

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.

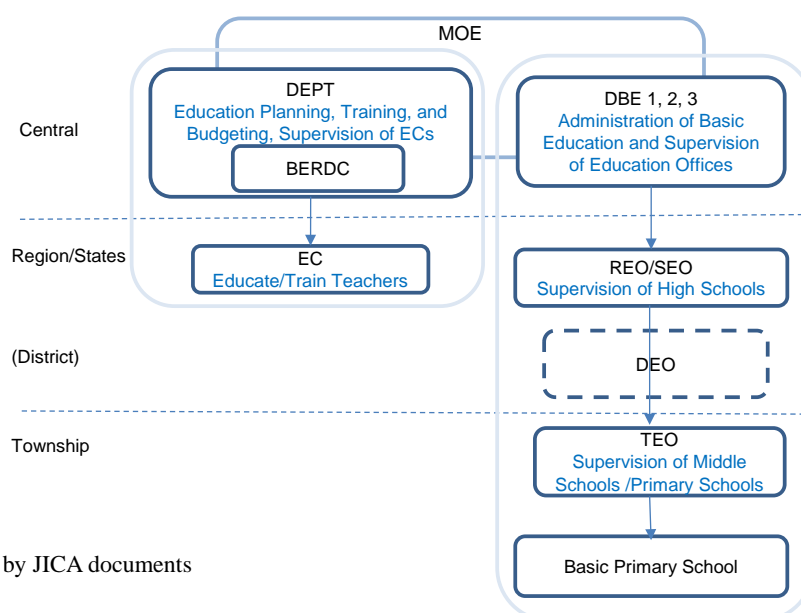
⁷ This ex-post evaluation study is based on, for Phase 1, PDM1 whose indicators were refined during the Consultation Mission (version 0 as an original PDM), and for Phase 2, PDM 3 whose indicators were refined under the recommendation of the Mid-term Review.

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.

Related Projects (continued from the previous page)	<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)
---	---

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

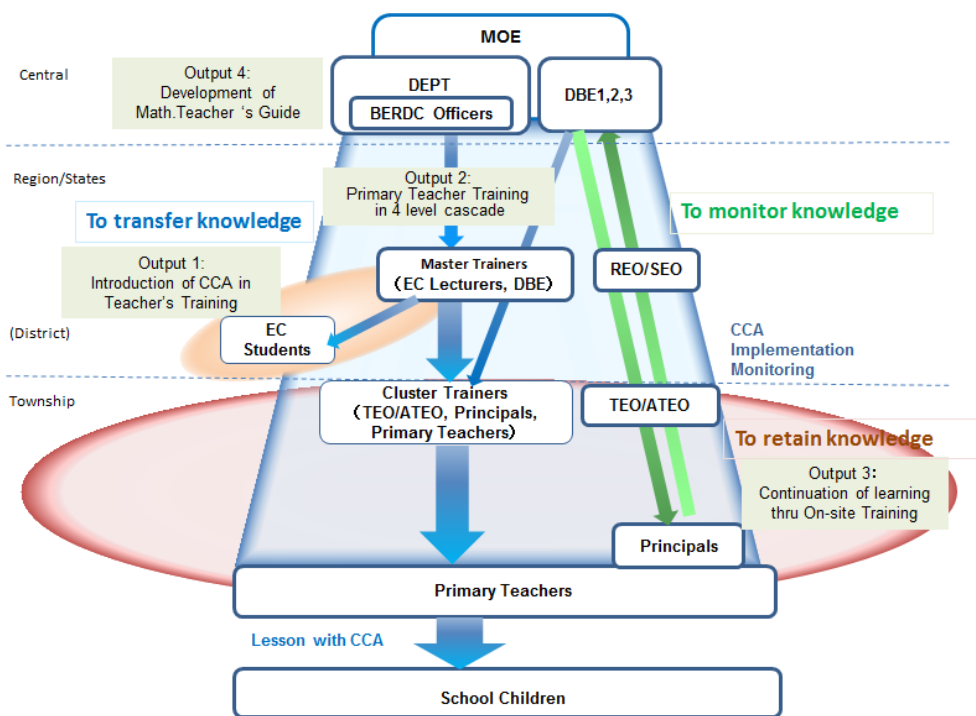
As shown in Table 4, 90% of primary school teachers of designated townships completed the PTT, which indicates that the Project achieved its goal from a quantitative aspect (indicator 1). The performance of primary school teachers giving CCA based lessons reached an appropriate level (indicator 2). This 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.)

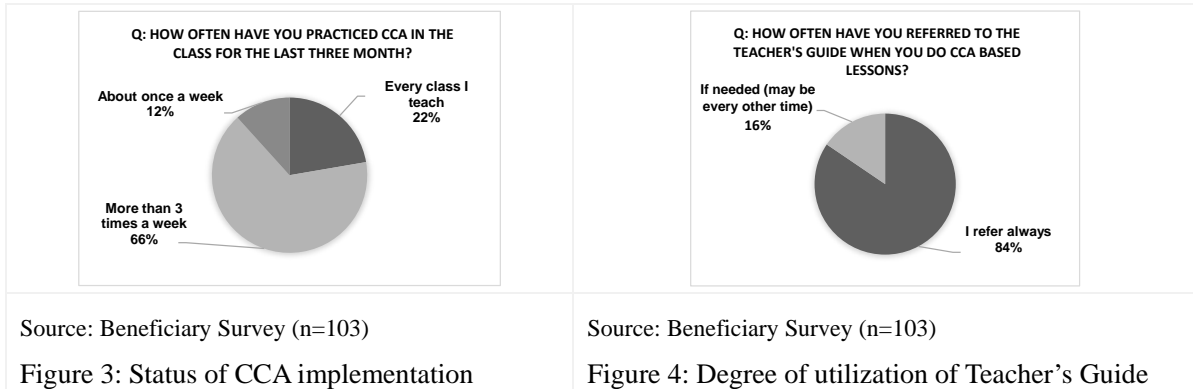
JICA document (Number of primary school teachers who completed PTT during Phase 1 and Phase 2)

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