

**MINUTES OF MEETING
BETWEEN
JAPANESE TERMINAL EVALUATION TEAM AND
AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
ON
JAPANESE TECHNICAL COOPERATION
FOR
"PROJECT ON IMPROVING SCHOOL MANAGEMENT
TO ENHANCE QUALITY OF EDUCATION
WITH SPECIAL REFERENCE TO SCIENCE AND MATHEMATICS"**

The Japanese Terminal Evaluation Team (hereinafter referred to as "the Team"), organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") headed by Ms. Noriko Suzuki, conducted evaluation activities in Sri Lanka from 27 August to 12 September, 2008 for the purpose of Terminal Evaluation of the Project on "Improving School Management to enhance quality of Education with Special Reference to Science and Mathematics" (hereinafter referred to as "the Project").

During its stay in Sri Lanka, the team had a series of discussions with the Sri Lankan authorities concerned, jointly evaluated the achievements of the Project, and exchanged views for further improvement of the Project.

As a result of the discussions, both sides agreed upon the matters referred to in the document attached hereto.

Colombo, 12 September, 2008



Ms. Noriko Suzuki

Leader

Japanese Terminal Evaluation Team

Japan International Cooperation Agency



Mr. M. M. N. D. Bandara

Secretary

Ministry of Education

M. M. N. D. BANDARA

Secretary

Ministry of Education

"Teerapaya"

Battaramulla.

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1. INTRODUCTION

1-1. Preface

The Project was launched in October 2005 and will be completed in December 2008. With the remaining period of the Project, approximately two months, JICA dispatched the Team to the Democratic Socialist Republic of Sri Lanka from 27 August to 12 September, 2008 for the purpose of evaluating the achievement of the Project. The terminal evaluation has been undertaken jointly by the Evaluation Team and Sri Lankan authorities concerned.

1-2. Objectives of Evaluation

Objectives of the terminal evaluation are as follows:

- (1) to review and evaluate the inputs, activities and achievements of the Project;
- (2) to evaluate the Project from five evaluation criteria (Relevance, Effectiveness, Efficiency, Impact, Sustainability);
- (3) to clarify the problems and issues to be addressed and summarize the lessons learned during the project implementation period; and
- (4) to make recommendations to assure the sustainability of the Project achievements

1-3. Schedule of the Evaluation Team

See ANNEX 1.

1-4. Members of the Evaluation Team

See ANNEX 2.

1-5. Methodology of Evaluation

See ANNEX 3. Conclusions were drawn from the results of the study and recommendations were proposed by the Team.

2. EVALUATION

2-1. Achievements of the Project

2-1-1 Outputs

Output 1: Kaizen Activities on educational management are introduced and conducted in the ZEOs.

Output 2: Educational Kaizen Activities on school management are introduced and conducted in the target schools with the facilitation of ZEOs

Output 3: Subject-based Educational Kaizen Activities on Science and Math are introduced and conducted in the target schools with the facilitation of the ZEOs.

Output 4: Vertical linkage (National, Provincial, Zonal and school levels) and horizontal linkage (within the target schools) are established.

With the efforts of both Sri Lankan and Japanese sides, most of the planned activities have been implemented successfully, which will contribute to attain the expected Outputs of the Project. The status of the attainment of each Output is as follows:

Output 1:

Kaizen activities on Educational Management were introduced and conducted in the five target ZEOs. Office management, communication, transparency, participation, performance, attitude and physical conditions of the target ZEOs were improved. The degree of teachers' satisfaction on the services of the ZEOs was increased as an efficiency of the ZEO's administrative works was improved.

Output 2:

Educational Kaizen Activities on school management were introduced and conducted in the 130 target schools. Positive changes in school management and school culture, such as cooperation, participation, communication among principals, teachers, students and parents, motivation, creativity and attendance of teachers and students, were observed. The ZEOs facilitated the Activities and conducted monitoring visits to the schools almost as often as they planned; however with some interruptions.

Output 3:

Subject-based Educational Kaizen activities on science and mathematics are introduced and conducted in all the target schools.

- Teaching and learning environment of the target schools was improved and academic achievements of the students in some target schools had shown gradual improvement, although significant improvement was not observed in the end-line survey.
- Zonal Level Lesson Study workshops were held more often than the Project planned. Recently, the Project Team observed that the more teachers in the target schools realized the value and benefits of the Lesson Study and more actively participate in discussions and revision of lesson

plans. School level Lesson Study workshops were conducted in most of the target schools; however the ZEOs do not have exact information on the number of workshops held. Some schools feel it difficult to conduct school level Lesson Study as often as they planned.

- IMAcS became very popular among the target schools and the effectiveness was proved by the Impact Survey especially to primary pupils and slow learners. The target ZEOs and schools are making various efforts to increase understanding of the teachers on appropriate teaching method of IMAcS and to follow-up the slow learners.

Output 4:

NEIKA, PEIKA and CoSM are functioning as decision making bodies on Educational Kaizen Activities and facilitating communication among the relevant institutions. All the target schools and even non-target schools participated in Zonal conventions to share information and experiences. Practical manual for Educational Kaizen Activities to support localization of the Activities is under preparations and will be completed by the end of the Project.

Details are shown in ANNEX4-1.

2-1-2. Project Purpose

Project Purpose: A sustainable system to improve school management is established in the target zones

To continue and expand Educational Kaizen Activities, the target ZEOs and schools are going to incorporate Educational Kaizen Activities to School Development Plans. MOE, PMOEs and PDEs had developed plans for Educational Kaizen Activities in 2009 and seeking approval for financial allocation.

The target ZEOs had already started to conduct seminars and workshops on Educational Kaizen Activities to the representatives of non-target schools. Each target ZEO is planning to increase the number of target schools in 2009. MOE, PMOE and PDE are making budgetary arrangement to implement the plans.

Therefore, the Project Purpose will be achieved if there will be continuous efforts of the Sri Lankan counterparts on institutional and financial support as described in ANNEX4-1.

2-1-3. Overall Goals

Overall Goals:

1. Quality and equity of education is improved in the target zones.
2. Sustainable system to improve school management is expanded from the target schools to the non-target schools and from the target zones to the non-target zones.

It is possible that the Project contributes to the attainment of Overall Goals in the following manners:

Overall Goal 1:

- Academic achievements of the students improved in some target schools and Zones.
- It was observed that some target schools, which are small and in remote rural area, became popular among the community.

Overall Goal 2:

- The Educational Kaizen Activities were already introduced in non-target schools in the target zones. Some of the schools are implementing the Activities in practice.
- Kaizen Units were established in MOE and PMOEs to coordinate and facilitate future expansion of the Educational Kaizen Activities. MOE and PMOEs formulated an activity plan and are making budgetary allocation to Kaizen Units for the year 2009.

Details are shown in ANNEX4-1.

2-2. Results of the Evaluation

2-2-1. Implementation Process

Implementation Process of the Project was appropriate and effective especially in the following manners:

- Capacity building of ZEOs and schools
Educational Kaizen Activities proved to be an effective strategy to increase motivation and cooperation of the staff of ZEOs and schools and contributed to change the office/ school culture. Block grant was an effective resource for the staff of the target ZEOs and schools to start new attempt in order to improve school management and the quality of education. It was especially useful for the small and disadvantaged schools like some of the target schools, where sufficient financial support from parents and community cannot be expected.
- IMaCS
Introduction of IMaCS, a calculation drill for students with understanding the concept of composition and decomposition, was an appropriate countermeasure to overcome the problem of insufficient calculation ability of students. The Project Team developed IMaCS by getting feedbacks from NIE and the target ZEOs to make it appropriate in the local context.
- Lesson Study
Lesson Study was introduced after analyzing weaknesses found during the study done for ERA and Science at the beginning of the Project. Staff of ZEOs, principals and teachers of the target schools appreciated the benefits of the Lesson Study and willing to continue it. The approach was appropriate to address the needs of the teachers to overcome the weaknesses.

Details are shown in ANNEX4-2.

2-2-2. Evaluation by Five Criteria

Results of the evaluation by five criteria are summarized below. For details, refer to ANNEX 4-3.

| Criteria | Evaluation Result | Description |
|---------------|-------------------|--|
| Relevance | Very High | <ul style="list-style-type: none"> The project purpose is consistent with the education policy of the Sri Lankan government especially the "Education Sector Development Framework and Programme 2006-2010" (ESDFP) and the aid policy of the Japanese government. Educational Kaizen Activities are effective to improve school environment and culture at school level and office management at ZEOs, which are leading to the improvement of the quality of education in Sri Lanka. In the selection of target areas (ZEOs) and schools, an equity issue is appropriately considered and a remote rural area and war-affected areas are included. |
| Effectiveness | High | <ul style="list-style-type: none"> All the expected outputs of the Project have nearly been achieved and the Project Purpose is expected to be attained by the end of the project period. However, some issues are required to be followed-up by the Project and the Sri Lankan counterparts such as more concrete vertical linkage among stakeholders (MOE, NIE, PMOEs, PDEs, target ZEOs and schools), capacity development of ZEO officers in school monitoring, facilitation of lesson study and effective use of IMaCS, and securing of printing cost of IMaCS. It was appropriate to add "Output 4: Vertical linkage and horizontal linkage are established" at the time of Mid-term Evaluation in order to facilitate the synergy of bottom-up and top-down approaches and to share information and experiences among the target schools. Due to significant deterioration of security situation in Jaffna and Trincomalee, the Project Team and Evaluation Team could not visit these two zones, and the staff of the ZEOs could not participated in workshops and seminars held in Colombo. However, the ZEOs had made keen efforts to continue Project activities and created remarkable outcomes. |
| Efficiency | Medium | <ul style="list-style-type: none"> The planned inputs have been provided and most of the planned activities have been implemented successfully within the planned time period. However, more concrete outputs in science |

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| | | <p>education could have been expected, if Educational Kaizen Activities on science (lesson study) were introduced earlier.</p> <ul style="list-style-type: none"> • The following outputs have been produced through the Educational Kaizen Activities at Zonal and school levels: <ul style="list-style-type: none"> - Capacity building of ZEOs in facilitating Educational Kaizen Activities in the respective Zones; - Improvement of efficiency and productivity in office management at target ZEOs and schools; - Positive improvement and changes in school environment, school culture (e.g. leadership, discussion and cooperation) and some academic achievements especially in science and mathematics. • In order to achieve more concrete outputs in science and math education, some issues are continuously required to be addressed such as clear understanding of the concepts of lesson study and IMaCS, acquiring necessary subject knowledge and follow-up of slow learner in the use of IMaCS. |
| Impact | High | <ul style="list-style-type: none"> • In target Zones, several non-target schools have already started to implement Educational Kaizen Activities with technical assistance of the ZEOs. In Uva Province, necessary budget for implementing Educational Kaizen Activities in an additional Zone (ZEO and 15 schools each) has already been secured and a workshop was conducted in one of the Zones with the initiative of Provincial Kaizen Unit. • MOE recognizes Educational Kaizen Activities implemented in the Project as a pilot case for developing the overall system for school-based management, and considers that the Activities could be integrated into ordinary School Development Plan which is developed by schools as one of the activities of PSI. MOE also started a discussion on the possibility of increasing the amount of Quality Inputs for the Educational Kaizen Activities. • NIE had incorporated the concept of IMaCS in the curriculum and the respective Teachers Instructional Manuals for Grade 5 and 8 and plans to introduce it into the curriculum and the manuals for the other grades as well. • NIE had introduced essence of Lesson Study in its workshops for ISAs and ADEs. |

| | | |
|----------------|--------|---|
| Sustainability | Medium | <ul style="list-style-type: none"> • MOE considers the Educational Kaizen Activities as a measure contributing to the school improvement which is an objective of the PSI implemented under the ESDFP. • All the target ZEOs and schools are confident that they will continue and expand the Educational Kaizen Activities after the completion of the Project. • In order to develop the Outputs of the Project, some supports such as providing necessary skills and knowledge especially for the improvement of the quality of science and math education are still required. • MOE, PMOEs and PDEs share a clear strategy to expand Educational Kaizen Activities into non-target Zones and schools and have started a process to make budgetary allocation for the year 2009. • Institutional arrangement for the expansion was made by establishing Kaizen Unit as a focal point in MOE and each Province. However, the capacity of the Unit is still required to be strengthened especially for facilitating a series of trainings for the non-target Zones and schools. |
|----------------|--------|---|

3. CONCLUSION

(1) Successful implementation of Educational Kaizen Activities

, On the basis of the review of the relevant documents, and the onsite interviews and discussions with the key stakeholders, it is confirmed that Educational Kaizen Activities have been successfully introduced and implemented by the target ZEOs and schools, and several visible changes are brought in office/school environment, office/school management and even academic performance through the process of implementing the activities.

(2) The changes of school culture

The important thing brought by introducing Educational Kaizen Activities are, the changes of school culture in the target schools. It is observed that tendency of change of school culture has been taken place through the Project activities at target schools. Educational Kaizen Activities together with the block grant, which is under school's discretion, enhanced the ownership and motivation of principals, teachers, parents and communities that they are in the center of school improvement and they are able to manage it. The following changes of school culture are observed;

- Through discussions at Quality Circles, current situation of schools as well as the problems to be solved are analyzed and shared among the stakeholders. The directions to improve the



situation and measures to solve the problems are also discussed. Through these, discussions on school improvement among stakeholders are encouraged.

- Through Educational Kaizen Activities which are jointly conducted by principals, teachers, parents and communities, atmosphere of mutual cooperation has been brought about.
- Principals and teachers are more positive to make decisions related to school improvement and realize those decisions, rather than waiting directions from authorities.

Why such change of school culture has occurred? These tendencies of commitments to school improvement among principals and teachers are not necessarily new in schools. There are principals and teachers who are committed and dedicated to school improvement in cooperation with parents. However, the Project provided the block grant to the target schools through ZEOs and PDEs, and by utilizing the block grant, the target schools can realize the ideas of improving school situation, and it leads to the results of higher commitments of principals, teachers and students attitudes. These experiences have not only strengthened the idea that school stakeholders are in the center of education development, but also shown evidences that they are able to manage it.

(3) Activities to improve the quality of education

At school level, the Project has covered improvement of school environment and office management and it has contributed to strengthen the motivation of stakeholders. However, the most of the interviewed principals stressed the activities related to the quality of education, mainly preparing teaching materials by teachers to enhance students' interests and to help students' understandings. These activities related to the quality of education are in the center of school improvement achieved through the project, and also the activities that stakeholders want to continue after the project for better school and education.

(4) Effectiveness of funds for Educational Kaizen Activities

It is observed that target schools are capacitated to utilize the block grant from the Project in an effective manner, mainly by developing teaching materials to enhance student's interests and understandings. This experience can be extended to utilization of Quality Inputs. By sharing such experience with non-target schools, non-target schools can realize the effectiveness of Quality Inputs. The accounting process which allows school's discretion, its transparency, monitoring and advices by ZEOs are also important for effective utilization of funds.

(5) Educational Kaizen Activities as a pilot case for Programme for School Improvement (PSI)

MOE is promoting Programme for School Improvement (PSI) under ESDFP 2006-2010, which is to develop school-level power and responsibilities. Educational Kaizen Activities is a good example to strengthen school-level ownership and commitments and could be utilized in PSI.

PSI is expected to be a framework which enhances school level decision-making based on the respective school's needs and strengthens its relation with communities, with its components of school

development plan and appropriate funds to be utilized to realize decisions made by schools.

Educational Kaizen Activities will be a part of or merge in school development plan, together with other factors of teacher development, student achievement, and material and facility development.

Currently, the funds to be utilized to realize school development plan at school level is limited to Quality Inputs together with some community contributions. Currently MOE is discussing with Finance Commission, the possibility of increasing the amount of Quality Inputs for Educational Kaizen Activities.

As a whole, overall system of school improvement consists of strengthened capacity at school level, school development plan, and appropriate fund to fulfill the plan is being developed. Educational Kaizen Activities will be a pilot case for this system of school improvement.

(6) Kaizen activities at ZEOs

Kaizen activities at ZEOs, such as improved filing and other working processes contribute a lot not only to efficiency of office work but also to save teachers' time that they have to spend at ZEOs. It is expected that teachers' time saved by improved efficiency at ZEOs will be utilized for preparing lessons and other activities to improve the quality of education.

(7) IMaCS

IMaCS is recognized as an effective tool to strengthen students' ability of calculation. The problem of slow learners has been dealt with, by the efforts to identifying slow learners and follow-up them.

Currently, IMaCS are used in the particular session for it, separately from ordinary mathematics classes. Direction of incorporating the concept of IMaCS to mathematics curriculum is an effective measure to maximize complementarity between mathematics lessons and IMaCS.

(8) Lesson Studies

Lesson Studies undertaken in the Project has provided teachers with opportunities to assess and improve their lessons by themselves. It has also give chances for teachers to see their colleague teachers' lessons and learn from them. Lessons are not one way practices that teachers delivers just following the written manual, but exist as an interactive activity between students and teachers. Therefore observing actual lessons and learn from them is important and effective measures to improve lesson delivery.

The target schools are practicing lesson studies in cooperation with ISA and subject directors. This cooperation between schools and ZEOs will form a ground that lesson studies will continue in institutional setting.

(9) Vertical linkage

Vertical linkage is important to proceed school improvement in the line of education administration. There are many things which are difficult for schools to cope with only as a school itself but supports from ZEOs and PDEs are needed. For realistic school improvement, better communication and



understandings among different levels of education administration, i.e. MOE, PDEs, ZEOs, and schools are indispensable.

SEIKA, ZEIKA, PEIKA, and NEIKA, as decision making bodies for education improvement and school management, are expected to strengthen vertical linkage and work cooperatively and complementarily for betterment of school situation.

4. RECOMMENDATIONS

Based on the results of the study, the following recommendations were made.

(1) Educational Kaizen Activities focusing on the quality of education

At the timing of the terminal evaluation, the target schools' Educational Kaizen Activities are focusing on activities related to the quality of education, mainly developing teaching materials to enhance students' activities and understanding. These activities need to be continued as the quality of education is in the center of education development.

(2) Importance of funds to be utilized at school level

For the target schools to improve the quality of teaching through Educational Kaizen Activities, the block grant provided by the Project played a vital role. After the project, special funds will be allocated to the target and some non-target schools for several years.

Continuous Educational Kaizen Activities will be carried on within the framework of School Development Plan, mainly utilizing Quality Inputs. However, in some zones and schools, there is a concern that the provision of Quality Inputs is delayed, and it prevents effective activities. It is vital that appropriate amount of Quality Inputs will be provided to school in proper time.

(3) Dissemination to non-target schools and zones

For dissemination of Educational Kaizen Activities to non-target schools and zones, functions of ZEOs and PDEs as well as Kaizen Units to raise awareness and conduct monitoring are vital. Their capacity to disseminate necessary information and monitor school activities needs to be strengthened.

For continuous dissemination, it will also be useful to encourage information sharing among schools and zones.

(4) Distribution of IMaCS

Based on the understanding of effectiveness of IMaCS to strengthen students' ability of calculation, MOE has decided to distribute IMaCS to all the target schools and some additional schools, from G1 to G5 in 2009. However, IMaCS from G6 to G9 is not included. From the importance of continuous improvement of students' ability, it is important to provide IMaCS from G6 to G9.

At the same time, to economize the cost for printing and distributing, efforts to reproducing



IMaCS in cheaper ways such as using mimeograph, need to be considered.

(5) Continuation of Lesson Studies

The target school teachers consider that lesson studies are good opportunities to introduce student-centered and activity-base practices into lessons. At the same time, teachers consider that it is difficult to apply these practices to ordinary lessons, because of limited time for lessons as well as limited time to prepare well examined lesson plans and teaching materials. Efforts to make use of plan-do-see process of lesson studies, applying student-centered and activity-based practices, in daily lessons need to be encouraged. And for this, supports from ISA and Subject Directors including supports to create enabling environment are indispensable.

Lesson studies to be continuously effective tool for improvement of lesson deliveries, good facilitation by experienced teachers as well as inputs of subject knowledge will be important.

(6) User-friendly Guideline for Educational Kaizen Activities

Not only as a simple record of the Project experiences but also for wider and appropriate dissemination of the Educational Kaizen Activities into the non-target Zones and schools, it is crucial to gather all the necessary information, skills and knowledge into a complementary guideline to be utilized by MOE, PDEs and ZEOs. Taking "practicability" and "usefulness" into consideration, the guideline is required to be revised in a user-friendly style by the end of the Project period. Since the Educational Kaizen Activities will be implemented in an ordinary school management and education administration after the Project, it is inevitable to clearly explain an operational procedure in connection with the existing educational management system. Reviewing the existing relevant manuals and guidelines, necessary reference is needed to be indicated in the guideline.

(7) Education as national minimum and minimizing disparities

It is important to strengthen the capacity of schools so that schools can make decision to solve the issues that the school is facing. Issues that schools are facing are diversified, and they can not be improved only by centralized manner. However, at the same time, basic education is national minimum and provision of minimum level of education nationwide is crucial. While strengthening capacity at school level, it is important to make efforts of minimizing disparities.

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ANNEX 2. Members of the Evaluation Team

ANNEX 3. Methodology of Evaluation

ANNEX 4. Evaluation Grid

- 4-1. Achievement of the Project and Implementation Process
- 4-2. Process of Project Implementation
- 4-3. Evaluation by Five Criteria

ANNEX 5. Project Design Matrix (version 2)

ANNEX 6. Inputs to the Project

- 6-1. Placement Records of Japanese Experts
- 6-2. List of Participants to Counterpart Training in Japan
- 6-3. List of Equipment Provided under the Project
- 6-4. Counterparts List

ANNEX 7. List of Abbreviations and Acronyms

ANNEX I. Evaluation Team Schedule

| | | Ms.Suzuki | Ms.Hara, Ms.Toutani | Ms.Inoue, Ms.Tamura |
|--------|------|-----------|------------------------------------|--|
| 27-Aug | Wed | | | 14:00 JICA Office 15:30 Meeting with Project Experts |
| 28-Aug | Thur | | | 9:00 Meeting with NIE Counterpart members 11:30 Meeting with MOE counterpart members and Kaizen Unit members 15:30 Meeting with Local consultant |
| 29-Aug | Fri | | | Colombo - Kurunegala 10:00 Kurunegala ZEO Kurunegala - Colombo |
| 30-Aug | Sat | | | Document Preparation |
| 31-Aug | Sun | | | Colombo - Trincomalee |
| 1-Sep | Mon | | | 9:30 Trincomalee ZEO 14:30 Eastern Province Chief Secretary and PEIKA members |
| 2-Sep | Tue | | | 9:00 Group Interview with Principals 14:30 North Province Chief Secretary and PEIKA members |
| 3-Sep | Wed | | Narita - Singapore | Trincomalee - Kurunegala 14:00 NW Province Chief Secretary and PEIKA members Kurunegala - Colombo |
| 4-Sep | Thur | | Singapore - Colombo | |
| | | 14:00 | Meeting at JICA office | |
| | | - | 16:00 Meeting with Project Experts | |
| 5-Sep | Fri | | | 11:00 Courtesy Call to MOE Secretary 14:00 Meeting with Counterpart members 15:00 Meeting with Kaizen Unit members |
| 6-Sep | Sat | - | | Date Analysis, Documentation |
| 7-Sep | Sun | - | | Colombo - Bandalawela |
| 8-Sep | Mon | - | | AM Bandalawela FBS(Kirioruwa Vidyalaya), SBS(Eththalapitiya M.V.) 14:00 Bandalawela ZEO |

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|--------|------|---|---|
| 9-Sep | Tue | - | 7:30 Bandalawela SBS (Ella Maha Vidyalaya) 10:30 Non-target school in Badulla 11:30 Uva Province Chief Secretary and PEIKA members Badulla - Colombo |
| 10-Sep | Wed | - | 8:45 Courtesy Call to DG, NIE 10:00 Courtesy Call to ERD 14:00 Meeting with MOE officials in charge of PSI Internal Meeting, Documentation |
| 11-Sep | Thur | | 9:00 Meeting with Project experts Internal Meeting, Documentation |
| 12-Sep | Fri | | AM Preparation for JCC 15:30 JCC and Joint Evaluation meeting |
| 13-Sep | Sat | - | Leave Colombo |
| 14-Sep | Sun | - | Arrive Narita |

ANNEX 2. Members of the Evaluation Team

| | | |
|-------------------------|-------------------|--|
| Leader | Ms. Noriko SUZUKI | Resident Representative, JICA Sri Lanka Office |
| Education Cooperation | Ms. Chisa HARA | Director, Basic Education Division 1, Basic Education Group, Human Development Department, JICA Headquarters |
| Cooperation Planning 1 | Ms. Akane TOTANI | Associate Expert, Basic Education Division 2, Basic Education Group, Human Development Department, JICA Headquarters |
| Cooperation Planning 2 | Ms. Kotohi INOUE | Assistant Resident Representative, JICA Sri Lanka Office |
| Evaluation and Analysis | Ms. Tomoko TAMURA | Consultant, Kaihatsu Management Consulting |

ANNEX 3. Methodology of Evaluation

1. Evaluation Criteria

In accordance with the JICA Project Evaluation Guidelines of January 2004, the Terminal Evaluation of the Project was conducted in the following process:

Step1: Version₂ of the Project Design Matrix¹ (PDM₂) was adopted as the framework of the Terminal Evaluation exercise, and the Project achievement was assessed vis-à-vis respective Objectively Verifiable Indicators. The level of inputs and activities were evaluated in comparison with the output levels.

Step2: Analysis was conducted on the factors that promoted or inhibited the achievement levels including matters relating to both Project design and Project implementation process.

Step3: An assessment of the Project results was conducted based on the five evaluation criteria: "relevance", "effectiveness", "efficiency", "impact" and "sustainability".

Step4: Recommendations for the Project stakeholders for the remaining implementation period and lessons learned were identified.

Definition² of the five evaluation criteria that were applied in the analysis for the Terminal Evaluation is given in Table 1-1 below.

Table 1-1: Definition of the Five Evaluation Criteria for the Evaluation

| Five Evaluation Criteria | Definition as per the JICA Evaluation Guidelines |
|--------------------------|---|
| 1. Relevance | Relevance of the Project is reviewed by the validity of the Project Purpose and Overall Goal in connection with the Government development policy and the needs of the target group and/or ultimate beneficiaries in Sri Lanka. |
| 2. Effectiveness | Effectiveness is assessed to what extent the Project has achieved its Project Purpose, clarifying the relationship between the Project Purpose and Outputs. |
| 3. Efficiency | Efficiency of the Project implementation is analyzed with emphasis on the relationship between Outputs and Inputs in terms of timing, quality and quantity. |
| 4. Impact | Impact of the Project is assessed in terms of positive/negative, and intended/unintended influence caused by the Project. |

¹ Within the latest JICA Evaluation Guidelines of 2004, the term "Logical Framework", or "Log Framework" has been introduced in place of Project Design Matrix (PDM). However since the Project continued referring to this tool as PDM throughout the Project Period, this Report will use the term PDM.

² JICA Project Evaluation Guideline (revised: January 2004), "Office for Evaluation and Post-Project Monitoring, JICA."

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|--------------------------|---|
| 5. Sustainability | Sustainability of the Project is assessed in terms of institutional, financial and technical aspects by examining the extent to which the achievements of the Project will be sustained after the Project is completed. |
|--------------------------|---|

2. Data Collection Method

Both quantitative and qualitative data were gathered and utilized for analysis. Data collection methods used by the Team were as follows:

- Literature/Document Review;
 - Report on Preliminary Study on Technical Cooperation for Improving School Management to Enhance Quality of Education with Special Reference to Science and Mathematics (ISMEQuE)
 - Inception Report
 - Zone Baseline Survey Report
 - School Baseline Survey Report (First Batch Schools)
 - Progress Report 1-5
 - QEC Activities of the 1st Batch Schools
 - QEC Activities of the 2nd Batch Schools
 - Guidebook for Teachers to Improve ERA Lessons
 - Guidebook for Teachers to Improve Science Lessons
 - Improvement of Mathematical Calculation Skills Program Grade 1-9 (IMaCS)
 - IMaCS Teachers Manual
 - Report of Project Consultation Mission
 - Report of the Mid-term Evaluation Mission
 - IMaCS Impact Survey results
 - Endline Survey results
- Interviews to key stakeholders;
 - Japanese experts assigned to ISMEQuE
 - Local consultants assigned to ISMEQuE
 - Officials from the Ministry of Education (MoE)
 - Officials from National Institute of Education (NIE)
 - Officials from the Provincial governments, Provisional Ministries/Departments of Education in target provinces and Kaizen Unit
 - Officials from the Zonal Education Offices (ZEO) in target zones
 - Principals of target schools
 - Teachers of target schools
- Direct Observations at target and non-target schools

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ANNEX 4. Evaluation Grid

4-1. Achievement of the Project and Implementation Process

| Findings of Study | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-------------------|--------------------------|-------------------|-------------|--------|----|--------|---------|-------------|----|--------|-----------|------------|----|--------|-----------|-------------|----|--------|-----------|-----------|----|--------|-----------|-------|-----|--|-----------|
| Main questions | Details | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Achievement of activities</p> <p>1. Were the inputs made as planned?</p> | <p>1.a.Sri Lankan side</p> <p>1. Inputs by Sri Lankan side were made as planned as follows:</p> <p>(1) Appointment of counterparts</p> <p>(2) Office space and facilities for the Project Team</p> <p>(3) Travel expenses to participate in seminars, workshops and trainings and monitoring and evaluation of the target schools.</p> <p>(4) Block grant for the target schools for the year 2008 was disbursed by the relevant PDE through the target ZEOs as follows:</p> <p style="text-align: center;">Table 4-1-1 Block grant for the target schools for the year 2008</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Zone</th> <th>Number of target schools</th> <th>Unit amount (Rs.)</th> <th>Total (Rs.)</th> </tr> </thead> <tbody> <tr> <td>Jaffna</td> <td>10</td> <td>50,000</td> <td>500,000</td> </tr> <tr> <td>Trincomalee</td> <td>30</td> <td>50,000</td> <td>1,500,000</td> </tr> <tr> <td>Kurunegala</td> <td>30</td> <td>50,000</td> <td>1,500,000</td> </tr> <tr> <td>Bandārawēla</td> <td>30</td> <td>50,000</td> <td>1,500,000</td> </tr> <tr> <td>Wellawaya</td> <td>30</td> <td>50,000</td> <td>1,500,000</td> </tr> <tr> <td>Total</td> <td>130</td> <td></td> <td>6,500,000</td> </tr> </tbody> </table> <p style="text-align: right;">(Source : Project Team)</p> <p>2. The following additional financial inputs were made in the year 2007 and 2008:</p> <p>(1) In the year 2007, MOE disbursed the following financial inputs to each target ZEO:</p> <ul style="list-style-type: none"> • Rs.100,000 for zonal level Educational Kaizen Activities • Rs. 50,000 for the expenses of workshops for science and mathematics • Rs. 50,000 for the monitoring expenses of the target schools | Zone | Number of target schools | Unit amount (Rs.) | Total (Rs.) | Jaffna | 10 | 50,000 | 500,000 | Trincomalee | 30 | 50,000 | 1,500,000 | Kurunegala | 30 | 50,000 | 1,500,000 | Bandārawēla | 30 | 50,000 | 1,500,000 | Wellawaya | 30 | 50,000 | 1,500,000 | Total | 130 | | 6,500,000 |
| Zone | Number of target schools | Unit amount (Rs.) | Total (Rs.) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jaffna | 10 | 50,000 | 500,000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trincomalee | 30 | 50,000 | 1,500,000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kurunegala | 30 | 50,000 | 1,500,000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bandārawēla | 30 | 50,000 | 1,500,000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wellawaya | 30 | 50,000 | 1,500,000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 130 | | 6,500,000 | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Evaluation questions | | Findings of Study |
|--|--|---|
| Main questions | Details | |
| | | <p>(2) In the year 2008, each Rs. 350,000 was disbursed by the relevant PDEs to the target ZEOs for implementation of Educational Kaizen Activities.</p> <p>(3) Rs.150,000 will be disbursed by Uva PDE to a non-target ZEO (Mahiyangana) for implementation of Educational Kaizen Activities.</p> |
| | 1. b. Japanese side | Inputs by Japanese side were made as planned (See Annex-6). |
| 2. Were the activities implemented as planned? | 2. a. Were the activities in the PDM implemented as planned? | <p>1. Most of the planned activities in the PDM were implemented successfully as planned. However, formation of CoSM and development of "sample files" of science and mathematics were delayed.</p> <p>2. Material and method to be used for Educational Kaizen Activities for Science and mathematics were not exactly defined but named as "sample files" at the time the Project started. After a series of discussions and observations made by the Project Team and Sri Lankan counterparts, 100 box and IMaCS were mainly introduced for Mathematics and Lesson Study was introduced for Science. Guidebooks for teachers for IMaCS and Lesson Study were also formulated.</p> <p>3. Jaffna ZEO:</p> <ul style="list-style-type: none"> • After August 2006, the Project Team and counterparts in Colombo became unable to visit the ZEO and the target schools in Jaffna, as security situation became extremely worse in Jaffna and the land route between Colombo and Jaffna was closed. • A counterpart of Jaffna ZEO could not participate in the counterpart training in Japan. • Staff of ZEO, principals and teachers of the target schools could not participate in workshops and seminars held in Colombo. • Mid-term and Terminal Evaluation Teams could not visit Jaffna. • The Project and counterparts decided not to select second batch schools in Jaffna ZEO as they were unable to conduct monitoring. <p>In spite of all these disadvantages, ZEO and the target schools in Jaffna continuously implemented</p> |

| Evaluation questions | | Findings of Study |
|--|--|--|
| Main questions | Details | |
| | 2.b. Were there any factors caused delays in implementation of activities? | Educational Kaizen activities, such as QEC activities, IMaCS, Lesson Studies, monitoring by ZEO, Zonal level conventions, Zonal and school level workshops. The Project took longer time than expected to form CoSM and develop "sample files" of science and mathematics, as the staff of the Project was occupied with activities in the target ZEOs and schools for the first several months. |
| Achievement of Outputs | | |
| 1. Kaizen activities on Educational Management are introduced and conducted in the ZEOs. | 1.a. The result of the end-line survey on "Management Practice at ZEO" is improved from the base-line. | The End-line survey was conducted in the selected 4 target schools in each target ZEOs (total 16 schools) and selected 8 control schools in Badulla ZEO during the period from May to June 2008. The results of the End-line survey were compared with the results of the Base-line survey conducted in 2006. The End-line survey was not conducted in Jaffna ZEO due to security reason. Almost all of the scores of the questions on "office management", "communication" "transparency and participation" "performance and attitude" and "physical conditions" of the target ZEOs were significantly increased in the end-line survey. |
| | 1.b. The level of teachers' satisfaction on the service of ZEOs is improved | The level of teachers' satisfaction on the service of ZEOs was improved as follows: 1. Observation made by the target ZEOs. The target ZEOs believe that the level of satisfaction of teachers on the service of ZEOs was improved. The followings are some indicators observed by the ZEOs: (1) The number of visitors to the ZEOs was reduced (See the following table). Earlier, teachers and principals had to visit the ZEOs several times to fulfill a requirement, as the staff members of ZEO were not efficient. They often failed to find files and information immediately. Now, the ZEOs are able to fulfill their requirements immediately. For example, Trincomalee ZEO became able to start paying retirement pension as soon as teachers/ principals retired, as information of the date of retirement is available in time and there is no missing information in teachers' / principals' files. |

| Evaluation questions | | Findings of Study | | | | | | | | | | | | | | | | |
|----------------------|--------------------|--|-------|--------------------|----------|----|----------|----|----------|----|----------|----|----------|----|----------|----|----------|----|
| Main questions | Details | | | | | | | | | | | | | | | | | |
| | | <p>(2) Queues and crowd in the office were reduced for the same reasons mentioned above.</p> <p>(3) Number of letters of complaint written by teachers and principals addressed to the ZEOs were reduced, as there are less delays and mistakes in payment of salaries</p> <p>(4) Visitors of the ZEOs are treated in a better way. The ZEOs are now clean and tidy. The visitors used to standing up until their requirements are done. Now waiting rooms and chairs are available.</p> | | | | | | | | | | | | | | | | |
| | | <p>Figure 4-1-1: Number of visitors of Wellawaya ZEO</p> <table border="1"> <caption>Data for Figure 4-1-1: Number of visitors of Wellawaya ZEO</caption> <thead> <tr> <th>Month</th> <th>Number of visitors</th> </tr> </thead> <tbody> <tr><td>Jan 2006</td><td>85</td></tr> <tr><td>Feb 2006</td><td>65</td></tr> <tr><td>Mar 2006</td><td>75</td></tr> <tr><td>Apr 2006</td><td>45</td></tr> <tr><td>May 2006</td><td>45</td></tr> <tr><td>Jun 2006</td><td>55</td></tr> <tr><td>Jul 2006</td><td>35</td></tr> </tbody> </table> <p>(Source: Wellawaya ZEO)</p> <p>2. Observations made by principals</p> <p>The Principals participated in the group interviews held in Trincomalee ZEO during the Terminal Evaluation also indicated the followings as examples of improvement of efficiency of ZEO:</p> <p>(1) Their requirements are fulfilled in a short time when they visit ZEO. Previously, they had to wait for a long time or visit the ZEO repeatedly.</p> <p>(2) Principals and teachers became able to receive salary pay-sheets from the ZEO in the morning of the pay-day, then they receive cheque, go to banks and cash the cheque in the same day itself. Previously</p> | Month | Number of visitors | Jan 2006 | 85 | Feb 2006 | 65 | Mar 2006 | 75 | Apr 2006 | 45 | May 2006 | 45 | Jun 2006 | 55 | Jul 2006 | 35 |
| Month | Number of visitors | | | | | | | | | | | | | | | | | |
| Jan 2006 | 85 | | | | | | | | | | | | | | | | | |
| Feb 2006 | 65 | | | | | | | | | | | | | | | | | |
| Mar 2006 | 75 | | | | | | | | | | | | | | | | | |
| Apr 2006 | 45 | | | | | | | | | | | | | | | | | |
| May 2006 | 45 | | | | | | | | | | | | | | | | | |
| Jun 2006 | 55 | | | | | | | | | | | | | | | | | |
| Jul 2006 | 35 | | | | | | | | | | | | | | | | | |

| Evaluation questions | | Findings of Study | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|------------|-------------|-------------|------------|-------------|-----------|---------------|-----|-----|-----|-----|-----|---------------|-----|-----|-----|-----|-----|---------------|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|--|
| Main questions | Details | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Educational Kaizen Activities on school management are introduced and conducted in the target schools with the facilitation of ZEOs | 2.a. Every target school has at least one visit of ZEO officer and receives useful comments for supporting school management in each term in 2008. | <p>issuing a pay-sheet was always delayed. They could not cash cheque on the day they received the cheque as money was not deposited to the banks timely.</p> <p>(3) They receive invitation letters for meetings well in advance.</p> <p>(4) Principals and teachers in remote area benefitted by "mobile services" conducted by ZEO. They completed their personal files by submitting missing documents and obtained cards for retirement pensions.</p> <p>(5) Meetings of ZEO start on time.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <p>1. The average number of visits of the ZEOs to a target school for a term during the period from September 2007 to August 2009 (3 terms) were as follows:</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <p>Table 4-1-2: Average number of monitoring visits for a target school</p> <table border="1"> <thead> <tr> <th></th> <th>Jaffna</th> <th>Trincomalee</th> <th>Kurunegala</th> <th>Bandarawela</th> <th>Wellawaya</th> </tr> </thead> <tbody> <tr> <td>3rd term 2007</td> <td>2.0</td> <td>0.8</td> <td>0.0</td> <td>0.1</td> <td>1.2</td> </tr> <tr> <td>1st term 2008</td> <td>1.0</td> <td>1.4</td> <td>0.6</td> <td>1.1</td> <td>0.8</td> </tr> <tr> <td>2nd term 2008</td> <td>1.0</td> <td>0.6</td> <td>0.3</td> <td>1.1</td> <td>0.3</td> </tr> <tr> <td>Average</td> <td>1.3</td> <td>0.9</td> <td>0.3</td> <td>0.7</td> <td>0.8</td> </tr> </tbody> </table> | | Jaffna | Trincomalee | Kurunegala | Bandarawela | Wellawaya | 3rd term 2007 | 2.0 | 0.8 | 0.0 | 0.1 | 1.2 | 1st term 2008 | 1.0 | 1.4 | 0.6 | 1.1 | 0.8 | 2nd term 2008 | 1.0 | 0.6 | 0.3 | 1.1 | 0.3 | Average | 1.3 | 0.9 | 0.3 | 0.7 | 0.8 | |
| | Jaffna | Trincomalee | Kurunegala | Bandarawela | Wellawaya | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3rd term 2007 | 2.0 | 0.8 | 0.0 | 0.1 | 1.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1st term 2008 | 1.0 | 1.4 | 0.6 | 1.1 | 0.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2nd term 2008 | 1.0 | 0.6 | 0.3 | 1.1 | 0.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 1.3 | 0.9 | 0.3 | 0.7 | 0.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <p>As the above table shows, average number of visits of the ZEOs to a target school for a term was 0.3-1.3. The result shows that most of the target ZEOs visited the target schools as often as they planned, however with some interruptions. The ZEOs had a difficulty to visit remote schools and schools do not have access by public transportation. It was also difficult for the ZEO staff to spare time for monitoring visits when they have to frequently attend seminars and workshops held in Colombo. Travelling expenses and unavailability of vehicles affected the frequency of monitoring for some Zones.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <p>2. Group interviews and school visit conducted by Mid-term and Terminal Evaluations found that principals and teachers of the target schools feel that monitoring visit by ZEO staff is useful and encouraging to improve</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Findings of Study | |
|---|---|
| Evaluation questions | |
| Main questions | Details |
| | <p>school management. However, it was difficult for the Terminal Evaluation Team to confirm objectively the degree of usefulness of the advices given by the staff of ZEO at the time of monitoring. The Project Team is of an opinion that monitoring skill of the staff of ZEO should be further strengthened.</p> <p>1. In most cases, increment rates of the scores of the target schools for the questions on "school management" and "School culture" were higher than those of the control schools. Increment rates of the scores of the target schools were significantly higher compared with that of the control schools for the following questions:</p> <ol style="list-style-type: none"> (1) Information management of teachers (2) Development of teachers' capacity (3) Cooperation between teachers and students, teachers and parents/ SDS and teachers and ZEO <p>2. Absent rates of the teachers and students in the selected target schools were significantly reduced (See the following figures). The principals of several target schools mentioned that increment of attendance was happened as motivation of teachers and students were increased as a result of the activities of the Project, such as IMaCS and QECs.</p> <p>3. Most of the target schools observed that the parents became more active to support and participate in school activities. Involvement of the parents in QECs was a positive factor to increase participation of the parents to school activities. Participatory and transparency decision making in QEC meetings encouraged the parents to further extend cooperation to the schools.</p> |
| 2.b. The level of improvement in the result of the end-line survey from the base-line survey (Questions for School management and School culture, attendance rates of teachers and students) is greater for the target schools than for the control schools | |

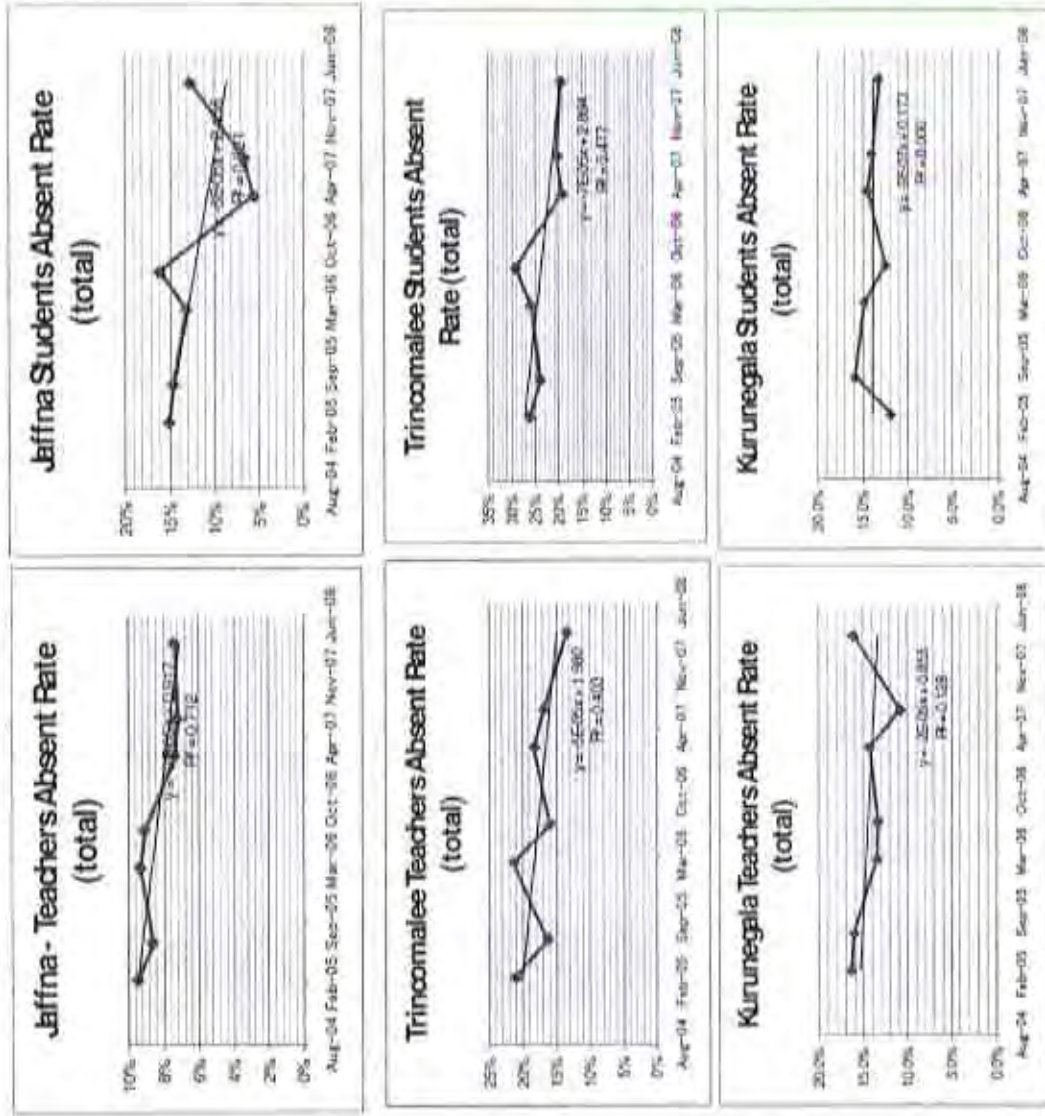
Findings of Study

Evaluation questions

Details

Main questions

Figure 4-1-2. Absent rates of teachers and students in selected target schools



| Evaluation questions | | Findings of Study | |
|------------------------------|--|---|--|
| Main questions | Details | | |
| | | <p>Bandarawela Teachers Absent Rate (~2007)</p> | <p>Bandarawela Students Absent Rate (~2007)</p> |
| | | <p>Wellawaya Teachers Absent Rate (~2007)</p> | <p>Wellawaya Students Absent Rate (~2007)</p> |
| | | <p>(Source: Project Team)</p> <p>Note: (1) For the survey, 5 to 6 schools including the sample schools for end-line survey were selected for each ZEO. Absent rates of all the teachers and students of Grade 2, 4, 8, 10 were studied as samples.</p> <p>(2) Absent rates of the schools of Bandarawela and Wellawaya ZEOs for the month of January 2008 were excluded from the Figure, as they were extraordinary high due to deteriorated security situation caused by a series of blasts of public buses in the area.</p> | |
| 3. Subject based educational | 3.a. Every target school has at least one visit of | <p>1. The average number of visits of the ZEOs to a target school for a term during the period from September 2007 to August 2008 (3 terms) were as follows:</p> | |

Findings of Study

Evaluation questions

Main questions

Kaizen activities on Science and mathematic are introduced and conducted in the target schools with the facilitation of the ZEOs.

ZEOs receives comments for supporting Science and mathematics activities in each term in 2008.

Details

Table 4-1-3: Average number of monitoring visits for a target school

| | Jaffna | Trincomalee | Kurunegala | Bandarawela | Wellawaya |
|---------------|--------|-------------|------------|-------------|-----------|
| 3rd term 2007 | 2.0 | 0.8 | 0.0 | 0.1 | 1.2 |
| 1st term 2008 | 1.0 | 1.4 | 0.6 | 1.1 | 0.8 |
| 2nd term 2008 | 1.0 | 0.6 | 0.3 | 1.1 | 0.3 |
| Average | 1.3 | 0.9 | 0.3 | 0.7 | 0.8 |

As the above table shows, average number of visits of the ZEOs to a target school for a term was 0.3-1.3. The result shows that most of the target ZEOs visited the target schools as often as they planned, however with some interruptions. See the detail information about the monitoring in Output 2.a

(Source: Project Team)

2. It was found in the end-line survey that the number of teachers who evaluated advice of ISAs "useful" and "practical" and who gave high assessment scores to the support of ISA on ERA, Mathematics and Science was significantly increased in the target schools than in control schools.

3.b. The level of improvement in the result of the end-line survey from the base-line survey (Questions for Science and mathematic Teaching and Learning, Academic Ability Test in ERA/Science and mathematics) is greater for the target schools

1. Result of the end-line survey on Science and mathematics Teaching and Learning

In most cases, increment rates of the scores of the target schools for the questions on "Science and mathematic teaching and learning" were higher than those of the control schools. Especially, increment rates of the scores of the target schools were "significantly" higher compared with that of the control schools for the following questions:

- (1) Teachers' self evaluation on performance of Primary ERA, Secondary Science and Technology and Secondary mathematics.
- (2) Students' performance evaluated by teachers on Primary ERA and mathematics and Secondary mathematics.
- (3) Students' performance evaluated by students in G7/9 for Secondary Science and mathematics.
- (4) ISA's support evaluated by teachers.

Findings of Study

| Evaluation questions | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-------------|------------|-------------|------------|-------------|-----------|----------------|----|---|---|---|---|----------------|---|---|---|---|---|----------------|---|---|---|---|---|
| Main questions | Details | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>than for the control schools.</p> | <p>2. Result of the end-line Academic Ability Test in ERA/Science and mathematics. The average scores of the academic ability test of the end-line survey were higher than those of the base-line survey in both target schools and in control schools in every survey item (ERA, mathematics and Science and Technology). The levels of increment show mixed results as follows:</p> <p>(1) ERA (Grade 3/5) and Science and Technology (Grade 7/9): The levels of increment of the average scores of the target schools were slightly higher than those of the control schools.</p> <p>(2) Mathematics (Grade 3/5) and mathematics (G7/9): The levels of increment of the average scores of the target schools were slightly lower than those of the control schools.</p> <p>The above results show that there was no significant impact created in the target schools on their academic ability. The followings are some considerable reasons behind the above results:</p> <p>(1) It is too early to confirm the effects of the inputs of the Project in the target schools. Especially, the Project selected small and disadvantaged schools as targets; therefore, it can not be expected to see a sudden increase in academic ability of the students.</p> <p>(2) Factors other than the inputs of the Project, such as human and physical resources of the schools and home environment had influenced the results.</p> <p>(3) The end-line Mathematics test for Grade 5 students was too easy and the scores hit a peak. The test was not suitable to see difference between the target schools and control schools.</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3.c. Zonal level Lesson Study is regularly conducted at least once a term.</p> | <p>1. Number of Zonal Lesson Study workshops conducted</p> <p>Zonal level lesson studies for ERA and Science were conducted at the target ZEOs during the last three terms as follows:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Table 4-1-4 :Number of Zonal level Lesson Study workshops</caption> <thead> <tr> <th></th> <th>Jaffna</th> <th>Trincomalee</th> <th>Kurunegala</th> <th>Bandarawela</th> <th>Wellawaya</th> </tr> </thead> <tbody> <tr> <td>3rd term, 2007</td> <td>NA</td> <td>3</td> <td>3</td> <td>6</td> <td>2</td> </tr> <tr> <td>1st term, 2008</td> <td>2</td> <td>4</td> <td>6</td> <td>5</td> <td>3</td> </tr> <tr> <td>2nd term, 2008</td> <td>6</td> <td>2</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> | | Jaffna | Trincomalee | Kurunegala | Bandarawela | Wellawaya | 3rd term, 2007 | NA | 3 | 3 | 6 | 2 | 1st term, 2008 | 2 | 4 | 6 | 5 | 3 | 2nd term, 2008 | 6 | 2 | 3 | 3 | 3 |
| | Jaffna | Trincomalee | Kurunegala | Bandarawela | Wellawaya | | | | | | | | | | | | | | | | | | | | |
| 3rd term, 2007 | NA | 3 | 3 | 6 | 2 | | | | | | | | | | | | | | | | | | | | |
| 1st term, 2008 | 2 | 4 | 6 | 5 | 3 | | | | | | | | | | | | | | | | | | | | |
| 2nd term, 2008 | 6 | 2 | 3 | 3 | 3 | | | | | | | | | | | | | | | | | | | | |

| Findings of Study | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-------------|------------|-------------|------------|-------------|-----------|----------------|----|---|----|---|---|----------------|----|----|---|---|---|----------------|----|---|---|---|----|
| Evaluation questions | Details | | | | | | | | | | | | | | | | | | | | | | | | |
| Main questions | <p>(source: Project Team)</p> <p>As the above table shows, all the ZEOs have conducted Zonal level Lesson Study 2-6 times a term during the past two terms. The ZEOs conducted workshop more frequently than the Project expected. The target ZEOs observed active participation of the teachers in the Zonal level Lesson Study.</p> <p>2. Effectiveness of the workshops</p> <p>The Project Team observed that as soon as the concept of Lesson Study was introduced, most of the workshops did not managed well. Sometimes, the presenter was disappointed as the observers expressed only negative comments. ISA talked a lot and did not give a chance for others to speak. However, as a result of continuous facilitation done by the Project Team, they recently observed the following improvements in the way Lesson Study workshops conducted.</p> <ol style="list-style-type: none"> (1) The observers gave constructive comments and the presenters feel encouraged. (2) Participants got together and extent effort to revise the lesson plan in a better way. (3) ISAs tried to be good facilitators. (4) There was a positive environment among the participants to learn from others. | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.d. School level Lesson Study is regularly conducted at least once a month. | <p>1. Number of school level Lesson Study workshops</p> <p>School level Lesson Studies for ERA were conducted at the target schools. The following table shows the total number of school level workshops held for a term:</p> <p style="text-align: center;">Table 4-1-5: Number of school level Lesson Study workshops</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Jaffna</th> <th>Trincomalee</th> <th>Kurunegala</th> <th>Bandarawela</th> <th>Wellawaya</th> </tr> </thead> <tbody> <tr> <td>3rd term, 2007</td> <td>NA</td> <td>0</td> <td>27</td> <td>3</td> <td>0</td> </tr> <tr> <td>1st term, 2008</td> <td>10</td> <td>11</td> <td>1</td> <td>2</td> <td>1</td> </tr> <tr> <td>2nd term, 2008</td> <td>24</td> <td>8</td> <td>8</td> <td>9</td> <td>20</td> </tr> </tbody> </table> <p style="text-align: right;">(Source: Project Team)</p> | | Jaffna | Trincomalee | Kurunegala | Bandarawela | Wellawaya | 3rd term, 2007 | NA | 0 | 27 | 3 | 0 | 1st term, 2008 | 10 | 11 | 1 | 2 | 1 | 2nd term, 2008 | 24 | 8 | 8 | 9 | 20 |
| | Jaffna | Trincomalee | Kurunegala | Bandarawela | Wellawaya | | | | | | | | | | | | | | | | | | | | |
| 3rd term, 2007 | NA | 0 | 27 | 3 | 0 | | | | | | | | | | | | | | | | | | | | |
| 1st term, 2008 | 10 | 11 | 1 | 2 | 1 | | | | | | | | | | | | | | | | | | | | |
| 2nd term, 2008 | 24 | 8 | 8 | 9 | 20 | | | | | | | | | | | | | | | | | | | | |

| Findings of Study | |
|----------------------|--|
| Evaluation questions | Details |
| Main questions | <p>All the target schools are expected to hold school level Lesson Study workshop at least once a term. However, the above table shows that school level Lesson Study workshops were not held regularly, except for Jaffna (Note: Jaffna has only 10 target schools). On the other hand, the principals and teachers assented to the Terminal Evaluation Team at the time of school visits and group interviews that their schools had hold school level lesson plan workshops, at least once or even 3 times a term.</p> <p>2. Reasons behind the discrepancy in the number of school level lesson plan workshops</p> <p>The followings are considerable reasons behind the discrepancy in the number of school level lesson plan workshops.</p> <p>(1) The ZEOs does not have exact information of the number of workshops held as the reporting system on the workshop is not well arranged. Usually, ISA and school discuss and decide the date of workshop. ISA is expected to participate in the workshop and collect a report with revised Lesson Study from the school. However, if the ISA fail to participate in the workshop or fail to report to the ZEO, the ZEO does not know whether the workshop was held or not.</p> <p>(2) The schools are to send revised lesson plans to the ZEOs after the workshop. However, most of the schools fail to revise the lesson plans although they have held workshops. The ZEOs sometimes did not count the number of these uncompleted workshops</p> <p>3. In some schools, Lesson Study workshops were not conducted as often as they planned due to the following reasons:</p> <p>(1) Lesson Study is a new thing for most of the teachers. They had never taught in front of a group of observers. It took some more time for them to understand the objectives, value and the benefit of the Lesson Study.</p> <p>(2) Initiative of the principals is the key to have regular Lesson Study workshops. Lesson Study workshops are not held regularly, if principals are not motivated to make it a priority.</p> <p>(3) Principals and teachers found difficult to find a time for the workshop during the school hours.</p> <p>4. Considering the above mentioned reasons, continuous facilitation and effective monitoring of ZEO to school</p> |

| Evaluation questions | | Findings of Study |
|----------------------|---------|--|
| Main questions | Details | |
| | | <p>level Lesson Study should be the key factor to make it a routine work.</p> <p>5. The Terminal Evaluation Team found that the target ZEOs and schools appreciate the value of the Lesson Study and positive results so far created by implementation of the Lesson Study. They especially confirmed that Lesson Study increases motivation and interest of the students to the subject. It also provides opportunities for teachers to learn activity based and student centered teaching methods.</p> |

✓

IMaCS impact surveys were conducted three times; around the beginning, middle and end of the Project. Students in Grade 3 and 6 in 2 target schools in each ZEO were selected as samples of the target schools. Students in the same grades in a non-target school in each ZEO in the same ZEO area were selected as samples of non-target schools. In the final evaluation survey, these students proceeded to Grade 4 and 7 respectively.

1. In intermediate test in January 2008:
 The median scores were increased in all the target schools and the non-target schools, where the exercise of 100 box calculation is conducted. The median scores were not increased in the non-target schools where no such exercise is introduced.

2. Final test in June-July 2008:
 The median scores were increased in all the target schools and the non-target schools.

(1) Grade 3/4 (see the Figure 4-1-3)
 The increment rates of median scores of the target schools were higher than those of the non-target schools in the same ZEOs. The result shows that practice of IMaCS is effective to improve academic ability of the primary students.

(2) Grade 6/7 (see the Figure 4-1-4)

- The increment rates of median scores of the target schools were significantly higher than those of the non-target schools in the ZEOs of Jaffna and Trincomalee.
- The increment rates of the target schools and non-target schools were almost same in Kurunegala ZEO.
- The increment rates of median scores of the target schools were slightly lower than those of the non-target schools in Bandarawela ZEO.

The above results show that it is too early to confirm the effectiveness of IMaCS to secondary students.

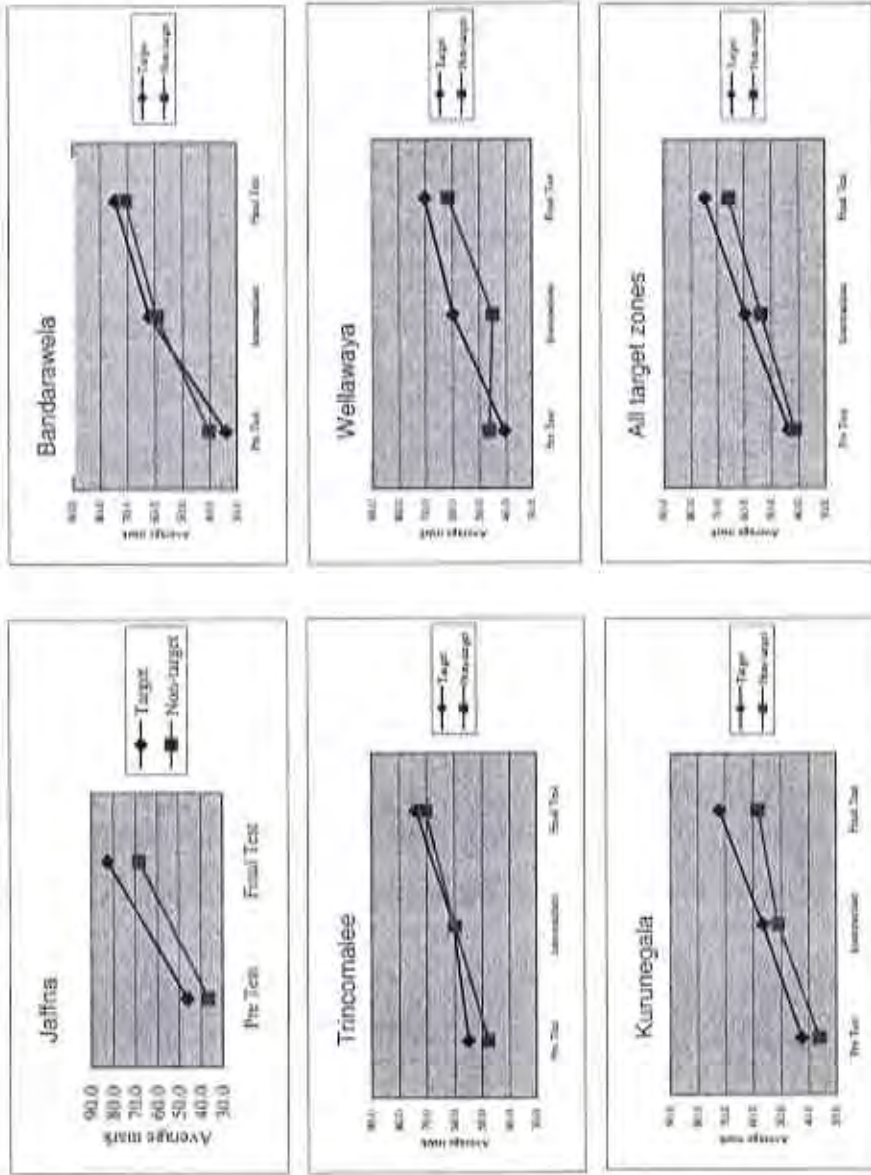
(3) Slow learners (see the figure 4-1-5 and 4-1-6)

- The average increment of slow learners of Grade 3/4 of the target schools was significantly higher than those of non-target schools.
- There was no significant difference on average increment of slow learners between the students of the target schools in Grade 6/7 and those in non-target schools.

The above results show that practice of IMaCS is effective to improve academic ability of slow learners in primary grades.

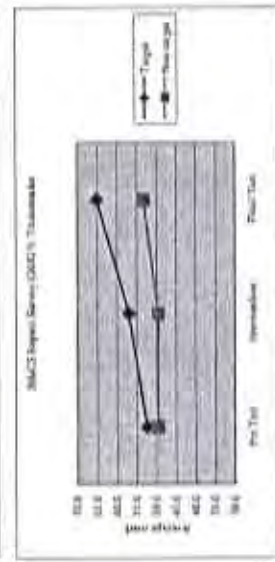
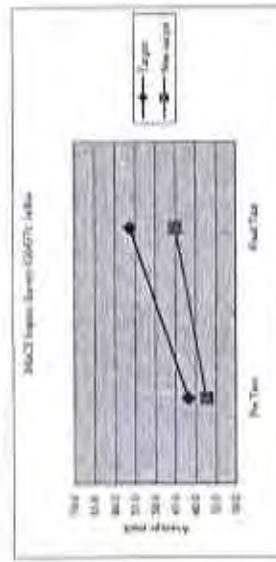
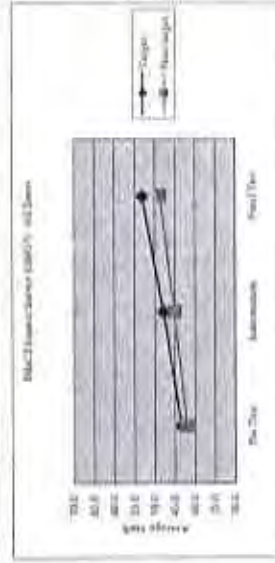
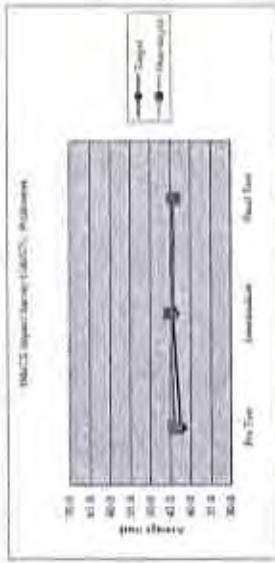
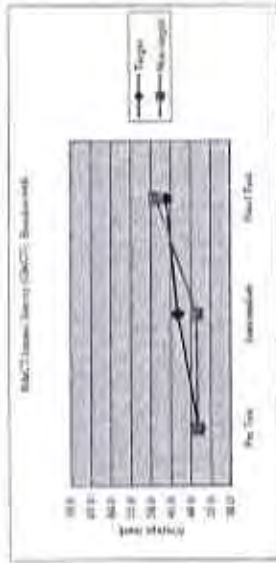
3.e. The median score of the IMaCS impact survey is improved.

Figure 4-1-3: Result of IMaCS final impact survey (Grade 3/4)



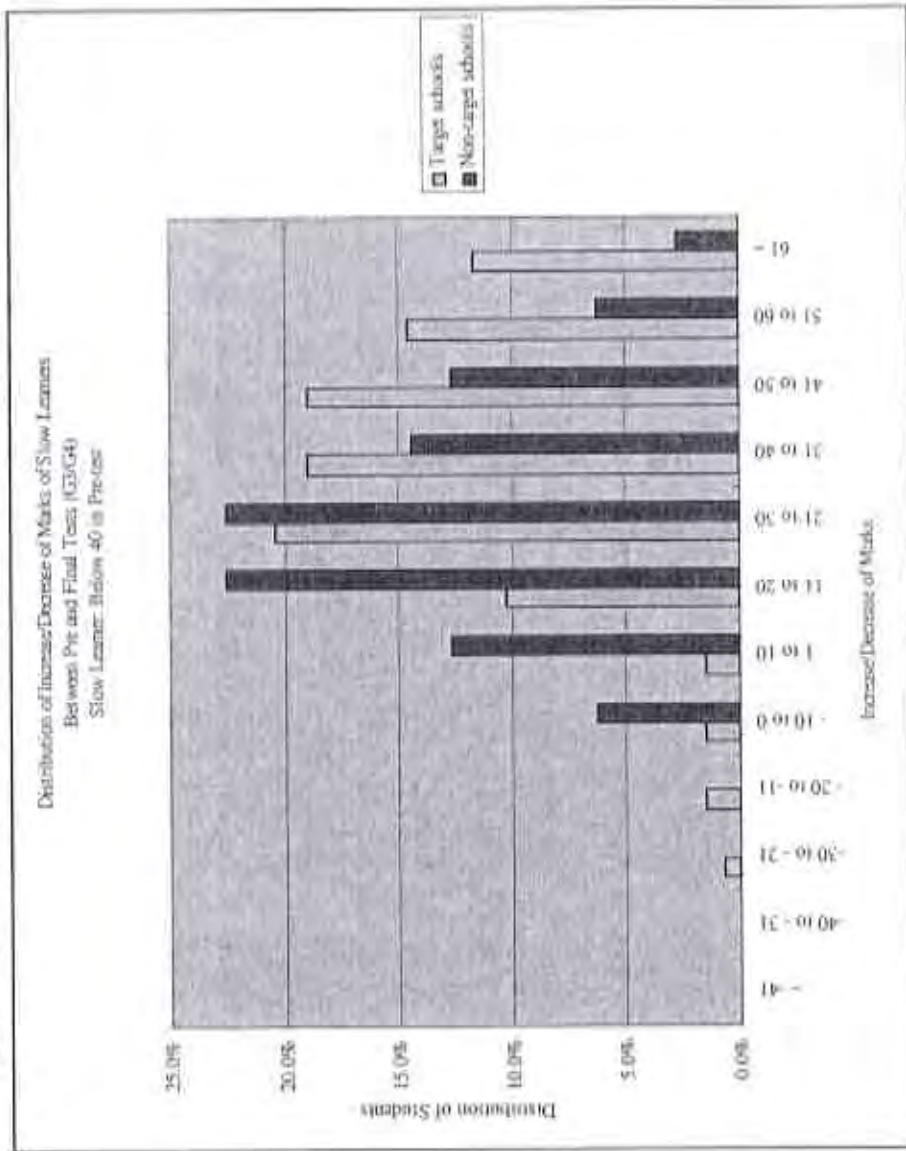
(Source: Project Team)

Figure 4-1-4: Result of IMaCS final impact survey (Grade 6/7)



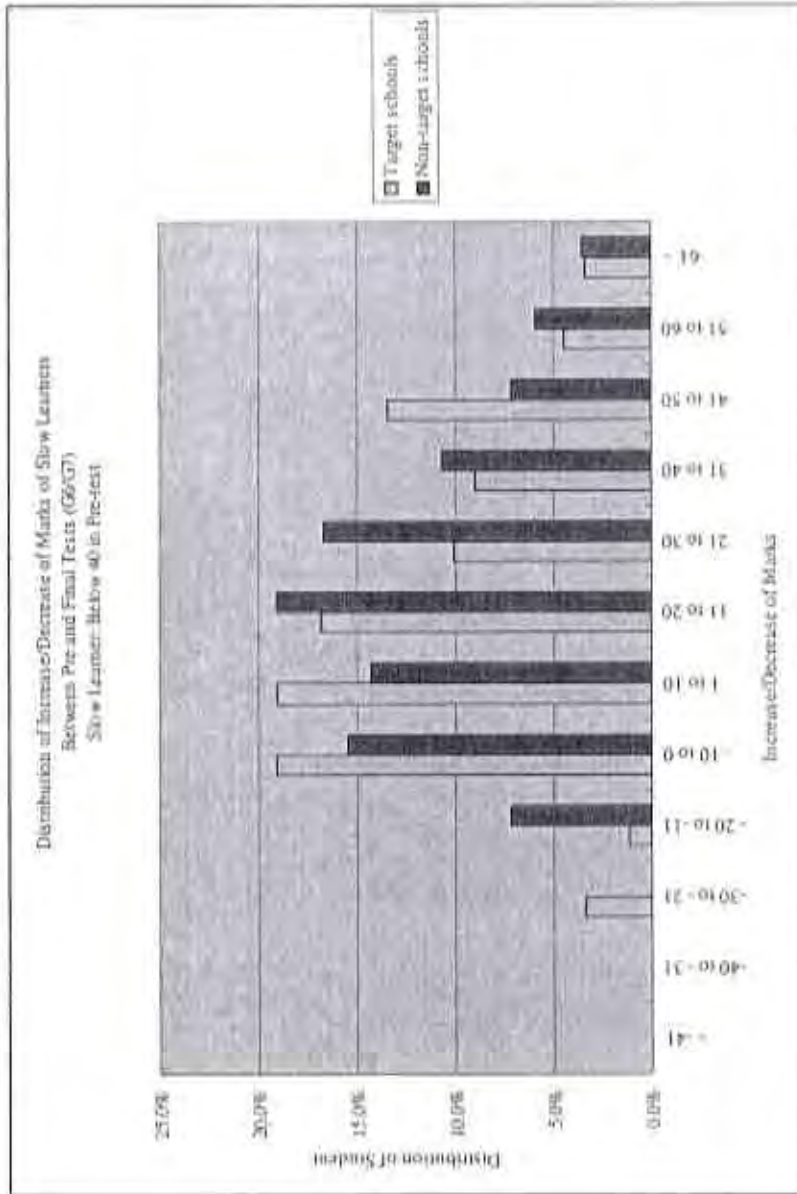
(Source: Project Team)

Figure 4-1-5: Results of slow learners in IMaCS final impact survey for Grades 3/4



(Source: Project Team)

Figure 4-1-6: Results of slow learners in IMaCS final impact survey for Grades 6/7



(Source: Project Team)

The Terminal Evaluation Team observed that the target ZEOs and schools are making various efforts to increase understanding of the teachers on correct teaching method of IMaCS and to follow-up slow learners. The Project is of an opinion that such efforts are needed to be continued in future too.

| | | |
|---|---|---|
| <p>4. Vertical linkage (National, provincial, Zonal and school levels) and horizontal linkages (within target schools) are established.</p> | <p>4.a. NEIKA meeting is conducted at least once in half year.</p> <p>4.b. PEIKA meeting is conducted at least quarterly.</p> | <p>NEIKA meeting was conducted 3 times in 2007 and 2 times in 2008 as of August 2008. In average, the meetings were conducted 1.5-2 times in every half year. This frequency of the meeting was more than what Project expected.</p> <ol style="list-style-type: none"> 1. PEIKA meetings were held 2 times during the last 10 months. 1st meetings were held around November 2007 and the second meetings were held around June 2008 in each province. Accordingly, PEIKA meetings were held almost once in 4 months. The frequency of the meeting was almost same as the Project expected. 2. It was observed that Chief Secretaries and staff of PDEs improved their understanding of Educational Kaizen activities by participating PEIKA meetings. 3. In PEIKA meetings held in May-June 2008, the participants discussed strategies for expansion of the activities |
| | <p>4.c. CoSM meeting is conducted at least quarterly.</p> | <p>CoSM meetings were held 6 times during the past 20 months (3 times in 2007, and 3 times in 2008 as of August 2008). Accordingly, the meetings were held at least quarterly. The frequency of the meeting was same as the Project expected.</p> |
| | <p>4.d. All the target schools participate in the zonal convention.</p> | <ol style="list-style-type: none"> 1. All the target schools participated in the Zonal QEC conventions held in 2006, 2007 and 2008. 2. Principals and senior teachers of the non-target schools also participated in the conventions as observers in 2007 and 2008. 3. The conventions were ideal occasions for the target schools to share their experience and learn from others. The conventions increased the interest of the non-target schools to the activities. |
| | <p>4.e. Practical manual for Educational Kaizen activities is developed.</p> | <ol style="list-style-type: none"> 1. Existing manuals were analyzed. 2. Based on the analysis, the list of contents of the manual is finalized. Some of the guidelines already developed during the Master Plan Project and ISMEQUE will be incorporated in the manual. As of August 2008, the draft manual is under preparation. |

| Achievement of Project Purpose | |
|---|---|
| <p>A sustainable system to improve school management is established in the target zones.</p> | <p>1. In the target ZEOs, Educational Kaizen activities were not incorporated as one of the items in their annual plan of 2007, because the funding sources of the general routine work and Kaizen activities were different: the former is PDE and the later is JICA. They did not incorporate the activities in their annual plan in 2008 too, because it was a transitional period of the fund sources and they did not receive particular information about the funding of the activities from PDE at the time of budget preparation.</p> <p>2. All the ZEOs confirmed that they will incorporate Educational Kaizen activities in the annual plan of 2009. Annual Plan for 2009 will be drafted by December 2008. As of September 2008, each PMOE submitted estimate of the cost of activities in the target schools and zones to the Finance Commission for the year 2009.</p> <p>3. In the target schools, too, they formulated a separate annual plan for the Educational Kaizen activities in 2007 and 2008 due to the same reasons as mentioned above. They are going to incorporate the activities to the annual plan in 2009.</p> |
| <p>2. Plans to introduce school management with Educational Kaizen activities to non-target schools are formulated in the target zones.</p> | <p>It was observed in all target ZEOs that not a few number of non-target schools are exercising Educational Kaizen activities. Some of these schools are utilizing the allocation of Quality Input for the activities. The ZEOs conducted awareness creation workshops and seminars for all the schools in the Zone to introduce the activities. Routine meetings and seminars held by ZEOs were also utilized as occasion for introduction of the activities. The followings are status of each ZEO for introducing the activities to non-target schools:</p> <p>1. Jaffna ZEO</p> <p>(1) In PEIKA meeting held in July 2008, it was decided to add 10 schools as target in Jaffna ZEO for the year 2009. New target schools were already selected.</p> <p>(2) The Northern PMOE has submitted proposal of the budget allocation to the Finance Commission, for the Educational Kaizen activities in 2009 including provision of block grants for these new target schools.</p> <p>2. Trincomalee ZEO</p> <p>(1) In PEIKA meeting held in June 2008, it was decided to increase the number of target schools by 10 in the ZEO for the year 2009. The new target schools were already selected. The Kaizen Unit in the Eastern PDE started negotiation with the PMOE to allocate budget for the Educational Kaizen activities in 2009.</p> |

| | | |
|--|--|--|
| | <p>block grants for these new target schools.</p> | |
| | <p>(2) The ZEO issued an instruction letter to all the schools to incorporate Educational Kaizen activities into their annual plan for 2009.</p> | |
| | <p>(3) The ZEO formulated 9 clusters in the Zone in which the Target schools are located as core schools. The ZEO is going to facilitate the schools in the clusters to share information and experience of the target schools for the year 2009. For example, Lesson Study workshops will be conducted in each cluster. School visits among the schools in the cluster will be encouraged. The ZEO developed an idea of the clusters as there are some schools locate in very remote area, where the staff of ZEO can not visit by public transportation.</p> | |
| | <p>3. Kurunegals ZEO</p> | |
| | <p>(1) The ZEO selected 30 non-target schools which are practicing QEC activities. The ZEO monitors the progress of these schools at the time of zonal inspections.</p> | |
| | <p>(2) The ZEO observed that more than half of these non-target schools effectively continue the activities utilizing Quality Inputs</p> | |
| | <p>4. Bandarawela ZEO</p> | |
| | <p>(1) The ZEO encouraged the target schools to help surrounding non-target schools. As a result, the target schools are sharing their experience with non-target schools. For example, some target schools invited surrounding non-target schools to lesson plan workshops. Some non-target schools visited target schools to see their science laboratories and mathematics rooms being encouraged by the ZEO.</p> | |
| | <p>(2) In 2009, they are planning to conduct IMaCS workshop for principals and teachers in non-target schools.</p> | |
| | <p>(3) The Uva PMOE, PDE and ZEO are going to increase the number of target schools by 20 in the ZEO in 2009.</p> | |
| | <p>5. Wellawaya ZEO</p> | |
| | <p>(1) The ZEO observed that some non-target schools are following good practices of the target schools and showing improvement in their school management. The ZEO is providing advice to such schools at the time of zonal inspections.</p> | |
| | <p>(2) The ZEO is going to conduct a series of workshops for teachers in non-target schools in the third term of 2008. The students are to be instructed to write questions in IMaCS in their notebooks as they will not be</p> | |

| | | <p>provided with IMaCS books.</p> <p>(3) The Uva PMOE, PDE and ZEO are going to increase the number of target schools by 20 in the ZEO in 2009.</p> | | | | | | | | | | | | | | | | | | | | |
|---|--|---|-------|-----|-----|----|-----------|-------|-------|-------|-----------|-------|-------|-------|-----------|-------|-------|-------|-----------|-------|-------|-------|
| Achievement of Overall Goals | | | | | | | | | | | | | | | | | | | | | | |
| <p>Quality and equity of education is improved in the target zones.</p> | <p>1. The difference of the pass rates of Grade 5 scholarship exam, O/L exam between IAB Schools and Schools of other categories in the target zones will decrease</p> | <p>As the difference of the pass rate of the Grade 5 scholarship exam and O/L exam between IAB schools and schools of other categories in the target zones is not available, improvement of the results of the Grade 5 scholarship exam were examined.</p> <p>The Figure 4-1-7 shows that the results of the target schools are much lower than that of the non-target schools throughout the past 4 years.</p> <p style="text-align: center;">Figure 4-1-7 Grade 5 Scholarship Exam Results (Trincomalee ZEO)</p> <div style="text-align: center;"> <table border="1" style="margin: 10px auto;"> <thead> <tr> <th>YEAR</th> <th>SBS</th> <th>FBS</th> <th>NT</th> </tr> </thead> <tbody> <tr> <td>YEAR 2004</td> <td>27.46</td> <td>47.80</td> <td>24.74</td> </tr> <tr> <td>YEAR 2005</td> <td>25.94</td> <td>42.80</td> <td>31.26</td> </tr> <tr> <td>YEAR 2006</td> <td>24.76</td> <td>37.76</td> <td>37.48</td> </tr> <tr> <td>YEAR 2007</td> <td>24.52</td> <td>34.44</td> <td>41.04</td> </tr> </tbody> </table> </div> <p style="text-align: right;">(Source: Trincomalee ZEO)</p> | YEAR | SBS | FBS | NT | YEAR 2004 | 27.46 | 47.80 | 24.74 | YEAR 2005 | 25.94 | 42.80 | 31.26 | YEAR 2006 | 24.76 | 37.76 | 37.48 | YEAR 2007 | 24.52 | 34.44 | 41.04 |
| YEAR | SBS | FBS | NT | | | | | | | | | | | | | | | | | | | |
| YEAR 2004 | 27.46 | 47.80 | 24.74 | | | | | | | | | | | | | | | | | | | |
| YEAR 2005 | 25.94 | 42.80 | 31.26 | | | | | | | | | | | | | | | | | | | |
| YEAR 2006 | 24.76 | 37.76 | 37.48 | | | | | | | | | | | | | | | | | | | |
| YEAR 2007 | 24.52 | 34.44 | 41.04 | | | | | | | | | | | | | | | | | | | |

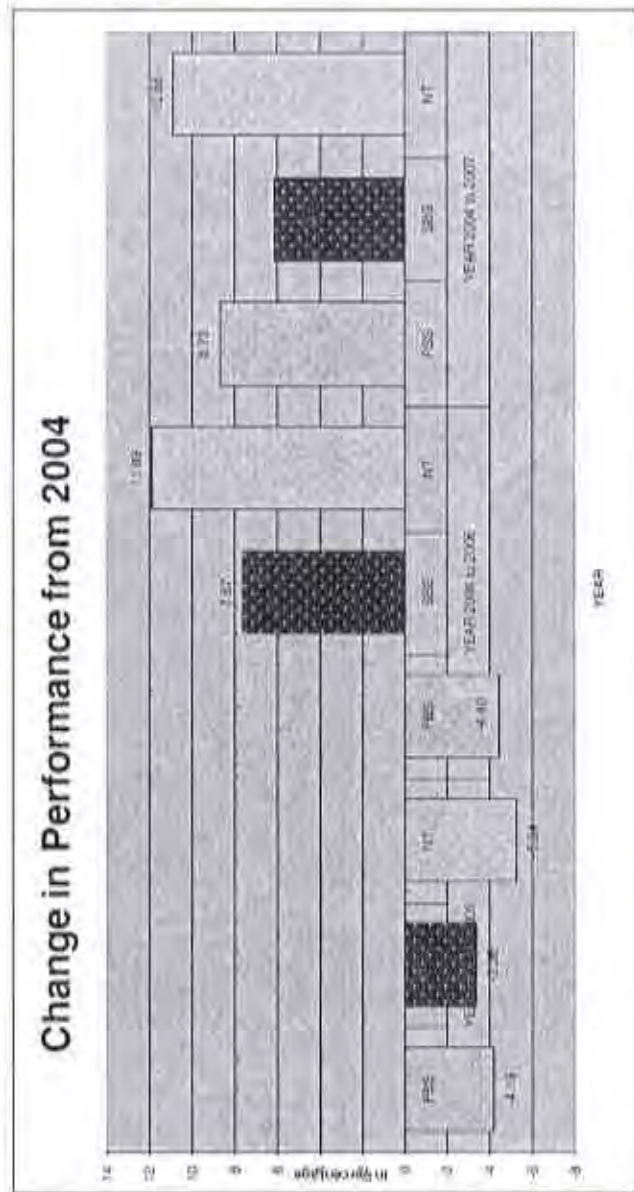
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The Figure 4-1-8 indicates that the results of the First Batch schools was getting worse until 2006, while non-target schools show improvement in 2006. However, the same Figure shows that the First Batch schools achieved significant improvement in 2007, and the improvement rate of the First Batch schools was even greater than that of the non-target schools.

Figure 4-1-8 : Improvement rates of the Grade 5 Scholarship Exam Results (Trincomalee ZEO)



Note: FBS: First Batch schools, SBS: Second Batch schools, NT: Non-target schools (Source: Trincomalee ZEO)

The Kaszen Unit of Uva PDE selected some zones in the Province with lower pass rates in Grade 5 Scholarship Examination (Table 4-1-6). The table shows that Wellawaya ZEO, which had the lowest pass rate, shows significant improvement in 2007. The improvement rate of the Wellawaya ZEO is also higher than those of two other zones.

Table 4-1-6 : Pass rates of the Grade 5 Scholarship examination in some selected zones in Uva Province

| Zone | 2006 (%) | 2007 (%) | Improvement (%) (2007-2006) |
|-----------|----------|----------|-----------------------------|
| Wellawaya | 4.74 | 9.92 | 5.18 |
| Passata | 6.61 | 8.51 | 1.9 |
| Bibile | 11.07 | 14.91 | 3.84 |

(Source: Kaizen Unit of Uve PDE)

The above data of Trincomalee and Wellawaya indicate that there is a possibility for the Project to contribute reducing the difference in achievements of the exams between the First Batch schools and the non-targets schools, including LAB schools. However, it is still hard to tell that the Project is definitely contributing to the Overall Goal 1, as the data of other target ZEOs are either not available or do not show significant improvement of the achievement of the target schools.

Sustainable system to improve school management is expanded from the target schools to the non-target schools and from the target zones to the non-target zones

2. No. of schools continuously conducting Educational Kaizen activities will increase.

Kaizen Unit in MOE is planning to expand Educational Kaizen activities in non-target schools, Zones and Provinces as described in the following table. The budgetary allocation for the Kaizen Unit in MOE to facilitate the expansion in 2009 (total amount : Rs. 15,075,000) was already approved by the Secretary of the MOE.

Table 4-1-7 : Plan of Kaizen Unit in MOE for expansion of Educational Kaizen Activities

| Number of | 2008 | 2009 | 2010 | 2011 |
|-----------|---------|-------------------|------|-------------|
| Provinces | 4 | 9 (all Provinces) | 9 | 9 |
| Zones | 5+2* | 23 | 41 | All zones |
| Schools | 130+30* | 220 | 792 | All schools |

(Source: MOE)

*In 2008, Uva PDE introduced the activities to each 15 non-target schools in two non-target ZEOs.

4-2. Process of Project Implementation

| Evaluation questions | | Findings of Study |
|--|--|---|
| Main questions | Details | |
| Implementing structure and sharing of roles appropriate? | Were implementing structure and sharing of roles appropriate? | <p>1. Implementing structure and sharing of roles were appropriate. The Mid-term and Terminal Evaluation Team found no confusion among the roles of the institutions and meetings of the Project.</p> <p>2. At the time of Mid-term Evaluation, PEIKA, which was planned to be formed in order to discuss progress and issues of the Project at provincial level, was not formed and involvement of PDE to the Project was limited. In late 2007, the Project facilitated stakeholders in the relevant Province and PEIKA was formed in each target PDE. PEIKA increased its involvement of PDE to the Project activities.</p> <p>3. CoSM members were working with the Project to develop the inputs/materials for Science and Mathematics, such as IMaCS and guidebook for Lesson Study. After developing these materials, CoSM was converted into a decision making body mainly for the future expansion of these materials. Members of CoSM were re-appointed in accordance of the conversion.</p> |
| Technology transfer approach | Were the technology transfer approach and the strategy suitable? | <ul style="list-style-type: none"> • Capacity building of the ZEO and schools <ol style="list-style-type: none"> (1) Approach of Educational Kaizen Activities <p>Approach of Educational Kaizen Activities proved to be an effective strategy to increase motivation and cooperation of the staff of ZEOs and schools and contributed to change the office/school culture. Quality Education Circles, which were formed in ZEOs and schools, were an effective to facilitate participatory and bottom-up planning and implementation. The Project Team had successfully transferred the technology and know-how of the strategy to the Sri Lankan counterparts.</p> (2) Block grant and Financial management <p>Block grant was an effective resource for the staff of the target ZEOs and schools to start new attempt in order to improve school management and environment for teaching and learning. It was especially useful for the small and disadvantaged schools like some of the target schools,</p> |

| Findings of Study | |
|----------------------|--|
| Evaluation questions | Details |
| Main questions | <p>where sufficient financial support from parents and community cannot be expected. The Project Team closely facilitated the ZEOs and schools to utilize the block grants in proper and effective manners with transparency. Monitoring done by the Project Team and ZEOs made sure proper usage of the fund by schools. Rules and regulations of the fund were flexible enough to encourage staff of ZEOs and schools to use the fund timely and in creative manners.</p> <ul style="list-style-type: none"> • IMaCS • Sri Lankan counterparts in MOE and NIE are of an opinion that low level academic achievements in mathematics caused by lack of basic calculation skills of the students. They also confirmed that usage of fingers is the bottleneck for developing basic calculation ability. Therefore, introduction of IMaCS, a calculation drill for students with understanding the concept of composition and decomposition, instead of using fingers for counting, was an appropriate countermeasure to overcome the problem. The Project Team developed IMaCS by getting feedbacks from NIE and the target ZEOs to make it appropriate in the local context. • Lesson Study <ul style="list-style-type: none"> • The Project identified the following weaknesses during the study done for ERA and Science at the beginning of the Project: (1) Insufficient scientific explanation after classroom activities (2) Limited explanation of relation between activities and theories (3) Few opportunities for students to predict, guess and estimate the result of experiment and (4) Limited mutual teaching and learning activities among teachers. These issues were the background for the Project to introduce Lesson Study which is widely conducted in Japan and other countries. Low academic performance of primary teachers found in the short quiz conducted by the Project was another reason for introduction. • As a result, a series of Lesson Study workshops were conducted in the target zones and schools. Staff of ZEO, principals and teachers of the target schools appreciated the benefits of the Lesson Study and willing to continue it. The approach was appropriate to address the needs of the |

| Evaluation questions | | Findings of Study |
|---|--|---|
| Main questions | Details | |
| | | <p>teachers to overcome the weaknesses. However, it will take some more time to see the concrete results of it.</p> <ul style="list-style-type: none"> The Project Team facilitated zonal and school level Lesson Study workshops. The teachers, who had never taught in front of a group of observers, gradually understood and realized meaning and benefits of the Lesson Study by participating in the workshops at Zonal level, then, conducted school level workshops in their own schools. The strategies of the Project to hold the workshops in two levels effectively facilitated teachers to involve in Lesson Study. |
| Management system | Were there any problems on management of the Project? | At the early stage of the Project, several issues were observed with regard to the management of the Project. For example, some of the field coordinators were inexperienced and expertise of the local consultants was not utilized well. Later, the Project took effort to solve these issues by giving training to the field coordinators and get the local experts involved in developing IMaCS and guide-line for Lesson Study. |
| How is the ownership of executing agency? | Do MOE and ZEO have sense of ownership to the Project? | <ol style="list-style-type: none"> At the beginning, it was observed in some target ZEOs that the staff members of ZEOs considered Educational Kaizen Activities as extra works. However, they gradually became interested in the Activities and got involved, once they realized the benefit of the Activities. Currently, staff members of the target ZEOs consider the Project activities as essential and as a part of their work. In 2008, MOE took an initiative to establish Kaizen Units in MOE and in each Province, considering the needs to institutionalize the Educational Kaizen Activities in national level. The target PDEs were seeking financial allocation for the target ZEOs and schools in 2008. |
| | Were stakeholders of the Project participated actively in the activities of the Project? | <p>In general, there was an active participation of the stakeholders of the Project in the Project activities. However, the Project found the following issues in the process of facilitating participation of the stakeholders:</p> <ol style="list-style-type: none"> It was difficult for the Project to involve NIE to Project activities at first. However, later, staff of |

| Findings of Study | |
|--|--|
| Evaluation questions | Details |
| Main questions | <p>NIE gradually became active and participated in CoSM and involved in development of IMaCS and the guidebook of Lesson Study.</p> <ol style="list-style-type: none"> The degree of participation of the stakeholders in school activities largely depended on the leadership of the principals of the schools especially in early stage of the Project. The principals and teachers of the target schools observed that the number of parents willing to involve in the Project activities had increased, as they appreciated transparency and team spirit created in QECs. It took some time for the target schools to get involved all the teachers in the Project activities. Sometimes, it was difficult for the leaders of the QECs to find time for meetings, as it was the habit of the teachers to go home as soon as school is over. In some schools, communication among the teachers were very less, as they were divided into groups according to their educational background and political parties to support. These teachers gradually increased their interest in QEC activities, by observing the benefit. <p>The Terminal Evaluation Team learned that there are active participation of parents, students, teachers and principals to the Educational Kaizen activities in schools, especially for QEC meetings, IMaCS and Lesson Study. The officers of the target ZEOs participated in monitoring of the schools by taking term.</p> |
| Were there any factors which prevented progress of the activities or achievement of the outputs in the course of Project implementation? | <ol style="list-style-type: none"> Security situation in Jaffna became extremely worse in early 2006. After August 2006, the Project Team and counterparts in Colombo became unable to visit the target schools and ZEO in Jaffna. Trincomealee ZEO experienced difficulty to conduct activities especially in 2006, when the security situation became worse. Some of the students and teachers in the target schools were displaced, teachers and students did not attend schools regularly and mobility for ZEO staff was limited. |

| Evaluation questions | | Findings of Study |
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| Main questions | Details | |
| | What were the reasons? | <p>3. The Project organized QEC Convention in February 2007 in Colombo with the participation of the representatives of the 4 target ZEOs. The aim of the event, sharing experiences and achievement, was achieved, however, some of the participants were disappointed and discouraged as they were given low marks and placed in lower ranks by the judges. The same thing happened in some of the Zonal level conventions. In 2008, the Project let the ZEOs to decide the ways to organize the convention by themselves. The ZEOs organized the convention with less competitive aspect, which satisfied the participants.</p> |

4-3. Evaluation by Five Criteria

(1) Relevance:

| Evaluation questions | | Findings of Study |
|----------------------|--|---|
| Main questions | Details | |
| Necessity | Does the Project Purpose correspond to the needs of the Education Sector in Sri Lanka? | <p>1. It was found in the Master Plan Study of JICA that school culture must be changed in order to conduct effective interventions to improve of education on science and mathematics. The Project Purpose corresponds to the needs found in the Study.</p> <p>2. Staff of the ZEOs made analysis through QEC activities and found that inefficiency of the administrative work of the ZEOs is one of the route causes to discourage motivation and satisfaction of teachers and prevented teachers from sparing more time in teaching. The Project fulfilled their needs by facilitating improvement of efficiency of ZEOs.</p> <p>3. MOE and NIE were also concerning about the low achievement in science and mathematics in GCE O/L and A/L. The Project addressed the needs of the MOE and NIE and facilitated to solve the problem.</p> |
| Priority | Does the Project adjust the Education Policy of Sri Lanka? | <p>1. The Project purpose is consistent with the policies of the Government of Sri Lanka on promoting school based management and enhancing performance of the students on science and mathematics. The MOE already introduced the ESDFP (Education Sector Development Framework and Programme) as the sector-wide 5 year national program from 2006 to 2010. The ESDFP sets 4 themes: (1) Promote equity by enabling all children in the country to access and complete basic and secondary education, (2) Improve the quality of basic and secondary education, (3) Enhancing economic efficiency and equity of resource allocation, (4) Strengthening education governance and service delivery. The project purpose is consistent with (2) which includes improvement of mathematics and science education and (4), which includes improvement of school management.</p> <p>2. For school based management, MOE is currently implementing PSI (Program for School Improvement) funded by the World Bank in all the schools in the selected 35 zones. As mentioned by the Secretary of MOE in a meeting with the Team, MOE is of an opinion to incorporate the essence</p> |

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| Evaluation questions | | Findings of Study |
|----------------------|--|---|
| Main questions | Details | |
| | Does the Project adjust the cooperation policy of Japan and the Country Strategy of JICA? | <p>of the Project, such as QECs and strategy for capacity building of ZEOs and schools, into the PSI.</p> <p>The project is also consistent with the ODA policy of the Japanese government to Sri Lanka and the implementation policy of JICA. They include 'Improvement of Education Services' as one of the development issues to be solved under the priority area of 'poverty alleviation and regional development' and aim to reduce regional disparity in access and quality of education, which is consistent with the Overall Goal of the Project.</p> |
| Approach | Were the approach and strategy of the Project appropriate as a means of assistance to the Education Sector of Sri Lanka? | <p>1. Introduction of Educational Kaizen Activities</p> <p>(1) Approaches in Educational Kaizen Activities, such as QEC and 5S, were effective to change office and school culture. They contributed to increase cooperation, participation and motivation of the staff. The staff of ZEOs and schools, who were somewhat skeptical to the approaches at the beginning became interested and involved in the Activities by seeing changes and improvements created. Continuous interventions made by the Project Team, such as workshops, seminars, on-the-job training and monitoring visits contributed to create the changes.</p> <p>(2) Improved school culture consequently contributed to create positive teaching and learning environment. For example, teachers became more positive to adopt improved teaching methodology by using hand-made teaching materials developed by QECs, to apply activity-based and student-centered teaching methods in Lesson Study workshops and conduct IMaCS with cooperation. Attendance of students was improved and academic ability of the students shows gradual improvement in some of the target schools.</p> <p>2. Provision of block grant</p> <p>(1) Block grant provided to the target ZEOs and schools were proved to be an effective resource for them to realize collective efforts to improve school management and teaching and learning environment. Block grant was especially useful for the small and disadvantaged schools like</p> |

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| Findings of Study | |
|---|---|
| Evaluation questions | Details |
| Main questions | <p>some of the target schools, which do not have sufficient financial support from parents and community and when Quality Inputs were not available in time.</p> <p>(2) The amounts provided to each ZEO and school was appropriate for the PDE to continue the provision after the completion of the Project.</p> <p>(3) Most of the stakeholders of the Project are of an opinion that block grant for schools are necessary only for the first several years, and Quality Input can be a substitute for it. Therefore, provision of block grant is not a big issue for sustainability of the outputs of the Project</p> <p>3. Financial arrangement</p> <p>It was planned that the Project provide block grant for the target ZEOs and schools for the 1st and 2nd year of the Project and the GOSL to provide them for the 3rd year. In fact, for the 3rd year (the year 2008) PDE disbursed block grants to the ZEOs and schools. Around this time, PMOEs and PDEs began to get more interested and involved in the Project. At the moment, the PMOEs and PDEs are in the process of planning for the activities in the year 2009, along with budgetary arrangement. The strategy to make the PMOE and PDE responsible to the provision of the block grant for the 3rd year, proved to be an effective arrangement to get the PMOEs and PDEs involved and secure sustainability of the Project.</p> |
| Were selection of the target ZEOs and target schools appropriate? | <p>1. Type 2, 1C and 3 schools were selected as target schools of the Project. The selected 5 ZEOs include remote rural area, such as Wellawaya and war-affected areas such as Jaffna and Trincomalee. These selections corresponded to the intention of the Project to support smaller and less-advantaged schools and ZEOs.</p> <p>2. ZEO and target schools in Jaffna made effort to continue Educational Kaizen Activities in spite of deterioration of security situation. As a result, the target schools in Jaffna actively involved in the Activities and improved their academic records. This proved that even an area under serious security concern could create significant results. Selection of Jaffna as one of the target zones is</p> |

| Evaluation questions | | Findings of Study |
|----------------------|--|---|
| Main questions | Details | |
| | Was there any cooperation with other donors? | <p>appropriate in this aspect, although all the Project activities could not be conducted in it.</p> <p>The Project Team supported MOE's willingness to incorporate experience of the Project into the PSI in future. For example, the Project Team and staff of PSI shared information at the time of counterpart meetings of the Project. The Project Team also explained experience and strategy of the Project in a workshop of PSI.</p> |
| | How did accumulated experience and knowledge of Japan contribute to the Project? | <ol style="list-style-type: none"> 1. "Kaizen" is a key concept of Japanese industries which contributed to their success in raising productivity. The concept had been introduced and practiced in Sri Lanka, not only in the factories of tea and garments, but also in hospitals. Therefore, the word "Kaizen" is somewhat familiar with the people in Sri Lanka. The Project applied the concept, known to the people in Sri Lanka, and effectively contributed to create awareness among the stakeholders and changed (office/ school) culture positively. 2. Lesson Study and concept of IMaCS are originated in Japan and practiced in other countries too. The Project utilized accumulated experience and knowledge on these practices for the related Project activities. |

4-3. Evaluation by Five Criteria

(2) Effectiveness:

| Evaluation questions | | Findings of Study |
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| Main questions | Details | |
| How is the possibility for the Project to achieve the Project Purpose? | Possibility to achieve Project Purpose | <p>All the outputs are being created successfully in general and there is a high possibility for the Project to achieve the Project Purpose by the end of the Project period. Especially, ownership and initiative of the Sri Lankan counterparts, including MOE, PDE, target ZEOs and schools are positive factors. However, the below listed matters should be duly taken into considerations by the Project and Sri Lankan counterparts to achieve the Project Purposes:</p> <ol style="list-style-type: none"> 1. Vertical and horizontal linkage <ul style="list-style-type: none"> Vertical and horizontal linkage to sustain a system to improve school management has just formed and continuous attention to the following matters is important: <ol style="list-style-type: none"> (1) Communication and decision making <ul style="list-style-type: none"> NEIKA, PEIKA, ZEIKA and SEIKA should continuously facilitate communication among the relevant institutions and function as decision making bodies. (2) Financial arrangements <ul style="list-style-type: none"> Timely disbursement of the fund for Educational Kaizen Activities should be ensured so that zones and schools can implement their planned activities effectively according to the time schedule. Streamlining of the rules and regulations of the fund is also important in order not to discourage initiatives and creativities of zones and schools. (3) Capacity building <ul style="list-style-type: none"> Technical and institutional capacity building for Kaizen Units in MOE and PDEs is needed. 2. Continuous monitoring and effective facilitation by the ZEOs to schools. 3. Facilitation and follow-up of the school level Lesson Study workshops by the ZEOs. 4. Continuous follow up for ISAs and teachers on correct teaching and follow-up methods of IMaCS. 5. Sufficient number of printing and timely distribution of IMaCS books or any alternative materials. |

| Evaluation questions | | Findings of Study |
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| Main questions | Details | |
| Cause and Effect relationships | Are the Outputs appropriate as the means to achieve the Project Purpose? | The Outputs are appropriate as the means to achieve the Project Purpose. An addition of "Output 4" at the time of Mid-term Evaluation was a timely and effective arrangement. The arrangement encouraged the Project and the Sri Lankan counterparts to take necessary steps to institutionalize technical and financial supports to the target ZEOs and schools. |
| | Were the important assumptions to achieve the Project Purpose appropriate? | <ol style="list-style-type: none"> 1. It was assumed that "Cease fire agreement is not defeated" and "Security situation in the target zones is not significantly deteriorated" however, these assumptions became unreliable, as security situation was significantly deteriorated in Jaffna and Trincomalee as soon as the Project started and the GOSL withdrawn from the Cease Fire Agreement in January 2008. 2. It was not inappropriate for the Project to define these clauses as "important assumption" at the time of project formation, as nobody anticipated sudden changes of environment. 3. In spite of sudden deterioration of security situation, the two ZEOs had made effort to achieve Project Purpose. |
| | Are there any inhibiting factors to achieve the Project Purpose? | As mentioned in above security situation was an inhibiting factor to achieve the Project Purpose. The Project might create greater results if the security situation were stable. |

4-3. Evaluation by Five Criteria

(3) Efficiency:

| Evaluation questions | | Findings of Study |
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| Main questions | Details | |
| How is the possibility for the Project to achieve the Outputs? | <p>Output 1: "Kaizen activities on educational management are introduced and conducted in the ZEOs."</p> <p>Output 2: "Educational Kaizen Activities on school management are introduced and conducted in the target schools with the facilitation of ZEOs"</p> | <p>Kaizen activities on educational management were introduced and continuously conducted in the target ZEOs. As a result, management practice at ZEOs was improved and the degree of teachers' satisfaction on the service of ZEOs was increased as mentioned in "4-1". Therefore, Output 1 is almost achieved.</p> <ol style="list-style-type: none"> 1. Educational Kaizen Activities on school management were introduced and conducted in all the target schools. 2. As a result, it was proved by interviews and school visits during the Mid-term and Terminal Evaluations and by the End-line survey, that management practice and school culture including incentive, creativity, cooperation and communication among teachers, principals, students and parents, and attendance rates of teachers and students were improved in many target schools. 3. The ZEO facilitated the introduction of the Activities to the target schools and carried out monitoring of the Activities. Most of the ZEOs carried out monitoring visits almost as planned, however with some interruptions. Both ZEO and schools confirmed the monitoring visits made by ZEO were effective to improve school management continuously. <p>Considering the above factors, there is a possibility for the Project to achieve Output 2. There should be continuous and more frequent monitoring of the ZEO to the schools for the rest of the Project period to make sure the achievement.</p> |
| | <p>Output 3: "Subject based educational Kaizen activities on Science and Mathematics are</p> | <p>1. Kaizen activities on science and mathematics were introduced and conducted in all the target schools. QEC on science and mathematics made a lot of creative efforts for strengthening teaching and learning on the subjects. Monitoring of the activities in schools had been done by staff of ZEOs. Most of the ZEOs carried out monitoring visits almost as planned, however with some interruptions.</p> |

| Evaluation questions | | Findings of Study |
|---|--|---|
| Main questions | Details | |
| | introduced and conducted in the target schools with the facilitation of the ZEOs." | <p>2. According to the evaluation done by teachers and students of the target schools in the End-line survey on "science and mathematic teaching and learning" performance on science and mathematics were increased. Academic ability test did not offer exact information on improvement of academic ability of students in the target schools on science and mathematics.</p> <p>3. Zonal level Lesson Study workshops for ERA and Science were conducted at the target ZEOs more frequently than planned. The ZEO observed active participation of teachers to the workshops.</p> <p>4. School level Lesson Study workshops for ERA were conducted at the target schools; however, the ZEOs do not have exact number of workshops. Some schools felt it difficult to conduct school level Lesson Study frequently.</p> <p>5. IMaCS was introduced and became very popular among the schools. IMaCS Impact Survey shows that there was an improvement on basic calculation skills of the students, especially those in Primary grades. It also shows that IMaCS is an effective tool for slow learners to improve their skills. However, the Impact Survey for the students of Grade 6/7 did not clearly show an improvement. Considering the above mentioned factors, the Output 3 is in a process to be achieved, however, the following matters should be paid more attention in future, i.e.:</p> <ul style="list-style-type: none"> • Frequent monitoring of the schools by the ZEOs on Educational Kaizen Activities. • Facilitation and follow-up made by the ZEOs for the school level Lesson Study • Continuous facilitation for teachers to understand teaching method of IMaCS and to follow-up slow learners • Periodical monitoring of academic ability to confirm the benefit of the inputs made by the Project on ERA, science and mathematics. |
| Output 4 "Vertical linkage (National, provincial, Zonal and school | | <p>1. NEIKA is functioning. Meetings were conducted 1.5-2 times in every half year.</p> <p>2. PEIKA was established in each target Province at the end of 2007. Meetings were conducted two times in each Province.</p> |

| Evaluation questions | | Findings of Study |
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| Main questions | Details | |
| | levels) and horizontal linkages (within target schools) are established." | <ol style="list-style-type: none"> 3. CoSM meetings were conducted at least quarterly. 4. All the target schools participated in zonal conventions for the year 2006, 2007 and 2008. 5. Practical manual for Educational Kaizen activities is in a process to be compiled 6. Kaizen Unit was established in MDE and in the target Provinces to support vertical linkage and facilitate expansion of the Educational Kaizen Activities to non-target ZEO zans schools. <p>Considering the above mentioned factors, the Output 4 is in a process to be achieved. However, technical and institutional capacity building will be needed for PEIKA and Kaizen Unit, as they were just established.</p> |
| Cause and Effect Relationships | <p>Are the Activities appropriate as the means to achieve the Outputs?</p> <p>Are the important assumptions to achieve the Outputs appropriate?</p> | <p>Activities were appropriate as the means to achieve the Outputs. It was effective to add several activities under the Output 4 at the time of Mid-term Evaluation.</p> <ol style="list-style-type: none"> 1. It was assumed that "Security situation in the target zones is not significantly deteriorated" however, the assumption became unreliable, as security situation was significantly deteriorated in Jaffna and Trincomalee as soon as the Project started. 2. It was not inappropriate for the Project to define the clause as "important assumption" at the time of project formation, as nobody anticipated sudden changes of environment. 3. In spite of sudden deterioration of security situation, the two ZEOs had made effort to create expected outputs. |
| Timing | Were the volume, quality and timing of inputs appropriate to implement the activities? | Quality and timing of inputs were appropriate to implement the activities. It is worth mentioning that the Project utilized local resources, who have experience on education sector and fluent in both Tamil and Sinhala, effectively. |

| Evaluation questions | | Findings of Study |
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| Main questions | Details | |
| | Were the timing of implementation of activities were appropriate? | Timing of implementation of activities was generally appropriate. The Project could have created more concrete Output, if activities on science would have started earlier. |

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4-3. Evaluation by Five Criteria

(4) Impacts:

| Evaluation questions | | Findings of Study |
|--|---|---|
| Main questions | Details | |
| <p>Possibility to achieve Overall Goal 1 "Quality and equity of education is improved in the target zones".</p> | <p>Will the difference of the pas rates of Grade 5 scholarship exam, O/L exam between LAB schools and schools of other categories in the target zones be decreased?</p> | <p>As mentioned in "4-1 Achievement", there is a possibility that the Project is contributing to achieve Overall Goal 1. However, it is still hard to confirm that the Project will definitely contribute to Overall Goal 1, as the data of other target ZEOs are either not available or do not show significant improvement of the achievement of the target schools.</p> |
| <p>Possibility to achieve Overall Goal 2 "Sustainable system to improve school management is expanded from the</p> | <p>Are there any inhibiting factors to achieve the Overall Goal 1?</p> | <p>Most of the target schools are disadvantaged schools in remote area with fewer resources. They have the following difficulties to show immediate improvement in their academic achievement:</p> <ul style="list-style-type: none"> • Lack of teachers, especially for the subjects of English, Science and Mathematics • Teachers and students were displaced and schools are often closed due to uncertain security situation (in Jaffna and Trincomalee) • Difficulty for the ZEO to pay frequent monitoring visits (schools in remote area) • Disadvantaged home environment of the students. |
| <p>Possibility to achieve Overall Goal 1 "Sustainable system to improve school management is expanded from the</p> | <p>Will number of schools continuously conducting Educational Kaizen activities be increased?</p> | <p>There is a strong possibility that number of schools continuously conduct Educational Kaizen activities will be increased in future, taking the following positive factors into consideration:</p> <ol style="list-style-type: none"> 1. Educational Kaizen activities were already known to all the schools in the target Zones. ZEOs conducted awareness creation workshops to disseminate the Activities. Routine workshops and seminars held by ZEOs were also utilized for the purpose. 2. It was observed that several non-target schools are already practicing Educational Kaizen activities. |

| Findings of Study | | | | | | | | | |
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| Evaluation questions | Details | | | | | | | | |
| Main questions target schools to the non-target schools and from the target zones to the non-target zones". | <p>3. Kaizen Units, which is to provide institutional and technical support for expansion of the Activities, were established in MOE and in the PDEs of the target Provinces. Kaizen Units will be established in non-target Provinces, too. Coordinators of the Kaizen Unit had undergone three-month on-the-job training.</p> <p>4. NEIKA, PEIKA and ZEIKA are functioning.</p> <p>5. NIE is going to provide a series of Training of Trainers' for all the primary and mathematics ISAs on the theme of "Improvement of Mathematics Calculation Skills" by using IMaCS in September 2008 and in later half 2009 respectively.</p> <p>6. A plan has been developed to expand the Activities for the year 2009, 2010 and 2011 (See table 4-3-1).</p> <p style="text-align: center;">Table 4-3-1 Expansion plan of Educational Kaizen activities for the year 2008-2011</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>2008 (present)</th> <th>2009</th> <th>2010</th> <th>2011</th> </tr> </thead> <tbody> <tr> <td>5 Provinces 7 Zones* 160 schools</td> <td>9 Provinces (all) 19 Zones 265 schools</td> <td>9 Provinces (all) 41 Zones 792 schools</td> <td>9 Provinces (all) All Zones All schools</td> </tr> </tbody> </table> <p>*Note: Uva Province added 2 target ZEOs in 2008.</p> <p>(Source: MOE)</p> <p>7. As of September 2008, PMOEs and PDEs are in a process to finalize annual plan and request for budget allocation for the Educational Kaizen Activities in 2009 (See the below table). They plan to allocate budget for the activities from the funding sources of PDSG (Provincial Specified Development Grant), ESDG (Education Sector Development Grant – World Bank assistance) and Consolidated Fund.</p> | 2008 (present) | 2009 | 2010 | 2011 | 5 Provinces 7 Zones* 160 schools | 9 Provinces (all) 19 Zones 265 schools | 9 Provinces (all) 41 Zones 792 schools | 9 Provinces (all) All Zones All schools |
| 2008 (present) | 2009 | 2010 | 2011 | | | | | | |
| 5 Provinces 7 Zones* 160 schools | 9 Provinces (all) 19 Zones 265 schools | 9 Provinces (all) 41 Zones 792 schools | 9 Provinces (all) All Zones All schools | | | | | | |

Findings of Study

Table 4-3-2 number of schools to be involved in Educational Kaizen Activities in 2009

| Province | 2008 (actual) | | 2009 (proposal/ plan) | |
|---------------|----------------|-----------------------|-----------------------|-----------------------|
| | Target ZEOs | No. of target schools | Target ZEOs | No. of target schools |
| Northern | Jaffna | 10 | Jaffna | 20 |
| | | | Vavnia South | 5 |
| | | | Mannar | 5 |
| Eastern | Trincomallee | 30 | Trincomallee | 40 |
| | | | Akkaraipattu | 5 |
| | | | Banacaliba | 5 |
| | | | Ampara | 5 |
| | | | Kurunegala | 30 |
| North Western | Kurunegala | 30 | Kurunegala | 30 |
| | | | Puttalam | 5 |
| | | | Maha | 5 |
| Uva | Bandarawela | 30 | Bandarawela | 50 |
| | Wellawaya | 30 | Wellawaya | 50 |
| | Mahiyangana | 15 | Mahiyangana | 35 |
| | Bibile | 15 | Bibile | 35 |
| | | Passara | | 15 |
| | | Welimada | | 15 |
| | | Moneragala | | 15 |
| North Central | | | To be selected | 5 |
| Central | | | To be selected | 5 |
| Western | | | To be selected | 5 |
| Sabaragamuwa | | | To be selected | 5 |
| Southern | | | To be selected | 5 |
| Total | 7 Zones | 160 | 22 Zones | 390 |

(Source: MOE and PMOEs)

| Findings of Study | |
|---|---|
| Evaluation questions | Details |
| Main questions | <p>8. Localization</p> <p>Staff of MOE, PMOE, PDE and ZEO are of an opinion to adopt the following strategies to localize Educational Kaizen Activities in future:</p> <p>(1) Utilize existing financial resources.</p> <p>They plan to provide financial resources of Educational Kaizen Activities not as "school block grant" but utilize existing grant for schools. Quality Input was proposed to serve the purpose in future. MOE is in a process to negotiate with Finance Commission, to modify the formula and regulation of the Quality Input, so that the fund will be used more flexibly, and the amount will be increased.</p> <p>(2) Workshops and seminars</p> <p>They have an idea to hold workshops and seminars on Educational Kaizen activities as a part of their routine activities in PDEs and ZEOs in future, rather than holding them as separate events.</p> <p>(3) Monitoring</p> <p>They are in a process to consolidate monitoring of Educational Kaizen Activities and their routine zonal inspection.</p> |
| Are there any inhibiting factors to achieve the Overall Goal 2? | <p>Some stakeholders in PMOEs and PDEs expressed their concern that cost of printing of IMaCS could be a burden for expansion of the Activities. The cost for school block grants, workshops, seminars and monitoring visits are relatively smaller and they could be incorporated as a part of their routine work as mentioned above. However, the cost of printing of IMaCS is comparatively high.</p> <p>At the moment, INE is reviewing IMaCS and in a process to streamline the number of pages. In addition to this, the following ideas were expressed to reduce the printing cost of IMaCS:</p> <ol style="list-style-type: none"> (1) Reduce quality of papers. (2) Further reduce the number of pages. (3) Provide IMaCS book only for teachers. Students are to write the questions and answers in notebooks. |

| Findings of Study | |
|--|---|
| Evaluation questions | Details |
| Main questions | <p>(4) Save the cost of printing of textbooks, by implementing re-use policy exactly. Utilize saved amount of money to print IMaCS.</p> <p>(5) Collect donations from parents and well-wishers.</p> |
| Cause and Effect Relationship | <p>The following factors show that the Project Purpose has a possibility to contribute to attain Overall Goals:</p> <p>1. Overall Goal 1:</p> <p>(1) Educational Kaizen activities carried out in the target schools contributed to improve school management and culture. It was observed that some of the target schools, which were not popular among the community in the area, now became popular.</p> <p>(2) The improvements are also contributing gradual improvement of the academic achievement of the students of the target schools, which were relatively low compared with other schools in the zones.</p> <p>2. Overall Goal 2</p> <p>A system formed to continuously support the target ZEOs and schools for Educational Kaizen Activities, such as vertical linkage between NEIKA, PEIKA, ZEIKA and SEIKA, and horizontal linkage on information sharing among the schools, such as Zonal level convention and visit to the target schools, will be a foundation for the above expansion plan.</p> |
| Were the important assumptions to achieve the Overall Goals appropriate? | <p>4. It was assumed that "Cease fire agreement is not defeated" and "Security situation in the target zones is not significantly deteriorated" however, these assumptions became unreliable, as security situation was significantly deteriorated in Jaffna and Trincomalee as soon as the Project started and the GOSL withdrawn from the Cease Fire Agreement in January 2008.</p> <p>5. It was not inappropriate for the Project to define these clauses as "important assumption" at the time of project formation, as nobody anticipated sudden changes of environment.</p> <p>6. In spite of sudden deterioration of security situation, the two ZEOs had made keen effort to contribute to achieve Overall Goals.</p> |

| Findings of Study | |
|---|---|
| Evaluation questions | Details |
| Has there been any expansion of effects of the Project? | <p>Horizontal expansion</p> <ol style="list-style-type: none"> 1. MOE recognized that Educational Kaizen Activities is a pilot case or a good example of school based management. MOE is of an opinion that Educational Kaizen Activities could be integrated into School Development Plan which is developed by schools as one of the activities of PSE. MOE started discussions with the Finance Commission on possibility of increasing the amount of Quality Inputs in future so that it can be utilized for Educational Kaizen Activities. 2. NIE had incorporated the concept of the IMaCS at the time of curriculum revisions of Grade 5 and 8. The essence of the concept was included in the respective teachers' instruction manuals. They are going to introduce the concept into the curriculum and teachers instruction manuals of other Grades in future. 3. It was observed that ZEOs and schools in non-target area became interested in Educational Kaizen Activities. MOE and the target ZEO had received inquirers from these ZEOs and schools. |

4-3. Evaluation by Five Criteria

(5) Sustainability:

| Evaluation questions | | Findings of Study |
|----------------------|---|---|
| Main questions | Details | |
| Policy and System | Does GOSL have any policy or strategy to expand Educational Kaizen activities in the future? | <p>1. The GOSL has a policy to promote School Based Management and enhancing performance of the students on science and mathematics as defined in ESDFP (Education Sector Development Framework and Programme). MOE has a policy to apply strategies of Educational Kaizen Activities to the PSI which are implemented in the selected 35 Zones and will be implemented nationwide in future.</p> <p>2. As mentioned in 4-3 (4) the MOE and PMOEs have policy and strategy to expand Educational Kaizen Activities in future. Institutional arrangement for the expansion was made by establishing Kaizen Unit in MOE and in each Province. On-the-job training was provided for the staff of the Units.</p> |
| | Is there any sustainable system to continuously support Educational Kaizen activities on Science and Mathematics? | <p>1. IMaCS</p> <p>(1) Willingness All the target ZEOs and schools are willing to continue IMaCS even after the completion of the Project.</p> <p>(2) Institutionalization NIE has already incorporated concept and practice of IMaCS to curriculum and teachers' instruction manuals of several Grades. NIE is of an opinion to incorporate the same to textbooks in future. NIE is going to make IMaCS a formal document by obtaining approvals of Academic Assessment Board and NIE Council.</p> <p>(3) Technical support NIE has commenced and is going to intensify training of trainers on IMaCS. The teachers' instruction manual on IMaCS is being revised by NIE and will be distributed among ISAs and teachers.</p> <p>2. Lesson Study</p> |

| Evaluation questions | | Findings of Study |
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| Main questions | Details | |
| | | <p>(1) Willingness All the target ZEOs and schools are willing to continue Lesson Study even after the completion of the Project.</p> <p>(2) Institutionalization NIE has an idea to incorporate Lesson Study in pre-service training conducted in the College of Education.</p> <p>(3) Technical support NIE has commenced and is going to intensify training of trainers on Lesson Study. INE is collecting revised lesson plans formulated in Lesson Plan workshops to make them incorporated in their guidebooks and manuals. INE also has an idea to train a group of facilitators for Lesson Study in future.</p> <p>Lesson Study workshops were introduced later half of 2007 and are conducted regularly in all target Zones and in some of the target schools. For the Zones and schools to continue effective lesson study, continuous facilitation and follow-up by ZEOs are needed. It will be necessary for the ZEOs in future to prove teachers with subject knowledge at the time of the workshops. It is also important to train a group of ISAs and teachers who play a role of facilitator of the workshops.</p> <p>3. Teaching and learning materials The target ZEOs and schools have developed various kinds of teaching and learning materials as a part of QEC activities. There are some materials among them which can be used repeatedly. For development of new materials, financial assistance will be needed. The ZEOs and schools are expected to use block grant for Educational Kaizen activities or Quality Inputs for the purpose.</p> <p>4. CoSM The role of CoSM will be incorporated in "Science and Mathematics Steering Committee" chaired by MOE.</p> |

| Findings of Study | |
|--------------------------|--|
| Evaluation questions | |
| Main questions | Details |
| | <p>Is there any system to expand Educational Kaizen Activities to non-target schools and non-target zones? (supporting system and manuals)</p> <ol style="list-style-type: none"> 1. NEKA, PEKA, ZEKA and SEKA are functioning as place of formal communication and decision making bodies to support Educational Kaizen Activities in the existing and new target ZEOs and schools. 2. Kaizen Unit in MOE and Provinces will coordinate and facilitate expansion of the Educational Kaizen Activities in non-target zones and schools. |
| Organization and finance | <p>Do target ZEOs have adequate capacity to facilitate Educational Kaizen activities in the future too?</p> <p>The target ZEOs have gained adequate experience and skills for facilitation. The ZEOs need financial support from PDE to facilitate non-target schools to introduce the activities. Adequate number of IMaCS books or financial support for printing books will be necessary for ZEOs to continue the activities in future.</p> |
| | <p>Are target ZEOs and schools have intentions to continue Educational Kaizen Activities after the completion of the Project?</p> <p>The target ZEOs and schools are confident to continue Educational Kaizen activities in the future. Most of the staff of ZEOs mentioned that financial support for the schools on Educational Kaizen Activities will be needed only at the time of introduction. They mentioned that it will not be needed continuously in the later stage, as the schools can utilize Quality Inputs to sustain the activities.</p> |
| | <p>Is there adequate financial allocation to the target ZEOs and schools to continue Educational Kaizen Activities?</p> <ol style="list-style-type: none"> 1. Financial arrangements for the year 2009 As mentioned earlier, cost estimates were proposed by MOE and PMOEs for the year 2009 for Educational Kaizen Activities. The details of the estimates are as follows. <ol style="list-style-type: none"> (1) MOE made arrangement for the Kaizen Unit in MOE to facilitate Educational Kaizen Activities in existing and new target Zones and schools. (2) MOE, PMOEs and PDEs are making budgetary arrangement for the workshops, block grant and other field level activities in target ZEOs and schools. (3) MOE and several PMOEs and PDEs are making budgetary arrangement to conduct Educational Kaizen Activities in their offices. |

| Findings of Study | |
|-------------------|--|
| Main questions | Evaluation questions Details |
| | <p>(4) IMaCS: MOE made budgetary allocation for printing of IMaCS for primary pupils in the existing target schools and some additional schools. PMOEs are trying to allocate budget to print IMaCS for Grade 6-9. However they feel it may be difficult.</p> <p>(5) Lesson Study: Among the stakeholders of the Project, some consider that having a Lesson Study workshop does not require much cost. However, in some ZEOs they feel that financial support is needed for travel expenses of the teachers to participate in Zonal level Lesson Study workshops. In such case, it is important for the PDEs to make necessary arrangement for the ZEOs to use block grant for the expenses.</p> <p>2. Issues There are following issues to ensure sustainability of the Educational Kaizen Activities</p> <p>(1) MOE/ PDE have to print adequate number of IMaCS or any alternative materials and distribute them timely.</p> <p>(2) Counterparts of Sri Lanka also ensure timely distribution of the necessary fund for Educational Kaizen Activities to Zones and schools.</p> |
| Technology | <p>Do MOE and PDEs have adequate capacity to sustain the system to expand Educational Kaizen Activities?</p> <p>Staff members of Kaizen Units in MOE and PDEs have adequate knowledge on Educational Kaizen Activities. They have certain degree of experience on the activities as they undergone on-the-job training. Some of them are staff of the target Zones and schools and have practical experience on the Activities. However, the Units were just established and the staffs have limited experience as trainers and facilitators. Some of the staff of the Units in PDEs are not full-time. Considering the above matters, capacity building of the staff will be essential to ensure sustainability of the system to expand Educational Kaizen Activities.</p> |

ANNEX 5. Project Design Matrix (PDM)

PDM (Project Design Matrix)

Project Name: Project for Improving School Management to Enhance Quality of Education with Special Reference to Science and Mathematics (ISMEQuE)-Version 2

Target Group: Officers and staff of ZEO's and teachers, Students, parents and community of the target schools in the target zones.

Target area: 5 educational zones (Jaffna, Trincomalee, Kurunegala, Wellawaya, Bandarawela) in 4 provinces (North, East, Uva and North Western)

Period of cooperation: From October 1, 2005 to December 31, 2008 (3 years and 3 months)

Date : 2 October, 2007

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Important Assumptions |
|---|---|--|--|
| <p>Overall Goal</p> <p>1 Quality and equity of education is improved in the target zones,</p> <p>2 Sustainable system to improve school management is expanded from the target schools to the non-target schools and from the target zones to the non-target zones</p> | <p>1. The difference of the pass rates of Grade 5 scholarship exam, O/L exam between IAB Schools and Schools of other categories in the target zones will decrease.</p> <p>2 No. of schools continuously conducting Educational Kaizen activities will increase.</p> | <ul style="list-style-type: none"> ● Regional records on pass rate of Grade 5 scholarship exam, O/L available at ZEOs and PDE ● Reports of NEIKA², ZEIKA³, SEIKA⁴ | <ul style="list-style-type: none"> ● Cease fire agreement is not defeated. ● Security situation is not significantly deteriorated. ● Policy of GOSL to support school management activities remains unchanged. |
| <p>Project Purpose</p> <p>A sustainable system to improve school management is established in the target zones.</p> | <p>a. ZEOs and target schools incorporate Educational Kaizen activities in their annual and long-term plans with budgetary allocations.</p> <p>b. Plans to introduce school management with Educational Kaizen activities to non-target schools are formulated in the target zones.</p> | <ul style="list-style-type: none"> ● Annual and Long-term plans of ZEOs and target schools. ● Plans of ZEOs | <ul style="list-style-type: none"> ● Cease fire agreement is not defeated ● Security situation in the target zones is not significantly deteriorated. ● Policy of the GOSL to support school management activities remain unchanged |
| <p>Outputs</p> <p>1 Kaizen Activities on Educational Management are introduced and conducted in the ZEOs</p> | <p>1a. The result of the end-line survey on 'Management Practice at ZEOs is improved from the base-line.</p> <p>1b. The level of teachers' satisfaction on the service of ZEOs is improved.</p> | <ul style="list-style-type: none"> ● Base-line and end-line survey ● End-line survey | <ul style="list-style-type: none"> ● Trained core officers and staff of ZEOs and DEO kept working for the officers during the project. ● No drastic |

| | transfers and resignations among the trained ISAs ² and teachers | | |
|--|--|---|---|
| <p>2 Educational Kaizen activities on school management are introduced and conducted in the target schools with the facilitation of the ZEOs.</p> | <ul style="list-style-type: none"> ● Monitoring records of ZEOs ● Base-line and end-line survey | <p>2a. Every target school has at least one visit of ZEO officer and ZEO submits monitoring reports for supporting school management in each term in 2008.</p> <p>2b. The level of improvement in the result of the end-line survey from the base-line survey (Questions for school management and school culture, attendance rates of teachers and students) is greater for the target schools than for the control schools.</p> | <ul style="list-style-type: none"> ● Security situation in the target zones is not significantly deteriorated. |
| <p>3 Subject based educational Kaizen activities on Science and Math are introduced and conducted in the target schools with the facilitation of the ZEOs.</p> | <ul style="list-style-type: none"> ● Monitoring records of ZEOs ● Base-line and end-line survey ● Revised lesson plans (ERA/Science) ● Revised lesson plans (ERA/Science) ● IMaCS impact survey | <p>3a. Every target school has at least one visit of ZEOs officer and ZEO submits monitoring reports for supporting Science and Mathematics activities in each term in 2008.</p> <p>3b. The level of improvement in the result of the end-line survey from the base-line survey (Questions for science and mathematics teaching and learning, Academic Ability Test in ER-A/Science and Mathematics) is greater for the target schools than for the control schools.</p> <p>3c. Zonal level lesson study is regularly conducted at least once a term.</p> <p>3d. School level lesson study is regularly conducted at least once a term.</p> <p>3e. The median score of the IMaCS impact survey is improved.</p> | <ul style="list-style-type: none"> ● Record of the meeting ● Record of convention ● Manual |
| <p>4. Vertical linkage (National, provincial, zonal and school levels) and horizontal linkages (within target zone) are established</p> | | <p>4a. NEIKA meeting is conducted at least once in half a year</p> <p>4b. PEIKA meeting is conducted at least quarterly.</p> <p>4c. CoSM meeting is conducted at least quarterly.</p> <p>4d. All the target schools participate in the zonal convention.</p> <p>4e. Practical manual for Education Kaizen activities is developed.</p> | |

| Activities | Inputs(Japanese side) | Inputs(Sri Lankan side) | Pre-conditions |
|---|---|--|---|
| <p><u>1 Activities for Output 1 (Kaizen for ZEOs)</u></p> <p>1.1 Conduct base-line survey.</p> <p>1.2 Formulate ZEIK-A at every target zone.</p> <p>1.3 Conduct seminars for ZEOs on how to introduce Educational Kaizen activities in zones (SS, suggestion system, efficient filing system, information sharing system, etc.)</p> <p>1.4 Conduct training for ZEOs on how to implement Educational Kaizen activities in zones (planning, monitoring, evaluation, financial management, etc.)</p> <p>1.5 Organize excursion tours to pilot schools⁶, hospitals, factories, etc. for ZEOs to see the practices of Kaizen activities.</p> <p>1.6 Formulate action plan for Educational Kaizen activities in the zones.</p> <p>1.7 Implement the action plan.</p> <p>1.8 Conduct evaluation regularly.</p> <p>1.9 Conduct end-line survey.</p> <p><u>2 Activities for Output 2 (Kaizen for school management)</u></p> <p>2.1 Select target schools.</p> <p>2.2 Conduct base-line survey at target schools.</p> <p>2.3 Conduct training for ZEOs on how to introduce Educational Kaizen activities at school level.</p> <p>2.4 Conduct training ZEOs for on project management such as proposal appraisal, monitoring, evaluation, financial management, etc. for Educational Kaizen activities at school level.</p> <p>2.5 ZEOs introduce, monitor and evaluate Educational Kaizen activities to the 1st batch of target schools (10 schools each zone) with the facilitation of the JICA team and pilot schools in the zones.</p> <p>2.5.1 ZEOs conduct training for representatives of the target schools and community to introduce concept on Educational Kaizen activities</p> <p>2.5.2 Every target school formulate SEIKA.</p> <p>2.5.3 ZEOs conduct training for target schools on how to</p> | <p><u>Inputs(Japanese side)</u></p> <ul style="list-style-type: none"> ● Dispatch of Japanese Experts <ul style="list-style-type: none"> - Leader/School management - Educational Kaizen activity - Science and math education - Impact analysis/evaluation, etc. ● Sri Lankan local consultants <ul style="list-style-type: none"> - Kaizen activity/Monitoring/Training ● Training in Japan (total around 10 persons) ● Block grant for the target ZEOs ● Block grant for the target schools for the first and the second year (2 years) ● Costs for conducting seminars, training and workshops ● Vehicle for Japanese experts ● Other project costs (if necessary) | <p><u>Inputs(Sri Lankan side)</u></p> <ul style="list-style-type: none"> ● Appointment of counterpart personnel <ul style="list-style-type: none"> - Officers in charge of the project from Science and Math sections and School Activities section of the Ministry of Education - NIE - Provincial, Zonal, Divisional, Educational officers, including ISAs - Target schools ● Expenses for workshops and training for officers of ZEOs, DEOs and ISAs ● Travel expenses to participate in seminars, workshops and trainings, as well as to conduct monitoring and evaluation for target schools ● Office space and facilities for Experts and project staff in MOE and each target ● Block grant for the target schools for the third year ● Other necessary running expenses for the implementation of the project | <p><u>Pre-conditions</u></p> <p>Provincial Ministry of Education and Department of Education in each target province make necessary budget allocation for the ZEOs to monitor the target schools effectively.</p> |

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| <p>implement Educational Kaizen activities (planning, proposal writing, monitoring, evaluation, reporting, financial management, etc.)</p> <p>2.5.4 ZEOs organize excursion tours for target schools to visit pilot schools to see the practices of Educational Kaizen activities.</p> <p>2.5.5 SEIKA develop annual plan and proposals.</p> <p>2.5.6 SEIKA implement the proposed plans with close facilitation and monitoring of ZEOs and JICA team.</p> <p>2.5.7 SEIKA conduct evaluation on their activity and submit reports periodically to ZEOs.</p> <p>2.5.8 ZEOs evaluate the activities at target schools with the reference to the above report.</p> <p>2.6 ZEOs introduce, monitor and evaluate Educational Kaizen activities to the second batch of target schools (20 schools in each zone) with the facilitation of the 1st batch of target schools.</p> <p>2.6.1 ZEOs conduct training for representatives of the target schools and community to introduce concept on Educational Kaizen activities with the facilitation of the 1st batch of the target schools.</p> <p>2.6.2 Every target school formulates SEIKA.</p> <p>2.6.3 ZEOs conduct training for target schools on how to implement Educational Kaizen activities (planning, proposal writing, monitoring, evaluation, reporting, financial management, etc.) with the facilitation of the 1st batch of the target schools.</p> <p>2.6.4 SEIKA develop annual plan and proposals.</p> <p>2.6.5 SEIKA implement the proposed plans at school level with close facilitation and monitoring of ZEOs.</p> <p>2.6.6 SEIKA conduct evaluation on their activity and submit reports periodically to ZEOs.</p> <p>2.6.7 ZEOs evaluate the activities at target schools with the reference to the above reports.</p> <p>2.7 Conduct end-line surveys at the target schools.</p> | | |
|---|--|--|

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| <p>3 Activities for Output 3 (Kaizen for science/math)</p> <p>3.1 Review and evaluate science and math contents which were developed in the Master Planning and the existing teaching methods/materials.</p> <p>3.2 Conduct field survey to analyze needs in the science and math education in grade 1-9 with the cooperation of NIE⁷, ADE⁸, and ISAs.</p> <p>3.3 Streamline the above "3.1" and compile "sample file" of Education Kaizen activities on science and math "with the cooperation of NIE, ADEs and ISAs.</p> <p>3.4 Conduct workshops for ISAs in the target zones to introduce the sample file*.</p> <p>3.5 Formulate QE circles for science/math education in target schools.</p> <p>3.6 ISAs introduce the sample file* to the target schools.</p> <p>3.7 QE circles in target schools develop proposals.</p> <p>3.8 ZEOs introduce, monitor and evaluate Educational Kaizen activities on science and math to the 1st batch of target schools (10 schools each zone) with the facilitation of the JICA team and ISAs.</p> <p>3.9 ZEOs introduce, monitor and evaluate Educational Kaizen activities on science and math to the 2nd batch of target schools (20 schools each zone) with the facilitation of the 1st batch of target schools and ISAs.</p> <p>3.10 ZEOs conduct workshops regularly with ISAs and teachers in the zone in order to share their experience on improving quality of education in science and math.</p> <p>4 Activities for Output 4</p> <p>4.1 Formulate NEIKA and conduct NEIKA meeting.</p> <p>4.2 Formulate PEIKA and conduct PEIKA meeting.</p> <p>4.3 Conduct conventions to share the experience among target schools within the target zones.</p> <p>4.4 Review and develop the practical manual for Educational Kaizen activities which can be utilized by ZEOs and schools to introduce Educational Kaizen activities to non-target schools.</p> | | |
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ANNEX 6 Inputs to the Project

6-1. Placement Records of Experts

■ First Year (October 2005 – March 2006)

| Name | Subject | Duration |
|---------------------|--|--|
| Mr. Toshikazu Tai | Team Leader/ School Management | October 17, 2005 – November 1, 2005 January 16, 2006 – February 26, 2006 |
| Mr. Toru Ishibashi | Deputy Team Leader/ Educational Kaizen Activity | October 17, 2005 – December 15, 2005 January 10, 2006 – March 7, 2006 |
| Mr. Sugashi Nagai | Math and Science Education | November 4, 2005 – November 7, 2005 November 17, 2005 – December 15, 2005 January 2, 2006 – January 8, 2006 February 2, 2006 – February 22, 2006 March 10, 2006 – March 22, 2006 |
| Ms. Masami Watanabe | Evaluation | November 19, 2005 – December 15, 2005 January 26, 2006 – March 14, 2006 |
| Ms. Yoko Satomi | Monitoring | October 17, 2005 – November 17, 2005 February 6, 2006 – March 14, 2006 |
| Mr. Minoru Tanaka | Science Education | November 21, 2005 – November 27, 2005 February 6, 2006 – February 19, 2006 |
| Mr. Masaru Ogoh | Math Education | November 30, 2005 – December 6, 2005 January 2, 2006 – January 8, 2006 March 12, 2006 – March 21, 2006 |

■ Second Year (April 2006 – March 2007)

| Name | Subject | Duration |
|-----------------------|--|--|
| Mr. Toshikazu Tai | Team Leader/ School Management | May 8, 2006 – May 19, 2006 August 21, 2006 – September 1, 2006 March 5, 2007 – March 16, 2007 |
| Mr. Toru Ishibashi | Deputy Team Leader/ Educational Kaizen Activity | May 3, 2006 – June 16, 2006 August 18, 2006 – September 30, 2006 December 3, 2006 – December 16, 2006 February 4, 2007 – March 22, 2007 |
| Mr. Sugashi Nagai | Math and Science Education | April 29, 2006 – May 13, 2006 August 1, 2006 – September 7, 2006 |
| Mr. Shimboku Miyakawa | Math and Science Education | February 11, 2007 – March 17, 2007 |
| Ms. Yoko Satomi | Monitoring | May 31, 2006 – August 7, 2006 October 15, 2006 – December 13, 2006 February 10, 2007 – March 20, 2007 |

| | | |
|---------------------|---------------------|--|
| Mr. Minoru Tanaka | Science Education 1 | April 29, 2006 – May 13, 2006 August 1, 2006 – August 14, 2006 |
| Mr. Toshio Hasegawa | Science Education 2 | August 9, 2006 – September 7, 2006 February 11, 2007 – February 21, 2007 March 12, 2007 – March 22, 2007 |
| Mr. Masaru Ogoh | Math Education | April 29, 2006 – May 12, 2006 July 30, 2006 – August 10, 2006 September 3, 2006 – September 22, 2006 February 28, 2007 – March 22, 2007 |

■ Third Year (April 2007 – March 2008)

| Name | Subject | Duration |
|-----------------------|---|--|
| Mr. Toshikazu Tai | Team Leader/ School Management | May 11, 2007 – May 23, 2007 September 24, 2007 – October 5, 2007 November 21, 2007 – December 14, 2007 March 8, 2008 – March 21, 2008 |
| Mr. Toru Ishibashi | Deputy Team Leader/ Educational Kaizen Activity | May 8, 2007 – June 10, 2007 September 12, 2007 – October 7, 2007 November 22, 2007 – December 27, 2007 February 9, 2008 – March 21, 2008 |
| Mr. Shimboku Miyakawa | Math and Science Education | May 1, 2007 – May 24, 2007 August 29, 2007 – September 19, 2007 October 29, 2007 – December 1, 2007 February 23, 2008 – March 21, 2008 |
| Ms. Yoko Satomi | Monitoring | June 4, 2007 – July 16, 2007 September 19, 2007 – November 4, 2007 November 19, 2007 – December 21, 2007 February 12, 2008 – March 21, 2008 |
| Mr. Minoru Tanaka | Science Education 1 | May 1, 2007 – May 13, 2007 February 27, 2008 – March 14, 2008 |
| Mr. Toshio Hasegawa | Science Education 2 | May 1, 2007 – May 13, 2007 September 1, 2007 – September 17, 2007 November 4, 2007 – November 18, 2007 |
| Mr. Masaru Ogoh | Math Education | May 1, 2007 – May 30, 2007 July 5, 2007 – July 20, 2007 September 1, 2007 – September 12, 2007 January 18, 2008 – January 30, 2008 February 19, 2008 – March 5, 2008 |

■ Fourth Year (April 2008 -) (As of September 2008)

| Name | Subject | Duration |
|-----------------------|---|---|
| Mr. Toshikazu Tai | Team Leader/ School Management | May 12, 2008 - May 29, 2008 September 6, 2008 - September 14, 2008 |
| Mr. Toru Ishibashi | Deputy Team Leader/ Educational Kaizen Activity | July 7, 2008 - August 5, 2008 August 23, 2008 - September 21, 2008 |
| Mr. Shimboku Miyakawa | Math and Science Education | April 26, 2008 - May 17, 2008 September 3, 2008 - September 21, 2008 |
| Ms. Miki Morimitsu | Evaluation | April 26, 2008 - July 9, 2008 July 23, 2008 - September 14, 2008 |
| Ms. Yoko Satomi | Monitoring | April 30, 2008 - May 29, 2008 August 16, 2008 - September 7, 2008 |
| Mr. Minoru Tanaka | Science Education 1 | May 1, 2008 - May 12, 2008 September 3, 2008 - September 14, 2008 |
| Mr. Toshio Hasegawa | Science Education 2 | May 1, 2008 - May 12, 2008 September 9, 2008 - September 20, 2008 |
| Mr. Masaru Ogoh | Math Education | May 11, 2008 - June 2, 2008 July 5, 2008 - July 18, 2008 |

6-2. List of Participants to Counterpart Training in Japan

Duration of the Training: 19 November, 2006 – 1 December, 2006

| Name | Department | Title |
|---|--|--|
| Mr. Arachchige Douglas Ranasinghe | Ministry of Education | Director of Education (Science and Mathematics) |
| Mr. Anthony Conganige Mario Rajendra | National Institute of Education | Director |
| Ms. Priyadarshanie Rathnasekara | Zonal Education Office, Kurunegala | Zonal Director of Education |
| Mr. Ariyadasa Rathnayake Mudiyanselage | Zonal Education Office, Wellawaya | Zonal Director of Education (ACT) |
| Mr. Kurukulapoopal Asingam Thilagaratnam | Zonal Education Office, Trincomalee | Zonal Director of Education |
| Mr. Dissanayaka Mudiyanselage Gunapala Dissanayaka | Zonal Education Office, Bandarawela | Zonal Director of Education |

* Title is at the time of the training.

6-3. List of Equipment Provided under the Project

| Equipment | Unit | Place of utilization |
|------------------------------------|------|--|
| Computer | 6 | MOE, 1 each for 5 target ZEOs |
| Printer (Color) | 1 | MOE |
| Printer (Monochrome) | 6 | MOE, 1 each for 5 target ZEOs |
| Scanner | 1 | MOE |
| Copy Machine | 6 | MOE, 1 each for 5 target ZEOs |
| Fax Machine | 6 | MOE, 1 each for 5 target ZEOs |
| Digital Cameras | 5 | 1 each for 5 target ZEOs |
| Projector | 2 | MOE |
| Video Camera | 2 | MOE |
| Equipment for Science Experiment 1 | 50 | 1 st batch target schools |
| Equipment for Science Experiment 2 | 130 | 1 st and 2 nd batch target schools |

6-4. Counterparts List

MOE

| Name | Title |
|--------------------------------|--|
| Mr. M.P.Vipulasena | Director (Science and Mathematics) |
| Mr. Douglas Ranasinghe | Additional Commissioner, Education, Publication and Distribution |
| Mr. H. M. Wijedasa | Deputy Director (Science and Mathematics) |
| Ms. P. M. A. S. Pandithasekara | Director (Primary) |

NIE

| | |
|----------------------|---|
| Mr. L.H.Wijesinghe | Director (Mathematics) |
| Mr. C. M. R. Anthony | Director (Science, Health & Physical Education) |
| Dr. E.L.Suranimala | Director (Primary Education and Sinhala) |
| Ms. Janaki Wijsekera | Chief Project Officer(Mathematics) |

Zonal Directors of Education and Leaders of the zonal QECs of the respective Zonal Education Offices in target zones: Jaffna, Trincomalee, Kurunegala, Bandarawela and Wellawaya.

ANNEX 7. List of Abbreviations and Acronyms

| | |
|-------------|---|
| ADE | Assistant Director of Education |
| CoSM | Committee of Science and Mathematics |
| CP | Counterpart Personnel |
| CS | Chief Secretary |
| DDE | Deputy Director of Education |
| GCE A-Level | General Certificate of Education Advanced Level |
| GCE O-Level | General Certificate of Education Ordinary Level |
| GOJ | Government of Japan |
| GOSL | Government of Sri Lanka |
| ISA | In-Service Advisor |
| ISMEQuE | Improving School Management to Enhance Quality of Education with Special Reference to Science and Mathematics |
| IMaCS | Improving Mathematical Calculation Skills |
| JCC | Joint Coordination Committee |
| JICA | Japan International Cooperation Agency |
| JOCV | Japan Overseas Cooperation Volunteers |
| MOE | Ministry of Education |
| NEIKA | National Educational Initiative of Kaizen Activities |
| NIE | National Institute of Education |
| PDE | Provincial Department of Education |
| PMOE | Provincial Ministry of Education |
| PEIKA | Provincial Education Initiative of Kaizen Activities |
| PME | Provincial Ministry of Education |
| QE | Quality Education |
| QEC | Quality Education Circle |
| SEIKA | School Educational Initiative of Kaizen Activities |
| WB | World Bank |
| ZDE | Zonal Director of Education |
| ZEIKA | Zonal Educational Initiative of Kaizen Activities |
| ZEO | Zonal Education Office |