# **Philippines**

# Ex-Post Evaluation of Japanese ODA Loan "Secondary Education Development and Improvement Project"

External Evaluator: Haruo Ito, ICONS Inc.

# 0. Summary

The Secondary Education Development and Improvement Project (SEDIP) supported the construction/repair of school facilities, provision of learning materials and textbooks, and teacher training cofinanced by the Asian Development Bank (ADB). The Project's aim was the quantitative and qualitative improvement of secondary education in 26 poverty-affected provinces. The ex-post evaluation showed that the project's purpose corresponded with the development policy and needs of the Philippines, and with Japan's Official Development Assistance (ODA) policy; therefore, the relevance is high. Judging by the results of the beneficiary study and data collected, SEDIP's effectiveness and impact can be given a fair rating because improvements were observed in the quality of education related to teacher capacity and student test scores, even though the Project's effects on indicators, such as the net enrolment rate (NER), dropout rate, and completion rate were limited. Efficiency also gets a fair mark since project cost remained within the budget, while project duration slightly exceeded that of the plan. The sustainability of the Project's effects were given a high rating, as no major problems have been observed in the structural, technical, and financial aspects of the operation and maintenance system.

In the light of the evaluation above, this project is considered satisfactory (B).

# 1. Project Description

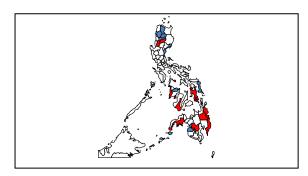


Figure 1. Project Location

Red areas: 15 target provinces
Blue areas: other poverty-affected provinces



Figure 2. School Building Supported by the Project

<sup>&</sup>lt;sup>1</sup> Provinces targeted by the Social Reform Agenda (SRA) and Philippine Commission to Fight Poverty (PCFP), which define priority issues for social economic development in poverty-affected provinces. The Japan International Cooperation Agency (JICA) supported 15 target provinces; the remaining 11 SRA provinces received textbooks under the ADB loan. In the original plan, 14 provinces were selected as SEDIP target provinces, but the number rose to 15 due to the creation of Zamboanga Sibugay Province (previously a part of Zamboanga del Sur Province).

#### 1.1 Background

The Philippines' standard of education used to be regarded as higher than that of other developing countries in the region.<sup>2</sup> However, because of the introduction of free basic education in 1988 and high population growth (averaging 2.3% yearly from 1990 to 1995), the access demand for basic education ballooned, resulting in a shortage of school buildings, facilities, and teachers. By 1994, the National Achievement Test (NAT) scores already showed signs of the degradation in the quality of education: only 43.6% of primary school students and 38.9% of secondary school students got passing marks. In addition, when the Asian currency crisis hit, it exposed the Philippines' fragile industrial foundation in the face of international competition. The government reacted by accelerating its efforts to offer free basic education (primary and secondary levels) and expanding the education budget. By enhancing basic education quantitatively and qualitatively, the country hoped to produce quality labor that would help it recover quickly from the currency quagmire and improve its international competitiveness as a buffer against future crises. The Social Reform Agenda (SRA), the key policy agenda under the regime of President Ramos, stressed poverty eradication and the establishment of social justice; in particular, the expansion of basic education was one of the highest priority issues. In that context, the Japanese government extended a yen loan (cofinanced by the World Bank) for the "Primary Education Project in Poverty-Affected Areas" in March 1997 and supported the expansion of basic education in 26 target provinces of the SRA. However, compared to primary education, secondary education continued to lag both in access (NER: primary, 95%; secondary, 64%) and completion (completion rate: primary, 74%; secondary, 52%). Access was much worse in the poverty-affected target provinces, where the NER of secondary education was 46% in 1997. To improve the situation, the government undertook twin measures of budget allocation, based on the education situation in each region: the decentralization to the Division Offices (DOs) and stronger collaboration with Local Government Units (LGUs).

The Project supported the construction/repair of school facilities, provision of learning materials and textbooks, and teacher training cofinanced by ADB. Its goal was the quantitative and qualitative improvement of secondary education in 26 poverty-affected provinces<sup>3</sup> of the priority targets of the SRA and Philippine Commission to Fight Poverty (PCFP). SEDIP adopted a bottom-up approach, which included assessing the situation of secondary education in each province, designing a detailed education investment plan, and communicating with LGUs and Parents-Teachers-Community Associations (PTCAs) during implementation. Aside from raising the secondary education standard, the Project also aimed for the sustainable development in both administration and school levels by strengthening the capacities of the DOs and LGUs.

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<sup>&</sup>lt;sup>2</sup> In the international ranking of educational standards in the NER of primary education in 1989, the Philippines was placed at 106; Thailand, 95; Indonesia, 118; and Malaysia, 102 (UNDP Human Development Report, 1991).

<sup>&</sup>lt;sup>3</sup> This ex-post evaluation covers the whole Program, including the technical assistance from ADB, since the Program improved the quantitative and qualitative aspects of secondary education to raise the standard of secondary education with cofinancing from the ADB.

# 1.2 Project Outline

The purpose of the Project was to raise the standard of secondary education through quantitative and qualitative improvement by supporting the construction/repair of school facilities, providing learning materials and textbooks, and teacher training. The Project was implemented in 26 poverty-affected provinces of the priority targets of the SRA and PCFP, with cofinancing from ADB.

Loan Approved Amount/ Disbursed Amount	7,210 million yen / 6,477 million yen						
Exchange of Notes Date/ Loan Agreement Signing Date	December 1999 / December 1999						
Terms and Conditions	Interest Rate: 1.8% (0.75% for consulting service) Repayment period: 30 years (40 years for consulting service); Grace period: 10 years Conditions for procurement: untied and tied (especially, consulting service with bilateral ties)						
Borrower /Executing Agency	Government of the Republic of the Philippines /Department of Education (DepED)						
Final Disbursement Date	March 2009						
Main Contractor	None						
Main Consultant	Pacific Consultants International (Japan) TCGI ENGINEERS (Philippines) FILIPINAS DRAVO CORPORATION (Philippines) (Joint venture)						
Feasibility Studies, etc.	T/A (ADB, 1995) F/F (ADB, 1997)						
Related Projects	Third Elementary Education Project, cofinanced by ADB (1997–2006)						

# 2. Outline of the Evaluation Study

#### 2.1 External Evaluator

Haruo Ito, ICONS Inc.

# 2.2 Duration of Evaluation Study

Duration of the Study: October 2011–December 2012

Duration of the Field Study: January 4-28, 2012, June 3-9, 2012

# 2.3 Constraints during the Evaluation Study (if any)

None

# 3. Results of the Evaluation (Overall Rating: B4)

# 3.1 Relevance (Rating: ③<sup>5</sup>)

# 3.1.1 Relevance to the Development Plan of the Philippines

The Philippine government declared 1990 to 2000 as "the decade of Education for All (EFA),"

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<sup>&</sup>lt;sup>4</sup> A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

<sup>&</sup>lt;sup>5</sup> ③: High, ②: Fair, ①: Low

following the declaration of EFA in 1990, and formulated the Basic Education Master Plan (1996–2005)—the detailed human resource development plan which includes the achievement of universal primary and secondary education and the provision of quality education. In addition, the SRA stressed poverty eradication and the establishment of social justice, and pinpointed the expansion of basic education as one of the highest priority issues. Furthermore, the Medium-Term Philippine Development Plan (1999–2004) stipulated education as one of the priority development areas.

The Department of Education (DepEd) has boosted the school improvement movement by eliciting wide-range participation from LGUs and the communities under the Schools First Initiative (SFI). In 2005, DepEd and major donors<sup>6</sup> drafted the Basic Education Sector Reform Agenda (BESRA), which aimed to achieve EFA by 2015 by (1) improving adult functional literacy (mother tongue, Filipino, or English); (2) attaining universal enrolment and eradicating dropout and repetition until Grade 3 of primary education; (3) helping students graduate from primary school, with high enough learning achieved in each grade of basic education; and (4) community involvement for universal basic education. The Project purpose—to improve secondary education quantitatively and qualitatively—is in accordance with these policy contexts.

# 3.1.2 Relevance to the Development Needs of the Philippines

The Philippine government has been promoting the universalization of basic education since 1998 with its policy of free primary and secondary education. However, NER remained a low 64% for secondary education comparing 95% for primary education. In addition, the results of the National Elementary Achievement Test (NEAT) and National Secondary Achievement Test (NSAT) in 1994 showed that students' learning achievement remained a disappointing 43.6% for primary education and 38.9% for secondary education. The low quantitative and qualitative levels were because of the lack of (1) school facilities, (2) school equipment, materials, and textbooks, and (3) competent teachers; and the obstacles to (1) to (3) were (4) an insufficient budget and inefficient resource allocation.

As previously stated, the Project consisted of many components, of which the construction/repair of school facilities corresponded with issue (1) above; the provision of learning materials and textbooks, with issue (2); and teacher training, with issue (3). The Project's "bottom-up approach" in promoting collaboration with the community through School-Based Management (SBM) and decentralization to the DOs and LGUs is expected to produce relevant school improvement planning in accordance with the community's needs and its local resource mobilization; this corresponds with issue (4).

The Project dealt with the dimensions of educational environment issues in the Philippines holistically, and it can be regarded as relevant to the development needs of the Philippines.

Other projects in place during the same period, such as the Grant Assistance Project: "The Fifth

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<sup>&</sup>lt;sup>6</sup> DepEd, AusAID, the United Nations Educational, Scientific and Cultural Organization (UNESCO), JICA, Japan Bank for International Cooperation (JBIC), United States Agency for International Development (USAID), World Bank, and ADB.

Education Facilities Expansion Plan" and Expert Dispatching Scheme: "Strengthening of Continuing School Based Training Program for Elementary and Secondary Science and Mathematics Teachers in the Republic of the Philippines," shared SEDIP's purpose of improving education facilities and education quality. Meanwhile, regarding other donors, the World Bank has supported primary education and ADB, secondary education. The Australian Agency for International Development (AusAID) also continues to provide educational assistance. The presence of parallel projects and donor support reflects the urgent need for educational development in the Philippines at the time of the Project's implementation.

#### 3.1.3 Relevance of Japan's ODA Policy

The Japanese government published the Country Assistance Program for the Philippines (2000), which it based on the latter's Medium-Term Philippine Development Plan (2001–2004). The Country Assistance Program espouses the improvement of access to social services, including basic education, for low-income people, further dissemination of primary and secondary education, and improvement of the quality of education.

The targets of Japan's ODA Policy for the Philippines in its Overseas Development Cooperation Implementation Guideline (JBIC, 1999) were strengthening the economy for sustainable development, overcoming constraints to growth, reducing poverty and regional disparity, human resource development, and strengthening of institutions; the targets corresponded with the components of the Project. The guideline also defined the principle of appropriate self-burden of local cost, and the Philippines' institutional arrangement to develop the capacities of executing agencies. The Project's approach of requiring the central and regional governments to shoulder the financial burden was in consonance with the guideline.

Furthermore, the Project's aim to improve the quantitative and qualitative aspects of secondary education through ADB cofinancing dovetails with the Overseas Development Cooperation Implementation Guideline, which promotes effective collaboration with international organizations by utilizing their strengths.

Since SEDIP is consistent with the country's development plan and needs, as well as Japan's ODA policy, its relevance is high.

# 3.2 Effectiveness<sup>8</sup> (Rating: ②)

3.2.1 Quantitative Effects (Operation and Effect Indicators)<sup>9</sup>

#### 3.2.1.1 Net Enrolment Rate

As shown in Table 1, the increase in the NER in SEDIP target provinces from project beginning

<sup>&</sup>lt;sup>7</sup> Strengthen the implementation of Basic Education Selected Provinces in the Visayas (STRIVE), backed by Aus-AID.

<sup>&</sup>lt;sup>8</sup> The sub-rating for Effectiveness is to be set with consideration of Impact.

<sup>&</sup>lt;sup>9</sup> Since the Project's target was almost all secondary schools in the target provinces, the quantitative effects are evaluated based on the macro data of each province.

(2002)<sup>10</sup> to completion (2008) was only 1.5 percentage points and did not reach the target of 2.5 percentage points,<sup>11</sup> which was set during the project assessment phase. In addition, the rate of increase matches the national average. Thus, upon project completion, the effects on the NER were limited.

Table 1: Net Enrolment Rate: National and Target Province Averages (public schools only)<sup>12</sup>

(pacife senecis only)							
	2002 <sup>a)</sup>	2008 <sup>b)</sup>	2009	2010	(2002–2008)		
National	45.6 %	47.1 %	46.9 %	48.1 %	1.5		
SEDIP	41.0 %	42.5 %	42.6 %	43.8 %	1.5		

Sources: a)2002: ADB Completion Report; b)2008–2010: DepEd

# 3.2.1.2 Dropout Rate

The average dropout rate in SEDIP target provinces upon project completion in 2008 was 10.3%. This means that 4.5 percentage points higher than the rate before the project started. Therefore, effects at the time of project completion could not be confirmed. It was pointed out that repetition rate went up because the availability of free secondary education caused a rapid increase in the number of students, which pulled down the quality of education. The situation was compounded by worsening external conditions, such as the deterioration in the economic status of the households. Considering the 1.9 percentage-point increase in the national average, it is highly possible that the economic depression during this period exacerbated the dropout rate.

Table 2: Dropout Rate: National and Target Province Averages (public schools only)

	2002 <sup>a)</sup>	2008 <sup>b)</sup>	2009	2010	(2002–2008)
National	6.6 %	8.5 %	8.8 %	9.0 %	1.9
SEDIP	5.8 %	10.3 %	9.8 %	10.0 %	4.5

Sources: a)2002: ADB Completion Report; b)2008–2010: DepEd

#### 3.2.1.3 Completion Rate

The completion rate in SEDIP target provinces in 2008 was 69.4%, 8.0 percentage points better than the situation before project implementation. On the other hand, since the national average rose 13.6 percentage points, the improvement in the completion rate in SEDIP target provinces cannot be identified as an effect of the Project.

10 The Project started in 1999, but activities such as school construction and teacher training did not begin until its implementation in 2002 due to the delay in the processing of the requirements.

In the project assessment phase, target indicators were defined as follows: (1997: when the project was planned $\rightarrow$ 2006: project completion); NER (46.3% $\rightarrow$ 48.8%); dropout rate, to be decreased 2.5% (6.5% $\rightarrow$ 4.3%); and repetition rate, to be decreased 3% (4.6% $\rightarrow$ 1.6%). The repetition rate was not available for the ex-post evaluation, so the completion rate was examined in its place.

Since the Project's target areas were poverty-affected provinces and interventions in education development were also implemented in other provinces, the statistics could not easily be compared. However, the comparison with the national average is effective in relativizing the progress of the statistics. Therefore, the above statistics are shown as references.
 Division Education Development Plan (DEDP) 2010-2016.

Table 3: Completion Rate: National and Target Province Averages (public schools only)

	2002 <sup>a)</sup>	2008 <sup>b)</sup>	2009	2010	(2002–2008)
National	58.6 %	72.2 %	71.4 %	71.2 %	13.6
SEDIP	61.4 %	69.4 %	70.6 %	70.5 %	8.0

Sources: a)2002: ADB Completion Report; b)2008–2010: DepEd

#### 3.2.1.4 Student-Classroom Ratio

The results of the beneficiary survey<sup>14</sup> in the ex-post evaluation show a reduction in the student-classroom ratio in the schools where school buildings were constructed by SEDIP. Meanwhile, the target schools of the School Building Program (SBP) had a lower student-classroom ratio (51.8 students) than that of non target schools (57.7 students). In addition, the target schools achieved the national target of 45 students per classroom in 2010 and 2011, after the Project was completed.<sup>15</sup>

Table 4: Student-Classroom Ratio Confirmed in the Beneficiary Survey

		2008	2009	2010	2011
SBP	Average	51.8	45.4	44.1	43.1
	Number of responses	67	66	68	69
Non-SBP	Average	57.7	55.7	57.6	57.6
	Number of responses	7	7	7	7

Source: Beneficiary Survey

#### 3.2.2 Qualitative Effects

# 3.2.2.1 Satisfaction of In-Service Teacher Training (INSET)

SEDIP provided INSET on modern teaching methods (11,067 teachers), classroom management (11,078 teachers), care and use of learning support materials (10,803 teachers), and student-centered assessment tools, practices, and alternative approaches<sup>16</sup> (11,048 teachers); as well as SBM for 829 principals. According to the results of beneficiary survey, the average satisfaction of the participants was very high, ranging from 4.7 to 4.8 (on a five-point scale).

<sup>&</sup>lt;sup>14</sup> A questionnaire was circulated among the principals and students in 107 SEDIP target schools in the provinces of Ifugao, Benguet, Leyte, and Southern Leyte. The numbers in the tables show the quantity of responses.

<sup>&</sup>lt;sup>15</sup> In the field study, the indicators also improved with the establishment of new schools, which helped decongest the existing schools

<sup>&</sup>lt;sup>16</sup> Student-centered assessment is the process of establishing where individual learners are in their development—the kinds of knowledge, skills, and understanding they have developed and are able to apply to meaningful problems—for the purpose of monitoring individuals' progress through an area of learning and deciding on the best way of facilitating further learning.

Table 5: Average Level of Participant Satisfaction in the SEDIP Training<sup>17</sup>

Contents of INSET	Average
In-Service Teacher Training	4.8
School-Based Management	4.8
Care and use of learning support materials	4.7

Source: Beneficiary Survey

During the interview, the participants had positive comments about the contents of the training:

The various kinds of INSET held by SEDIP enhanced my self-confidence as a teacher. I learned teaching methods and lesson planning in the seminars and workshops. (Teacher)

The knowledge and skills that I got from the SBM training are useful to promote the understanding of principal, teachers, students, parents, and community on their respective roles to improve education quality. (Principal)

Continuous cooperation from the LGU and the community established cooperation between the school and other collaborative organizations, and strengthened leadership. The School Improvement Plan (SIP) improved the way the school functioned. (Principal)

#### 3.2.2.2 School-Based Management

SBM training was conducted for principals of SEDIP target schools as an ADB component. School improvement planning and implementation was encouraged in the target schools. The relationship between the school and community became closer, and it accelerated network building and resource contribution, which are necessary for school management. In addition, it is reported that environment improved in 70% of the target schools.<sup>18</sup>

In the beneficiary study, the principals gave SBM training a high approval rating: 4.1 to 4.8 on a five-point scale (see Table 6). The implementation of SBM and improvement of school management were thus confirmed. SBM was institutionalized after project completion and was implemented nationwide, with a budget allocation from the DepEd.

<sup>18</sup> ADB Completion Report.

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<sup>&</sup>lt;sup>17</sup> The level of satisfaction (five-point scale) with the training held by SEDIP was confirmed by the questionnaire (1: Very Unsatisfied, 2: Unsatisfied, 3: Fair, 4: Satisfied, 5: Very Satisfied).

Table 6: Responses to the Questionnaire about SBM Practice<sup>19</sup>

	Average
1. I involve all teachers in making school policies and planning school programs.	4.5
2. I involve all non-teaching staff in making school policies and planning.	4.1
3. I create an atmosphere wherein school staff can ask questions, share information, clarifying issues, and express disagreement in meetings.	4.8
4. All staff has access to relevant professional development opportunities.	4.7
5. Communication inside the school is made effectively—accurate, relevant, and on time.	4.5

Source: Beneficiary Survey

#### 3.2.2.3 Students' Satisfaction with Teachers

The results of the beneficiary survey questionnaire<sup>20</sup> given to students in SEDIP schools show a high level of satisfaction—4.1 to 4.7 (on a five-point scale)—with the teachers' capacity and attitudes. The average score on the teachers' use of teaching aids was somewhat low at 3.8, but it could be blamed on the lack of chemicals in the science laboratories and shortage of time for preparation of experiments.

Table 7: Responses to the Questionnaire about Teachers' Ability<sup>21</sup>

	Average
Teachers are always well prepared.	4.7
Teachers are enthusiastic in teaching.	4.4
Teachers make the lessons easy to understand.	4.1
Teachers give good advice on learning.	4.7
Teachers often use teaching aids (laboratory equipment,	3.8
science models) during their lessons.	

Source: Beneficiary Survey

### 3.2.2.4 Students' Satisfaction with School Facilities

Most of the students in SEDIP schools were satisfied with school facilities and teaching materials (see Table 8). Their responses also confirmed that their parents participated in school maintenance activities—a reflection of the effects of SBM.

<sup>19</sup> The questionnaire about the implementation of SBM used a five-point scale (1: Never, 2: Seldom, 3: Sometimes, 4: Often, 5: A luvaye)

<sup>5:</sup> Always).

One hundred students participated in the beneficiary survey: 50 from Benguet Province and 50 from Leyte Province.

<sup>&</sup>lt;sup>21</sup> The questionnaire about the students' satisfaction with teachers used a five-point scale (1: Never, 2: Seldom, 3: Sometimes, 4: Often, 5: Always).

Table 8: Responses to the Questionnaire about Students' Satisfaction with School Facilities<sup>22</sup>

	Average
We have enough textbooks.	4.0
We have enough classrooms.	4.1
The commute to school is easy.	3.8
School facilities (classrooms, laboratory, library) and furniture are well maintained.	4.2
My parents participate in the maintenance of school facilities.	3.9

Source: Beneficiary Survey

#### 3.3 Impact

#### 3.3.1 Intended Impacts

The results of the analysis by National Education Testing and Research Center (NETRC) confirmed that the NAT<sup>23</sup> scores in SEDIP target provinces were higher than the national average.

Table 9: Comparison of NAT Scores: National and SEDIP Provinces Averages

	2001	2006	2007	2008	2009	2010	2011
National	53.4	44.3	46.6	49.3	46.7	45.6	48.0
SEDIP	53.2	50.9	51.1	53.1	51.1	51.9	54.1
Difference	-0.2	6.5	4.5	3.8	4.4	6.3	6.1

Source: National Education Testing and Research Center

The biggest difference between the national average and SEDIP target provinces scores was in mathematics and science, which SEDIP supported with teaching materials and INSET (see Table 10). It can thus be concluded that SEDIP made an impact.

Table 10: Comparison of NAT Scores per Subject: National and SEDIP Provinces Averages (2011)

	National	SEDIP	Difference
Mathematics	42.0	52.3	10.3
Science	39.4	47.5	8.2
English	46.5	51.3	4.8
Hekasi (Social Studies)	58.9	59.9	1.0
Filipino	52.0	58.9	6.9

Source: NETRC

The beneficiary survey confirmed that from 2008 to 2011, the average NAT score of schools whose teachers had attended INSET was higher than that of schools whose teachers had not (see Table 11). There is a statistically significant difference (10% level)<sup>24</sup> in the NAT scores in 2008, which implies a certain trend between INSET attendance and nonattendance.

The questionnaire about the students' satisfaction with school facilities used a five-point scale (1: Never, 2: Seldom, 3: Sometimes, 4: Often, 5: Always)

The National Achievement Test is administered to second-year students of secondary schools every March. The subjects of the NAT are Filipino, Araling Panlipunan (Social Studies), English, Science, and Mathematics.

The 10% level was applied to examine the significant difference, as the number of samples (100) is small. A certain trend in the NAT scores between INSET attendance and nonattendance was observed.

Table 11: Comparison of NAT Scores: Schools Whose Teachers Have Attended INSET and Schools Whose Teachers Have Not

Year	INSET	No. of schools	Average	Difference
2008	Attended	83	52.3	9.7*
2008	Not Attended	26	42.6	9.7
2009	Attended	83	52.6	0.4
	Not Attended	26	52.2	0.4
2010	Attended	83	53.8	3.6
2010	Not Attended	26	50.2	3.0
2011	Attended	83	50.9	0.5
	Not Attended	26	42.4	8.5

Significance: \*\*\*0.01, \*\*0.05, \*0.1

Source: Beneficiary Survey

#### 3.3.2 Other Impacts

#### 3.3.2.1 Impacts on Natural Environment

All environmental components of the Project abided by the requirements of the Environment Management Bureau of the Department of Environment and Natural Resources. In addition, facility design considered the effects on the environment of the materials it used; the use of lights and air conditioners was minimized. During construction, the technicians of the LGUs and DOs ensured compliance to the environmental requirements through strict monitoring. Waste materials from science laboratories, which could have a negative impact on the natural environment, passed through neutralization tanks provided by the Project. The tanks contained calcic water, in accordance with Environment Hygiene Safety Standards. Impacts on the environment by pollution from science laboratories and effluents from toilets have not been confirmed by the results of the field study. On the other hand, the teachers' lack of knowledge about the proper disposal of chemicals in some experiments was identified.

### 3.3.2.2 Resettlement and Land Acquisition

The field survey confirmed that no negative impact occurred on the land acquisition and resettlement of the School Building Program.

# 3.3.2.3. Other Positive and Negative Impacts

# (1) Ascending priority of budget allocation to the education sector in LGUs

SEDIP required LGUs to share the cost of school construction, in accordance with the decentralization policy. As a result, the budget allocation of LGUs for the education sector increased (see Table 19) in the area of sustainability. After the Project was completed, the LGUs will continue to support the education sector in, for example, the construction and maintenance of buildings and facilities. In addition, DepEd inked Memorandums of Understanding (MOUs) with LGUs to secure their equity for the construction of new schools after the Project was completed.

# (2) Heightened community awareness of education

As a result of the SBM's community participatory school improvement planning, and improved transparency by making the school financial reports public, the relationship between the school, community, and PTCA was strengthened. Moreover, the community's contribution to the school increased, in areas such as the extension of classrooms, provision or repair of toilets, school compound improvement, and repair and cleaning of facilities.

# (3) Dissemination of SEDIP programs through institutionalization

SEDIP's Dropout Reduction Program (DORP) and the SBM were institutionalized and disseminated nationwide. Since SBM has been made a national program, the three-year SIP and School Annual Plan (SAP) are now implemented countrywide. The SBM approach established by the Project is also applied by other donors' projects<sup>25</sup> and disseminated to other areas.

### (4) Synergistic effects with other projects

SEDIP was developed in close collaboration with TEEP, which covers the same provinces and is cofinanced by the World Bank. The improvement in the learning achievement of elementary school graduates is the foundation of quality improvement in secondary education. The products of TEEP target schools can enroll in SEDIP target schools, thereby boosting their learning achievement from elementary to secondary education. This exemplifies the synergistic effect of SEDIP with other JICA projects.

In sum, although the effects of the Project on the net enrollment, dropout, and completion rates were below the expectations of the planning stage, there was a certain degree of achievement by way of a better education environment through facility and equipment support and improved education quality through training that enhanced the teachers' capacity. Therefore, the effectiveness and impact of the Project is Fair.

#### 3.4 Efficiency (Rating: 2)

3.4.1 Project Outputs

3.4.1.1 School Building Program and Provision of School Furniture and Equipment

Facility and equipment support was extended to 833 schools (including the construction 15 new schools)—almost all of the schools in 15 provinces. More buildings, furniture, and equipment were procured than originally planned (see Table 12).

The exchange rate of the Japanese yen to the Philippine peso upon project approval was ¥3.0 to P1.0, but it was later changed to \(\frac{4}{2}.2\) to P1.0, thus making more pesos available. In addition, the decrease in the prices of teaching materials left residual funds. The original plan involved 22 LGUs but seven were excluded because of their inability to provide equity, leaving 15 LGUs as target

<sup>&</sup>lt;sup>25</sup> Strengthen the implementation of Basic Education Selected Provinces in the Visayas (STRIVE), backed by Aus-AID.

Table 12: Plan and Accomplishment of the School Building Program

Component	Plan	Accomplishment	Difference
	(No. of	(No. of Units)	
	Units)	(-,-,-,-,-,-,-,-,-,-,-,-,-,-,-,-,-,-,-,	
A. New Construction	,		
1. Classroom	2,198	2,346	148
2. Science Laboratory	320	339	19
3. Home Economics	153	164	11
4. Industrial Arts	117	128	11
5. Library	103	115	12
6. Faculty Room	106	116	10
7. Guidance Center	62	70	8
8. Toilet	1,031	1,100	69
9. Water Supply System	51	58	7
10. Multipurpose Building	0	2	2
B. Repair and Rehabilitation			
Repair	199	230	31
Completion	87	87	0
Replacement	135	135	0
C. Establishment of New School			
Classroom	60	60	0
Science Laboratory	15	15	0
Home Economics	15	15	0
Industrial Arts	15	15	0
Library	15	15	0
Faculty Room	15	15	0
Guidance Room	15	15	0
Toilet	45	45	0
Water Supply System	15	0	-15

Source: JICA internal documents

Table 13: Plan and Accomplishment of School Furniture Procurement<sup>26</sup>

Component	Plan	Accomplishment	Difference
	(No. of	(No. of Units)	
	Units)		
1. Classroom	2,258	2,406	148
2. Science Laboratory	335	354	19
3. Home Economics	168	182	14
4. Industrial Arts	132	143	11
5. Library	118	130	12
6. Faculty Room	121	131	10
7. Guidance Room	77	85	8
8. Multipurpose Facility	0	2	2

Source: JICA internal documents

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<sup>&</sup>lt;sup>26</sup> Procurement of desks, chairs, bookshelves for teaching materials, and so on.

Table 14: Plan and Accomplishment of School Equipment Procurement<sup>27</sup>

Component	Plan (No. of Units)	Accomplishment (No. of Units)	Difference
1. General Sciences	762	968	206
2. Biology	762	968	206
3. Chemistry	741	968	227
4. Mathematics	819	968	149
5. Physics	741	968	227
6. Industrial Arts	762	968	206
7. Technology and Home Economics	762	968	206

Source: Project Completion Report

#### 3.4.1.2 Technical Assistance

The following activities were done under the Technical Assistance of the ADB portion:

### (1) Training for school heads

The attendance (more than 800 school heads) far exceeded the target of 650 in the following: education evaluation training (857), learning management, and teaching assistance (836). In all, 738 school heads acquired the capacity to plan and implement the programs.

#### (2) DORP

DORP was targeted for 180 schools but was implemented in 240. About 1,200 teachers participated in the training.

# (3) INSET

The actual number of participants—about 11,000 teachers—surpassed the target of 9,700 for INSET: modern teaching methods (11,067), classroom management (11,078), care and use of learning support materials (10,803), and student-centered assessment (11,048).

#### (4) High School Innovation Fund (HSIF)

The HSIF, amounting to 71,444,547.67 pesos, was distributed among 351 schools in 15 provinces; the target was 325. Of the total HSIF, 59% went to reading materials to strengthen reading ability. In the field study, it was confirmed that many schools continue the program, using the reading materials that were procured with HSIF.

#### (5) SBM training

The SBM training (with community participation) drew 829 school heads; the target was 800.

<sup>&</sup>lt;sup>27</sup> Procurement of equipment for science experiments, tools for woodworking, welder for Industrial Arts, and cooking tools and dishes for Home Economics.

# (6) Capacity development of LGMs and DOs

Training in making the Division Education Development Plan (DEDP), introduction of the INSET system, and implementation of Monitoring and Evaluation (M&E) were conducted; the Education Management Information System (EMIS) was introduced to the DOs and target schools.

#### (7) Provision of textbooks

The following were provided to 850 target schools (plan targets in parentheses): 5.9 million textbooks (4.1 million), 46,300 teacher's guides (125,217), and 302,215 reading books (296,603).

# 3.4.2 Project Inputs

# 3.4.2.1 Project Cost

The total cost of the Project was 15,032 million yen as of March 2009, and it was within the plan (73% of the planned budget of 20,462 million yen).

Table 15: Plan and Accomplishment of the Project Cost (million yen)

	Plan	Disbursement*	Disbursement rate
Yen loan	7,210	6,477	90%
ADB	6,389	3,525	55% <sup>28</sup>
The Government	6,863	5,030	73%
of the Philippines			
Total	20,462	15,032	73%

Source: Summary from ADB Project Completion Report

Meanwhile, the planned amount of the yen loan was 7,210 million yen, but the actual disbursement amounted to 6,477.4 million yen (about 90% of the planned amount) as of March 2009. On the other hand, because of the foreign currency transaction gain, more than 100% of the planned buildings, furniture, and materials were procured, as shown in the Output section.

<sup>\*</sup>As of March 2009

<sup>&</sup>lt;sup>28</sup> Regarding the ADB portion, the USD 17.4 million allotted for teaching materials, textbooks, reserve fund, interest, and contract management fee was cancelled during the Project. When this amount is deducted, the disbursement rate becomes 90.3%.

Table 16: The Disbursement Rate of Activity Cost under the Yen Loan (million yen)

	Plan	Disbursement*	Disbursement
			rate
School Building	3,673	3,571	97%
Furniture procurement	351	269	77%
Equipment	1,630	1,100	68%
procurement	1,030	1,100	0870
Consulting service	1,548	1,535	99%
Reserve fund	8	0	0%
Total	7,210	6,477	90%

Source: Project Completion Report

### 3.4.2.2 Project Period

The Project was planned to start in December 1999 and to be completed in December 2006, but the implementation period was extended to September 2008, bringing the total to 105 months (25% longer than planned).

Initially, Batch 1 was scheduled in 2000 and Batch 2, in 2002. The lessons learned from Batch 1 would be used to improve the quality of Batch 2. However, due to the delay in implementation, both Batches were started in 2002. The school building program was delayed 96.9% and project procurement, 71.7% (see Table 17).

Table 17: Plan and Actual Construction and Procurement Period

		Planned period	Actual	Delay	Actual/planned
		(No. of Days)	(No. of Days)	(No. of Days)	(%)
Construction	Batch 1	88	164	76	185.8
Construction Period	Batch 2	78	160	82	205.3
renou	Overall	82	161	79	196.9
Dans assuments and	Batch 1	112	179	67	159.8
Procurement Period	Batch 2	112	201	89	179.6
renou	Overall	112	192	80	171.7

Source: Project Completion Report

The reasons for the delay in construction were as follows: securing the budget from the LGUs, change in the country's leadership (central government) in 2004 because of the national election, inadequate monitoring and management of the LGU staff, insufficient technical support from the Division Offices, and higher cost of building materials. The delay was also partly attributed to the fact that negotiation to decrease the equity of LGUs was invoked because TEEP, which was already being implemented at the time, reduced its LGU equity from 25% to 10%.

The delay of in the procurement of furniture and equipment was due to rebidding, a change in the DepEd's procurement system, change of divisions in charge, increase in the number of target schools, and a delay in the bidding process of the DepEd's Bids and Awards Committee (BAC).

To address the delay in the implementation, the Project created a Project Financial Management Team (PFMT) and supported the National Project Management Office (NPMO) at the central and provincial levels. In addition, the Project organized a campaign for LGUs to encourage them to

<sup>\*</sup>As of March 2009

shoulder the equity. It took four-and-a-half years to disburse the first 50% of total expenses and another year-and-a-half to disburse remaining 50%. Despite the delays, it can be said that the Project was able to minimize the loss of efficiency.

### 3.4.3 Economic Internal Rates of Return (EIRR) (Reference)

The Project's EIRR was not calculated during its assessment; it was done in the report of the Impact Evaluation of TEEP (2011). It is estimated that if a student worked for 20 years after graduation from a SEDIP school, the EIRR would be 16.2%. This is higher than hurdle rate of the Philippines' National Economic and Development Authority (NEDA), which only accepts a project if its IRR is greater than 15%. Furthermore, 20 years of working after graduation from secondary schools is an acceptable gauge of the EIRR. Therefore, SEDIP's cost efficiency is considered secure for project implementation.

Table 18: Project EIRR (used as reference)

		,
Programs	Horizon	EIRR (%)
TEEP	20 years	18.6
IEEF	10 years	15.9
TEED   CEDID	20 years	16.2
TEEP+ SEDIP	10 years	11.9

Source: Impact Evaluation of TEEP (2011)

Although the project cost was within the plan, project duration slightly exceeded the planned period. Therefore, project efficiency is Fair.

3.5 Sustainability (Rating: ③)

#### 3.5.1 Structural Aspects of Operation and Maintenance (O/M)

At the national level, the Physical Facilities and Schools Engineering Division (PFSED) of DepEd has the responsibility to provide assessment and advice for the O/M of school facilities and develop necessary specification of school facility. PFSED is also tasked with monitoring and assessing school operation and maintenance.

The Schools Division Superintendents (SDSs) and Physical Facility Coordinators (PFCs) in DOs are responsible for the implementation of regular school monitoring and the school maintenance plan; they report to the DepEd. However, due to the increase of secondary schools and shortage of DO staff, it was confirmed in the interview that DOs have difficulty in regularly monitoring all school facilities. The results of questionnaire in the beneficiary study<sup>29</sup> show that only 61.8% of SEDIP schools are regularly monitored by DO staff.

At the school level, there is a program called "Brigada Eskwela," in which the LGUs, PTCAs, nongovernmental organizations, and other people concerned undertake the repair and cleaning up of

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<sup>&</sup>lt;sup>29</sup> The questionnaire about the state of school facility maintenance used a five-point scale (1: Never, 2: Seldom, 3: Sometimes, 4: Often, 5: Always); the responses of 4 (often) and 5 (always) were summed up. The respondents were 102 principals from SEDIP target schools.

schools during the third week of May, just before the opening of classes. It was observed that some schools involved the PTCAs in school maintenance since some PTCA members were skilled workers and carpenters. The implementation of SBM accelerated bottom-up education development planning with community participation, school-based management led by the principal, and the allocation of a portion of the LGU budget for the education sector. In addition, efforts were made to institutionalize good practices in the education administration system.

It can be concluded that the necessary institutionalization was done for the O/M of school facilities regarding structural management, although regular monitoring by DOs is only partially satisfactory.

#### 3.5.2 Technical Aspects of Operation and Maintenance

NPMO developed and distributed the O/M manual to all target schools. A workshop on how to use the O/M manual was conducted for 340 participants (school principals, supply officers, and property custodians) from 15 target provinces. Each participating school developed a school maintenance plan as the workshop's output and submitted it to their DOs.

It was confirmed that certain schools have not utilized teaching equipment, such as electronic devices, logic circuits, welding machines, and can sealers, due to the teachers' lack of knowledge and training. The field study found that no INSET has been organized after the Project was completed. Some teachers who had attended INSET quit the profession or were transferred to other schools. Thus, the schools that they left had difficulty in practicing O/M. Therefore, the technical aspects of O/M are a little problematic.

# 3.5.3 Financial Aspects of Operation and Maintenance

DepEd has allocated 950 million pesos for the School Based Repair and Maintenance Scheme (SBRMS)<sup>30</sup> for both primary and secondary schools; the funds are coursed through DOs in accordance with the DepEd Ordinance of 2008. The SBRMS is given to a school when the DO accepts the application, and PFC monitors the repair and maintenance. It was found that the Leyte province office prioritizes SEDIP schools to provide SBRMS for facility maintenance.

It is prescribed that LGUs shoulder the construction of school facilities. The LGU provides Special Education Funds (SEF) to primary and secondary schools for their O/M. The expenses of each LGU level in Leyte Province are shown in Table 19. The expenses of Municipalities and Sub-Districts are largest and tend to increase. It was pointed out that TEEP and SEDIP targeting of primary and secondary schools spurred the increase in LGU spending and forged cooperation between LGUs, Dos, and schools.

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<sup>&</sup>lt;sup>30</sup> The target is primary and secondary schools, and the unit annual amount is not more than 100,000 pesos per school.

Table 19: Expenses for Primary and Secondary Education of LGUs (Leyte Province; unit: Philippine peso)

LGU	2006–2007	2007–2008	2008–2009
Province	3,401,901	4,949,476	3,800,515
Municipality, District	6,965,562	32,333,310	50,415,957
Barangay (village, barrio)	622,970	280,450	628,670
Total	10,990,433	37,563,236	54,845,143

Source: Leyte Province Division Report Card (DRC)

At the school level, the O/M budget is mostly dependent on the Maintenance and Other Operating Expenses (MOOE) provided by DepEd to each school. The LGUs' infrastructure funds (Educational development assistance and school building program of DPWH), as well as funds from NGOs, PTCAs, School Alumni Associations, commercial and industrial establishments, and philanthropic organizations, were also used for O/M.

Table 20 and 21 below show the average annual incomes and expenditures of O/M budgets. From 2008 to 2010, incomes exceeded expenses; income and expenditure of ordinary operation and maintenance cost at school level are accurately balanced.

It can thus be concluded that the financial aspects of O/M do not have any problem.

Table 20: Average Annual Income for O/M

	2008	2009	2010
DepEd (MOOE)	338,117	421,573	387,204
LGU	184,105	156,385	144,200
PTCA	43,381	63,867	64,388
NGO, other organizations	25,250	21,833	21,500
Community	17,650	12,664	12,282
Total	608,503	676,322	629,574

Source: Beneficiary Survey

Table 21: Average Annual Expenditure for O/M

	2008	2009	2010
Facility	448,695	458,663	451,721
Furniture	41,506	47,511	42,707
Teaching materials	35,775	41,591	32,058
Total	525,976	547,765	526,487

Source: Beneficiary Survey

#### 3.5.4 Current Status of Operation and Maintenance

School facilities are generally well maintained. The beneficiary survey also confirmed that many facilities were frequently used. On the other hand, water supply systems have some problems: the usage and maintenance of water supply systems were poor, and some schools do not use the toilets due to the lack of water supply.

Overall, the sustainability of the Project's effects is considered high, as no major problems have been observed in the structural, technical, and financial aspects of operation and maintenance systems.

### 4. Conclusion, Lessons Learned, and Recommendations

#### 4.1 Conclusion

SEDIP supported the construction/repair of school facilities, provision of learning materials and textbooks, and teacher training cofinanced by the ADB. The Project's aim was the quantitative and qualitative improvement of secondary education in 26 poverty-affected provinces. The ex-post evaluation showed that the project's purpose corresponded with the development policy and needs of the Philippines, and with Japan's ODA policy; therefore, the relevance is high. Judging by the results of the beneficiary study, SEDIP's effectiveness and impact can be given a fair rating because improvements were observed in the quality of education related to teacher capacity and student test scores, even though the Project's effects on indicators, such as the NER, dropout rate, and completion rate were limited. Efficiency also gets a fair mark since project cost remained within the budget, while project duration slightly exceeded that of the plan. The sustainability of the Project's effects were given a high rating, as no major problems have been observed in the structural, technical, and financial aspects of the operation and maintenance system.

In the light of the evaluation above, this project is considered satisfactory (B).

#### 4.2 Recommendations

4.2.1 Recommendations for the Executing Agency

#### (1) Repair of water facilities

In many target schools where SEDIP provided the water supply system, it was observed that water pumps, tanks, and pipes had broken down. Insufficient maintenance of water supply made the inability to use water in toilets and laboratories. DepEd shold require DOs to scrutinize and report the current maintenance situation of each target school for maintenance work.

#### (2) Effective use of teaching materials

Teaching materials were procured based on the needs of each target school surveyed by school-mapping. However, some teaching materials have not been fully utilized due to a shift in the emphasis of curriculum content.<sup>31</sup> An inventory of unused teaching materials and their redistribution according to the requirements of each school are needed for the effective utilization of the materials. Moreover, DepEd or DOs should continue to provide training on the O/M of teaching materials for newly appointed teachers.

#### 4.3 Lessons Learned

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<sup>&</sup>lt;sup>31</sup> For example, in the Industrial Arts, information processing has a higher priority than woodworking and metalworking. Thus, there are cases wherein the equipment for woodworking and metalworking are not utilized.

#### (1) Use equity to generate LGU ownership

LGUs continuously provide financial support for the sustainable operation and maintenance of facilities in the Project's target schools. One of the lessons learned is that requiring LGUs to share the cost burden of the School Building Program encouraged them to increase their ownership and gave them the incentive to allocate a budget for the education sector.

### (2) Plan for continuous teaching material usage and teacher training on maintenance

Some schools had difficulty with O/M of teaching materials because the teachers who attended INSET quitted their profession or were transferred to other schools. Therefore, periodic training for newly assigned teachers and the corresponding budget allocation for the training have to be planned from the beginning of the project so that teaching materials will be continuously maintained after the project.

### (3) Strengthen quality control on the procurement process of teaching materials

Some of the teaching materials procured during the Project were of low quality; for instance, test tubes, microscopes, and generator models broke down after several uses, making it difficult to maintain the teaching materials. The quality of the procured materials spells the difference between the success and failure of the future maintenance. Therefore, it is critical to secure the quality of procured materials by strengthening the procurement process, such as designing tender documents in order to exclude low-quality items and confirm the quality of procured materials.

### (4) Encourage facility maintenance through community participation

The Project applied the community participatory approach for school maintenance. SBM training, one of SEDIP's components, strengthened the relationship between the community and the school, and encouraged networking and the contribution of resources for school management and maintenance. School buildings and toilets built by the Project are well maintained, mainly by the community. Therefore, the promotion of community participation through SBM can be regarded as an effective approach to managing and maintaining hardware.

Item	Original	Actual
① Output	·	
1. School	1. 650 schools in 14	1. 833 schools in 15 provinces
Construction and	provinces	2. 840 schools in 15 provinces
Repair 2. School furniture	2. 650 schools in 14	3. 968 schools in 15 provinces
3. School equipment	provinces	4. 850 schools in 26 provinces
4. Distribution of	3. 650 schools in 14	li or o consession and provide
textbooks and	provinces	
teacher's guides	4. 850 schools in 26	5. Student assessment (857),
5. Principal training	provinces	the learning management program and instructional
		support to teachers (836)
	5. 650 principals	6. 240 schools
6. Drop-out		7 Madarn tagahina mathada
Reduction Program		7. Modern teaching methods (11,067), classroom
(DORP) 7. INSET	6. 180 schools	management (11,078), care
7. INSET	o. 100 senous	and use of learning support
	7. 9,700 teachers	materials (10,803), and
		student-centered assessment
		(11,048).
		8. 351 schools
8. High School		9. 829 principals
Innovation Fund (HSIF)	8. 325 schools	9. 829 principals
9. SBM training	o. 323 senors	
J. SEW Huming		
	9. 800 principals	
② Project Period	December 1999 to December	December 1999 to September
	2006 (85 months)	2008 (106 months)
③ Project Cost	5,471 million yen	4,691 million yen
Foreign currency	14,991 million yen (4,997 million pesos)	10,341 million yen
Local currency	(4,997 million pesos)	(4,536 million pesos)
	20,462 million yen	
Total	7,210 million yen	15,032 million yen
Yen loan	1.0 Philippine Peso = 3.0	6,477 million yen
Exchange rate	yen	1.0 Philippine Peso = 2.28 yen
	(As of January 1999)	(Dec. 2009 to Sep. 2008)