Nepal

Ex-Post Evaluation of Grant Aid Project

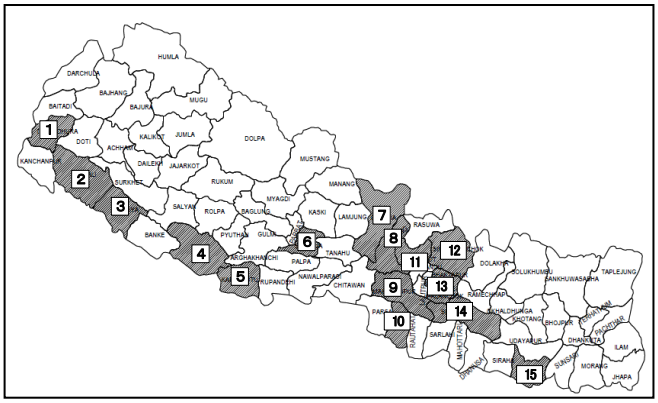
"The Project for Construction of Primary Schools in Support of Education for All in Nepal"

External Evaluator:
Yoko Ishida, International Development Center of Japan Inc.

0. Summary

The objectives of the project were to improve the quantitative and qualitative aspects of basic education in 15 districts in Nepal by improving classrooms, restrooms, water supply, and other facilities with the local community participation. The purpose of the project was to be consistent with the development policy given in the ex-ante and ex-post evaluations; and the project was highly relevant in terms of the stakeholders' need. In light of the fact that project output, cost and project period was achieved according to plan; project implementation has been highly efficient. A total of 2,530 classrooms were constructed according to the project plan and the student capacity of the targeted schools rose showing effectiveness to a certain extent. However, because there are some issues observed regarding the purpose of the constructed facilities and the degree to which the classroom furniture is used, project effectiveness is fair. The management and maintenance of the classrooms and other school facilities were not adequately implemented in the structural, technical, and financial areas, and the existing framework was not sufficiently utilized. The sustainability of the project's effect was seen as fair. In light of the above, this project has been evaluated to be satisfactory.

1. Project Description



Map of the Project Sites
(15 Districts in Nepal[1])

Classroom Constructed in the Project
(Makawanpur District)

[1] The targeted districts in numerical order from the left side (west) in the map above are: (1) Dadeldhura, (2) Kailali, (3) Bardiya, (4) Dang, (5) Kapilbastu, (6) Syangja, (7) Gorkha, (8) Dhading, (9) Makawanpur, (10) Bara, (11) Nuwakot, (12) Sindhupalchok, (13) Kabhrepalanchok, (14) Sindhuli, and (15) Saptari.

1.1 Background

The strategic focus of the Tenth National Five-year Plan (2002 to 2007) of the government of Nepal was i) economic and social development, ii) measures to assist the socially vulnerable, and iii) good governance; all aimed at reducing poverty. Development of human resources was vital to achieving these goals. Furthermore, improving basic education to achieve universal primary education that was the international objectives of the Educational for All (EFA) and the Millennium Development Goals (MDGs) was urgent. JICA provided continuous assistance in the form of materials procurement for 2,958 classrooms for four phases through its grant-aid program for Nepal's Basic and Primary Education Project I (BPEP-I) (1992 to 1998) to construct classrooms in Nepal's educational sector. This was followed by additional three phases of grant aid for BPEP-II (1999 to 2004) (materials procurement for 2,540 classrooms). But as of 2001, 17,700 classrooms still needed to be constructed; and the government of Nepal requested the government of Japan to implement a school-construction project in 15 districts.

1.2 Project Outline

The objective of this project is to achieve quantitative and qualitative improvements in basic education under the leadership of the School Management Committee[2] (SMC) of each school, by constructing classrooms, resource centers[3] (RCs), restrooms, and water supply facility in 15 districts in Nepal.

Grant Limit/Actual Grant Amount	2,095 million yen/ 2,039 million yen
Exchange of Notes Date (Grant Agreement Date)	Phase 1 (FY2003) October 1, 2003 (January 9, 2004) Phase 2 (FY2004) December 3, 2004 (June 3, 2005) Phase 3 (FY2005) August 16, 2005 (January 27, 2006)
Implementing Agency	Ministry of Education (MoE)／Department of Education (DoE)
Project Completion Date	Phase 1 (FY2003) August 23, 2004 Phase 2 (FY2004) February 16, 2006 Phase 3 (FY2005) January 5, 2007
Main Contractor	Materials Procurement: Sanpo International Co. Classroom Construction: SMC of 1,265 schools
Main Consultant	Fukuwatari & Architectural Consultants, Ltd.
Basic Design	July 2003

[2] Under the BPEP-II, a School Management Committee (SMC) that promoted school management improvements through community participation was established at all public schools in Nepal, and this system continues to this day. Education law also stipulated the establishment of a SMC at all public schools and the SMC is in charge of preparing the School Improvement Plan (SIP), hiring teachers, implementing improvement activities, social audits, etc. It consists of a total of nine members including the chairperson, and the school principal serves as the Secretary. Other members are the district administrative officer, teacher representative, representatives of the contributors to establishing the school, representative of school guardians, local intellectuals, etc.

[3] Public schools are divided into units of 10 to 20 schools that are managed by the RC. A resources person (RP) is assigned to each RC, who is responsible for interacting and coordinating with their DEO and the schools in their unit, as well as overseeing the monitoring of each school. RCs located in separate buildings are rare and the majority is located in the unused classrooms of focal schools in their district. Under the coordination of the RP, the RC holds meetings for school principals, meetings with local communities, teacher-training programs, and others.

Related Projects	Follow up of this Project (November 20, 2004 to January 11, 2005) Long-term dispatch of expert, "School Administration Advisor," proposal-based technical cooperation, "Community-based Alternative Schooling Project (CASP)," dispatch of Japan Overseas Cooperation Volunteers (JOCV) Grant aid, "Construction of Primary Schools under BPEP II" (FY2000 and FY2001), "Construction of Primary Schools under 2nd EFA Assistance" (FY2008) Government of Nepal School Sector Reform Plan

2. Outline of the Evaluation Study

2.1 External Evaluator

Yoko Ishida (International Development Center of Japan Inc.)

2.2 Duration of Evaluation Study

The ex-post evaluation was carried out as shown below:

Duration of the Study: December 2010 to October 2011

Duration of the Field Study: March 19 to April 6, 2011 and June 19 to June 26, 2011

2.3 Constraints during the Evaluation Study

The following three factors were constraints in the implementation of the ex-post evaluation.

1) Prior to and after this project was implemented, similar grant-aid classroom construction projects were carried out. Although JICA implemented this project under its grant-aid scheme, the Nepalese side regarded the project as a classroom construction component within its educational sector programme. As a result, it was difficult to collect specific information about the project from Ministry of Education (MoE), Department of Education (DoE), and District Education Office (DEO) on the Nepalese side.

2) There was unverified statistics on education from the years prior to the implementation of this project since the Education Management Information System (EMIS) was not well updated prior to 2005. Even after the advent of EMIS in 2006, data definition (repetition rate, dropout rate, etc.) according to fiscal year differed; which has been currently improved. The rapid increase in private schools in recent years makes it difficult to compare and determine the indicator, because EMIS does not include data for all of these schools. The most recent statistics on population that were available for 2001 and demographic shifts, the population of school-age children, and other statistics could not be confirmed (a population census is being implemented in 2011).

3) A total of 1,265 schools in 15 districts were targeted in this project, but since the majority of the schools were located in mountain or hill areas, the survey on

beneficiaries was based on sampling extracted from only 127 schools in 6 of the targeted districts[4]. In the field study, 9 schools in 3 districts were targeted in the school observation. The field study period during the ex-post evaluation (March 2011) was during the end-of-the-school-year national exams and the end-of-the-school-year holidays. Subsequently, it was not possible to observe pupils and students studying in their classrooms.

3. Results of the Evaluation (Overall Rating: B)[5]

3.1 Relevance (Rating ③[6])

3.1.1 Relevance with the Development Plan of Nepal

During the ex-ante evaluation, the educational sector had been given priority status in the Tenth National Five-year Development Plan[7] as a means of reducing poverty. Under BPEP-II, priority was placed on improving the enrollment rate in primary education and the aim was to improve school management by organizing a SMC at each school and to gain the participation of the local community. In the next educational sector program, the EFA, the goal was also to improve the enrollment rate and the quality of primary education; and the focal strategy was to construct schools with local community participation. The goal of this project with its community-participation approach to school construction was fully relevant with Nepal's development policies and measures.

The provisional national three-year plan during the ex-post evaluation period also prioritized the enhancement of basic services such as education and health as a means to promote employment and economic development. In the new fiscal year, national budget (July 2011 to July 2012) which is allocated according to sector, a maximum of 16.61% was allocated to education. The objective of the School Sector Reform Project (SSRP) was to improve the quality and enrollment rate in basic education, to promote the educational administration of the district and to delegate authority to the SMC, since improving the capacity of the SMC was one of the major strategies. During the ex-post evaluation, the objective and approach of the project was fully relevant with national policies and measures.

This project supports the effort to improve the enrollment rate in primary education by the Nepalese government; and during both the ex-ante and the ex-post evaluations, the project was fully relevant with the international objectives of the EFA and MDGs.

Donor coordination had already been carried out in BPEP-II mainly in conjunction with direct financial assistance provided during the ex-ante evaluation, but since there are many donors providing project-based assistance, there has been a tightening of controls against donors

[4] The survey on beneficiaries was carried out in the six districts of Syangja, Dhading, Makawanpur, Kabhrepalanchok, Nuwakot, and Sindhupalchok and the field study was carried out in the three districts of Syangja, Makawanpur, and Kabhrepalanchok.
[5] A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory
[6] ③ : High, ②: Fair, ①: Low
[7] It was ranked as Nepal's Poverty Reduction Strategy Paper (PRSP)

that are not providing direct financial assistance. During the ex-post evaluation and under the SSRP, the Nepalese government made it clear that it preferred direct financial assistance; and in the area of donor coordination, donors that provide direct financial assistance are fulfilling central roles in the decision-making process, etc.

Meanwhile, it might be needed for MoE/DoE to pay attention on how DEOs and schools could be benefited from the project-based assistance in not only quantitative increase but also qualitative improvement in construction and monitoring technology as well as school/classroom environment.

This project was implemented as a part of the classroom-construction component of the EFA educational sector programme, while it also substantiated the possibility of raising the classroom environment output: such as earthquake-resistant buildings, better natural lighting, ventilation, and easy-to-maintain structure in community-participation-based classroom construction projects. It makes the best use of the characteristics of project-based assistance while meeting the need for quantitative expansion of the classroom.

3.1.2 Relevance with the Development Needs of Nepal

According to the School Level Educational Statistics, version 2009, a report by DoE, in 2001/2002[8] the net enrollment rate of first graders[9] was 51% and 81% for pupils in grades 1 to 5. The net enrollment rate of first graders during the ex-ante evaluation period in 2003/2004 was a low 76.1%; and this project, which was implemented with the aim of improving the enrollment rate, was fully relevant with development needs.

Major improvement was seen in Nepal's enrollment rate in the next six-year period. The net enrollment rate for first graders in 2009/2010 was 86.4% and 93.4% for grades 1 to 5; and it was reported that the enrollment rate for primary education was just 6.6% away from achieving the 100% level (see Table 1 (next page)).

[8] The school year under the Nepal's educational system begins in mid-April (around the 15th) and ends in mid-April (around the 14th) of the following year.

[9] The educational system in Nepal consists of primary level (first to fifth grade), lower secondary level (sixth to eighth grade), secondary level (ninth to tenth grades), higher secondary level (eleventh and twelfth grades), and higher education. Unlike Japan, public schools are not divided into primary and secondary schools, and grades one to twelve are usually combined into one school. However, depending on the location, the year the school was built, and other factors, the grades that a school will cover will differ, i.e. grades 1 to 5 (primary education), grades 1 to 8 (basic education), grades 1 to 10 (secondary education), grades 1 to 12 (higher secondary education),. There are many schools that only consist of the lower grades from 1 to 5 and small primary schools in rural, remote areas will only consist of grades 1 to 3.

Table 1: Primary Education Indicator for Nepal（2001/2002 to 2008/2009）

Unit: %

Indicator \ Year	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Gross enrollment rate for first graders	122.9	101.3	117	125.9	148.1	148.1	145.2	147.7	144
Net enrollment rate for grade 1	51	74	76.1	NA	NA	NQ	NA	83.1	86.4
Gross enrollment rate for grades 1 to 5	124.7	118.4	126.7	130.7	145.4	138.8	138.5	142.8	141.4
Net enrollment rate for grades 1 to 5	81	82.3	83.5	84.2	86.8	87.4	89.1	91.9	93.4
Fifth grade completion rate	66	67.6	59.7	76.2	79.1	80.3	81.1	73.4	77.9

Source: Nepal's School Level Educational Statistics, version 2009, June 2010.

Although access to primary education has greatly improved, the completion rate of students up to the fifth grade has stayed at 77.9% and the need for qualitative improvement remains high. According to DoE's progress report on classroom construction, the number of public schools nationwide that provided primary education (grades 1 to 5) was 32,684 (November 2010, DoE) and 6,639 new classrooms were built for these schools in 2008/2009, in addition to 3,904 renovated classrooms. According to DoE, even during the ex-post evaluation period, there was still the need to construct about 5,000 new classrooms and to renovate 3,000 classrooms annually. Despite the increase in the number of enrolled students, many new classrooms still need to be constructed and depreciated classrooms still need to be renovated in order to improve the quality of education. Thus, the need for this project remained high even during the ex-post evaluation period.

When this project was implemented, Nepal was in a state of conflict; and based on the recommendation of the Nepalese government, the 15 districts[10] targeted in the project were selected in line with the BPEP-II school construction project where the need for classroom construction was high and where safety was secured; therefore, the selection of the target districts was appropriate.

3.1.3 Relevance with Japan's ODA Policy

Japan's ODA policy for Nepal during the ex-ante evaluation period targeted social development and poverty reduction as priority areas. Although there is no direct written statement about the primary education sector, it is an important area in relation to social development and poverty reduction, and relevancy is high. Nepal and Japan have had a longstanding friendship; and as a least developed country with the lowest income in South Asia, Nepal's need for development assistance is high. Since the country's democratization movement

[10] The districts in Nepal are equivalent to the prefectures in Japan. Nepal consists of 75 districts (as of August 2011).

in 1990, Nepal has pursued democracy and economic liberalization; and the need to assist primary education was very high in order to help build the foundation for human resources development.

In light of the above, this project was highly relevant with Nepal's development plan and development needs, as well as Japan's ODA policy; therefore, its relevance is high.

3.2 Efficiency (Rating: ③)

3.2.1 Project Outputs

In this project, classrooms, RC, restrooms, water supply facility, etc. were improved in 15 districts. In the construction of these facilities, Japan provided assistance to procure construction materials[11] and even delivered to a number of depots (storage for the materials)[12] that were installed in each district. Transporting the materials from the depot to each school was carried out by the SMC and participating local communities of each school targeted for classroom construction. The Japan side also provided assistance to procure classroom furniture, which included blackboards, desks and chairs for the classroom and blackboards and training table and chairs for the RC.

One building (with two classrooms) was constructed at each of the 1,265 schools in 15 districts as planned and a total of 2,530 classrooms were built. Although a few minor changes were made in the restrooms and water supply facilities, they were built mostly according to plan.

During Phase 3, a budget shortage occurred due to the exchange rate. DoE and the respective DEO held discussions regarding countermeasures that could be taken and it was decided to give classroom construction priority over RC construction in view of the project objective to provide quantitative improvements to basic education. As a result, it was agreed that the number of RCs to be constructed would be decreased by 40% to 31 locations and furniture for the RC would also be decreased by 40%.

Output according to construction and procurement (plan and performance) and the reasons for the changes that were made are shown in Table 2 (next page).

[11] As procurement in the community is difficult, production of materials such as brick, cement, reinforcing steel, iron and steel roof sets, wooden classroom doors, etc. that were important to improving the classroom environment was consigned and provided according to the design standards of this project. Sand, stone, and water for each school were procured by the participating community.

[12] The materials and equipment that will be provided for facility construction in this project will be kept in a storage facility (existing building will be used) set up in each district in order to temporarily procure and store them at the district level.

Table 2: Comparative Table on Output (Plan/Performance) and Reasons for the Changes

Item	Plan	Performance	Reasons for the Changes
Classroom construction	2,530 classrooms	2,530 classrooms (100% of the initial plan)	No changes. One building (with two classrooms) was built as planned for each of the 1,265 schools in the 15 districts targeted, for a total of 2,530 classrooms that were constructed with community participation under the leadership of the SMC.
RC construction	52 buildings	31 buildings (60.0% of the initial plan)	During Phase 1 and 2, 31 RC buildings were constructed at 31 sites as planned (8 buildings in Phase 1, 23 buildings in Phase 2). In Phase 3, a budget shortage occurred due to the fluctuating exchange rate, and it was agreed with the Nepalese side to prioritize classroom construction as planned and construction of RCs was stopped.
Construction of restrooms	733 buildings	730 buildings (99.6% of the initial plan)	730 buildings for restrooms including 13 buildings with restrooms for students with disabilities have been completed as planned. Three buildings were decreased due to the budget shortage that occurred in Phase 3.
Construction of water supply facilities	312 buildings	310 buildings (99.4% of the initial plan) （	If schools that already had water supply facilities were selected during the detailed design period, the number of water supply facilities was adjusted with the other targeted districts and as a result, the number of facility sites decreased by two, for a total of 310 sites, which was more or less according to plan.
Procurement of classroom furniture	43,130 sets	42,080 sets (97/6% of the initial plan)	The sets were reduced by 1,050 sets to cope with the budget shortage in Phase 3. The Nepalese classroom installation guidelines for the number of sets was decreased from the initial 19 sets (57 students) to 18 sets per classroom of table and bench for three people in the Tarai area where there were 55 students in one classroom. In the mountain area, the original number of sets was 14 since there were 45 students in one classroom, but it was reduced to 13 sets (for 40 students) since the majority of the classrooms had only 40 students. Procurement was according to plan during Phases 1 to 3.
RC furniture	For 52 sites	For 31 sites (60.0% of the initial plan) （	Due to the budget shortage in Phase 3, RCs were not constructed. But, furniture was procured for 31 buildings during Phases 1 and 2.

Source: JICA materials for plan and performance. Reasons for the changes were based on interviews of the consultant in charge of construction and the Department of Education.

3.2.2 Project Inputs

3.2.2.1 Project Cost

The project cost (Japanese side) was the planned 2,279 million yen, performance was 2,039 million yen (97.0% of the official maximum amount) and fell within the plan.

According to the interview results, the project cost for the Nepalese side was about 378 million yen for performance in contrast to planned amount of 517 million yen at the time of the ex-ante evaluation.

Furthermore, since this was implemented as a community-participation project, according to the on-site interview during the ex-post evaluation, it was estimated the amount contributed by the community was 50,000 rupees per school for a total of 63 million NRs (Nepalese Rupees) for 1,265 schools (about 98 million yen). Thus, the project cost for the Nepal side was estimated

about 476 million NRs[13].

Due to unknown factors regarding plan and performance on the Nepal side, only the plan and performance of the project cost for the Japanese side was evaluated.

3.2.2.2 Project Period

The project period[14] planned at the time of the ex-ante evaluation was estimated to be about 12 months, which included ordering the equipment and materials for each phase and conducting the facility survey, and the projected period was 36 months for all three phases. Project performance from Phases 1 to 3 is shown in Table 3; and the procurement of construction materials and the follow-up survey by the Japanese side and the classroom and facility construction by the local community on the Nepalese side were implemented during the planned period.

The construction of the classrooms by the local community was monitored by the technical officer from DEO of the targeted district and the District Development Committee engineer; after Phase 1 was completed, a three-month follow-up study was implemented by the Japanese side to understand the progress that had been made. Based on the lessons learned in Phase 1, a term of works that included the follow-up from the beginning of the project was established in Phases 2 and 3.

Table 3: Performance by the Japanese and Nepalese Sides during the Project

	Japanese Side (until the completion of equipment and materials procurement)	Nepalese Side (until the completion of facility construction)
Phase 1	Exchange of Notes: October 2003 Order Placement of Materials: February 2004 Completion of Materials Procurement: August 2004 (7 months until order placement for materials was completed) Follow-up Study: November 2004 to January 2005 (3-month period) Follow-up Study[15]: November 2004 to January 2005 (3-month period)	Start of Construction: March 2004 Facility Construction Completed: March 2005 (12-month period from start of construction to completion. Including acquiring and grading the land)
Phase 2	Exchange of Notes: December 2004 Order Placement of Materials: July 2005 Completion of Materials Procurement: February 2006 (8 months until order placement for materials was completed) Follow-up Study: Implemented by the time the Phase 2 was completed.	Start of Construction: October 2005 Facility Construction Completed: March 2006 (6-month period from start of construction to completion. Including acquiring and grading the land)

[13] The Nepal government provided 378 million NRs including subsidies to the targeted schools. Based on the data obtained from the on-site interview conducted during the ex-post evaluation, it is surmised that the community contributed about 50,000 NRs per school. The usual community burden for school construction in the Nepalese government budget is higher than 210,000 NRs (one-fourth the construction cost) and about one-fourth was provided by the community in this project. It is estimated that the total community contribution to the 1,265 schools was 63 million NRs (about ¥98 million).

[14] The project period is from the time the work is started for each phase, which includes the procurement of equipment and materials by the Japanese side until facility construction of the targeted schools is completed by the Nepalese side.

[15] To confirm the implementation of facility construction by the community after the equipment and materials have been turned over, field work at the site in the form of a follow-up study was implemented.

	Japanese Side (until the completion of equipment and materials procurement)	Nepalese Side (until the completion of facility construction)
Phase 3	Exchange of Notes: August 2005 Order Placement of Materials: July 2006 Completion of Materials Procurement: May 2007 (11 months until order placement for materials was completed) Follow-up Study: Implemented by the time the Phase 3 was completed.	Start of Construction: September 2006 Facility Construction Completed: February 2007 (6-month period from start of construction to completion. Including acquiring and grading the land)

Source: JICA documents for performance by the Japanese side. For the Nepalese side, based on the response of the Department of Education to a questionnaire distributed during the ex-post evaluation of the project

The project period for the Nepalese side is based on the response by DoE to the questionnaire distributed in the ex-post evaluation; and classroom construction at all 1,275 schools and construction of 31 RC buildings was completed mostly within the project period. However, according to JICA documents, construction of restrooms or water supply facilities were not completed at the end of the follow-up study period for 20 to 30% of the schools during each phase; and it is surmised that the project period was longer than the period advocated by the Nepalese side.

This may probably have been due to the fact that Phases 2 and 3 of the project were started at the end of July or during the rainy season in August, which made construction work and the transport of materials difficult. Phases 1 and 2 were originally scheduled to begin before the start of the wet season, but due to a delay in the processing by the Japanese side, the project again started during the rainy season.

Following the start of the project, the delay in construction and transport of materials was compounded by frequent general strikes due to the deterioration of public safety and political stability on the Nepalese side and despite the effort that was made to implement the construction of classrooms as planned, the construction of restrooms and water supply facilities may have fallen behind at some of the schools. DoE has confirmed that the construction of facilities have been completed as planned at the targeted schools.

As explained above, there are a few unknown factors regarding the completion period of restrooms and water supply facilities, but based on the estimated number of uncompleted restrooms and water supply facilities at the time the completion notice was submitted in the completion report for Phases 1 to 3, approximately 90% of the total number of constructions was completed as planned.

Thus, based on the above, both project cost and project period were within the plan, therefore efficiency of the project is high.

Box 1: Cost Effectiveness of School Construction with Community Participation

If an approximate calculation is made from the amount indicated in the list of procured construction materials shown in the documents submitted to JICA, the average cost of the materials per building with two classrooms (excluding furniture) was about ¥1.3 million. DoE provided a construction subsidy (to cover the cost of transporting materials, the cost of additional materials, personnel cost of workers, etc.) of about 100,000 NRs to each school.[16] As explained earlier, it is believed that the community provided about 50,000 NRs based on the on-site interview conducted during the ex-post evaluation, and combined with the government subsidy, a total of 150,000 NRs (about ¥230,000) is estimated to have been paid to cover the construction cost of one classroom building. The construction cost for one classroom building in this project was about ¥1.53 million. This does not include the cost of the consultant in Japan and the equipment and materials supplier.

In contrast, the Nepalese government provided each school with 650,000 NRs (75% of the entire construction cost was borne by the government) for one classroom building as part of its classroom construction budget in FY2010/2011 at the time of the ex-post evaluation. It is expected that the community covered the shortage of 210,000 NRs (25%) or more per building. In total, the construction cost of one classroom building is estimated to be 860,000 NRs (about ¥1 million) or higher.

If the construction cost of one classroom building based on community participation in this project was about ¥1.53 million and the budget of the Nepalese government and the community construction cost of ¥1 million are compared, the construction cost borne by this project was 1.5 times higher. However, if a classroom constructed under this project in the same school compound is compared to a classroom constructed by the Nepalese government and the local community, the former has a good educational environment with light and ventilation, the floor space follows classroom installation guidelines, the bricks are sturdy due to its specifications, and the classroom has been designed for easy maintenance. At the time of the ex-post evaluation, classrooms constructed during Phase 1 are now in their seventh year and continue to provide good room conditions (see photo 1).

In contrast, classrooms constructed under the government budget and through community funding are narrower than classroom installation guidelines, cracks in the wall have begun to appear two years after construction, and the paint on the walls have begun to peel off (see photo 2). When classrooms require repair, a request is filed with the District Development Committee (DDC) or the Village Development Committee (VDC)[17] and a budget of 100,000 NRs (about ¥120,000) or higher might be obtained depending on the situation, but a budget is not allocated to all schools that file an application.

[16] If the school was located in a mountainous area, the government provided a larger subsidy in comparison to schools located in the hill or Tarai areas. Information about the subsidies provided at this time was not available during this evaluation.

[17] A District Development Committee (DDC) was created as a rural administrative institution and the Village Development Committee (VDC) was created under DDC. VDC is responsible for implementing development projects that are in correlation with the village development plan using public grants.

Information could not be obtained about the Nepalese government's ideas about the depreciation period of the classrooms in view of its "use it for as long as possible" stance. The classrooms constructed in this project are expected to provide a good educational environment for its pupils for at least a period of seven years following its completion. Although a numerical value on cost effectiveness has not been given, the differences can be clearly seen as shown in photos 1 and 2. The benefits that exceed the difference of ¥500,000 in input amount per classroom building constructed in this project have been given to pupils studying in these classrooms.

Photo 1: Interior of a classroom constructed with community participation in this project

Photo 2: Interior of a classroom constructed with community participation and funded by the Nepalese government budget

In an interview with an international NGO that provides assistance for classroom construction in Nepal, it was found that its support of SSRP involved providing assistance to cover the personnel costs of engineers who are employed by DEO rather than classroom construction per se. If classroom construction is carried out using its own funds (or if a project is consigned by an outside source), the amount of assistance which is provided is based on the government classroom installation guidelines and implemented with community participation.

Local NGOs are also involved in classroom construction assistance (see photo 3). The construction cost is unknown. The classroom is smaller in area than the classroom installation standards of the government, but a certain degree of quality can be seen in the wall and floor surfaces, ceilings, etc.

Photo 3: The interior of a classroom constructed by the Nepalese NGO, Love Green Nepal, with private Japanese assistance

3.3 Effectiveness (Rating: ②)

An additional 2,530 classrooms in 15 districts were constructed under this project and the number of pupils and students that can be accommodated has increased. At the 127 schools that were sampled in the survey on beneficiaries[18] (henceforth sample schools) quantitative improvement was seen in the number of classrooms, the number of pupils and students in grades 1 to 12, and the number of first graders. Although the quality of classrooms and restrooms provided by the project has been highly evaluated by its beneficiaries, the fact that more than a few of the constructed facilities were being used for purposes other than as classrooms and the fact that the classroom furniture that was procured are not fully used, project effectiveness has been rated as fair.

3.3.1 Quantitative Effects

3.3.1.1 Results from Operation and Effect Indicators

The number of permanent classrooms in the 15 target districts during the ex-ante evaluation rose from 19,177 classrooms (baseline) in 2003 to 21,707 classrooms (target value) in 2007 due to an increase of 2,530 classrooms that year (a 15% increase from the baseline). As a result, the number of students accommodated in the permanent classrooms rose from 709,410 (baseline) to 835,820 students in 2007 (an 18% increase) and this was the effect indicator.

Of the educational statistics (EMIS) of DoE, the statistics on permanent classrooms have not been made public and it was not possible to confirm the actual value for the number of permanent classrooms in 2007 and during the ex-post evaluation. But, as explained earlier, 2,530 classrooms were constructed in 15 targeted districts from 2004 to 2007; and in view of the fact that furniture was procured according to the classroom installation guidelines of DoE, these two effect indicators have been largely achieved.

3.3.1.2 Sample School Statistics in the Survey on Beneficiaries (survey findings)

Regarding the sample schools, Table 4 shows the number of schools according to the school year that was covered. There were 42 schools that consisted of grades 1 to 5, which were the most common, followed by 33 schools with grades 1 to 10.

[18] In the ex-post evaluation, 127 schools in 5 districts were selected as sample schools in the survey on beneficiaries from among the 1,275 schools in the 15 targeted districts to study project changes before and after its implementation. The school principals from each target school and the chairman of the SMCs were the respondents in the survey on beneficiaries. Taking into account the implementation period of the ex-post evaluation, the 5 districts that were selected were relatively accessible from the capital, Kathmandu, and made it possible to grasp the conditions in the mountain area (altitude of 2,000m to 8,000m), the hill area (altitude of 500m to 2,000m) and the Tarai area (altitude of 80m to 500m). They were Sindhupalchok District (20 schools) and Dhading District (20 schools) with both mountain and hill area characteristics, and Kabhrepalanchok District (17 sample schools) and Syangja, District (30 schools) with hill area characteristics. It was not possible to visit Tarai area district due to public security concerns, but Makawanpur District (19 schools), which was relatively close to the Tarai area and Sindhuli District (21 schools) were visited.

Table 4: Number of Sample Schools in the Survey on Beneficiaries According to Grade

	Grades 1～3	Grades 1～4	Grades 1～5	Grades 1～6	Grades 1～7	Grades 1～8	Grades 1～9	Grades 1～10	Grades 1～11	Grades 1～12	Total
Number of Schools	1	5	42	10	6	12	4	33	1	13	127

Source: Survey on Beneficiaries in the ex-post evaluation

Of the 127 sample schools in the survey on beneficiaries, there were 122 schools (96.1%) that had School Improvement Plans (SIP) that schools are required to prepare by DoE and 88 schools with water supply facilities (69.3%). The education indicators obtained from the survey on beneficiaries are given in Table 5.

Table 5: Changes in the Education Indicator of the Sample Schools

Indicator		2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	Effective Response Number (schools)
Number of usable classrooms		785	786	953	1,001	1,038	1,149	108
Number of schools w/restrooms	Girl's Boy's	53 51	63 61	77 79	90 91	94 95	95 96	108
Students grades 1-12, # of students		26,710	27,344	34,847	36,449	36,366	36,675	124
Number of first graders enrolled		4,701	4,467	5,237	5,540	4,980	4,646	124
Number of first graders dropped out		720	536	723	809	708	609	124
Number of children in community not enrolled in school		1,561	519	992	859	582	788	38
Number of teachers		683	702	852	922	990	1,127	117

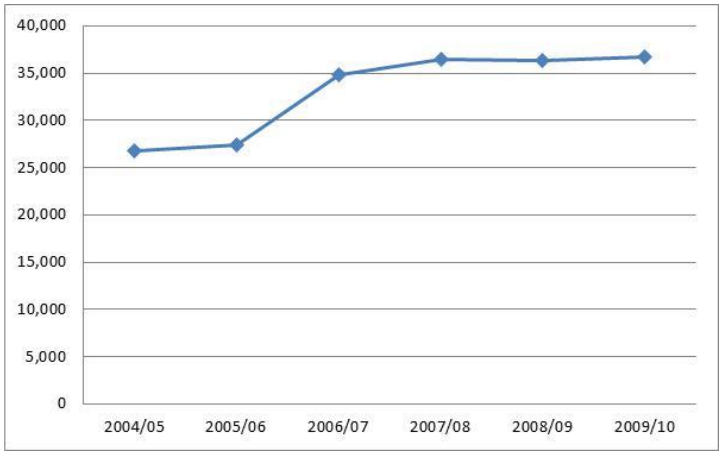
Source: Survey on Beneficiaries in this ex-post evaluation

When this project started in 2004/2005 and 2005/2006, the number of usable classrooms at the sample schools did not change, but rose to 953 schools in 2006/2007 (21.2% increase from the previous year) and a 3% to 10% increase from 2007/2008 to 2009/2010. The number of schools with restrooms increased by 10 to 15 schools up to 2007/2008, but after 2008/2009, the increase rate declined. The number of classrooms and restrooms increased in 2006/2007 is due to the effect of this project. Of the data given in Table 5, the change in the number of pupils and students in grades 1 to 12 in the sample schools are shown in Figure 1 (next page).

When the increase is seen according to year, the increase rate in the number of pupils and students was high from 2006/2006 to 2006/2007 showing a 27.4% increase over the previous year. Generally, when an increase in the number of classrooms are projected for schools in Nepal, the SMC will often hire an additional teacher using community contributions or the

government budget to cover the grade one year ahead rather than the current grade. Among the sample schools, since there were schools that increased the grades they covered by using the classrooms constructed under this project, it can be construed that the increase in the number of students and pupils in the sample schools was due to the classrooms that were constructed under this project.

Unit: Person



Source: Survey on Beneficiaries in this ex-post evaluation

Figure 1: Changes in the Number of Pupils and Students in the Sample Schools

3.3.1.3 Use of the Classrooms (Findings of the Survey on Beneficiaries)

The classrooms constructed in this project were expected to be used primarily by pupils in the lower first and second grades with an extremely high dropout and holdover rate and classroom furniture was provided for the lower grades of the targeted schools.

In Nepal, the SMC at each school is responsible for deciding the use of the constructed classrooms. Although DoE issues guidelines on how to provide a good educational environment to improve the dropout rate of first and second-year pupils, as explained earlier, many SMCs will use the new, additional classrooms for the higher-grade students.

According to the findings of the Survey on Beneficiaries, 77 schools out of the 127 sample schools (60.6% of the total) used one or both of the two new classrooms for the lower grades (first or second grades), but 81 schools (63.8% of the total) used one or both of the two new classrooms for the third to fifth grade (see Table 6).

In addition, there were 23 schools (18.1% of the total) that were using the classrooms for other purposes (library, staff room, laboratory, storage). To improve the quantitative and qualitative situation at school, it is desirable that the classrooms be used at least for pupils and students.

Even if the new classrooms were used for the lower grades, cases were seen where they were divided in half by a concrete wall and used as two classrooms rather than as one if the number of first and second grade pupils was less than ten. The target schools in this project were supposedly selected based on the needs of the school, but in light of the decreasing population

in the mountain and hill areas and the rise in the number of students enrolling in private schools, school location in the district and the allocation of new classroom construction should be reviewed and there is a need to confirm the relevance of school needs.

Table 6: Use of the Two Constructed Classrooms in this Project by the 127 Sample Schools (multiple answers possible)

Classroom Use	Pre-primary (ECD*)	First to Second Grade	Third to Fifth Grade	Sixth to Eighth Grade	Ninth to Tenth Grade	Eleventh to Twelfth Grade	Other
Number of Schools	21	77	81	22	7	0	23

Source: Survey on Beneficiaries in this ex-post evaluation
Note: * = ECD: Early Childhood Development

3.3.1.4 Number of Pupils and Students per Classroom at Sample Schools (Findings from Survey on Beneficiaries)

Table 7 (next page) shows the transitions (2002/2003 prior to project implementation, 2007/2008 after project completion, 2009/2010 during the ex-post evaluation) in the number of classes according to class size based on the number of students and pupils per classroom in the 127 sample schools in the Survey on Beneficiaries. During the ex-post evaluation, government guidelines on the number of students per classroom in basic education (grades 1 to 8) for the Tarai area was 40 students, 35 students in the hill area, and 30 students in the mountain area.

Table 7 shows the transitions in the number of classrooms according to class size (number of students and pupils per classroom) using as a standard the quota of 40 students for basic education in the Tarai area during the ex-post evaluation.

Excluding the fact that approximately half (50.5%) of all classes at the sample schools in Makawanpur District had less than 40 pupils, the number of classes with less than 40 pupils comprised more than 70% at the sample schools in the other 5 districts and had improved. The reason can be attributed to the additional classrooms, but other factors are surmised such as the trend toward a population decrease in the mountain and hill areas due to the demographic shift in the Tarai area, the advent of many private primary schools in both the urban and rural areas where education is taught in English, and the growing tendency for parents to enroll their children at these private schools, which has resulted in a decrease in the enrollment rate at public primary schools.

In the case of secondary education (grades 6 to 12), there are few public and private schools that provide education above the sixth grade and students tend to concentrate at the public schools that do. Despite these conditions, the overall ratio of classes with less than 40 students for grades 6 to 12 improved from 2002/2003 to 2007/2008 in five out of six sample districts (Syangja, Dhading, Makawanpur, Sindhupalchok).

Table 7: Transitions in the Number of Classes According to Class Size (number of pupils and students per classroom) in the Sample Schools in the Survey on Beneficiaries

Unit: Class

Number of students, pupils per classroom	Total of First to Fifth Graders			Total of Sixth to Twelfth Graders			Total of First to Twelfth Graders		
	2002/ 2003	2007/ 2008	2009/ 2010	2002/ 2003	2007/ 2008	2009/ 2010	2002/ 2003	2007/ 2008	2009/ 2010
Syangja District（30 sample schools）									
Classes w/less than 40 (overall ratio)	84 (64.1%)	111 (77.6%)	138 (95.2%)	17 (27.9%)	34 (40.0%)	39 (40.6%)	101 (52.6%)	145 (69.6%)	177 (73.4%)
41-70 students/class	36	29	7	43	49	57	79	78	64
71-100 students/class	7	3	0	1	2	0	8	5	0
More than 101 students	4	0	0	0	0	0	4	0	0
Total number of classes at sample school	131	143	145	61	85	96	192	228	241
Dhading District（20 sample schools）									
Classes w/less than 40 (overall ratio)	70 (75.3%)	73 (73.7%)	75 (76.5%)	9 (75.0%)	14 (56.0%)	26 (63.4%)	79 (75.2%)	87 (70.2%)	101 (72.7%)
41-70 students/class	21	24	22	3	11	14	24	35	36
71-100 students/class	2	2	1	0	0	1	2	2	2
More than 101 students	0	0	0	0	0	0	0	0	0
Total number of classes at sample school	93	99	98	12	25	41	105	124	139
Makawanpur District （19 sample schools）									
Classes w/less than 40 (overall ratio)	21 (45.7%)	30 (37.5%)	47 (50.5%)	0 (0%)	3 (12.0%)	12 (28.6%)	21 (38.9%)	33 (31.4%)	59 (43.7%)
41-70 students/class	20	44	43	3	16	27	28	66	73
71-100 students/class	2	4	3	2	4	3	2	4	3
More than 101 students	3	2	0	3	2	0	3	2	0
Total number of classes at sample school	46	80	93	8	25	42	54	105	135
Sindhupalchok District（20 sample schools）									
Classes w/less than 40 (overall ratio)	65 (76.5%)	66 (69.5%)	74 (79.6%)	20 (58.8%)	21 (41.2%)	29 (52.7%)	85 (71.4%)	87 (59.6%)	103 (69.6%)
41-70 students/class	18	25	18	12	26	25	32	55	44
71-100 students/class	2	4	1	2	4	1	2	4	1
More than 101 students	0	0	0	0	0	0	0	0	0
Total number of classes at sample school	85	95	93	34	51	55	119	146	148
Kabhrepalanchok District（17 sample schools）									
Classes w/less than 40 (overall ratio)	50 (72.5%)	59 (79.7%)	71 (83.5%)	9 (75.0%)	12 (66.7%)	16 (69.6%)	59 (72.8%)	71 (77.2%)	87 (80.6%)
41-70 students/class	19	15	13	3	6	5	22	21	18
71-100 students/class	0	0	1	0	0	1	0	0	2
More than 101 students	0	0	0	0	0	1	0	0	1
Total number of classes at sample school	69	74	85	12	18	23	81	92	108
Sindhuli District（21 sample schools）									
Classes w/less than 40 (overall ratio)	54 (76.1%)	57 (54.8%)	76 (73.1%)	9 (36.0%)	14 (26.4%)	30 (44.8%)	63 (65.6%)	71 (45.2%)	106 (62.0%)
41-70 students/class	11	43	19	14	36	34	31	83	62
71-100 students/class	5	2	7	2	1	2	2	1	2
More than 101 students	1	2	2	0	2	1	0	2	1
Total number of classes at sample school	71	104	104	25	53	67	96	157	171

Source: Survey on Beneficiaries in this ex-post evaluation

Photo 4: Students of the Targeted School Completed the School Leaving Certificate (SLC) Examination

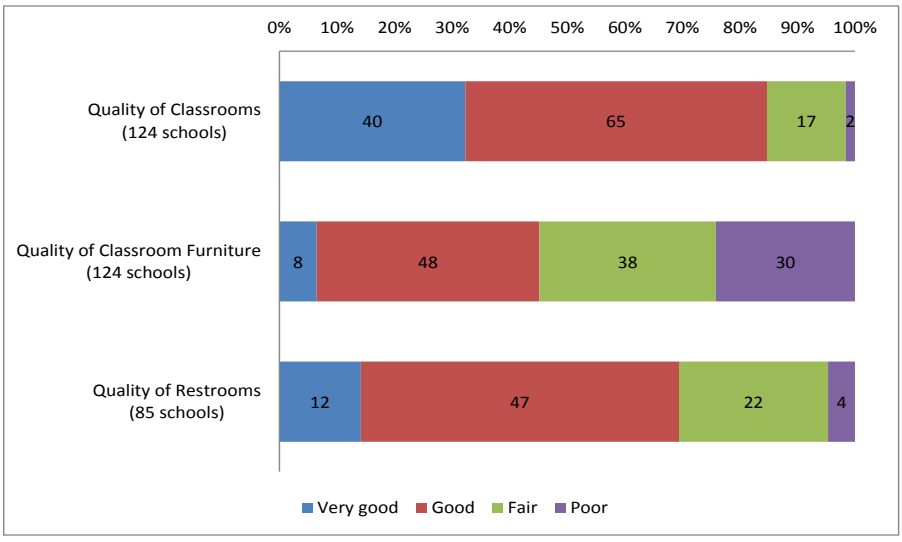
Photo 5: Classrooms Constructed by the Project on the Hilltop

3.3.2 Qualitative Effects

3.3.2.1 Evaluation of the Facilities and Furniture Provided by the Project (Findings of the Survey on Beneficiaries)

Figure 2 shows an evaluation of the quality of the classrooms, restrooms, classroom furniture provided by the project based on the findings obtained from the Survey on Beneficiaries (extremely good, good, average, poor).

Unit: School



Source: Survey on Beneficiaries in this ex-post evaluation

Figure 2: Evaluations of Facilities and Furniture by Sample Schools

Evaluations were received from 124 schools regarding the quality of the classrooms, of which 40 schools (32.3% of the total) rated classroom quality as extremely good and 65 schools (52.4%) rated classroom quality as good. There were 105 schools (84.6%) which responded that

the quality of the classrooms was extremely good or good. The two schools that rated the quality as poor responded that they "were unable to use the classroom due to rain erosion and poor maintenance."

The 17 schools that rated the quality as average responded that "the quality of the cement, steel frame, and other materials used in the construction was poor," "poorly applied lime plaster," and comments about the need for repairs due to poor construction methods, procedures, and maintenance were received. Although the actual conditions at the schools were not observed and the details have not been clarified, the cause appears to be due to inexperienced construction work and inadequate maintenance after the facility was completed.

Regarding the restrooms, 69 schools out of 85 (81.2% of the total) responded that the quality of the restrooms was "extremely good" or "good."

Regarding the furniture, 30 schools out of the 124 schools (24.2% of the total) that responded said that "the quality was poor," and 38 schools (30.6% of the total) responded the furniture was "average." Of the 2 sample schools from each district of Makawanpur, Kabhrepalanchok, and Syangja that were observed during the field study for a total of 12 classrooms at 6 schools, it was found that the furniture was used in only 3 classrooms at 2 schools in the Syangja District (25% of the total).

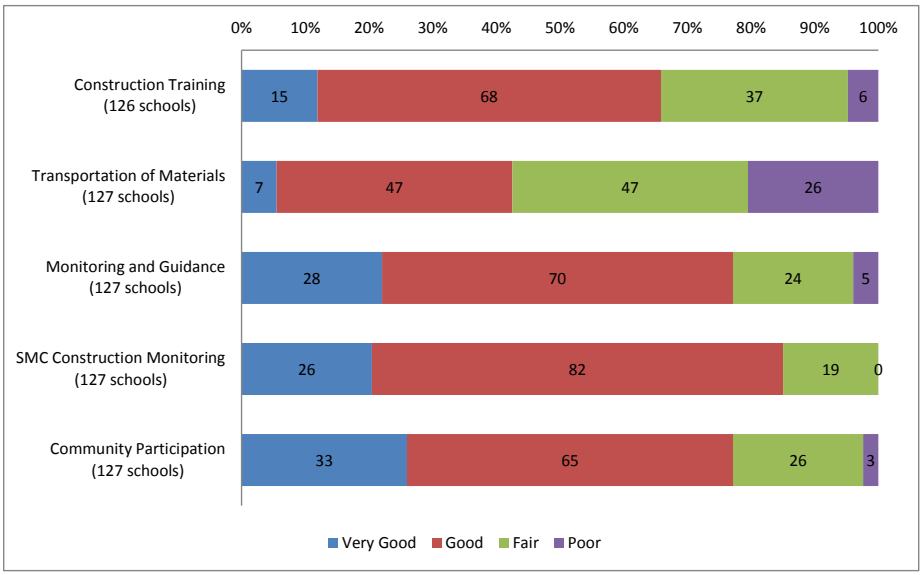
The reasons for their nonuse was they were too small to be used in upper secondary classrooms, there was the common practice to study by sitting directly on the floor using cushions in preschool classrooms, wooden furniture was the norm in Nepal and desks and chairs with steel legs had been supplied by the project.

Schools that were not using the procured furniture were using wooden furniture that was supplied by the schools themselves for their pupils and students. At some schools, the desks provided by the project were used as long seats by staff members or stored away. Schools that were using the desks and chairs supplied by the project said the legs were too thin to support children climbing over them and were breakable or the screws loosened too easily, or it was difficult for farming villages to obtain spare screws; and problems related to use and maintenance were pointed out.

3.3.2.2 Evaluation on the Quality of Each Process of the Project (Findings of the Survey on Beneficiaries)

Figure 3 shows the evaluations on the quality of each process of the project (construction training, transport from the depot to the school, monitoring instructions by DEO, project supervision by the SMC, community participation) obtained from Survey on Beneficiaries. Although the number of responses differs according to the process, 126 to 131 schools responded.

Unit: School



Source: Survey on Beneficiaries in this ex-post evaluation

Figure 3: Evaluations by Sample Schools on Each Process of the Project

Evaluations on each process of the project tended to be the highest for SMC project supervision perhaps because the SMCs were evaluating themselves, and 26 schools (20.5% of the total) responded "extremely good," 82 schools (64.6% of the total) responded "good."

The lowest rating of "poor" was given to the process of transporting materials from the depot to the school by 26 schools (20.5%) and 47 schools (37.0%) responded "average." The ratio of schools that gave comparatively high ratings of "extremely good" or "good" for monitoring instructions by DEO and the community participation exceeded 75%.

Based on the above, this project has somewhat achieved its objectives; however, because there are some issues observed regarding the purpose of the constructed facilities and the degree to which the classroom furniture is used, project effectiveness is fair.

3.4 Impact

3.4.1 Intended Impact

3.4.1.1 Changes in the Enrollment Rate in the Targeted Districts

The number of schools constructed in each of the 15 districts targeted in the project and the enrollment rate for grades 1 to 5 for the entire district are shown in Table 8. Education statistics for 2006/2007 and 2005/2006 prior to the implementation of this project were not archived by DoE and could not be obtained in the ex-post evaluation implemented this time.

Table 8: Number of Classrooms Constructed under This Project in the Targeted 15 Districts and the Enrollment Rate in Grades 1 to 5

Targeted District	Number of Constructed Schools Due to This Project			Enrollment Rate in Grades 1 to 5 in the Targeted 15 Districts (students)			
	Phase 1	Phase 2	Phase 3	2006/2007	2007/2008	2008/2009	2009/2010
Bara Distric		142	160	104,684	106,311	123,458	155,088
Bardiya District	160			81,440	80,569	81,186	78,743
Dadeldhura District		70	70	31,317	30,512	30,561	30,148
Dang District	144	136		97,446	95,181	101,879	91,259
Dhading District		66	66	73,960	72,685	72,591	71,322
Gorkha District		44	44	57,200	56,823	54,508	51,882
Kailali District	140	140		132,277	129,679	130,230	135,314
Kapilbastu District	156			81,198	101,140	87,055	111,570
Kabhrepalanchok District		74	74	78,087	78,606	77,973	76,885
Makawanpur District		56	56	91,757	94,193	91,385	89,018
Nuwakot District	54			59,897	56,146	57,575	49,613
Saptari District		122	160	43,310	63,552	66,842	58,604
Sindhupalchok District	78	78		49,707	60604	43,057	63,555
Sindhuli District		50	50	67,428	77,144	88,009	87,171
Syangja District		70	70	52,794	56,848	55,907	53,602
Total of 15 Targeted Districts				1,102,502	1,159,993	1,162,216	1,203,774

Source: Survey on Beneficiaries in this ex-post evaluation

As shown in the four-year period in Table 8, an increase in the enrollment rate can be seen in the five districts of Kapilbastu, Bara, Sindhupalchok, Sindhuli, and Saptari, but have leveled off or slightly declined in the other ten districts. Private schools in Nepal have begun to gain prominence nationwide and the increase and decrease in the enrollment rate cannot be ascertained as being related to the number of schools constructed under this project. In addition, figures prior to 2005/2006 should be looked at regarding the impact of Phase 1 of this study. However, the enrollment rate in the districts of Bara, Sindhuli, and Saptari, where classroom construction phases 2 and 3 were implemented, rose greatly in comparison to other districts in 2006/2007 and 2007/2008 and it is surmised that this is due to the impact of the project.

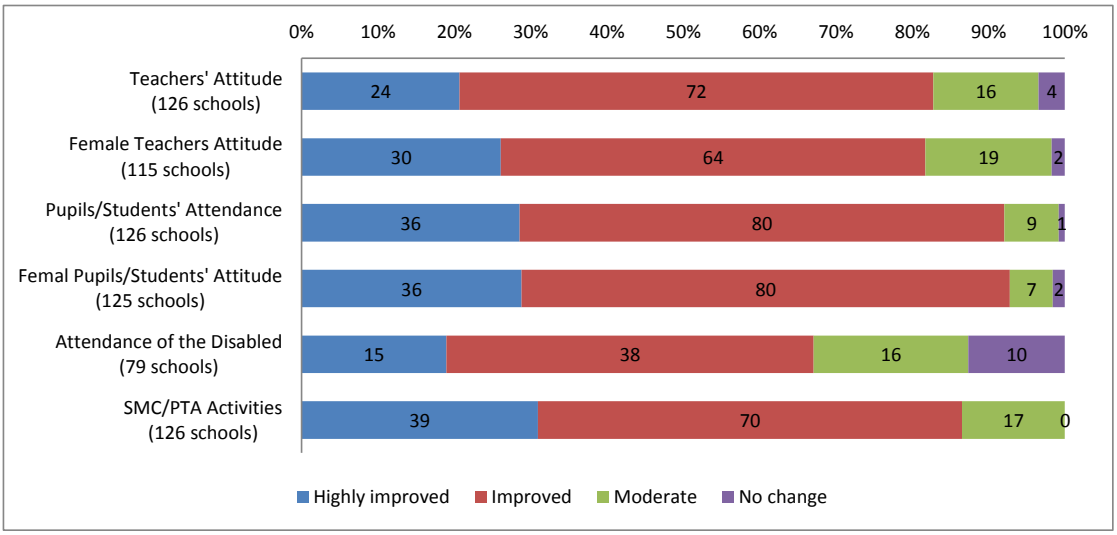
3.4.1.2 Changes in Attitude and Awareness in the Targeted Districts (Survey on Beneficiaries)

Figure 4 shows the changes that this project has caused at the sample schools in terms of teachers, pupils, students, and the community. The most positive change attributed to this project is the attendance rate and attitude of the pupils and students. Of the survey respondents, 36 schools (28.6%) stated that the attendance rate and attitude "have greatly improved", 80 schools (53.5%) responded that it has "improved," and 92.1% of all the sample schools appears to have had a positive impact.

The Survey on Beneficiaries did not clarify whether there were any changes in attitude and awareness among the female teachers, pupils and students with the installation of restrooms for the girls. Regarding SMC and PTA activities, 39 schools (31.0%) responded that they have "greatly improved" and 70 schools (55.6%) said that they have "improved," and positive

changes were seen in 86/6% of all the sample schools. Although a few schools stated that "there were positive changes" in the attendance rate and attitude of children with disabilities, the schools that responded "there were hardly any changes," or "there was no difference" comprised 32.9% of the all the schools.

Unit: School



Source: Survey on Beneficiaries in this ex-post evaluation

Figure 4: Changes in Attitude and Awareness at the Sample Schools

3.4.2 Other Impact

3.4.2.1 Impact on the Natural Environment

During the ex-ante evaluation, it was concluded that negative impact would be minimal since construction would take place within the school compound, but the school compound area is limited in the mountain and hill areas of Nepal. Among the targeted schools, there were a few cases where the land had not been prepared and the public facilities and green areas around the school were converted to the school compound or the mountain surface was carved out. Information about this type of negative impact that occurred in correlation with land acquisition was not available during this study.

3.4.2.2 Land Acquisition, Removing Communities

The Nepalese side (SMC) was responsible for all land acquisitions related to the project and in the notice of completion, nothing was written about land acquisitions. According to the field study findings in the ex-post evaluation, measures were taken such as giving away private land in the community to the school because assistance for classroom construction was not granted to schools without any land, transferring publicly owned green areas to the school, or even leveling a slope in the school compound. There were cases where requests were made to level the land during the project period and as a result, the review and adjustment period for land acquisition and preparation were inadequate.

3.4.2.3 Other Indirect Impact

During the ex-ante evaluation, arsenic tests were conducted in conjunction with the installation of water supply facilities; and if arsenic levels higher than control values were detected, there was a need to implement measures to eliminate the arsenic. According to the facility investigation report by the responsible consultant, arsenic tests were conducted at 105 sites out of the 135 sites in Phase 1 where water supply facilities were planned. The test showed two sites where arsenic levels exceeded control values (higher than 0.05mg/ℓ) at the time of the follow-up survey completion in Phase 1. When the same test was repeated in Phases 2 and 3, arsenic was not detected at the schools with uncompleted water supply works, thus nothing was mentioned in the report.

The arsenic test cases were confirmed with DoE during the ex-post evaluation,, but the person-in-charge had changed and the data could not be obtained. According to the consultant who was in charge, DoE was very diligent about conducting the arsenic tests, which were also adequately carried out in Phases 2 and 3. At the time of the ex-post evaluation, DoE properly conducted the arsenic tests for the planned and the on-going water supply facilities; where there are only limited cases found. However, because the necessity of the arsenic tests was pointed out and the issues might seriously influence pupils and students' health conditions, DoE should have monitored the progress of arsenic tests and shared the test results with the relevant agencies.

Based on the above, it is surmised that the project contributed to increasing the enrollment rate in primary education in the targeted 15 districts. According to the findings of the Survey on Beneficiaries, positive changes were seen in the participation and attendance rate, attitude, and awareness of pupils, students, SMCs, PTAs, and teachers at the sample schools. Land was acquired for classrooms due to the combined efforts of the SMC and the community. The impact on the natural environment may exist, but during the field study, negative impact on the social environment was not reported.

3.5 Sustainability（Rating：②）

3.5.1 Structural Aspects of Operation and Maintenance

The SMC is responsible for the operation and maintenance of the constructed facilities, but regular maintenance is not carried out. When repairs are needed, the SMC will submit a proposal to DEO or VDC and a budget for repairs (about 100,000 rupees) is secured and the repairs are carried out. The frequency in which the classrooms are cleaned may differ according to school, but it is usually done by the teachers and students. The durability of the classrooms constructed under this project is good and they are maintained in good condition at this point in time. Although the SMC is in charge of maintenance, there is no regular maintenance system. If the SMC or PTA is taking responsibility for the facility's maintenance, then this role should be made clear; and it is desirable that guidelines and training sessions on regular maintenance and cleaning methods are provided rather than just emergency repairs.

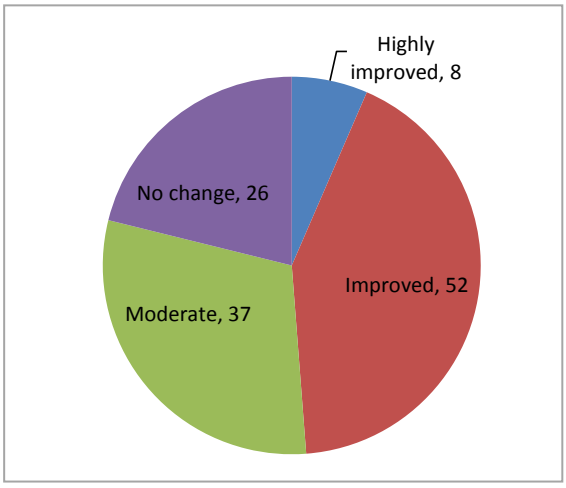
3.5.2 Technical Aspects of Operation and Maintenance

In the past under BPEP-II, DoE prepared an operations and maintenance manual and held training sessions for schools nationwide, but presently, the manual remains unused and since training sessions are no longer held, the technical aspects of facility operations and maintenance at each school is low. Even under this project, training in school facility operations and maintenance were not provided for the SMC, PTA, and community residents.

Figure 5 (next page) shows an evaluation of the operations and maintenance capacity of the schools in the Survey on Beneficiaries. There were only 8 schools (6.3%) which responded that operations and maintenance had "greatly improved," and only 52 schools (41.3%) stated that the situation had "improved." These schools are believed to have improved their technical skills in operations and maintenance through the construction monitoring activities carried out by DEO.

Although the SMC has been placed in charge of facility operations and maintenance, in actuality, they have not been adequately carried out. It is important that DoE and DEO re-review the existing operations and maintenance structure such as the SMC manual and put it into practice.

Unit: School



Source: Survey on Beneficiaries in this ex-post evaluation

Figure 5: Improved Operations and Maintenance Capacity at Each School due to the Project

3.5.3 Financial Aspects of Operation and Maintenance

In interviews conducted with DoE and the schools during the ex-post evaluation, it was found that the DoE allocates funding for facility maintenance and operations, but it does not submit a budget. If a facility breaks down and requires repairs, the SMC reviews the matter and submits a request for funds to DEO or VDC, and repairs are carried out when funds are granted. For moderate repairs, 100,000 rupees are provided and 200,000 to 300,000 rupees are issued for serious repairs.

The durability of the classrooms constructed under the project is good and its design is low

maintenance, and despite the lack of a fixed maintenance budget, they are in comparatively good condition. The school budget is limited with almost no funds for maintenance and the fact that the facilities can be maintained by the community is a benefit.

Funding for repairs provided by DEO and VDC are not always issued even after an application for repairs has been submitted due to the limits that exist for each district and village. DDC and VDC have been instructed by the central government to allocate the majority of their budget to basic education, but the overall budget is limited. For example, 20% of the development budget (300,000 to 500,000 rupees) of the Dhading DDC is allocated to the education sector. But school needs are not limited to facility repairs. The budget also pays the salaries of temporary teachers who are hired to fill the shortage of teachers. As a result, school building repairs are not adequately implemented.

According to the findings of the Survey on Beneficiaries, 56 schools out of the 127 sample schools (41% of the total) said that they prepare an annual a maintenance budget of 10,000 to 50,000 rupees. The budget is funded by education funds provided by DEO or by donations of 1,000 or 2,000 rupees which are collected from each pupil or student. The remainder of the schools replied that they did not have a maintenance budget.

3.5.4 Current Status of Operation and Maintenance

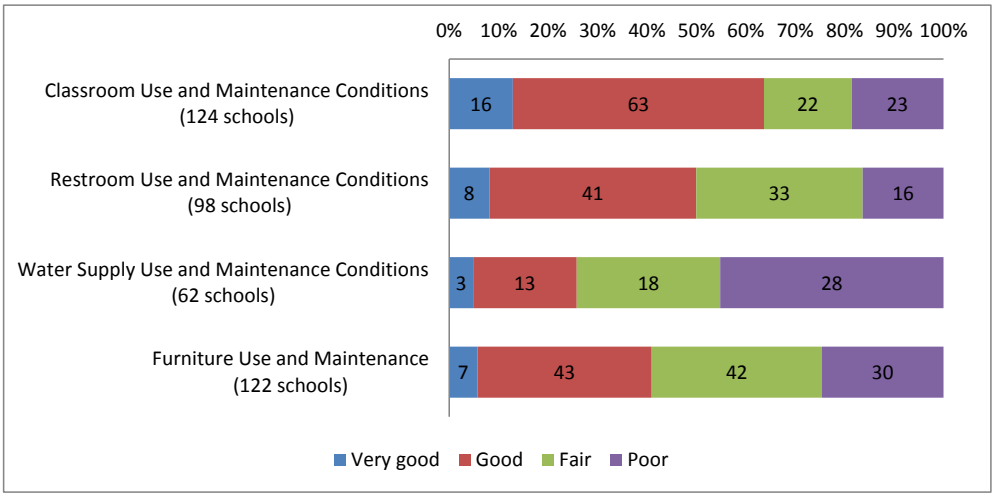
During the field study, it was observed that the durability of the classrooms constructed by the project was good and since the design required minimal maintenance, they were in comparatively good condition. As explained earlier, there were some cases where the classrooms were not used according to their original intent, but as staff rooms, a library, and for other non-classroom functions. Although the intended use of the classrooms is the decision of the SMC, in order to reform primary education, the management of school facilities must be improved to provide the best educational environment possible for the lower grades.

As described earlier, due to the small number of first graders at some of the primary schools in the hill area, the classrooms were split in half by concrete or brick walls and used as two classrooms. Although they were kept clean, the classrooms were extremely narrow and stifling. There were cases where the classroom furniture provided by the project was not in use and had been substituted with wooden furniture paid for by the school. There were cases where the furniture was sent out for repairs due to loose screws or cases where the furniture was not in use due to lost screws. Opinions such as the “furniture did not meet school needs so it wasn’t used” and “maintaining the furniture was difficult” were voiced. There were no problems with the furniture for the RC and were used in good condition. DoE must provide comprehensive facility guidelines regarding the separation of one classroom into two separate classrooms

Figure 6 shows the results of the Survey on Beneficiaries regarding the maintenance conditions of the classrooms, restrooms, water supply facilities, and classroom furniture provided by the project and the response from the sample schools were divided into the four categories of “extremely good,” “good,” “average,” and “poor.” Of the sample schools, 16 schools (12.9%) responded with an “extremely good” and 63 schools (50.8%) rated the facilities

as “good.” In contrast, 23 schools (18.5%) rated maintenance of the facilities as “poor,” and 28 schools (45.2%) rated maintenance of water supply facilities as “poor.” For maintenance of classroom furniture, 30 schools (24.6%) responded with a “poor.”

Unit: School



Source: Survey on Beneficiaries in this ex-post evaluation

Figure 6: Use and Maintenance of Facilities and Furniture at Sample Schools

Based on the above, despite the fact that the facilities were used in comparatively good condition due to the sturdiness of the classrooms and the low-maintenance design, a few problems have been observed in terms of structural, technical, and financial aspects, therefore the sustainability of project effect is fair.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The objectives of the project were to improve the quantitative and qualitative aspects of basic education in 15 districts in Nepal by improving classrooms, restrooms, water supply, and other facilities with the local community participation. The purpose of the project was to be consistent with the development policy given in the ex-ante and ex-post evaluations; and the project was highly relevant in terms of the stakeholders’ need. In light of the fact that project output, cost and project period was achieved according to plan; project implementation has been highly efficient. A total of 2,530 classrooms were constructed according to the project plan and the student capacity of the targeted schools rose showing effectiveness to a certain extent. However, because there are some issues observed regarding the purpose of the constructed facilities and the degree to which the classroom furniture is used, project effectiveness is fair. The management and maintenance of the classrooms and other school facilities were not adequately implemented in the structural, technical, and financial areas, and the existing framework was not

sufficiently utilized. The sustainability of the project's effect was seen as satisfactory.

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

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

1) To sustain the impact of this project, it is recommended that specific guidelines on regular inspection and maintenance of classrooms and facilities and not just for emergency repairs are prepared, and the responsibilities of the SMC, PTA, and community need to be clarified in the SIP of each school. Guidance should be provided to implement this.
2) In addition, although it is important that DoE respect the independence and ownership of the SMC, in view of the acute dropout rate of first and second grade pupils, it is important that each school understands that providing a good educational environment is crucial for the lower grades.
3) Due to the demographic shift from the mountain area to the Tarai area, the integration of schools in the mountain and hill area and the growing prominence of private schools, the needs of existing public schools are undergoing major changes. It might be necessary for DoE to update the school location/enrollments information of the public and private schools to create more efficient school construction plan, which reflects the actual conditions in the districts. t. School mapping (it does not have to be digital, but analog, key maps that simply show school locations) should be adequately implemented to help the government quickly grasp the conditions that dominate basic education services.

4.2.2 Recommendations to JICA

The revision of constitutional laws in the peace-building process in the aftermath of political conflict has lagged and the capacity of MoE and DoE to execute a budget is inadequate due to the unorganized structure of the central and local governments. The Nepalese side recognizes JICA as a major partner in its school construction programme and in view of this fact, technical cooperation, etc. should be provided under SSRP to help review the school locations of the central and local governments, to prepare school construction plans, to provide monitoring technology for construction projects, and to help improve budget execution and project implementation capacity, while confirming the needs of MoE and DoE. In an interview with an international institution that was conducted during the field study, JICA's importance in providing assistance to enhance the capacity to monitor school construction was discussed. It is desirable for JICA to promote and enhance the assistance not only in classroom construction but also in capacity development of construction planning, monitoring and maintenance at the central and the local government level as well as at the school level.

4.3 Lessons Learned

Through the procurement of construction materials and the school construction based on community participation, this project contributed to the effectiveness of utilizing local resources

for school construction and it was significant in quantitatively improving education in the targeted districts.

However, it should be noted that land acquisition activities had been conducted in a few cases, despite the fact that there had supposedly been none conducted during the ex-ante evaluation, and it is possible that the review and adjustments were not adequately carried out. To prevent such activities from reoccurring, there is a need to improve the provision and confirmation of information beforehand.

By providing assistance that prioritized quality-controlled procurement of construction materials and enhanced construction monitoring activities, it is possible to construct good quality classrooms with the participation of the community. It is important that JICA make an even stronger appeal to the Nepalese government and other donors to show the effectiveness of an improved classroom environment as well as disaster reduction. By effectively utilizing the output of this project to demonstrate the pursuit of good-quality classroom construction through community participation, it becomes possible to clearly show DoE and DEO the merits of project assistance.

END