing Agency for the Sustainability of Project Effects"). In doing so, consider ways to utilize ex-lecturers who left HEDSPI Program after receiving technical cooperation (e.g. inviting them as advisors for transfer of the techniques they acquired under this project). Regarding IT Japanese, maintain the current quality of education by continuing cooperative relationship with Japanese-affiliated companies and

technical transfer to Vietnamese IT Japanese lecturers.

3) Maintain the ongoing cooperation with Japanese-affiliated companies and Vietnamese companies doing business with Japanese customers.

4) Maintain the current high selection level of students to enroll to HEDSPI Program (i.e. selecting from among entrants to HUST with top scores in the entrance examination).

5) In order to align the level of maintenance of facilities and equipment to the high quality of courses offered by HEDSPI Program, develop a mechanism of responding to breakdown and troubles of equipment more promptly than the normal repair process of the university. If such a mechanism is difficult, consider preparing back-up equipment.

4.2.2 Recommendations to JICA

1) Ensure sustainability of project effects by facilitating implementation of the “IT Laboratory” component being planned under the ODA Loan project and thereby strengthening cooperation between HEDSPI Program and industry.

2) Raise interest of the Japanese Embassy and Japanese-affiliated companies in increasing opportunity for undergraduate students of HEDSPI Program to study in Japan and provide those organizations with related information so that HEDSPI Program could promote study in Japan even after the opportunity under the ODA Loan Project was lost.

4.3 Lessons Learned

4.3.1 Necessity of careful project design to minimize effect of delays in other projects implemented integrally with this project, and necessity of risk analysis in the planning stage of such a project (in case of integrated implementation of ODA Loan and technical cooperation)

This project shared roles with the ODA Loan project that was integrally implemented toward the achievement of the common overall goal, and produced good effect. Although the procurement of equipment under the ODA Loan project was delayed, its effect was minimized as the Japanese experts of this project reviewed the syllabus and proposed countermeasures for each subject so that students could fulfill their learning objectives without laboratory equipment. In addition, it was fortunate that in the case of this project, the area of assistance was IT in which many topics could be covered without special equipment but only with personal computers of students (there will be cases where, depending on areas of assistance, such adjustment after the occurrence of the problem may not be possible).

Also, this project was planned and implemented in two phases while in parallel with the ODA Loan project that was planned in one phase from 2006 to 2014 (the Loan Agreement date was in 2016). While Phase 1 and Phase 2 of this project shared the common overall goal, the plan of Phase 2 was elaborated at the end of Phase 1 based on the progress till that time. This enabled the achievement of the project purpose while eliminating wasted inputs.

As such, a project can expect synergy effect by implementing projects of other schemes in an integrated way, but it is necessary in both planning and implementation stages to consider flexible measures against potential negative effects of progress of such projects.

For example, in case of implementing an ODA Loan project and a technical cooperation project integrally as was in the case of this project, (i) ensure project implementation in an integral manner by setting the overall goal and project purpose that are same as or coordinated with those of the ODA Loan project; at the same time, divide the technical cooperation project in phases in order to be prepared for significant design changes that might become necessary in the implementation stage; (ii) during the implementation, monitor the progress of the ODA Loan project and prepare to immediately respond to issues that may affect activities of the technical cooperation project (e.g. preparation of countermeasures to such issues by Japanese experts from technical viewpoints;) and (iii) for such situations as well, it is suggested to have a discussion, prior to implementation, between the technical cooperation project and the ODA Loan project on risk analysis against possible delays (e.g. what kind of delay for how long period will cause what kind of effect, what kind of measures will be possible to avoid such effect, what is the tolerable limit of the delay beyond which it may become a killer assumption, etc.).

4.3.2 Necessity of setting the timing of ex-post evaluation with consideration to other projects implemented integrally with this project (in case of integrated implementation of ODA Loan and technical cooperation)

This ex-post evaluation only covered the technical cooperation project portion of the integrated JICA project (i.e. HEDSPI), and was conducted before completion of the ODA Loan project portion. Therefore, it was difficult to identify effect of this particular project among the observed effects as well as to assess sustainability after full completion of the integrated project. Also, as the analysis of issues lacked a viewpoint from the side of the ODA Loan project, the evaluation could not draw lessons learned to be applicable to the integrated project as a whole. A future ex-post evaluation of a technical cooperation project that share the common objectives with

an ODA Loan project can be conducted as a program-level evaluation covering both projects (schemes), and such an evaluation may make it possible to draw more accurate evaluation results as well as more useful lessons learned than evaluation of individual constituents of the program.

4.3.3 Clarification of division of roles between the partner country side and the Japanese side in technical cooperation in organizational and management aspects

This project aimed to build capacity of the administration office to manage an advanced education program. However, the Japanese side could not fully conduct technical transfer as initially expected due to high confidentiality in some areas such as personnel and budget affairs. When a project plans to build an institution based on existing organizations (in this project, HUST and ex-Faculty of IT), it may be realistic to clarify (i) the areas the Japanese side can intervene (in this project, facility and equipment management) and the areas it should not (in this project, financial management, student management and personnel management) and (ii) division of roles between the partner country side and the Japanese side, before making the technical transfer plan in the planning stage.

4.3.4 Careful analysis of necessity and implementation capacity of adult education courses conducted by university lecturers

The intensive courses that this project planned for working people faced issues such as difficulty to design a course that can meet various needs of trainees from different companies, and small number of applications to the courses taught by Vietnamese lecturers who did not have experience in the field. In planning adult education courses particularly in most advanced and fast-changing areas such as IT, the courses to implement should be decided after careful consideration of the course contents as well as experience and capacity of the instructors. On the other hand, SoICT (where HDSPI Program belongs to) provides adult education courses several times a year on more basic knowledge and core technology. This shows that universities are capable of providing training and adult education courses on knowledge and technology that are fundamental to applied technology.

Annex: Production of Outputs at Project Completion Time

Outputs (achievement status in parentheses)	Indicators	Achievement status of individual indicators at completion of respective phases
PHASE 1		
1) The organization and the system for the “Program” management are established. (Mostly Achieved)	Planned staff is allocated.	Achieved. PIU staff and lecturers were allocated.
	Management system for staff, budget, and facilities is clarified.	Mostly achieved. Despite some aspects of the Vietnamese system that were highly confidential and difficult to intervene, division of roles were clarified in the manual.
2) The skills of staff (Teaching staff and Administration staff) are improved. (Partly Achieved)	Skills of the staff after the technology transfer are improved (checked by skills assessment sheet.)	Partly achieved. Skills were improved but not checked using skills assessment sheet.
3) The curriculum, syllabus and teaching materials, IT equipment for 1-3 grades undergraduate and some intensive courses are prepared in accordance with ITSS. (Partly Achieved)	All the required resources for the courses are prepared.	Partly achieved. Undergraduate courses were developed, but intensive courses were not completed due to high level of difficulty and delay of ODA Loan project. Setting up of IT equipment was possible only on PCs, and other equipment was not set-up due to delay of procurement.
4) The 1-2 grades and some intensive courses are implemented. (Partly Achieved)	The courses are given as scheduled.	Partly achieved. Undergraduate courses were implemented but intensive courses were not implemented.
5) The collaboration system with industries and other institutes is established. (Mostly Achieved)	Meeting with industries and institutes are held.	Mostly achieved. Indicator was fulfilled as meetings were held. As for “establishment” of “systems,” described in Output, at least a pattern of collaboration for Phase 2 was prepared.
6) Information on IT and its related areas is collected from the market to improve the courses. (Not Achieved)	The survey results are utilized for the courses.	Not achieved. The survey was only partially conducted, and the result was not reflected to the curriculum (it was achieved in Phase 2).
7) Information on program is disseminated inside and outside of HUST. (Partly Achieved)	Disseminated activities are made.	Partly achieved. Public relations for Japanese were conducted, but the Vietnamese side was barely involved.
8) The preliminary works for establishing the “School” are carried out. (Achieved)	Criteria for becoming the “School” such as number of staff, skill level of the staff, satisfaction rating of the students is clarified.	Achieved. HUST submitted MOET the proposal to establish SoICT on May 22, 2008.
PHASE 2		
1) The organization and the management system of the HEDSPI Program are established and strengthened. (Mostly Achieved)	HEDSPI Master Plan is set.	Achieved. HEDSPI Master Plan had been made.
	Staff is allocated according to the plan.	Achieved. Administration and teaching staff was allocated.
	Financial report is made every year.	Achieved. Financial report was periodically issued.
	All IT facilities and equipment are maintained properly.	Achieved. Facilities and equipment were maintained.
2) Collaboration system with industries is established. (Achieved)	The number of IT companies which continuously collaborate to HEDSPI Program.	Achieved. 46 companies participated in the consortium as of the end of January 2012.
	The number of seminars conducted in collaboration with IT companies.	Achieved. Annual seminars were provided in collaboration with companies and related organizations.
3) The syllabi, lecture scenarios, teaching materials and learning materials for undergraduate degree course are well prepared and revised regularly. (Mostly Achieved)	The syllabi, lecture scenarios, teaching materials and learning materials are revised by the counterpart personnel every year.	Achieved. HEDSPI Program lecturers who were counterpart personnel updated the syllabi and education materials every year.
	Students are satisfied with learning materials.	Mostly achieved. While there was some low evaluation, satisfaction rate improved as the materials were updated.

(Continued)

4) The syllabi, lecture scenarios, teaching materials and learning materials for intensive course are well prepared and revised regularly. (Partly Achieved)	The syllabi, lecture scenarios, teaching materials and learning materials are revised by the counterpart personnel every year.	Partly achieved. Some courses were not realized due to low needs, etc.
	Participants of the intensive courses are satisfied with learning materials.	Partly achieved. Satisfaction rate differed by course.
5) Students are trained to have basic IT knowledge and Japanese language for IT industry through HEDSPI Program. (Mostly Achieved)	The percentage of passer of FE and SW exam is higher than the average in Vietnam.	Achieved. Passing rates of HEDSPI Program students were 36-50% on FE Exam and 13% on SW Exam, which were higher than Vietnamese averages (16-30% on FE Exam and 12% on SW Exam).
	The percentage of passer of Japanese language test conducted in Japanese language class. (Note: The definition of this indicator was unclear. In this ex-post evaluation, the expected level was set at “More than half of students have Japanese language skill level equivalent to 2 nd grade of the Japanese Language Proficiency Test at the time of graduation” with reference to existing documents such as monitoring reports.)	Mostly achieved. Passers of the Japanese Language Proficiency Test accounted for 85% of Batch 1 graduates (at the time of graduation; including those studied in Japan) on any of 1 st – 4 th grade and 48% on 2 nd grade or higher.

Sources: Terminal evaluation report of Phase 2; JICA documents; responses from the implementing agency.

Republic of the Union of Myanmar

Ex-Post Evaluation of Technical Cooperation Project

“Strengthening the Child-Centered Approach (Phase 1) (Phase 2)”

External Evaluator: Shinobu Mamiya,

International Development Associates, Ltd.

0. Summary

In order to disseminate the Child Centered Approach (CCA)¹ to all primary schools in Myanmar, the project activities were carried out in Phase 1 for the capacity development of CCA trainers and establishment of a CCA dissemination model, and in Phase 2 for establishment of an effective mechanism for CCA nationwide dissemination.

Shift from traditional rote-learning approach to CCA was the key issue of the education policy for basic education of Myanmar. It was necessary to carry out the project activities effectively and efficiently in order to cope with the increasing number of school children reflecting the improvement of enrollment ratios. This project has been highly relevant to the Myanmar’s education policy and development needs, as well as Japan’s ODA policy, thus the relevance of the project is ‘high’. During Phase 1, the capacity development and establishment of CCA dissemination model were completed as planned. During Phase 2, various effective CCA dissemination systems, namely the Teacher’s Training System, CCA Training System and On-site Training System were mostly established. Therefore, the project purposes of both Phases were mostly achieved. The mechanisms of the three systems have continued to function and CCA based lessons have highly motivated school children to learn. On the other hand, as the CCA training planned for the year 2014 was cancelled by a political decision affected by organizational reform, the likelihood of achieving CCA nationwide dissemination by 2015 has become uncertain. Therefore, the effectiveness and impact is assessed as ‘fair’. Due to several activities added to generate better outcome during Phase 2, the project cost exceeded the plan. Therefore, the efficiency of the project is assessed as ‘fair’. Since the significant organizational reforms had been taking place during the field study, the organizational framework for CCA related activities, and the budget for the CCA trainings have not been determined, and the objectives of CCA implementation monitoring and development of human capacity are yet to have been sufficiently achieved. Some minor problems have been observed in terms of the organizational/technical/financial aspects of the implementing agency. Therefore, sustainability of the project effect is assessed as ‘fair’.

In light of the above, this project is evaluated to be ‘partially satisfactory’.

¹ Child-Centered Approach, known as CCA, is a teaching method which encourages children’s active learning by inspiring their interests and creativity. This method intends to allow children to think freely and foster their imagination and creative thinking. Moreover, CCA is expected to enhance their problem-solving skills, so that they can cope with various problems they may face in the environment surrounding them.

1. Project Description



1.1 Background

In Myanmar, having achieved the net enrollment ratio of primary schools² of 80.8%³ in 2004, the country had made steady progress towards universal primary education targeted under “Education for All (EFA) National Action Plan (2003)”⁴. On the other hand, there was an issue of the high dropout rate in primary education. There were several factors behind this, such as the poor quality of education contents and insufficient teaching ability of primary school teachers. Specifically, it was said to be attributable to traditional teaching methods based on rote learning, which discouraged children to learn or failed to attract their interests in learning. To improve the quality of basic education, the Ministry of Education (MOE) of Myanmar determined to shift its approach from traditional rote learning, namely the Teacher-Centered Approach, to the Child-Centered Approach, which aims to have children learn based on their own initiatives. However, due to the lack of an effective strategy, CCA had hardly been disseminated to primary schools.

Under such circumstances, the Japan International Cooperation Agency (JICA) provided assistance to Myanmar, for the purpose of improving the quality of education, especially supporting the transition from rote learning to CCA, by providing technical assistance of experts on “Basic Education Curriculum Improvement” from 1997 to 1999 and by carrying out the development study, “Myanmar Basic Education Sector Study (MBESS)” from 2001 to 2004. MBESS assisted Myanmar to develop teachers’ guides on basic science, social studies and general study, to introduce CCA to primary school teacher’s training in the form of a cascade system⁵ and to develop the training modules for lecturers of Education Colleges. In MBESS,

² Net Enrollment Ratio: The proportion of the population (within eligible groups) who actually received education to the total population of those eligible to receive education.

³ Source: DEPT. See “Relevance” for further information.

⁴ This was formulated by the government of Myanmar in March 2003. It intended to provide equal opportunities as well as better quality of basic education.

⁵ The cascade system is a mechanism, similar to the message relay game, in which new knowledge or information

the CCA primary school teacher's training was carried out on a trial basis and its usefulness was verified. Therefore, the government of Myanmar declared to the entire nation that they will adopt CCA as the fundamental teaching and learning method in primary education. At the same time, the government of Myanmar requested the government of Japan for technical cooperation to assist them to disseminate CCA nationwide⁶.

1.2 Project Outline

Phase		Phase 1	Phase 2
Overall Goal ⁷		CCA is implemented in primary schools in the neighboring townships ⁸ of the designated areas of the Project through BERDC and Education Colleges.	The CCA will be disseminated among primary school teachers in Myanmar by 2015.
Project Purpose		CCA is implemented in primary schools in the designated areas through BERDC and Education Colleges.	A mechanism to disseminate CCA nationwide is established through the efforts of the Ministry of Education.
Target Areas ⁹		24 Townships	24 Townships for Phase 1 and 40 Townships for Phase 2
Output(s)	Output 1	BERDC functions as the central training and supporting center for CCA extension.	The system of pre-service teacher education for nationwide CCA dissemination is improved.
	Output 2	Teacher educators in all ECs (20ECs) gain enough knowledge and skills on CCA.	A system of in-service teacher training for nationwide CCA dissemination is established.
	Output 3	Supervisors (TEO/ATEO/principals) gain enough knowledge and skills on CCA.	The system of on-site training for teaching improvement (cluster based meetings and school based meetings) is established.
	Output 4	Teachers in primary schools gain enough knowledge and skills on CCA.	Mathematics teacher's guide and training materials for dissemination are developed.
Total cost (Japanese Side)		359 million yen	438 million yen
Period of Cooperation		December 2004 – December 2007	September 2008 – March 2012
Implementing Agency		Department of Educational Planning & Training, Ministry of Education (DEPT) (including BERDC, EC) Department of Basic Education 1-3(DBE1, 2, 3) Ministry of Education	
Supporting Organization in Japan		Miyagi University of Education IC Net Limited	Joint-venture IC Net Limited/ PADECO Co. Ltd.
Related Projects		JICA <ul style="list-style-type: none"> • Myanmar Basic Education Sector Study (Development Study) (Phase 1 for 2001 – 2002) (Phase 2 for 2002 – 2004) • The Project for Curriculum Reform at Primary Level of Basic Education (Technical Cooperation) (2014 – 2019) 	

are disseminated through several stages while processing the output from the previous stage.

⁶ At the beginning of Phase 1, the United Nations Children's Fund (UNICEF) had carried out the Child-Friendly School Project (CFS) whose components included the concept of CCA, with a more holistic approach focusing on the locality of target areas. It can be said that CFS complemented activities undertaken by the Project which rather focused on teacher's training in order to achieve the nationwide dissemination of CCA.

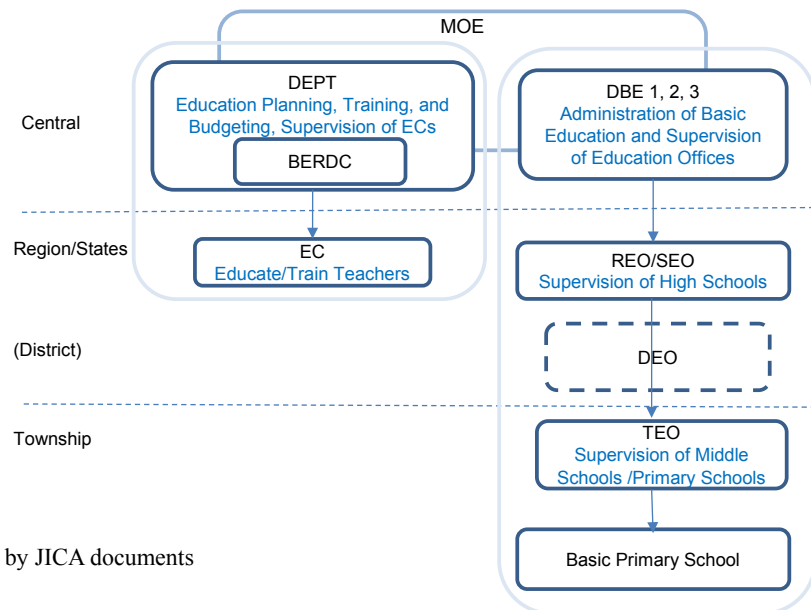
⁷ This ex-post evaluation study is based on, for Phase 1, PDM1 whose indicators were refined during the Consultation Mission (version 0 as an original PDM), and for Phase 2, PDM 3 whose indicators were refined under the recommendation of the Mid-term Review.

⁸ In the administration system of Myanmar, region/states are followed by districts, and townships are the third level of administrative setup after the districts.

⁹ The number of targeted townships for Phase 1 is based on the description of ex-ante evaluation report, terminal evaluation report of Phase 1 and the ex-ante evaluation report of Phase 2. Prior to Phase 1, baseline study (2nd ex-ante field study) was carried out by a short-term expert in three selected pilot townships where CCA was introduced on a trial basis. The number of targeted townships indicated on PDM 3 includes these three townships.

<p>Related Projects (continued from the previous page)</p>	<p>UNICEF</p> <ul style="list-style-type: none"> • Schools-Based Healthy Living and HIV/AIDS Prevention Education (SHAPE) Project (1998 – 2005) • Child-Friendly School (CFS) Project (MDEF¹⁰ for Phase 1) (2001 – 2011, MDEF Phase 1 is for the period of 2006 to 2011) • Quality Basic Education Programme (MDEF Phase 2) (2011 – 2015) <p>World Bank</p> <ul style="list-style-type: none"> • Decentralizing Funding to Schools Project (2014 – 2018)
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This ex-post evaluation study examined the project performance at the time of ex-ante evaluation, completion and ex-post evaluation respectively for both Phase 1 and Phase 2. The evaluation judgment, however, is made for both achievements combined. The target group of the project for both Phases are primary school teachers, and both Phases shared a common development agenda to improve the quality of education by nationwide dissemination of CCA. The overall goal of Phase 1 “CCA is implemented in primary schools in the neighboring townships of the designated areas of the project through BERDC and ECs” is comprised in the overall goal of Phase 2, “The CCA will be disseminated among primary school teachers in Myanmar by 2015”. For these reasons, it is appropriate to make evaluation judgment for the two Phases together. In order to explain the project framework, the implementing agencies, related stakeholders, their roles and structures are illustrated below.



Source : Prepared by JICA documents

Figure 1: Relationship among implementing agencies and other stakeholders

¹⁰ Multi-donor Education Fund (MDEF) is funded by the Australian Agency for International Development (AusAID), Denmark, the Department for International Development (DFID), the European Union (EU) and Norway.

As shown in Figure 1, the responsible agency of the project is the Ministry of Education. Both the Department of Educational Planning and Training (hereinafter referred to as “DEPT”) and the Department of Basic Education (hereinafter referred to as “DBE”), which are under MOE, are implementing agencies. DEPT is responsible for managing educational planning, the budget for training as well as supervising twenty Education Colleges (hereinafter referred to as “EC”) located in region/state level¹¹. DBE is regionally divided into three divisions¹² each of which assigns local offices to supervise schools, such as Regional Education Office/ State Education Office (hereinafter referred to as “REO/SEO”) at the regional/state levels, Township Education Office (hereinafter referred to as “TEO”) at the township level. Through the decentralization process, the District Education Office (hereinafter referred to as “DEO”) is to be stationed at the district level accordingly. The Basic Education Resource Development Center (hereinafter referred to as “BERDC”) which was provisionally set up in the DEPT for CCA dissemination, was responsible for training program development and teaching material development, and 20 ECs were responsible for training of trainers. DBE, in collaboration with TEO, is responsible for supervising and monitoring the progress of CCA implementation at schools and cluster levels.

1.3 Outline of the Terminal Evaluation

1.3.1 Achievement Status of Project Purpose at the time of the Terminal Evaluation

At the Terminal Evaluations of Phase 1, the likelihood of achieving the Project Purpose was evaluated as high for the reason that CCA implementation in primary schools of designated areas had reached a satisfactory level. At the Terminal Evaluation of Phase 2, the likelihood of achieving the Project Purpose was also evaluated as high for the reasons that set indicators had mostly been achieved and the budget for CCA training of the next fiscal year had already been approved.

1.3.2 Achievement Status of Overall Goal at the time of the Terminal Evaluation

It was evaluated at the Terminal Evaluation of Phase 1, that the Overall Goal would be achieved if CCA implementation were incorporated into the existing teacher training mechanisms or sufficient budget for CCA implementation were secured. It was evaluated at the Terminal Evaluation of Phase 2, that the Overall Goal would be achieved if CCA training plan to achieve its nationwide dissemination by 2015 were properly carried out.

¹¹ After project completion, the number of ECs increased. At the time of the ex-post evaluation, there were 21 ECs.

¹² DBE1 covers three Regions (Bago, Ayeyarwady and Tanintharyi) and three States (Kain, Mon and Rakhin), DBE2 covers three Regions (Mandalay, Sagain and Magway) and four States (Shan, Kachin, Chin and Kayar) and DBE3 covers Yangon Region only.

1.3.3 Recommendations at the time of the Terminal Evaluation

At the Terminal Evaluation of Phase 1, four recommendations were made, such as [1] having BERDC authorized as an official institution, [2] clarifying the role of ECs in respect of CCA nationwide dissemination, [3] making continuous efforts to disseminate CCA, and [4] getting other stakeholders involved under DBE, such as REO/SEO. All of these recommendations except [1] having BERDC authorized as an official institution were realized during Phase 2.

Following Table 1 describes the recommendations made at the time of the Terminal Evaluation of Phase 2 and how they have been dealt with by the time of ex-post evaluation.

Table 1: Recommendations made at the time of Terminal Evaluation of Phase 2 and progress made by the time of Ex-Post Evaluation

Recommendations	Progress made by the time of Ex-Post Evaluation
1) Further improvement of curriculum and related textbooks after the completion of CCA nationwide dissemination	They have been in progress under the ongoing technical cooperation project “The Project for Curriculum Reform at Primary Level of Basic Education (May 2014 – May 2019)”.
2) Incorporating CCA monitoring into the existing school monitoring system	It has not been materialized yet.
3) Strengthening human capacity in both central and local levels to enhance the CCA implementation level and developing related training packages	During Phase 2, CCA-focused school activities were introduced into two selected model schools for the purpose of improving the quality of class lessons based on CCA. The number of those model schools has increased to twelve. See “Effectiveness/Impact”, “Sustainability”.
4) Continuous upgrading and revising of the Teacher’s Guide under the leadership of BERDC	Teacher’s Guides have not been revised yet as the revision is practically not necessary at the moment. However, the revision is going to be conducted in accordance with the revision of textbooks under the above-mentioned ongoing project.
5) Clarifying the roles of the ECs in view of new academic capability based on CCA	Roles of EC will be reconsidered through the ongoing organizational reform under the Ministry of Education.
6) Reform of current assessment system reflecting the effect of CCA in class lessons	The reform of current assessment system is going to be discussed under the above-mentioned ongoing project. In this relation, the nation-wide achievement test will be carried out in March 2015.
7) Maintaining the BERDC’s responsibility to achieve CCA nationwide dissemination and CCA related activities as well	BERDC was not authorized or maintained. However, it is planned that the focal section which supervises CCA related activities will be created under the Ministry of Education. See “Sustainability” for further information.

Source: Phase 2 Terminal Evaluation Report, Interviews with DEPT at Ex-Post Evaluation.

2. Outline of the Evaluation Study

2.1 External Evaluator

Shinobu Mamiya, International Development Associates, Ltd.

2.2 Duration of Evaluation Study

Duration of the Study: July, 2014 – June, 2015

Duration of the Field Study: September 22, 2014 – October 18, 2014 (1st field study)

December 3, 2014 – December 11, 2014 (2nd field study)

2.3 Constraints during the Evaluation Study

In Myanmar, significant organizational reforms had been taking place across all line ministries in 2014 fiscal year. Consequently, the organizational framework and action plan of the basic education sector were still under consideration during field studies of the ex-post evaluation, and thus, the responsible agencies for CCA related activities, the framework of CCA nationwide implementation and the budget for the CCA trainings have not been decided. For this reason, the Effectiveness/Impact and the Sustainability were evaluated based on the information collected up to December 2014 and projections were derived from what was collected.

3. Results of the Evaluation (Overall Rating: C¹³)

3.1 Relevance (Rating [3]¹⁴)

3.1.1 Relevance to the Development Plan of Myanmar

It is confirmed that both at the time of the ex-ante evaluation and at the completion of Phase 1, the main policy document for basic education sector in Myanmar, “30 Year Long Term Plan: Basic Education Sector (March 2001)” stated the improvement of teachers’ training as one of the strategies to improve the quality of basic education. Furthermore, the “Education for All (EFA) National Action Plan (2003)”, targeted towards universal primary education, clearly stated that there was a need to shift from the traditional rote learnings to CCA in order to improve the teacher’s training and quality of education. These policies of basic education remained valid both at the time of the ex-ante evaluation and at the completion of Phase 2. Furthermore, “Ten priority items of Education Policy by the President” disclosed in March 2011 listed up items such as “to improve enrollment ratio in the basic education sector, and to improve the capacity of teachers in both basic education and higher education sectors”. Therefore, the objective of the project such as the improvement of teacher training, shift of teaching method to CCA had been consistent with

¹³ A : Highly satisfactory, B : Satisfactory, C : Partially satisfactory, D : Unsatisfactory

¹⁴ [3] : High, [2] : Fair, [1] : Low

the Development Plan of Myanmar and main policy of basic education sector throughout Phase 1 and Phase 2.

3.1.2 Relevance to the Development Needs of Myanmar

At the time of the ex-ante evaluation of Phase 1, it was examined that although favorable progress had been made in the net enrollment ratio, the high dropout rate of primary school students had still been a serious concern. Major factors were said to be the rote learning method and its assessment method which examines how much students had memorized what they were taught. Therefore, the government of Myanmar had taken measures to shift rote learning to CCA. Having had no effective and concrete strategies¹⁵ to implement CCA, the government of Myanmar found it very difficult to promote the CCA implementation on its own. Although the technical cooperation of Phase 1 of the project contributed to disseminate CCA to 24 townships, it only covered about 7% of all townships¹⁶. As the number of primary school children had been increasing, the need to promote CCA implementation remained high at the time of completion of Phase 1.

At the time of ex-ante evaluation of Phase 2, it was assured that human resource who could promote CCA implementation had successfully developed, and the CCA implementation model was established during Phase 1. In order to achieve nationwide dissemination of CCA by 2015, it was necessary to speed up the implementation process. For that purpose, it needed to establish a strong mechanism for CCA nationwide implementation, which was found to be difficult for the Myanmar side to carry out by itself. At the time of completion of Phase 2, the favorable improvement of net enrollment ratio and dropout rate was reflected in the increasing trend of the number of children (See Table 2). Considering such increase in the number of children, the training of teachers who could give CCA based lessons had still been under way. The need to promote CCA implementation still remained high at the time of completion of Phase 2. It was confirmed that the target area was carefully determined by examining the local needs, the absorption capacity of local stakeholders and by avoiding the duplication of UNICEF's assistance. At least one township was selected in each region or state, which would make the nationwide dissemination efficient. The selection process of target areas was appropriate.

Therefore, the Project had been consistent with the needs of basic education sector of Myanmar to disseminate CCA nationwide at the time of ex-ante evaluation and completion for both Phase 1 and Phase 2.

¹⁵ Subject strategy may include the revision of Curriculum reflecting CCA, capacity development of those who carry out CCA implementation, training of trainers who carry out trainings, revision of EC Curriculum and development of Training Program, etc.

¹⁶ Total number of Townships as of the year 2007 was 325. (Source: DEPT)

Table 2: Education Statistics of Myanmar

Unit: %

	Year 2004 At ex-ante evaluation of Phase 1	Year 2007 At completion of Phase1/At ex-ante evaluation of Phase 2	Year 2012 At Completion of Phase 2
Net Enrollment Ratio	80.80	82.17	84.60
Dropout Rate	na	6.9	1.88
Continuation Rate (primary school to middle school)	71.60	70.0 ~ 80.0	84.90

Source: DEPT, EFA Mid-decade Assessment Report 2007

Note: As for the data for the completion of Phase 1, net enrollment ratio and continuation rate are as of 2005/06, and dropout rate is as of 2004/05¹⁷.

3.1.3 Relevance to Japan's ODA Policy

The Country Assistance Program for Myanmar (2004) placed the importance to the education sector as it contributed the human resources development which eventually contributed to democratization and economic structural reform. The JICA Country Assistance Program for Myanmar (2002) also gave high priority to the improvement of the quality of basic education. The project is considered to be in line with Japan's ODA policy at the time of ex-ante evaluation of Phase 1. At the time of ex-ante evaluation of Phase 2, the subject Country Assistant Program was still effective. The component of quality improvement of basic education was included in the JICA Program of Improvement of Basic Education Program under the JICA Country Assistance Program for Myanmar (2007). The project had been considered to be in line with Japan's ODA policy at the time of ex-ante evaluation of Phase 2.

In light of the above, this project had been highly relevant to the Myanmar's development plan and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impact¹⁸ (Rating : [2])

3.2.1 Effectiveness

3.2.1.1 Achievement of Project Purpose for Phase 1

Phase 1 aimed to strengthening the capacity of core groups of people in charge of CCA implementation and establishment of a CCA dissemination model which can be widely used. Core groups include those officers at BERDC¹⁹ and EC lecturers and education

¹⁷ In Myanmar, the school term starts April and ends March of the following year, so the school year is written as with spanning over two years, such as 2004/05. The official education indicator is based on the statistical data as of the end of the school term, which is March.

¹⁸ Sub-rating for Effectiveness is to be put with consideration of Impact.

¹⁹ There were 16 officers in BERDC appointed from DEPT and ECs, and they were all counterpart personnel of the project.

administrators²⁰. They have been expected to develop the CCA training program and teaching materials for primary school teachers, to carry out CCA training as trainers, so that primary school teachers of designated townships could conduct CCA based lessons to children.

BERDC officers acquired the necessary knowledge and skills for CCA and they were able to supervise CCA dissemination throughout the cascade as a whole (Output 1). EC modules were revised reinforcing the CCA component, and EC lecturers trained by BERDC officers also acquired the necessary knowledge and skills for CCA (Output 2). Although Trainings for Cluster Trainers, who were expected to play a role in CCA training, were not carried out²¹, through Supervisor’s Trainings, educational administrators acquired the knowledge and skills on CCA supervision and monitoring (Output 3)²². Capacity development of the above-mentioned core groups of people had made it possible to carry out the CCA Trainings in a cascade of three different levels, in which BERDC officers first trained EC lecturers, and then EC lecturers trained primary school teachers (Output 4). Table 3 shown below explains the achievements of those capacity development and training efforts, and teaching materials produced by the project.

Table 3: Achievements of capacity development and Outputs of Phase 1

Training Program	Attendees	Outputs
BERDC Staff Training (Output 1)	16	<u>Materials produced by activities on EC curriculum revision</u>
Teacher’s Educators Training (TET)(Output 2)	483	Model Instruction Kit, Teaching Materials, Textbooks and Syllabus on Educational Psychology, Educational Theory, General Study/Social Science, Natural Science
Supervisors Training (SVT) (Output 3)	134	<u>Materials produced by activities on educational assessment</u>
Primary School Teacher’s Training (PTT) (Output 4)	20,644	Revised Chapter End Test for total seven subjects, Assessment system, Program of education assessment in EC instructor training <u>Materials produced by other activities</u> CCA resource books

Source: JICA documents

Note: See Table 15 for further details which explains Achievements of each Output against what was planned.

Based on what was confirmed above, the level of achievement of the project purpose is examined based on how well CCA implementations were carried out at the completion of Phase 1.

²⁰ Educational administrators included Township Education Officers (TEO), Assistant Township Education Officers (ATEO) and principals of primary schools. TEO is mainly in charge of educational administration at middle schools and ATEO is in charge of educational administration at primary schools.

²¹ There was a concern at the Myanmar side that the quality of training might not be guaranteed if intermediate trainers increased. Therefore, the Myanmar side proposed to count the Cluster Trainers, who were to be selected from school clusters of designated townships, outside of the cascade.

²² For details of achievements of Output 3, see Table 15 on the last page of this document.

Table 4: Achievement of indicators set for Project Purpose of Phase 1

Project Purpose	Indicator	Actual
CCA is implemented in primary schools in the designated areas through BERDC and Education Colleges.	1. % of children who have CCA lessons (%) (Note: In Japanese version, it is written as “% of children whose teachers completed the PTT”)	The percentage of primary school teachers of designated townships who received PTT reached 90% (11.8% of total primary school teachers nationwide). As a result, 12.6% of children in Myanmar received CCA based lessons, because 20,644 out of about 23,000 primary school teachers received PTT which constitutes 90% in designated 24 townships of Phase 1. Therefore, this indicator was achieved.
	2. Level of CCA implementation in the designated primary schools (Note: In Japanese version, the target average score was given as 2.5 out of 4 level assessment)	It was confirmed by the monitoring/observation report prepared by the project that the subject score reached the favorable level of 2.5.
	3. Change of teacher’s attitude and behavior toward children in the designated primary schools (Note: In Japanese version, it was specified that the improvement should be identified 18 townships out of 24 through self-assessment)	It was confirmed by both the baseline study and end line study conducted by the project that teachers’ attitudes and behaviors toward children showed improvement in all designated primary schools.
	4. Change of children’s attitude and behavior toward learning in the designated primary schools (Note: In Japanese version, it was specified that the improvement should be identified in primary schools of 18 townships out of 24 through self-assessment)	It was confirmed by both the baseline study and end line study conducted by the project that children’s attitudes and behaviors toward learning showed improvement in primary schools of 19 townships out of all designated townships.

Source : JICA documents, Terminal Evaluation Report of Phase 1

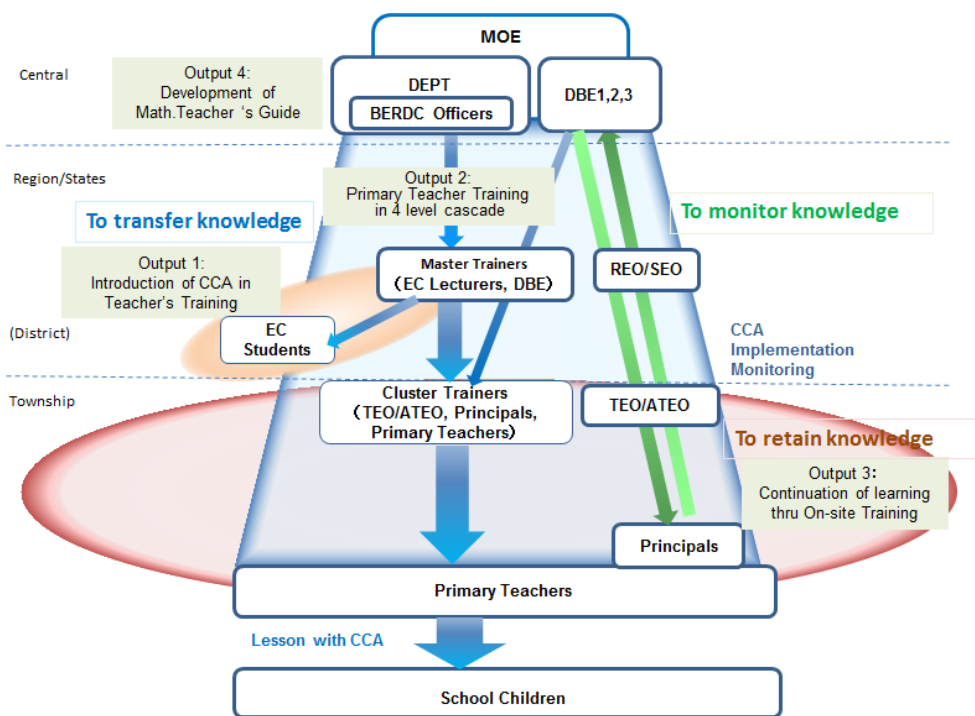
As shown in Table 4, 90% of primary school teachers of designated townships completed the PTT, which indicates that the Project achieved its goal from a quantitative aspect (indicator 1). The performance of primary school teachers giving CCA based lessons reached an appropriate level (indicator 2). This was confirmed by the positive change of attitudes and behaviors of both primary school teachers and children, which eventually proved that the quality of trainings (PTT) was sufficient (indicators 3 and 4).

In light of the above, the project achieved its purpose, “CCA is implemented in primary schools in the designated areas through BERDC and Education Colleges”.

3.2.1.2 Achievement of Project Purpose for Phase 2

Having achieved the CCA dissemination in the designated areas quantitatively and qualitatively, the basic patterns of CCA dissemination model were established in Phase 1. In order to achieve CCA nationwide dissemination by 2015, the project needed to accelerate its process. Therefore, in Phase 2, the project continuously followed the CCA dissemination model, and at the same time it incorporated several other challenges, such as establishments of the CCA Training System, Teacher’s Training System and On-site

Training System. As for the CCA Training system, it was decided to have the cascade system with four different levels of people by introducing Cluster Trainers as intermediates²³ to be able to train more primary school teachers more efficiently. As for Teacher's Training System, it was decided to introduce CCA to EC students so that EC students would be ready to give CCA based lessons whenever they were newly assigned as primary school teachers after graduation. As for the On-site Training System, it was decided to intensify on-site activities which served as an environment enabling primary school teachers to continue their voluntary learnings after they completed PTT. In addition, the development of Mathematics Teacher's Guides and training materials, which had not been taken up by the Project, was included in the project component. The conceptual diagram of project implementation for Phase 2 is illustrated in Figure 2²⁴.



Source: Prepared based on JICA documents

Figure 2: Conceptual diagram of project implementation for Phase 2

Under the CCA Training System through four different levels, BERDC officers trained Master Trainers, who were selected from EC lecturers and DBE officers, and then those

²³ Since EC lecturers were well trained as trainers during Phase 1, they were capable enough to train Cluster Trainers during Phase 2. The cascade system with four different levels contributed to increase efficiency since more primary school teachers could be trained in a given time, and the cost of transportation and lodgings for trainees could be saved because training was conducted on their own or at nearby townships where they belong to.

²⁴ Phrases, such as "To transfer knowledge", "To retain knowledge", "To monitor knowledge" used in the diagram are extracted from JICA documents.

Master Trainers trained Cluster Trainers²⁵, who were selected from school clusters of designated townships. Finally these Cluster Trainers trained Primary School Teachers at the Primary School Teacher’s Trainings (Output 2)²⁶.

Under the Teacher Training System at ECs, EC lecturers periodically carried out “Lesson Study”²⁷ to improve their knowledge and skills on CCA via peer learning. At the same time, in order to enhance the understanding of EC students, the revised EC modules which incorporated a CCA component were developed. Furthermore, the revised Performance Assessment Sheet (PAS) and revised bloc teaching report formats were developed, so that EC students could practice CCA based lessons in bloc teaching. However, introduction of CCA to bloc teaching was postponed by the decision of the MOE. The revised PAS was used in three ECs on a trial basis and its usefulness was confirmed (Output 1)²⁸. These explain that the mechanism of transferring the knowledge of CCA to primary school teachers and newly assigned teachers was mostly established.

As for the On-site Training System, which included School Based Meetings (SBM) and Cluster Based Meetings (CBM), CCA study sessions were introduced in all designated townships, which encouraged those teachers who completed the PTT “to retain knowledge²⁹”. On the other hand, less progress was made for several activities, such as the CCA implementation monitoring by ATEO³⁰, preparation of monitoring reports by principals and ATEO/TEO and report submission and feedbacks between REO/SEO/BERDC and ATEO/TEO. Therefore, it is difficult to say that, from the perspective of knowledge monitoring, the project had generated sufficient results by the time of project completion (Output 3). As for the development of the Mathematics Teacher’s Guide, it was successfully completed by the time of project completion (Output 4). Table 5 shown below describes the achievements of those capacity development and training efforts, and teaching materials produced under Phase 2.

²⁵ TEO, ATEO, principals and highly capable primary school teachers were selected to be Cluster Trainers.

²⁶ CCA trainings in a cascade with four different levels as a whole is written as “CCA trainings” in order to differentiate from the CCA training for each individual level of trainers.

²⁷ Lesson Study is the voluntary activities in which EC lecturers teach each other on CCA based lessons through demonstrations and discussions. It came to be practiced in all 20 ECs by the completion of the project.

²⁸ MOE decided to introduce CCA to bloc teaching after the CCA nationwide dissemination is completed in 2015, because they thought that it would take time for those educators at primary schools, where bloc teaching takes place, to acknowledge CCA.

²⁹ At CBM, some teachers demonstrated the CCA based lessons, while others observed those lessons and exchanged their opinions or comments. The session was called either “demonstration” or “Lesson Study”.

³⁰ At CCA implementation monitoring, ATEO was expected to monitor/assess the primary school teacher’s progress by utilizing the lesson assessment tool which guided the standardized criteria of assessment, six competencies and their desirable conditions. Six competencies included (1) Subject Knowledge, (2) Skills on Teaching/Learning Material, (3) CCA Teaching Skill, (4) Lesson Design Skill, (5) Assessment Skill and (6) Positive Attitude.

Table 5: Achievements of capacity development and outputs of Phase 2

Training program	Number of trainees	Outputs
Master Trainer's Training (MTT) (Output 2)	321	PAS, Bloc Teaching Manual, CCA Training Kits (for MTT, CTT, PTT and SVT), Lesson Assessment Tool, CCA resource book, CCA Management Kits, Handbook of Lesson Study to promote CCA, Video on Lesson Study (DVD)
Cluster Trainer's Training (CTT) (Output 2)	2,326	
Primary School Teacher's Training (PTT) (Output 2)	22,301	
Supervisor's Training (SVT) (Output 3)	190	

Source: JICA documents

Based on what was confirmed above, the “Three systems” aimed by Phase 2 were mostly established. Achievements of Project Purpose are examined based on how well CCA implementation were carried out by making full use of the established three systems.

Table 6: Achievement of indicators set for Project Purpose of Phase 2

Project Purpose	Indicator	Actual
A mechanism to disseminate CCA nationwide is established through the efforts of the Ministry of Education.	1. Average score of the CCA Understanding Test is over 80% as the result of PTT	Achieved. As of December 2011, the average score reached 85.9
	2. Average score of the CCA Observation Sheet (CCA practical skills in the classroom) is over 60%.	Achieved. For the period of August 2011 to November 2011, the average score marked 80.5.
	3. Over 90% of EC students approved on “Bloc teaching”.	The revised PAS was introduced to the bloc teaching at three selected primary schools on a trial basis. Those EC students gave CCA based lessons at bloc teaching and their performances were assessed with PAS and all of these students acquired the credits accordingly. It was identified that no conditionality existed between giving CCA based lessons at bloc teaching and credit earning. Therefore, achievement status of Teacher's Training System was not judged by this indicator, but by the achievement level of Output 1.
	4. Consensus is formed among stakeholders regarding the CCA Dissemination Plan.	CCA dissemination plan was presented in the 6th JCC (August 2011), which was agreed and approved with budget at 7th JCC. It is judged that the likelihood of continuing the CCA dissemination after the project completion was very high.

Source: JICA documents, Terminal Evaluation Report of Phase 2

As shown in Table 6, the level of understanding of primary school teachers who completed PTT in the four level cascade reached a reasonable level (indicator 1). With respect to the qualitative aspects of their performance which the Project set out as “capable of giving CCA based lessons by referring to the Teacher's Guide (CCA Implementation level 1)³¹”, their performance also achieved its target level (indicator 2). On-site Training

³¹ According to the recommendations made at Consultation Mission in Sep. 2009, the project agreed that it would set out the target to achieve CCA implementation level by the end of Phase 2 as CCA basic level (level 1) out of 3 levels. Level 2 is “capable of incorporating the application with full understanding of teacher's guide”, and Level 3 is “capable of designing lessons with CCA and making lessons very effective”.

activities, which provided a constructive environment for primary school teachers to exchange views on CCA implementation and to learn about CCA at the field level are also factors contributing to maintaining their favorable performance levels. Since the indicator was not suitable³² to examine the Teacher's Training System itself, its achievement status was judged by the achievement level of Output 1, and it was judged that the capacity of EC lecturers had been strengthened and CCA was introduced to bloc teaching on a trial basis (indicator 3)³³. The CCA dissemination plan including budget was approved (indicator 4).

In light of the above, the project purpose, "A mechanism to disseminate CCA nationwide is established through the efforts of the Ministry of Education" was mostly achieved.

In addition, what deserves special mention are the activities of CCA-focused School. (See "Impact" for details.) During Phase 2, the Project selected two schools as CCA-focused schools. The Japanese experts extended intensive support to these schools by applying the Lesson Study. The experiences and findings from these CCA-focused schools were utilized as good practices of CCA implementation and they were shared with other schools sometime in the form of DVDs³⁴. According to the JICA documents, activities on CCA-focused schools had greatly contributed to improving the performance of several primary school teachers.

3.2.2 Impact

3.2.2.1 Achievement of Overall Goal of Phase 1

The Overall Goal of Phase 1, "CCA is implemented in primary schools in the neighboring townships of the designated areas of the project through BERDC and ECs" is incorporated in the Overall Goal of Phase 2, "The CCA will be disseminated among primary school teachers in Myanmar by 2015". For this reason, it is appropriate to examine the level of achievement of Overall Goal of Phase 1 in combination with the achievement of Overall Goal of Phase 2 and other impacts. At the ex-ante evaluation of Phase 2 in 2008, it was pointed out that CCA was not disseminated to areas other than designated townships and no impact was observed on them. Considering that no activities to disseminate CCA to neighboring townships were conducted during Phase 1, the implementation of Phase 2 has largely contributed to the achievement of the Overall Goal of Phase 1.

³² See Table 6 for reference.

³³ It was judged that the target level 1 aimed at the project "capable of giving CCA based lessons by referring to the Teacher's Guide" was achieved, however, some issues which are necessary to further improve the practical level of CCA implementation have remained to be addressed, such as CCA implementation monitoring, and reporting and feedback.

³⁴ The project faced difficulties to have BERDC authorized as the central institution, in charge of CCA training and CCA nationwide dissemination. Therefore, the project proposed the idea, during Phase 2, of the activities to create the CCA-focused schools as a measure to sustain the effect of the project even after project completion.

Table 7: Achievement of indicators set for Overall Goal of Phase 1

Overall Goal	Indicator	Actual
CCA is implemented in primary schools in the neighboring townships of the designated areas of the Project through BERDC and Education Colleges	1. Progress of CCA extension program for primary schools	No numerical target was set. At the completion, 46.3% of primary school teachers received PTT and 68% at ex-post evaluation. (See Table 9)
	2. Level of understanding of primary teachers about CCA in neighboring township	No activities, to disseminate CCA to neighboring townships, were conducted during Phase 1, no impact was observed. (Source: ex-ante evaluation report of Phase 2)
	3. Level of CCA implementation of primary teachers in neighboring townships	For more information examined at the ex-post evaluation, see "Impact".
	4. Change of teacher's attitude and behavior towards children in neighboring townships	
	5. Change of children's attitude and behavior toward learning of primary schools in neighboring townships	

Source : Ex-ante evaluation Report of Phase 2, JICA documents

Note : Source of data for indicator 1 includes the statistics division of DEPT as described in Table 9

3.2.2.2 Achievement of Overall Goal of Phase 2

As the Overall Goal of Phase 2, "The CCA will be disseminated among primary school teachers in Myanmar by 2015" set the target year as 2015, the current achievement status and its likelihood for achievement by 2015 are examined by the data and information shown below.

- 1) Achievement of indicators set for Overall Goal of Phase 2
- 2) Status of CCA implementation by primary school teachers who completed PTT up to the time of ex-post evaluation
- 3) Continuing effects of Outputs and Project Purpose

1) Achievement of indicators set for Overall Goal of Phase 2

Table 8: Achievement of indicators set for Overall Goal of Phase 2

Overall Goal	Indicator	Actual
The CCA will be disseminated among primary school teachers in Myanmar by 2015.	1. In all 20 ECs, the revised EC modules introduced by the Project are continuously implemented.	According to the questionnaire and hearings with DEPT (BERDC) and 5 ECs visited during the field studies, it was confirmed that the revised EC modules have been continuously used. Furthermore, Lesson Study have been practiced in all 20 ECs.
	2. The CCA training is implemented for teachers in over 90% of the primary schools in Myanmar.	See Table 9 for reference.

Source: interviews with DEPT and ECs, Education Statistics Data from DEPT.

As shown in Table 9 below, total of 134,511 primary school teachers completed PTT by the time of ex-post evaluation. Since CCA Trainings for 2014 were abruptly cancelled due to a political decision³⁵, the ratio of primary school teachers who have completed PTT

³⁵ According to the interview with DEPT, the priority of the issues of the education sector have been reviewed under

against all primary school teachers (based on official data as of March 2013) as of December 2014 is 68%, which covers 75.5% of the target ratio for 2015 of 90%.

Table 9: Achievements of CCA Training

Items	Period of Phase 1 (Dec. 2004 – Dec. 2007)	Period of Phase 2 (Sep. 2008 – Mar. 2012)	Period from Completion to Ex-post Evaluation (Apr. 2012 – Sep. 2014)	At Ex-post Evaluation (Accumulated) (Dec. 2014)
Number of primary school teachers who completed PTT (number of persons)	20,644	22,301	91,566	134,511
Total number of primary school teachers (number of persons)	174,969 (Mar. 2008)	184,833 (Mar. 2012)	197,871 (Mar. 2013)	197,871 (Mar. 2013)
Percentage (%)	11.8%	12.1%	46.3%	68.0%
	Target (More than 90% in 2015) (%)			75.5%

Source: Statistics Section, DEPT (Total number of primary school teachers, number of primary school teachers who completed PTT after the project completion to ex-post evaluation.)

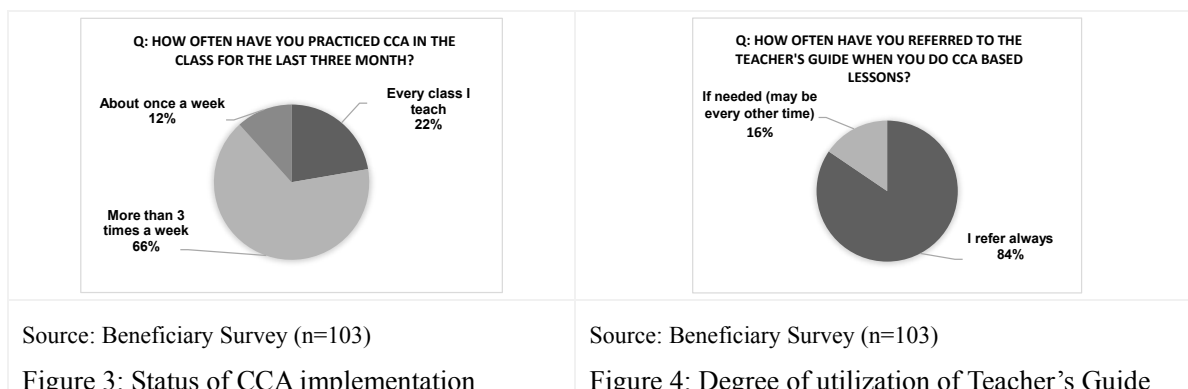
JICA document (Number of primary school teachers who completed PTT during Phase 1 and Phase 2)

2) Status of CCA implementation by primary school teachers who completed PTT up to the time of ex-post evaluation

According to the beneficiary survey of those primary school teachers who completed PTT, which was conducted at the ex-post evaluation (n=103)³⁶, 88% of respondents have carried out CCA based lessons more than three times a week (figure 3), 84% of respondents have carried out CCA based lessons by referring to the Teacher's Guide, thus they fall into CCA implementation level 1 (Figure 4). No considerable difference in responses was reported between those completing PTT during Phase 1 and those completing PTT during Phase 2. In summary, the study revealed that all primary school teachers under this study have been practicing CCA based lessons by referring to the Teacher's Guide, though their frequency somewhat varies.

the organizational reform of the central administration.

³⁶ As a target township for beneficiary survey, 17 townships were selected in the following manner. 1) Select approximately the same number of townships from both Phase 1 and Phase 2, 2) at least one township from each region in which major population is Burmeses and each state in which major population is ethnic minority, and 3) at least one township from region/state of different DBE in charge. Two primary schools were selected in each township, and in each primary school, three primary school teachers were selected as respondents of the beneficiary survey. As a result, 49 primary school teachers were selected from those townships where CCA was introduced during Phase 1 and 54 primary school teachers during Phase 2. This resulted in there being a little more beneficiaries of Phase 2 than those of Phase 1.



3) Continuing effects of Outputs and Project Purpose

Whether the three systems established during Phase 2 have still been functioning is examined by the field study and beneficiary survey conducted at the time of the ex-post evaluation³⁷.

[1] Introduction of CCA at Teacher's Training

At all ECs visited during the field study, such as at Yankin EC, Taungoo EC, Taungyi EC, Mandalay EC and Mawlamyaing EC, revised textbooks which were developed with CCA components have been used and Lesson Study has been carried out on a monthly basis. CCA based lessons in bloc teaching, which were once postponed, have already been introduced to all ECs during 2012 to 2013. The number of CCA-focused schools was only two during Phase 2, but has increased to twelve at the ex-post evaluation³⁸.

[2] CCA Trainings in 4 level cascade³⁹

After the completion of the Project, CCA trainings had continuously been conducted. In 2012, two Core Trainers were selected among well-experienced Master Trainers at ECs. They are registered at the DEPT. There were 48 Core Trainers and 267 Master Trainers at the time of ex-post evaluation. CCA Trainings have been carried out in the same manner as the Project. First, Core Trainers give a refresher training to Master Trainers, and then the lower level of trainings such as CTT and PTT have been carried out. Cluster Trainers have been newly selected in each cluster of the township where the CCA training are expected to take place. Therefore, the number of Cluster Trainers has been increasing every year and there were 8,521 Cluster Trainers at ex-post evaluation. In 2014, though MTT was

³⁷ Field visits were carried out in Yangon Region under the supervision of DBE3, Shan South State, Mandalay Region under DBE2 and Bago Region, Mon State under the DBE1. In each region/state, questionnaire surveys and interviews with those stakeholders at EC, REO/SEO, TEO and primary schools were carried out.

³⁸ According to DEPT, the Myanmar side (with the leadership of CCA Technical Team) voluntarily adopted activities of CCA-focused schools in several other primary schools in order not to cease CCA activities, because they were concerned about the negative effect of CCA training being cancelled in 2014.

³⁹ Data on number of trainees is given by DEPT.

conducted, CTT and PTT were cancelled due to a political decision. In order to successfully complete the CCA nationwide dissemination within the year 2015 as planned, DEPT revised the CCA Training plan for the year 2015 and has submitted its budget for approval. However, it is uncertain whether CCA Training will be resumed in 2015. According to interviews with those officers at DEPT, approximately 30,000 daily wage teachers were employed in 2013 and 2014 respectively in order to cope with the increasing number of children at school. They are supposed to receive one-month of training on teaching methods in which CCA related training is also included for about three days⁴⁰.

[3] On-site Training Activities

It was confirmed by the field visits and beneficiary surveys that On-site Training activities have been continuously carried out. CBM (Cluster Based Meetings) are most likely held monthly or once every two months at each school cluster and all respondents of the beneficiary surveys answered that they “attend more than 5 times a year”. SBM (School Based Meetings) are most likely held every week at each primary school and 77% of respondents answered that they “attend more than 3 times a month”. As for the merit of attending SBM, they found it helpful for CCA implementation saying that “it helps us to resolve the problems we have by exchanging information with other primary school teachers”, “it encourages me to learn more about CCA”.

As for the question with multiple choices on what they expect from CBM for the future, the following comments were received: 1) I want to learn at CBM more from those who have a lot of experiences with CCA, such as Master Trainers (64%), 2) CBM should be held more frequently (58%), 3) At CBM, more time should be allocated for knowledge sharing with other primary school teachers (37%), 4) At CBM, more funds should be allocated for materials distributed (22%).

As for the Lesson Study, 65% of respondents answered that they “attended more than 5 times per year for the past three years” and commented about the merits, such as “I can apply some good practices from the lessons conducted by other teachers”, and “I can get some advice from experienced teachers”. On the other hand, reports of CMB by cluster heads (principals), which are supposed to be submitted to the TEO on a monthly basis, and three months-combined reports which are supposed to be submitted to the REO/SEO every three months, are not necessarily made on a regular basis. Furthermore, it was said that some cluster heads found the report writing requirement rather demanding. Only the Mandalay REO had provided feedback of those reports on a regular basis. Other

⁴⁰ These daily waged teachers are supposed to receive teacher’s training as they are not graduates from education colleges.

REO/SEOs visited may not have had strong interest in reporting/feedback on On-site Training.

In summary, the three systems, Teacher's Training System, CCA Training System and On-site Training System established during Phase 2, have most likely been functioning and those primary school teachers who completed PTT have actually been practicing CCA based lessons at their primary schools⁴¹. On the other hand, due to the cancellation of CCA training for 2014, the likelihood of achieving the Overall Goal of Phase 2, "The CCA will be disseminated among primary school teachers in Myanmar by 2015" has become uncertain. Therefore, the project has achieved at a limited level of its Overall Goal.

3.2.2.3 Other Impacts

1) Behavioral Changes of Stakeholders

The following describes the behavioral changes of stakeholders observed through field visits and beneficiary surveys.

[1] Behavioral changes of primary school teachers

More than 95% of respondents answered, "I have changed my way of teaching after I learned CCA". As shown in Table 10, positive changes of primary school teachers have been identified. One of the primary school teachers interviewed commented, "I have voluntarily prepared teaching guides by myself for English and Myanmar Language for which no teaching guide is available". Some school principals interviewed also commented on some positive change of primary school teachers, such as that "primary school teachers are now spending more time to prepare for the class sessions", "they have often exchanged ideas with other teachers", "they have often told me that they want to attend CCA related trainings", and "they have positively accepted comments at the Lesson Study from other teachers or school principals".

⁴¹ Prior to implementing CCA in target townships, the project carried out the baseline survey and received fundamental information, such as education statistics, basic teaching knowledge and skills of primary school teachers, and educational environment, such as facilities. Before project completion, the project conducted the end line survey to understand how they changed after the CCA implementation, such as behavior change of primary school teachers and school children. These diligent processes which aimed to respond to the needs of target areas are considered to have been contributing to the continuation of CCA implementation by themselves.

Table 10: Response to the questions on the change in their teaching after CCA training

	Questions	Average*
1	I have often let children think first. (ex. give more time for thinking)	5.0
2	I have often let them work in a team.	5.0
3	I have often used materials prepared by myself, such as sample pictures, model objects, etc.	4.9
4	I have often let children talk. (ex. ask individual opinions)	4.9
5	Other opinions: I have come to spend more time for preparation. My relationship with children has become much friendlier.	

Source: Beneficiary Survey (n=103)

Note: The figure indicates the score averaged out the level of respondents' agreement by applying a 5 point scale as follows: 1 for completely disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 for completely agree.

[2] Behavioral changes of school children

More than 95% of respondents recognized the behavioral changes of school children. As shown in Table 11, certain positive changes of school children have been identified. During the interviews with primary school teachers at field visits, they commented about the positive and active attitudes of children saying, "children's communication skills have improved", "they can give their own opinions not only in the classes but also even in the plenary session or general meetings of the entire school".

Table 11: Responses to questions on behavioral change of school children

	Questions	Average*
1	They have come to express their own opinions in class.	5.0
2	They have come to listen to others.	5.0
3	They have come to ask more questions than before.	4.9
4	They have come to express their frank opinions (sometimes even objections directly) to others.	4.9
5	Other opinions: They have actively participated in class sessions. They have been confident to speak. They have solved problems in the process of group work by collaborating with each other. They have become competitive among children. Some quiet children have taken courage to speak out in group work.	

Source : Beneficiary Survey (n=103)

Note: The figures indicate the score averaged out the level of respondents' agreement by applying a 5 point scale as follows: 1 for completely disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 for completely agree.

[3] Behavioral changes of school principals

More than 95% of respondents recognized the behavior changes of school principals saying, "School principals have come to see my class lesson more often", "they have often given advice to improve the class sessions", "they have held school meetings more often than before", and "they have come to listen to the parents' opinions".

[4] Behavioral changes of parents

More than 95% of respondents recognized the behavior changes of parents. Some view that parents have become more positive towards CCA, saying “parents are happy with the children’s positive change”, but they have also admitted that they have received rather negative opinions from parents saying “parents are not happy about CCA because less time is spent for rote learning” or “parents feel uneasy because they have not understood CCA very well”. On the other hand, some parents have given their hands to primary school teachers for preparing the teaching materials. It seems that both pro and cons about CCA are voiced among parents.

Apart from these behavioral changes of stakeholders, some school principals and primary school teachers have suggested that “it is necessary to improve the school facilities in order to properly practice CCA based lessons, because the noises or voices from neighboring classes separated only by board partitions can easily interrupt the class sessions and limit the children’s concentration” and also that “it is necessary to resume the CCA training as soon as possible”.

		
Primary school teachers and a principal earnestly discussing after Lesson Study	Children vividly experimenting “friction” in the Science Class	Classrooms casually separated by the wooden partitions

As explained above, CCA based lessons have motivated school children to learn and have promoted their positive attitude to attend classes. They have also inspired primary school teachers. In the beneficiary survey, some respondents have made requests in the free comment section, such as “it is necessary to introduce CCA to the middle schools and high schools”, “the CCA concepts should be incorporated into the assessment system”, “it is necessary to renovate the school facilities in order to make CCA based lesson more effective”, and “it is necessary to conduct CCA follow-up training”.

2) Other impacts

Some effects of the project were also observed in relation to the policy and institutional aspects, resulting in CCA/LCA⁴² being referred to in education policies under the Basic Education Law (draft) and New Curriculum Framework (draft). According to the English local newspaper “The Global New Light of Myanmar” of October 21, 2014, the Minister of the President Office commented at the ceremony to honor excellent students that “CCA should be promoted”, and as of October 22, 2014, it was reported that PTT was voluntarily carried out at the Inndawgyi township of the Sagain Region, with participation of educational administrators and primary school teachers. In addition, CCA was introduced into the teacher’s training program for daily waged teachers.

Since this project has to some extent achieved the project purpose and overall goal, effectiveness and impact of the project are fair.

With respect to the project purpose of Phase 1, the capacity of core groups of people in charge of CCA dissemination was strengthened and the CCA dissemination model was established. Also, as to the project purpose of Phase 2, though more improvement is needed for CCA monitoring, the three systems, namely the Teacher’s Training System, CCA Training System and On-site Training System, were mostly established. Therefore, the project purposes of both Phases were mostly achieved. With respect to the overall goal, those primary school teachers who completed PTT have actually been practicing CCA based lessons, and positive behavioral changes of primary school teachers as well as school children have been observed. However, CCA training for 2014 was cancelled affected by significant organizational reforms at the ministry level. If CCA training were to be resumed in 2015, it is expected that the ratio of primary school teachers who would complete PTT (by number of persons) against the target number for the year 2015 would reach 96%, but if it is not resumed, the ratio would be 76% which is lower than what is defined as “mostly achieved (80%)” in the JICA’s evaluation regulations of ex-post evaluation. Considering the fact that the budget for CCA training for the year 2015 has yet to be approved and that it has not yet been determined which dept. (or section) would bears the responsibility for CCA related activities, the likelihood of achieving the overall goal of Phase 2, “The CCA will be disseminated among primary school teachers in Myanmar by 2015” may not be high.

⁴² CCA is mainly used for school children, while LCA (Learner’s Centered Approach) is mainly used for learners as a whole including school children.

3.3 Efficiency (Rating: [2])

3.3.1 Inputs

The following Tables 12 and 13 show the planned and actual inputs at the time of completion of Phase 1 and Phase 2, respectively.

Table 12: Inputs of Phase 1

Inputs	Plan	Actual (at Completion)
(1) Experts	Unknown for Long-term Unknown for Short-term (Chief Advisor, Training Development, CCA Extension/Supervision, Educational Assessment, EC Curriculum)	0 for Long-term 6 for Short-term (67.75 M/M) (Chief Advisor, Training Development, CCA Extension/Supervision, Educational Assessment, EC Curriculum)
(2) Trainees received	Approximately 10 trainees /year	41 trainees Field(s)of training: Observation trip on the CCA practice in Japan (30), Educational Assessment (5), EC Curriculum (6)
(3) Equipment	Amount unknown (Materials and equipment necessary for BERDC, materials and equipment necessary for CCA implementation at primary schools)	7 million yen (Two vehicles, Office equipment, Audiovisual equipment)
(4) Local operation costs	Amount unknown	24 million yen (Cost of printing and bookbinding, subcontracts fees of local consultant)
Japanese side Total Project Cost	Approximately 360 million yen	359 million yen
Myanmar side Operational Expenses	Unknown	2 million yen

Source : JICA documents, Terminal Evaluation Report of Phase 1

Table 13: Inputs of Phase 2

Inputs	Plan	Actual (At the project completion)
(1) Experts	Unknown for Long-term Unknown for Short-term (Chief Advisor/CCA Extension Plan, CCA Training/Monitoring, EC Capacity Building, Mathematics Teacher's Guide Development, Coordinator)	0 for Long-term 7 for Short-term (71.0 M/M) (Chief Advisor/ CCA Extension Plan, CCA Training/Monitoring, EC Capacity Building, Mathematics Teacher's Guide Development, EC Monitoring/Coordinator)
(2) Trainees received	Unknown	6 trainees Field(s) : Teaching Mathematics (9 trainees participated on Group Training)
(3) Equipment	Amount unknown (Specialized books for BERDC and EC)	16 million yen (PCs, Printers, Stabilizers, Motorbikes, Duplicators)
(4) Local operation costs	Amount Unknown	34 million yen
Japanese side Total Project Cost	Approximately 380 million yen	438 million yen
Myanmar side Operational Expenses	Unknown	1 million yen

Source : JICA documents, Terminal Evaluation Report of Phase 2

3.3.1.1 Elements of Inputs

Elements of inputs were mostly appropriate for producing the outputs of the project. In Phase 1, inputs from the Japanese side such as Experts and Equipment were provided as planned. Several constraints, such as restrictions on mobilization of experts due to the strict surveillance of Myanmar, complicated administrative processes, difficulty of communication between counterparts and JICA experts due to relocation of Capital, had made it difficult for the project to effectively utilize the planned inputs. As for the inputs from the Myanmar side, coordination was required in order to make the best use of some counterparts who had multiple responsibilities. Inputs from the Japanese side of Phase 2, such as the field of experts and equipment, were appropriate as planned. However, the frequency of experts' travel increased due to the restriction on the period of stay in accordance with acceptance of foreign experts which got tightened by the government of Myanmar. Inputs from the Myanmar side were mostly appropriate as planned. Through the collaboration with UNICEF projects, external resources were effectively utilized⁴³.

3.3.1.2 Project Costs

The Project Cost for Phase 1 was mostly as planned: the planned cost was 360 million yen against actual cost of 359 million yen (ratio against the plan was 100%). However, the Project Cost for Phase 2 was higher than planned; planned cost was 380 million yen against actual cost of 438 million yen (ratio against the plan was 115%). This was partly due to the increase in travel expenses for experts as explained above, and the revision of EC modules to reflect the CCA component in accordance with the revisions implemented by DEPT, and assistance provided to establish the CCA-focused schools which serve to accumulate good practices of CCA as a CCA model school also added to the costs⁴⁴. It was assured that all of these factors were relevant to generate the expected outcome. Particularly, the formulation of CCA-focused schools, which was implemented in order to address the difficulties of having BERDC authorized as an official institutions, significantly contributed to sustain the effects of the project. (See "Impact", "Sustainability")

3.3.1.3 Period of Cooperation

The Period of Cooperation for Phase 1 was 3 years from December 2004 to December 2007 and for Phase 2 was 3.5 years from September 2008 to March 2012. The periods were all as planned. (Ratio against the plan was 100% for both Phase 1 and Phase 2)

⁴³ Trainers and primary school teachers in the target areas of CFS Project under UNICEF participated in the trainings provided by the project and learned about CCA. (Source: JICA document and interviews with UNICEF, JICA experts)

⁴⁴ See "Effectiveness" (Achievement of Project Purpose for Phase 2)

Although the project periods were as planned for both Phase 1 and Phase 2, the project cost of Phase 2 exceeded the plan. Therefore, efficiency of the project is fair.

3.4 Sustainability (Rating [2])

CCA, which was introduced as one of the main policies of basic education, has been widely disseminated to primary schools by the project for both Phase 1 and Phase 2. CCA is said to foster creative thinking and applicative skills of school children. To achieve CCA nationwide dissemination, it is imperative that the CCA dissemination mechanism, based on the combined efforts by both BERDC at the central level and ECs and primary schools at local levels, is continuously used as one of the teachers' training schemes. Particularly, it is important to strengthen the capacity of CCA implementation monitoring for qualitative enhancement. Furthermore, it should be considered that those who are engaged in CCA dissemination by the project are effectively utilized in the field of teacher's education, and their capacities are continuously maintained by conducting CCA trainings.

3.4.1 Related Policy and Institutional Aspects for the Sustainability of Project Effects

At the ex-post evaluation, the education policy of the Myanmar government had remained unchanged, setting high priorities on the improvement of the quality of basic education and CCA implementation as well. CCA/LCA have been referred to in the Basic Education Law (Draft) and Curriculum Framework (Draft), both of which have been in the process of revision as of December 2014, and their importance has remained unchanged⁴⁵. After the new regime started in March 2011, many development partners collaboratively launched their assistance in accordance with the framework of the Comprehensive Education Sector Review (CESR) in which CCA/LCA have been promoted⁴⁶.

3.4.2 Organizational Aspects of the Implementing Agencies for the Sustainability of Project Effects

At the time of the ex-post evaluation, significant organizational reforms had been taking place across all line ministries. Only two officers of the CCA Technical Team⁴⁷ have been

⁴⁵ In the Curriculum Framework (Draft), CCA is to be introduced to the middle schools and high schools step by step. In line with the Curriculum Framework (Draft), CCA/LCA is also introduced in textbooks currently under revision.

⁴⁶ Development partners who currently provide assistance in the education sector are UNICEF, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Asian Development Bank (ADB), the World Bank, EU, Australia, DFID-Save the Children, and the British Council.

⁴⁷ CCA Technical Team was formed as one of the task forces to work on the revision of the Education Law. Two officers assigned in the Team who were used to work for the Project as counterpart personnel. They officially belong to the respective ECs. Their main role and responsibilities are technical support on CCA dissemination, such as training of trainers, CCA implementation monitoring. They carry out field observation/supervision of CCA implementation monitoring in collaboration with CCA focal persons of DBE.

directly in charge of CCA dissemination at the central level under the MOE. BERDC does not actually exist as a tangible unit/department⁴⁸. This is because those trained through the project activities are now capable of working for the CCA dissemination in the field by themselves, and there is little need to maintain the central unit in the same scale as before as an official department under the MOE. According to the Director of DEPT who was involved in the midst of organizational reform commented that the structure of CCA nationwide dissemination, such as the responsible unit/department, number of staff and budget have not yet been determined. However, it is most likely that a unit managing the CCA related activities will be created under the MOE. There are two Core Trainers and several Master Trainers in each EC and they are able to take a leading role for CCA dissemination at the local level both as trainers and resource persons in order to provide technical expertise.

On the other hand, there seems to be no clear plan on how the MOE or DEPT will utilize the CCA Training System for teacher's training in the future. Along with the decentralization process, the DEO has been set at the district level and thus the TEO and ATEO may involve themselves in township education, where the issue of CCA implementation monitoring⁴⁹ needs to be resolved. It was once pointed out that one reason behind the CCA implementation monitoring not functioning well is the frequent personnel transfer of education administrators without a proper handover process.

3.4.3 Technical Aspects of the Implementing Agencies for the Sustainability of Project Effects



Two officers of the CCA Technical Team at the central level are capable of providing technical expertise on CCA training and CCA monitoring. Those registered trainers such as Core Trainers and Master Trainers are capable of managing the cascade system of CCA training, and they are able to brush up their abilities through refresher trainings held on an annual basis. A variety of training kits and teaching materials, such as CCA training packages, Performance Assessment Sheets for CCA Monitoring and other resource materials developed by the project, have all been well utilized at both CCA training and CCA implementation/monitoring. CCA-focused school activities have expanded to 12 schools where the Lesson Study has been practiced and CCA based lessons have been promoted. In ECs, they have practiced Lesson Study almost once a month, which has served as an environment enabling EC lecturers to improve their teaching skills on CCA. As for the On-site Training, CCA has been continuously promoted at CBM through Lesson Study and

⁴⁸ According to the interview with officers of DEPT, the name of BERDC remains as an address term of the building where BERDC was located.

⁴⁹ At the Terminal Evaluation of Phase 1, it was recommended to the Project that CCA implementation monitoring should be included in the regular monitoring items of schools. However, such internalization has not yet occurred, and is not planned for the time being.

demonstration sessions. As for the CCA implementation monitoring, it has been pointed out that it is necessary to strengthen the knowledge and skills in terms of CCA of ATEO, who may not have sufficient teaching experiences at primary schools.

The CCA library, which stores CCA related books and literature and educational materials, has been widely used by those engaged in teacher training. Equipment such as motorbikes distributed to TEO and computers to ECs and TEO have been well maintained at the site. Most of the equipment, such as digital cameras and projectors stored at the BERDC building, have been effectively utilized at the activities by CCA Technical Team or ongoing projects; however, some of them have been left broken or left unused. Therefore, it is necessary to improve the situation by enforcing the maintenance regulations.

	
<p>CCA Library with many books and journals, located in the BERDC building</p>	<p>Due to the cancellation of PTTs for 2014, training kits prepared for PTT were piled up in the BERDC building</p>

3.4.4 Financial Aspects of the Implementing Agencies for the Sustainability of Project Effects

The budget of the basic education sector has been increasing. After the completion of the project, CCA training was successfully carried out in 2012 and in 2013 solely under the Myanmar national budget. The budget for CCA training for the year 2014 was once secured, but it was suddenly cancelled under a political decision. For the year 2015, the application for the revised budget for CCA training, which aims to successfully complete the CCA nationwide dissemination by 2015, has already been submitted, but it is uncertain as of March 2015 whether it would be approved.

Table 14: Expenses and Budgets of CCA Training

Unit: Million Kyat

Training type	FY 2012/13 Actual Expense	FY 2013/14 Actual Expense	FY 2014/15 Actual Expense	FY 2015/16 Budget Plan
MTT	7.182	3.841	4.27225	923.789
CTT	827.384	859.872	Cancelled	
PTT				

Source: DEPT

Note: 1Kyat (MMK) =0.116 yen (December 2014)

CCA implementation costs, such as teaching materials, are not specifically provided for under the governmental budget, and instead such costs are covered under school management budgets of each school. It is difficult to assess whether each primary school has sufficient funds for CCA activities, because the amount of school management funds available for such purpose varies among each school⁵⁰. With respect to equipment procured under the project, funds are allocated for maintenance costs on an application basis each time such maintenance becomes necessary.

Some minor problems have been observed in terms of the organizational/technical/financial aspects of the implementing agency. Therefore, sustainability of the project effects is fair.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

In order to disseminate CCA to all primary schools in Myanmar, the project activities were carried out in Phase 1 for the capacity development of those CCA trainers and establishment of a CCA dissemination model, and in Phase 2 for establishment of an effective mechanism for CCA nationwide dissemination. Shift from traditional rote-learning approach to CCA was the key issue of the education policy for basic education of Myanmar. It was necessary to carry out the project activities effectively and efficiently in order to cope with the increasing number of school children reflecting the improvement of enrollment ratios. This project has been highly relevant to the Myanmar's education policy and development needs, as well as Japan's ODA policy, thus the relevance of the project is 'high'. During Phase 1, the capacity development and establishment of CCA dissemination model were completed as planned. During Phase 2, various effective CCA dissemination systems, namely the Teacher's Training System, CCA Training System and On-site Training System were mostly established. Therefore, the project purposes of both Phases were mostly achieved. The mechanisms of the three systems have continued to function and CCA based lessons have highly motivated school children to learn. On the other hand, as the CCA training planned for the year 2014 was cancelled by a political decision affected by organizational reform, the likelihood of achieving CCA nationwide dissemination by 2015 has become uncertain. Therefore, the effectiveness and impact is assessed as 'fair'. Due to several activities added to generate better outcome during Phase 2, the project cost exceeded the plan. Therefore, the efficiency of the project is assessed as 'fair'. Since the significant organizational reforms had been taking place during the field study, the organizational framework for CCA related activities, and the budget for the CCA trainings have not been determined, and the objectives of CCA implementation monitoring and development of human

⁵⁰ "Decentralizing Funding to Schools Project (2014–2017)" by World Bank is assisting primary schools with school management fees. Such management fees can be utilized to prepare CCA education materials.

capacity yet to have been sufficiently achieved. Some minor problems have been observed in terms of the organizational/technical/financial aspects of the implementing agency. Therefore, sustainability of the project effect is assessed as 'fair'.

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

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agencies

Recommendation to DEPT:

1) CCA was introduced to the teacher's training program for daily waged teachers in both 2013 and 2014. However, considering the time required to learn about CCA, it may not have been sufficient for such daily waged teachers to acquire the necessary knowledge and skills for adopting the concept of CCA. Therefore, it is recommended that DEPT should provide them with other opportunities so that they would fully understand the concept of CCA, such as by providing follow-up training sessions, or advising them to actively participate in the on-site trainings.

2) A mechanism for CCA training organized in a cascade established by the project, in which CCA training sessions are given through a national network with combined efforts of central and local levels institutions, can be widely used for the teacher's training field. Therefore, it is of great importance that DEPT set up a unit, which is responsible for supervising the CCA related activities at the central level, so that it may further explore other teaching methods by effectively utilizing those trainers trained through the project. This is necessary in view of sustaining the effects of the project as well.

3) In order to further improve the CCA implementation level, it is necessary for DEPT to take an innovative approach in order to make on-site training activities even more effective. For example, DEPT should provide those primary school teachers with certain opportunities through on-site training, such as, 1) sharing opinions and good practices by organizing joint meetings between clusters, 2) receiving advice from resource persons, and 3) visiting selected primary schools with good practices.

4) Some of the IEC equipment provided by the project have been left broken in the building of BERDC or remain unused even though they could be used. It is necessary, therefore, for the DEPT to take measures how to deal with such broken equipment, either by repair or disposal, and how to utilize such unused equipment at the site of CCA implementation or for teacher's training.

Recommendations to DBE:

1) In order to facilitate CCA implementation at the primary school level, DBE should place importance on strengthening the capacity of ATEO in terms of CCA implementation

monitoring. For that purpose, it is recommended that DBE should guide ATEO to carry out CCA implementation monitoring in collaboration with Master Trainers and Cluster Trainers who have technical expertise.

2) According to the interviews with TEO/ATEO and school principals, it was pointed out that the reason why CCA implementation monitoring had made little progress is that knowledge and skills acquired through the project activities were not shared and institutionalized in the office, partly due to frequent personnel transfer of education administrators without going through a proper handover process. Therefore, it is recommended that DBE consider introducing a new chapter into the Supervisors' Training (SVT), on how to handover the work of CCA implementation monitoring as well as how to share knowledge and information within the office

4.2.2 Recommendations to JICA

Under the ongoing project, "The Project for Curriculum Reform at Primary Level of Basic Education", when the curriculum revision is completed, it is planned to carry out the in-service trainings for primary school teachers on teachings based on the revised curriculum. Then, it will be possible to effectively utilize the network established through the project activities, under which CCA trainings are given through a national network with combined efforts of central and local level institutions of DEPT and DBE. This will lead to sustaining the effects of the project, and especially to maintaining the mechanism of CCA implementation. For that purpose, it is of great importance that information sharing is promoted between JICA (current project) and CCA Technical Team.

4.3 Lessons Learned

1) It is effective to design the project in the way so as to respond to the needs of target areas by proceeding in a phased manner and by carefully examining its usefulness.

The project was implemented after a careful preparation process. At first, JICA experts identified the development issues in the basic education sector and then, under the development study, the model case of CCA implementation was introduced and the feasibility of the case was examined. Prior to project implementation, the study was conducted during the second ex-ante evaluation study period for selected pilot areas, under which CCA trainings for primary school teachers were started by the Myanmar side from June 2004. When Phase 1 started, the project visited these pilot areas to learn about their experiences and lessons which were then applied to the project activities. In this way, during Phase 1, in order to understand the specific characteristics of the targeted townships, baseline surveys for CCA implementation were conducted every year. After the usefulness of the CCA implementation model was confirmed through the activities of Phase 1, CCA dissemination was promoted during Phase 2 in larger

scale using the three systems of CCA dissemination.

The process of designing the project by carefully examining whether it is responding to the needs of the target areas has served as the promoting factor to improve the effectiveness of this project. This lesson can be applied for other similar projects which aim to expand certain activities based on what was examined through small-scale pilot activities.

2) In order to sustain the effects of the project, it is effective to secure a practical site for technical transfer during the project period.

Since the project faced difficulties in having BERDC authorized as the central institution in charge of CCA training and CCA nationwide dissemination, the project introduced the activities to create CCA-focused schools as a means to sustain the effects of the project after the project completion. The project selected two primary schools in the Yangon region, in which JICA experts intensively provided assistance on the Lesson Study. Lessons learned through activities at these primary schools were widely shared with other schools as examples of good practice. Such activities at CCA-focused schools also helped to improve the CCA implementation level of teachers as well. In connection with the cancelation of CCA training for 2014, in order to prevent CCA related activities from being ceased, the Myanmar side (CCA Technical Team) voluntarily assigned other primary schools as CCA-focused schools and its number increased to 12 at the time of ex-post evaluation. Efforts to make BERDC an authorized institution did not materialize. However, CCA-focused schools effectively served as the practical site for those involved in CCA activities, such as EC lecturers, EC students and primary school teachers, to exchange information and to enhance their knowledge and skills on CCA implementation.

In order to sustain the effects of the project, it is worth considering to secure the practical site for technical transfer in advance, just in case the institution which is responsible for and expected to supervise the continuation of activities after the project completion fails to be authorized due to the political reasons of the country.

Table 15: Achievement of Outputs

Outputs for Phase 1	Actual
1. BERDC functions as the central training and supporting center for CCA extension.	<u>Achieved.</u> BERDC was provisionally set up under DEPT as the central unit being responsible to supervise the CCA dissemination to primary school teachers overall. BERDC officers have acquired the knowledge and skills from JICA experts in the field of project management, training development, CCA extension/supervision, educational assessment/monitoring and developed the teacher's guide and training materials, conducted the baseline and end line surveys as well as the monitoring (indicators 1-1&1-2). Many of them have previously worked for the Development Study.
2. Teacher educators in all EC (20ECs) gain enough knowledge and skills on CCA.	<u>Achieved.</u> EC lecturers selected from each EC successfully completed the 10 days trainings conducted by BERDC officers and acquired the knowledge on CCA (indicator 2-1), and then managed to carry out CCA trainings to primary school teachers. According to the results of CCA Understanding Test at the end of trainings and performance evaluation, it was proved that those EC lecturers achieved the satisfactory level as trainers (indicator 2-2).
3. Supervisors (TEO/ATEO / principals) gain enough knowledge and skills on CCA.	<u>Partially achieved.</u> Trainings for Cluster Trainers were not carried out. This is because, at the JCC held right after the initiation of the project, the Myanmar side proposed to count the Cluster Trainers, who were to be selected from school clusters of designated townships, out of the cascade, due to the reason that there was a concern at the Myanmar side that the quality of training might not be guaranteed if intermediate trainers increase. Although, educational administrators successfully completed SVT for three days and acquired the knowledge on CCA implementation monitoring and practiced it at primary schools, and their capacity of CCA implementation monitoring improved to a reasonable level (indicator 3-2), the results of CCA Understanding Test did not reach the target level (indicator 3-1). This may be partly due to the fact that the test itself had not been properly designed. The level of CCA implementation monitoring achieved to the target level and CCA trainings were properly carried out. Therefore, it is judged that the partial achievement of this Output may have little influence on the achievement level of the project purpose.
4. Teachers in primary schools gain enough knowledge and skills on CCA.	<u>Achieved.</u> Approximately 90% of primary school teachers (20,644 teachers) completed the PTT conducted by trained EC lecturers. The results of the CCA Understanding Test of those primary school teachers reached the target level (indicator 4-1), and it was confirmed by the self-assessment via questionnaire survey that the level of CCA implementation of 21 townships was improved (indicator 4-2).
Outputs for Phase 2	Actual
1. The system of pre-service teacher education for nationwide CCA dissemination is improved.	<u>Partially achieved.</u> Revised textbooks with CCA component have been used in all ECs (indicators 1-3 & 1-4) and Lesson Study has regularly been carried out in each EC (indicator 1-1). Introduction of CCA to bloc teaching was postponed after CCA nationwide dissemination was completed (indicator 1-2). Instead, revised PAS was introduced at three ECs and its usefulness was confirmed. In this way, a practical tool for school principals to properly evaluate the performance of EC students at bloc teaching was successfully prepared.
2. The system of in-service teacher training for nationwide CCA dissemination is established.	<u>Achieved.</u> The follow-up trainings for those primary school teachers in townships of Phase 1 were successfully completed as planned (indicator 2-1). Master Trainers and Cluster Trainers, key players of PTT, were successfully trained (indicators 2-3 & 2-4). These trainers provided PTT training to 22,301 primary school teachers in all (indicator 2-2). CCA Training Kits in each level were developed (indicator 2-5). CCA dissemination plan final version was approved at MOE in 2011 (indicator 2-6).
3. The system of on-site training for teaching improvement (cluster based meetings and school based meetings) is established.	<u>Partially achieved.</u> On-site trainings were introduced to all designated townships for both Phase 1 and Phase 2 (indicators 3-1 & 3-2). A total number of 190 educational administrators of townships for Phase 2 completed SVT (indicator 3-5). It was confirmed that ATEO could manage the assessment by using lesson assessment tools (indicator 3-3). Resource materials used for on-site training were developed by BERDC and distributed to primary schools by DEPT (indicator 3-6). As for frequency of on-site training, 9 out of 10 townships achieved the target level. The frequency of report submission was lower than the target (indicator 3-4), though report submissions may not affect the on-site training activities.
4. Mathematics teacher's guide and training materials for dissemination are developed.	<u>Achieved.</u> Mathematics Teacher's Guide was developed as planned and approved by MOE (indicator 4-1). Trainings on how to use Mathematics Teacher's Guide were conducted at all designated townships for Phase 2 (indicator 4-2). Those Teacher's Guides covered more than 50% of total units for all grades (indicator 4-3).

Source: JICA documents, Terminal Evaluation Reports of both Phase 1 and Phase 2