

Federal Democratic Republic of Ethiopia

FY2019 Ex-Post Evaluation of Japanese Grant Aid Project

“The Project for Construction of Primary and Secondary Schools  
in the Southern Nations, Nationalities and Peoples' Regional State”

External Evaluator: Maki Hamaoka

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## **0. Summary**

This project was implemented to upgrade eight incomplete primary schools (primary schools targeting grades [hereinafter referred to as “G”] 1-4 only instead of all eight grades) into complete ones, and extend/upgrade three primary schools by increasing the number of classrooms in order to mitigate the number of overcrowded classrooms, and increase the number of total classrooms by constructing 10 secondary schools in the Southern Nations, Nationalities and People’s Regional State (hereinafter referred to as “SNNPR”), thereby contributing to improved access to and educational environment of basic education in the SNNPR.

This project’s implementation is highly consistent with Ethiopia’s development policy, which emphasizes improved access to basic education and educational environment as well as the target region’s developmental needs for basic education, and with Japan’s assistance policy for Ethiopia, which emphasized the education sector. Therefore, the project’s relevance is high. Although the project outputs and the project costs were as planned, the project period exceeded the plan. Therefore, the project’s efficiency is fair. The implementation of the project contributed to alleviating the overcrowding of existing primary schools, improving access to basic education, and improving the educational environment through constructing new secondary schools. The project generally achieved the initial project effect indicators. In addition, the facilities constructed by the project are fully operational in both primary and secondary schools. Impacts such as enhanced motivation among teachers for teaching, class management, and students’ motivation for learning by improving the educational environment were also confirmed. The project’s effectiveness and impact were judged to be high. Some minor problems have been observed in terms of the financial aspects and the current status of the operation and maintenance system. Therefore, the sustainability of the project’s effects is fair.

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

## 1. Project Description



Project Location



Secondary school constructed by this project

### 1.1 Background

During the planning stage, access to primary and secondary education in Ethiopia was improving year by year, but disparities between town and rural areas as well as gender disparities in enrollment were significant problems. In addition, due to the rapid improvement in access to primary education, problems manifested such as a shortage of teachers and classrooms as well as quality of education and access to secondary education. In the SNNPRS, the gross enrollment ratio (GER) in first cycle primary (G1–4) reached 122.9% in FY 2010/11, while the GER for second-cycle primary (G5–8) remained at 73.8%. Secondary GERs are even lower at 35.5% for general secondary (G9–10) and 5.9% for preparatory secondary (G11–12). The higher the education level, the lower the access indicator, which could be attributable to the limited number of complete schools that can teach all eight grades at the primary level. The number of schools that cover G5 education or higher was particularly limited. The limited access to higher grades was especially critical in rural areas. On the other hand, classrooms were overcrowded with students in complete schools, due to the limited number of classrooms. The number of secondary schools was also limited. Most secondary schools were concentrated in urban areas; accordingly, the classrooms in urban secondary schools were highly overcrowded. On the other hand, there were almost no secondary schools in rural areas, leaving access to secondary education very difficult. Under these circumstances, the grant aid project was implemented to increase the number of classrooms in primary schools and to construct new secondary schools. in the SNNPRS

### 1.2 Project Outline

The objective of this project was to upgrade eight incomplete primary schools (primary schools targeting G1–4 only instead of all eight grades) into complete ones, and extend/upgrade three primary schools by increasing the number of classrooms in order to mitigate the number of overcrowded classrooms, and increase the number of total classrooms by constructing 10 secondary schools in the SNNPR, thereby contributing to improved access to and quality of primary and secondary education in the SNNPR.

Grant Limit / Actual Grant Amount	1,310 million yen/1,310 million yen
Exchange of Notes Date /Grant Agreement Date	December 2012/December 2012
Executing Agency(ies)	Southern Nation Nationalities Peoples Regional State Education Bureau (hereinafter referred to as “Regional Education Bureau”)
Project Completion	December 2016
Target Area	Ten zones and one city in the SNNPR
Main contractor(s)	<p><b>Construction works</b></p> <p>Group 1: Seven secondary schools and nine primary schools</p> <p>Lot 1: Yotek Construction PLC (one secondary school and one primary school)</p> <p>Lot 2: Teklehaymanot Asgedom BC (one secondary school and one primary school)</p> <p>Lot 3: Crafts Construction PLC (one secondary school)</p> <p>Lot 4: Mela Engineering &amp; Construction (one secondary school and two primary schools)</p> <p>Lot 5: FE Construction PLC (one secondary school and three primary schools)</p> <p>Lot 6: Pyramid Construction (one secondary school and one primary school)</p> <p>Lot 7: 3M Engineering &amp; Construction PLC (one secondary school and one primary school)</p> <p>&lt;Group 2&gt; (three secondary schools and two primary schools)</p> <p>Lot 8: Emnete Endesshaw General Contractor (one secondary school and one primary school)</p> <p>Lot 9: Yotek Construction PLC (Two secondary schools and one primary school)</p> <p>&lt;Group 3&gt; (Four primary schools)</p> <p>Lot 10: Yotek Construction PLC</p> <p><b>Procurement of school furniture</b></p> <p>Lot 1: Ketsela Bekele General Metal Work &amp; Furniture</p> <p>Lot 2: Maika Household and Office Furniture</p>
Main consultant(s)	Mohri Arrchitect & Associates, INC.
Procurement agency	Japan International Cooperation System
Outline design	November 2011 – February 2012
Related projects	<ul style="list-style-type: none"> <li>• African Development Bank: Support for the construction, expansion, and renovation of primary schools (1998–2011)</li> <li>• World Bank: General Education Quality Improvement Program (GEQIP) (2009–2013)</li> </ul>

## 2. Outline of the Evaluation Study

### 2.1 External Evaluator

Maki Hamaoka, Foundation for Advanced Studies on International Development

## 2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: September, 2019 – December, 2020

Duration of the Field Study: January 8, 2020 – January 16, 2020

## 2.3 Constraints during the Evaluation Study

(1) In the first field study, the external evaluator and a local assistant planned to survey all of the target schools. However, the local assistant was unable to reach the primary school (P-4) in Sawra Town Woreda in Gamo Gofa Zone since the road to the school was blocked due to heavy rain. Therefore, the status of operation and maintenance of the primary schools' facilities were verified at the 10 primary schools through interviews with concerned parties at the schools and through visual observation except for P-4.

(2) The second field study was cancelled due to the influence of coronavirus disease 2019 (hereinafter called "COVID-19"), which spread throughout the world since March 2020. The external evaluator tried to collect additional information through the local assistant. Lockdowns in Ethiopia forced government officials and the field assistant to work from home. Under these circumstances, the internet environment was worse than usual, and it took a long time to collect information. In addition, the information that was to be collected directly from the implementing agency's database could not be obtained due to the cancellation of the second study.

## 3. Results of the Evaluation (Overall Rating: B<sup>1</sup>)

### 3.1 Relevance (Rating: ③<sup>2</sup>)

#### 3.1.1 Consistency with the Development Plan of Ethiopia

During the ex-ante evaluation, the Government of Ethiopia formulated a series of poverty-reduction plans for it to become a middle-income country by 2020–2023 and was implementing the *Growth and Transformation Plan* (hereinafter referred to as "GTP") (2010/11-2014/15). One of the goals of GTP was to achieve the Millennium Development Goals in the social sector by expanding education and health services. In addition, the Government of Ethiopia was implementing the *Education Sector Development Program* (hereinafter referred to as "ESDP") IV: 2010/2011-2014/2015 as an education sector strategy. ESDP-IV was aimed at i) improving the quality of education and ii) access to and equity of education, thereby realizing universal primary education by 2015 and universal general secondary education (G9–10) by

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<sup>1</sup> A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

<sup>2</sup> ③: High, ②: Fair, ①: Low

2020.

During the ex-post evaluation, in *GTP II (2015/16-2019/20)*, the Government of Ethiopia listed the “acceleration of human development and technological development and ensuring their sustainability” as one of the foundations of its strategy for achieving its national goal to become a low- and middle-income country by 2025. *GTP II* places education in an important role to make the national labor force a driver of industrialization and economic growth, and it establishes the strategy of securing primary education and promoting admission to secondary and higher education.<sup>3</sup> Regarding the education sector strategy, *ESDP-V (2015/16-2019/20)* focuses on improving the quality, access, equity, and internal efficiency of general education. The aim of *ESDP-V* is to increase the GER of primary education to 106% for both boys and girls by FY 2019/2020, as compared to 98% for girls and 105% for boys in FY 2013/2014. Another aim is to increase the GER of general secondary education to 74% for both boys and girls by FY 2019/2020, as compared to 37% for girls and 40% for boys in FY 2013/2014.<sup>4</sup>

In light of the above, this project which was implemented to improve access to and the educational environment of general education was highly relevant to the Government of Ethiopia’s development policy, during both the ex-ante evaluation and the ex-post evaluation.

### 3.1.2 Consistency with the Development Needs of Ethiopia

#### (1) Need for Construction of Primary Education Facilities

During the ex-ante evaluation, the number of students and GER remained at high levels in the SNNPR (see Table 1). Although a number of primary schools were being built rapidly, there were many incomplete schools that could not teach all eight grades at the primary level. In fact, the number of students enrolled in second cycle primary (G5–8) is only half of the total number of students enrolled in the first cycle primary (G1–4), and the enrollment rate in second cycle primary was lower compared to that of first cycle primary.<sup>5</sup> During the ex-post evaluation, the number of students and GER remained at high levels. In view of the high dropout rate in G1, the Government of Ethiopia started preschool education one year before entering primary school, such as on reading and writing, in FY 2015/16, in order to reduce the dropout rate and repetition rate in first cycle primary. As a result, classrooms are required for preschool education in primary education facilities, and the need is high for more classrooms in primary education facilities.<sup>6</sup>

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<sup>3</sup> Source: *GTP II (2015)*, p80-81

<sup>4</sup> Source: *ESDP-V (2015)*, p38

<sup>5</sup> Source: Preparatory survey report (2012) p1-3--1-4

<sup>6</sup> Source: Interviews with target schools during the field study.

Table 1: Primary Education Enrollment Status in the SNNPR

Enrollment /GER	Grade	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Enrollment	G1-4	2,404,787	2,524,903	2,524,314	2,552,697	2,734,514	2,884,592	3,103,661	3,133,283	3,084,808
	G5-8	1,267,381	1,267,381	1,323,207	1,290,021	1,305,585	1,392,728	1,492,096	1,530,793	1,616,512
	Total	3,672,168	3,792,284	3,847,521	3,842,718	4,040,099	4,277,320	4,595,757	4,664,076	4,701,320
GER (%)	G1-4	122.9	129.1	125.4	123.1	128.1	131.3	137.3	136.9	128.9
	G5-8	73.8	103.3	101.8	98.7	100.8	105.0	108.3	108.5	104.6
	Total	98.4	116.2	113.6	110.9	114.5	118.1	122.8	122.7	116.8

Source: Documents provided by the executing agency

## (2) Need for Construction of Secondary Education Facilities

During the ex-ante evaluation, the Government of Ethiopia set a goal to achieve universal general secondary education (G9–10) by 2020. The GER of general secondary education (G9–10) was 35.5% in FY 2010/11 in the SNNPR (Table 2). This low GER was due to the low completion rate of primary education and the lack of construction funds, resulting in a limited number of secondary schools. Although GER is steadily increasing, it remained at 48% in FY 2018/19. Although the number of secondary schools has increased rapidly in recent years, there is gap between the goals for and the current situation of GER because the number of schools is insufficient for the enrollment and because many students give up going on to secondary school after completing their primary education because there is no school nearby.<sup>7</sup>

Table 2: Secondary Education Enrollment Status in the SNNPR

Enrollment /GER	Grade	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Enrollment	G9-10	276,207	n.a.	278,425	301,378	331,604	371,506	453,931	503,183	464,597
	G11-12	42,819	n.a.	47,562	57,662	66,766	77,178	96,767	118,571	110,086
	Total	319,026	n.a.	325,987	359,040	398,370	448,684	550,698	621,754	574,683
GER (%)	G9-10	35.5	n.a.	34.7	36.5	39.0	42.5	50.5	55.2	48.8
	G11-12	5.9	n.a.	6.4	7.5	8.4	9.5	11.6	14.0	12.4
	Total	21.2	n.a.	21.0	22.5	24.3	26.6	31.7	35.3	31.2

Source: Documents provided by the executing agency

In light of the above, the need for educational facilities was high for both primary and secondary education, at both the ex-ante and ex-post evaluation stages.

### 3.1.3 Consistency with Japan's ODA Policy

*The Country Assistance Policy for Ethiopia* (2012) of the Ministry of Foreign Affairs established education as a priority area for cooperation with Ethiopia from the perspective of human resource development to support food security and industrialization. In addition, in the *Yokohama Action Plan* (2008) formulated at the 4th Tokyo International Conference on African Development (TICAD IV), this project was positioned as an important project that could contribute to the realization of Japan's commitment in the education sector and to achievement

<sup>7</sup> Source: Interviews with the regional education bureau, woreda education bureaus, and the target schools during ex-post evaluation.

of the Millennium Development Goals in the education sector.<sup>8</sup> As seen above, this project was consistent with Japan's ODA policy during planning.

#### 3.1.4 Appropriateness of the Project Plan and Approach

The obligations of the Government of Ethiopia included land formation and construction of the access roads for both primary and secondary schools. The obligations required only for secondary schools included securing the land; construction of the gates, fences, and guard rooms; removal of obstructions; electrical and water connections; the construction of sports grounds; and the provision of computers, science laboratory materials, educational equipment, books, etc.

The obligations for primary schools were completed as planned. Regarding the obligations for secondary schools, five of 10 secondary schools did not complete their electrical and water connections, and four schools did not construct fences and did not install computers and apparatus for distance learning curriculum. These incomplete obligations affect the operation of laboratories (for chemistry, biology, and physics) and Information and Communication Technology (hereinafter referred to as "ICT") centers (ICT education using computers), which require electricity and water.

At the project implementation stage, the procurement agency regularly checked the progress of the Government of Ethiopia's obligations at each step, such as the budget acquisition status, electric wire/utility pole installation, and transformer installation. When there was a delay, the procurement agency requested the Regional Education Bureau to promote to implement its obligations, in writing and through monthly meetings. The JICA Ethiopia office also requested that the Regional Education Bureau implement the obligations in writing several times. In response, the Regional Education Bureau requested that the zone education bureau and woreda education bureau complete the obligations.

In this way, the concerned parties within the project took all possible measures to deal with delays in the Ethiopian side's obligations, and the approach was generally appropriate. However, the SNNPR is composed of zones for each ethnic group, and the roles and presence of zones and woredas are stronger than in other regions. Given these characteristics of the region, it seems necessary for concerned parties to press directly not only the Regional Education Bureau but also the zone and woreda education bureaus and woreda administration, to think together about how to prepare financial resources with the target schools and communities. In fact, with regard to the schools, which shared the costs of electricity and water connections with the Parent Teachers' Association (hereinafter referred to as "PTA")<sup>9</sup> and the woreda education bureau, the

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<sup>8</sup> Source: Ex-ante evaluation table (2012), p1

<sup>9</sup> The basic structure of PTA is seven board members (2-4 teachers, 4-7 parents, and 1-2 students). Whether students participate as members depends on the school (Source: Interviews with the schools visited during the field study).

local population paid a certain amount of money, in close cooperation with the woreda education bureau, the school, and the community.

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

### 3.2 Efficiency (Rating: ②)

#### 3.2.1 Project Outputs

##### (1) Outputs of Japanese Side

Through this project, the construction of additional classrooms at 11 primary schools and school facilities at 10 secondary schools as well as the procurement of furniture for the target schools were carried out as planned (see Tables 3–6). In the case of grant aid implemented under a procurement management method, the planned value was the value of the detailed design, which was determined after the design was modified, so the plan in Tables 3 to 6 is the result of the third detailed design regarding the use of the remaining balance of the bid, and there was no difference between the plan and the actual results. As a change in the implementation stage, 32 additional classrooms in eight stories were constructed at four primary schools by utilizing the balance generated by the bids of the first and second groups of construction works.

Table 3: Planned and Actual Outputs of Construction of Additional Classrooms in Primary Schools

Item	Planned	Actual
Number of sites	11	11
Regular classrooms (story of 4 classrooms)	26	26
Total classrooms	104 (story of 4 classrooms × 26 stories)	104 (story of 4 classrooms × 26 stories)

Source: Documents provided by JICA

Table 4: Planned and Actual Furniture-Procurement Outputs in the Primary Schools

Room	Quantity		Furniture and Quantity (The number in parentheses indicates the quantity per room)	
	Plan	Actual	Planned	Actual
Regular classrooms	104	104	Combined desk (25), teacher's desk (1), teacher's chair (1), chalkboard (1), notice board (1)	As planned

Source: Documents provided by JICA



Table 5: Planned and Actual Outputs of Facility Construction in the Secondary Schools

Building	Planned	Actual	Remarks
Number of sites	10	10	
Regular classrooms	204	204	Regular classrooms (story of 4 classrooms) $17 \times 4 = 68$ classrooms Regular classrooms (story of 8 classrooms) $17 \times 8 = 136$ classrooms Total 204 classrooms
Library	10	10	
Science laboratory	30	30	Type A (1 science laboratory) 17 stories Type B (1 biology laboratory, 1 ICT center, and 1 satellite receiving room) 10 stories; Type C (1 science laboratory, 1 ICT center, and 1 technical drawing room) 3 stories
Administration building A	10	10	Director's office, secretary's office, deputy director's offices, administration and finance room, janitor room, and mini-media room
Administration building B	10	10	Staff room, department head's room, record room, and storeroom
Toilet A	20	20	8 booths (for students and teachers)
Toilet B	16	16	4 booths (for teachers and staff)

Source: Documents provided by JICA

Table 6: Planned and Actual Outputs of Furniture Procurement in the Secondary Schools

Room	Quantity		Furniture and Quantity (The number in parentheses indicates the quantity per room)	
	Planned	Actual	Planned	Actual
Regular classrooms	204	204	Tablet chair (40), teacher's desk (1), teacher's chair (1), chalkboard (1), notice board (1)	As planned
Library (capacity: 100)	6	6	Library desk (17), library chair (103), catalogue box (1), file cabinet (1), kneehole desk (1), bookshelf (10), chalkboard (1), notice board (1)	As planned
Library (capacity: 200)	4	4	Library desk (34), library chair (205), catalogue box (1), file cabinet (1), kneehole desk (1), bookshelf (20), chalkboard (1), notice board (1)	As planned
Science laboratory (physics)	10	10	Stool (40), teacher's desk (1), teacher's chair (1), demonstration table (1), work bench (20), cupboard A (4), cupboard B (1), chalkboard (1), notice board (2)	As planned
Science laboratory (chemistry)	10	10	Ditto	As planned
Science laboratory (biology)	10	10	Ditto	As planned
Technical drawing room	3	3	Teacher's desk (1), chair (41), drawing desk (40), chalkboard (1), notice board (1)	As planned
ICT center	10	10	Computer desk (20), chair (41), teacher's desk (1), shelf (1), whiteboard (1), notice board (1)	As planned
Director's office (incl. Secretary's office)	10	10	Office desk (2), meeting table (1), armrest chair (2), office chair (14), cupboard A (2), file cabinet (2), notice board ((1)	As planned
Vice director's offices (2 offices)	10	10	Office desk (2), armrest chair (2), office chair (4), cupboard A (2), file cabinet (2), notice board (2)	As planned
Department head's room	10	10	Office desk (8), office chair (8), cupboard A (8)	As planned
Staff room	10	10	Office chair (30), meeting table (5), chalkboard (1), locker (for 32 people)	As planned
Administration and finance office	10	10	Office desk (4), armrest chair (4), office chair (8), cupboard A (4), file cabinet (4)	As planned
Storeroom and record room	10	10	Office desk (1), office chair (1), cupboard A (5), file cabinet (1), bookshelf (4)	As planned

Source: Documents provided by JICA

## (2) Outputs of Ethiopian Side

The outputs to be undertaken by the Ethiopian side prior to the commencement of construction works included securing the land for the secondary schools, forming the land construction of access roads (four secondary schools, three primary schools), and removing the obstructions. These were carried out as planned.

As shown in Table 7, the outputs required only for secondary schools were significantly delayed compared to the plan and were to be completed before the schools started operation (see 3.1.4 Appropriateness of the Project Plan and Approach). One reason for the delay was the delay in the process of securing budgets among woreda education bureaus. According to the procurement agency's monitoring on the progress of outputs as of June 2014, four out of the 10 target schools planned to "request budget in the next fiscal year" for electrical connection and

three out of 10 target schools for water connection. Considering that the fiscal year starts in July for Ethiopia, even if the application and approval process for budget acquisition were completed in the next year, namely in FY 2015, the budget would have been allocated in FY 2016. Considering that the project's completion was expected in FY 2015 in the initial plan, the budget acquisition procedure undertaken by woreda education bureaus undeniably was delayed.

Table 7: Progress on the Ethiopian Side's Obligations in the Secondary Schools

Item	At the time of final inspection (2016-17)			At the time of ex-post evaluation (2020)			Reasons for non-completion	
	Completed	Underway	Not undertaken	Completed	Underway	Not undertaken		
1	Connection of Electricity	5	2	3	6	1	3	(1) Budget shortage of woreda. PTA cannot bear the necessary cost due to the large amount of cost. (S-2, S-5) (2) The woreda education bureau used the budget allocated for connection of electricity for teachers' residence construction and provided generator to the target school. The generator was out of operation at the time of the ex-post evaluation. (S-9) (3) Under procedure with Ethiopian Electric Power Authority. (S-6)
2	Water connection to school facilities <sup>Note</sup>	5	1	4	4	1	5	(1) The connection to the building is not completed due to lack of budget from the woreda. (S-1, S-2, S-4) (2) Water pipeline cannot be installed due to lack of budget of woreda. The zonal and woreda education bureau are planning to dig a well in the school. (S-5) (3) The fence installation is not completed because the residents of the neighboring woreda interfere with the fence installation. The school has not started connecting water pipes to the school building for fear of being cut by residents of the neighboring woreda. (S-6)
3	Construction of the gates, fences, and guard rooms	1	1	8	7	2	1	(1) Although the compensation for land acquisition was properly paid to the residents of the neighboring woreda, they requested further compensation and interfered with the installation of the fence. (S-6) (2) The fence installation delayed because the school could not raise funds for the fence installation. At the time of the ex-post evaluation, the community is installing a fence with the accumulated funds. (S-2, S-8)
4	Construction of drinking fountains	n.a.	n.a.	n.a.	9	1	0	
5	Installation of apparatus for distance learning curriculum	n.a.	n.a.	n.a.	6	1	3	(1) Apparatus was not installed because electricity has not been connected. (S-2, S-5) (2) The fence has not been constructed due to land problems with the neighboring woreda. The apparatus has not been installed since the school is afraid of the theft. (S-6)
6	Provision of computers	n.a.	n.a.	n.a.	7	0	3	
7	Provision of science laboratory materials	n.a.	n.a.	n.a.	10	0	0	
8	Provision of educational equipment and books for libraries	n.a.	n.a.	n.a.	10	0	0	

Source: Prepared by the evaluator based on the field study results

Note: The budget estimation during planning referred the water connection as connection of water to the school compound and did not include the costs of connecting water pipelines to the school facilities. However, because the facilities such as laboratory and handwashing facilities installed beside toilets can be operated properly with water, the evaluator judged the water connection to be completed if water pipelines were connected to the building.

### 3.2.2 Project Inputs

#### 3.2.2.1 Project Cost

As for the project cost, because no information on the actual costs borne by the Ethiopian side was available, only the planned and actual costs borne by the Japanese side were evaluated. The total cost during planning was 1,394 million yen, with 1,310 million yen borne by the Japanese side and 84 million yen borne by the Ethiopian side. The actual cost borne by the Japanese side was 1,310 million yen (100% of the planned budget), which was as planned.

### 3.2.2.2 Project Period

As shown in Table 8, the actual project period was 47 months, against a planned 36 months (130% of the planned period). The difference between the plan and the actual result was because the construction period was 183% to 220% of the plan, as a result of the construction works from the schedule being delayed for all of Groups 1, 2, and 3 involved in the facility construction. The main reasons for the delay are as follows. (1) Under Japan’s Grant Aid for Community Empowerment, Ethiopian contractors undertook the construction works of this project. Most of the contractors were not conscious of complying with the contract construction period. (2) Many Ethiopian contractors tend to struggle to raise funds when undertaking multiple constructions in parallel. In fact, the contractors engaged in this project were unable to allocate workers or purchase materials in time for the construction period.

In response to this situation, the concerned parties took all possible measures. The construction supervision consultant took more time to control the process than they did for the general grant aid, for which construction works are undertaken by a Japanese contractor, and confirmed the contractors’ financial status in detail. In addition, the procurement agency convened with the construction supervision consultant and the contractors every month, confirmed the progress with all the parties concerned, requested that the contractors take remedial measures against delays, and checked the implementation status of the remedial measures the following month. Through these measures, some contractors showed improvement, but others did not, resulting in delays in the overall construction period.

Table 8: Planned and Actual Project Periods

	Planned <sup>Note</sup>		Actual result	
	Period	Months	Period	Months
Overall period	January 2013- December 2015	36 months	January 2013– November 2016	47 months

Source: Documents provided by JICA

Note: The period started on the month when the procurement agency contract was concluded and ended when all of the works and procurements were completed. However, the period for the reimbursement procedure is not included. The schedule was revised in August 2014, when additional procurement (Group 3) was approved, and it was regarded as the plan after design changes.

Although the project cost was within the plan, the project period exceeded the plan. Therefore, the project’s efficiency is fair.

### 3.3 Effectiveness and Impacts<sup>10</sup> (Rating: ③)

#### 3.3.1 Effectiveness

##### 3.3.1.1 Quantitative Effects (Operation and Effect Indicators)

###### (1) Number of Students per Classroom in the Project Primary Schools (Table 9)

A total of 72 classrooms were constructed for the 11 schools through this project. The number of students per classroom was 55, against the target of 59. Classroom overcrowding has been significantly reduced at all of the target schools, and the degree of achievement of the indicators is high.

Table 9: Number of Students per Classroom in the Project Primary Schools

Indicator	Baseline (2012)	Target (2018) 3 years after completion	Actual (2019) 3 years after completion
Number of students per classroom in the project primary schools	94 <sup>Note 1</sup>	59 <sup>Note 2</sup>	55

Source: Documents provided by JICA, the executing agency, and the construction supervision consultant

Note 1: The baseline in 2012 was the number obtained by dividing the total number of classrooms (121) at the 10 target schools by the total number of students enrolled (11,382) as of 2012.

Note 2: Assuming that the number of enrolled students did not change, the total number of classrooms after the project's completion (193) was divided by the total number of enrolled students (11,382) at the 10 target schools in 2012.

###### (2) Number of Newly Enrolled Students in the Targeted Secondary School Catchments in Rural Areas

In this project, six secondary schools were constructed in the target rural areas. During planning, this indicator was regarded as the enrollment capacity at the secondary level in the targeted school catchments in rural areas in the preparatory survey report. During the ex-ante evaluation, this indicator was changed to the number of newly enrolled students, but the calculation basis was the same as that for the enrollment capacity (Table 10). The evaluator judged that enrollment capacity was not suitable as an indicator for measuring the project's effects because the indicator is naturally achieved when the classrooms are constructed as planned. In this ex-post evaluation, in light of the project objective of improving access to basic education, the forecast and actual results of the number of enrolled students were compared (Table 11).

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<sup>10</sup> The sub-rating for effectiveness is to be considered with impacts.

Table 10: Number of Newly Enrolled Students in the Targeted Secondary School Catchments in Rural areas (indicator as of ex-ante evaluation)

Indicator	Baseline (2012)	Target (2018) 3 years after completion	Actual (2019) 3 years after completion
Number of newly enrolled students in the targeted school catchments in rural areas	0	6,080 <sup>Note</sup>	6,080

Source: Documents provided by the construction supervision consultant

Note: Basis for calculating the target value: Number of planned classrooms (76) × the number of students who can be accommodated (40 students) × 2 shifts = 76 × 40 students × 2 shifts = 6,080 students

Table 11: Number of Newly Enrolled Students in the Targeted Secondary School Catchments in Rural Areas (Indicators as of Ex-post Evaluation)

School ID	Plan			Result					
	Classrooms	Enrollment capacity	(a) Projected number of students <sup>Note</sup>	Classrooms	Enrollment capacity	(b) Enrollment			Result/prediction (b/a)
						2016/17	2017/18	2018/19	
S-2	16	1,280	1,097	16	1,280		1,620	491	45%
S-3	16	1,280	1,043	16	1,280	507	485	498	48%
S-5	12	960	935	12	960	492	1,692	863	92%
S-7	8	640	610	8	640	158	209	267	44%
S-8	16	1,280	1,231	16	1,280	1,018	1,311	1,999	162%
S-9	8	640	372	8	640	208	268	345	93%
Total	76	6,080	5,288	76	6,080	2,383	5,585	4,463	84%

Source: Documents provided by JICA and the executing agency

Note: The secondary enrollment in FY 2014/15 (G9–10) of each project school was projected based upon the actual primary enrollment of FY 2011/12 (G6–8) in the catchment. Additionally, the student increase/decrease associated with promotion from one grade to the next was considered: G6 => G7: 100%, G7 => G8: 100%, G8 => G9: 75%, and G9 => G10: 70%. As for G6 => G7, G7 => G8, and G9 => G10, the coefficients were based upon the annual average over the past 5 years, while the coefficient of G8 => G9 was obtained from the short-term target indicator of the Education Bureau of SNNPR (Source: Preparatory survey report).

The number of students who were newly enrolled in the six target secondary schools in rural areas was 4,463, against the forecast of 5,288 (84% of the forecast). Although the result was lower than the forecast in some secondary schools, it was judged that the indicator was almost achieved as a whole. The main reason why the actual results were lower than the forecasts was that new secondary schools had been established in the neighborhood, and this information could not be confirmed at the planning stage of this project.

(3) Number of Students per Classroom in the New Project Secondary Schools in Urban Areas

Table 12 shows the average number of students per classroom at the four target schools constructed in urban areas by this project.

Table 12: Number of Students per Classroom in the New Project Secondary Schools in Urban Areas

Indicator	Baseline (2012)	Target (2018) 3 years after completion	Actual (2019) 3 years after completion
Number of students per classroom in the new project urban secondary schools	165 <sup>Note 1</sup>	65 <sup>Note 2</sup>	74

Source: Documents provided by the construction supervision consultant

Note 1: The baseline is the number calculated by dividing the total number of students (13,556 students) at four existing urban secondary schools before the start of the project (2012) by the total classrooms (82 classrooms) of the four schools.

Note 2: The target is the number calculated by dividing the number of existing classrooms (82) by the number of planned classrooms (128) in this project (210 classrooms), assuming that the number of students was 13,556, which is the same as during planning.

The number of students per classroom was 74, against the target of 65 (achievement level 87.8%). The status by school is as follows. As shown below, overcrowding of classrooms was alleviated in three of the four target school zones, so this indicator was almost achieved.

- S-1: The existing school in the school zone had 85 students per classroom before the project's implementation. After the project's completion, the number of students per classroom at S-1, constructed by this project, decreased to 40.<sup>11</sup> Overcrowding at the existing school has also been alleviated.
- S-4: Overcrowding at the existing school in the school catchment has been significantly reduced, as compared to before the project's implementation.<sup>12</sup>
- S-10: The number of students per classroom before the project's implementation was 76.4. It was 60 after the project's completion. Overcrowding has been alleviated.
- S-6: The number of students per classroom at the existing school in the school catchment before the project's implementation was 79.6, but overcrowding has hardly changed after the project's completion. Fences and gates remain uninstalled at S-6 because of obstruction by residents of the neighboring woreda due to land issues. Therefore, students cannot go to school with peace of mind. In addition, residents prefer the existing school to S-6, since S-6 is not equipped with electricity and water supply, while there are abundant educational materials such as laboratory materials, books in the library, and computers at the existing

<sup>11</sup> Source: Interviews with the target school. The executing agency requested data from the existing school, but the data could not be obtained.

<sup>12</sup> Source: Interviews with students at the target school who attended the existing school before the project's implementation.

school.<sup>13</sup>

### 3.3.1.2 Quantitative Effects (Operation Indicators)

In the ex-post evaluations of similar projects for primary and secondary school construction, it is common to confirm whether the facilities constructed by the project are operated according to the original purpose, as operation indicators. Therefore, operation indicators were judged as necessary in this ex-post evaluation, and they were added with the consent of the concerned parties.

Table 13 shows the operational status of the school facilities constructed for this project during the ex-post evaluation. The regular classrooms at the primary schools are being used as intended. At the secondary schools, it was confirmed that regular classrooms were being used for purposes other than classes, such as club activities for schools with vacant classrooms due to smaller numbers of enrolled students than expected. Nevertheless, 80% of the regular classrooms are used as regular classrooms, as originally intended.<sup>14</sup> In addition, although the operation of special classrooms such as laboratories (for chemistry, biology, and physics) and ICT centers varies depending on the status of electricity and water connections, these facilities are operated as originally intended or partially so in 70–80% of the target secondary schools. The fact that special classrooms that require electricity and water are not fully operational in some schools is mentioned in 3.2.1 (2) Outputs of the Ethiopian Side. In addition to delays in the woreda education bureau's budget-acquisition process, intensified ethnic conflicts in some parts of the SNNPR since 2016 have led to significant population influxes into the surrounding areas. As a result, budget allocations have prioritized measures for internally displaced persons, which has a great influence on woreda education bureaus in securing the budget.<sup>15</sup> In this ex-post evaluation, as a result of the emphasis on the operation of regular classrooms, in light of the social factors that made it difficult to secure the budgets and the project objective of improving access to basic education, it was judged that the facilities constructed by this project were fully operational.

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<sup>13</sup> Source: Interviews with the target school and its zonal education bureau and woreda education bureau.

<sup>14</sup> Source: On-site observation and interviews.

<sup>15</sup> Source: Information provided by JICA.



Table 13: Operational Status of Facilities

Facility	Quantity	Operational status				Remarks	
		A: Used as originally intended	B: Partially used	C: Unused	D: Used for other purposes		
Primary schools							
1	Regular classrooms	104	103	0	0	1	One regular classroom is used as a teaching material preparation room at one school.
Secondary schools							
1	Regular classrooms	214	167	0	0	37	In schools where the number of students is small relative to the number of classrooms, regular classrooms are unused or used for other purposes such as tutoring, club activities, storeroom and guard room.
2	Science laboratory (chemistry)	10	3	5	1	1	At six schools, the laboratories are unused for reasons such as no water supply being installed in the school compound, water pipes not connected to the laboratory building, lack of experimental equipment, no laboratory technicians assigned or their turnover. They are used as a self-study room or a regular classroom.
3	Science laboratory (biology)	10	3	5	1	1	
4	Science laboratory (physics)	10	3	4	1	2	
5	Library	10	10	0	0	0	
6	ICT center	10	3	2	2	0	Partially used or unused due to no electricity connection and no computer deployed.
7	Drawing room	3	0	0	3	0	At the time of the planning, drawing was a subject to be learned in G12, but at the time of the ex-post evaluation, it was excluded from the curriculum of preparatory secondary education due to the curriculum revision of the Ministry of Education.
8	Administration building <sup>Note</sup>	10	10	0	0	0	
9	Toilets for teachers and students	10	10	0	0	0	

Source: Prepared by the evaluator based on the field study results

Note: The administration building includes the office of director and secretary, vice director's offices, administration and finance office, record room, store room, staff room and department head's room.

In light of the above, as a result of comprehensively evaluating the three effect indicators, it is judged that access to basic education and improvement of educational environment are sufficiently achieved. In addition, the facilities constructed by this project are fully operational in both primary and secondary schools. There are cases where facilities other than regular classrooms are not used as original purpose, but as a result of focusing more on the operational status of regular classrooms in line with the purpose of this project, such as alleviating overcrowding of classrooms in urban areas and improving access to secondary education in rural areas, it is judged that the facilities constructed by the project are fully operational.

### 3.3.2 Impacts

#### 3.3.2.1 Intended Impacts

In this project, improved access to basic education and education environment was assumed as an impact. In the ex-post evaluation, regarding these impacts, (1) improved school attendance, (2) changes in teachers' motivation to teach and in their class management by

upgrading incomplete schools to complete ones, and (3) changes in students' motivation to attend school have been verified.

### (1) Improvements to School Attendance

#### 1) Repetition Rate and Dropout Rate

Quantitative data was unavailable for primary schools, but through interviews with school directors and teachers at the 10 schools that were visited in this ex-post evaluation, it was confirmed that overcrowding of classrooms was alleviated, and students were able to concentrate on their classes after additional classrooms were constructed through this project. It was also confirmed that the motivation for learning increased and that the repetition and dropout rates decreased. Regarding the secondary schools, the data provided by the executing agency was inadequate and could not be confirmed by quantitative data, but at the six secondary schools in rural areas, the commuting distances and times decreased as compared to before the project's implementation. From this, it was confirmed that late arrivals and dropouts decreased.

### (2) Changes in Teachers' Motivation to Teach and in Their Class Management by Upgrading Incomplete Schools to Complete Schools

Before the project's implementation, eight of the 11 targeted primary schools were incomplete, but all of them were upgraded to complete schools after the project's implementation. As a result of alleviating classroom overcrowding and reducing the number of students per teacher, the burden of teachers to manage class was reduced and teachers' motivation to teach was improved.<sup>16</sup> For example, before the project's implementation, teachers could not practice group discussions in their class due to overcrowding, but after the project's completion, they could practice group discussions. The alleviation of overcrowding has also allowed teachers to treat their students more comfortably. It was also confirmed that the construction of high-quality facilities has improved teachers' motivation to teach, such as through teachers staying at school and spending more time preparing for classes.

### (3) Changes in Students' Motivation to Attend School

The increase in students' motivation to attend school due to the alleviation of classroom overcrowding was confirmed in all of the surveyed primary and secondary schools. Before the project's implementation, at the primary schools, students were sitting on the floor of the classroom, bringing chairs from home to school, or sitting at a two-seater combined desk with 3–4 students, so they were unable to study at ease. After the project's completion, the students were able to sit at two-seater combined desks with two students and could write at the desk

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<sup>16</sup> Source: Interviews with school directors, teachers and parents of primary schools visited.

without feeling cramped, as a result of the improved learning environment. Before the project's implementation, students sometimes went outside because they could not enter the classroom, but this situation disappeared after the project's completion.<sup>17</sup>

Regarding the secondary schools, before the project's implementation, at the existing target schools' zones in urban areas, students attended classes in a cramped state; two students would share a tablet chair designed for one person. After the project's completion, all students were able to sit in a tablet chair and concentrate on class. In rural areas, before the project's implementation, students either attended a secondary school 15–20 km away or stayed in the town where the secondary school was located. After the project's completion, students in the target rural areas were released from long-distance commuting, and late arrivals and absenteeism decreased. These results are due to improvements in students' motivation to learn. In addition to the reduced commuting distances and times, schools having laboratories and libraries also motivates students to learn. In addition, the construction of separate toilets for men and women in the secondary schools has made it possible for female students, in particular, to comfortably use the toilets without encountering the sexual harassment that had previously occurred.

Furthermore, in rural areas, economic effects were confirmed, such as reduced household spending by reducing the burden of commuting to school and increased sales profits because students buy goods at kiosks (retail stores) in the community.

Regarding the impacts, the alleviation of classroom overcrowding and the construction of high-quality facilities, including additional classrooms for primary schools, through this project improved teachers' motivation to teach as well as class management. In addition, the alleviation of overcrowding in classrooms reduced student absenteeism and late arrivals and improved learning motivation. Furthermore, the numbers of late students, dropouts, and repetitions decreased in the secondary schools after the project's completion due to the alleviated overcrowding of classrooms in urban secondary schools and the shortening of commuting distances and times in rural areas, and the motivation for learning has improved. In light of the above, it has been confirmed that improving the learning environment has improved the motivation among teachers to teach, and the impacts of improving class management and students' motivation to learn have been realized.

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<sup>17</sup> Source: Interviews with school directors, teachers and parents of primary schools visited.



Students concentrating on class  
in a primary school



Students sitting on tablet chairs  
in a secondary school

### 3.3.2.2 Other Positive and Negative Impacts

#### (1) Impacts on the Natural Environment

This project had no negative impacts on the natural environment.

#### (2) Resettlement and Land Acquisition

At the planning stage, when the parties involved in the preparatory survey confirmed woreda administration of the target sites, resettlement and land acquisition due to this project's implementation were not planned, and no negative social impacts were expected. During the ex-post evaluation, the following two cases of resettlement and land acquisition during the construction of the secondary schools were confirmed.

##### 1) Wolkite Town Woreda in Guraghe Zone (S-6)

In the construction of school S-6 in Wolkite Town Woreda, Gurage Zone, it was necessary to relocate some of the residents in order to use the neighboring woreda's residential area as a sports ground. Compensation was properly paid to the relocated residents of the neighboring woreda during the project's implementation, but the residents demanded additional compensation from the woreda administration. In addition, residents of the neighboring woreda have prevented the school from installing fences multiple times. Because a fence has not been installed, the school is afraid of theft and destruction of school equipment due to invasion by outsiders, and the water pipes have not been connected to the laboratory building, nor have computers been provisioned. The effect is as described in "3.3.1.1 Quantitative Effect (Effect Indicators) (3) Number of Students per Classroom in the New Project Secondary Schools in Urban Areas".

##### 2) Dilla Zuria Woreda, Gedeo Zone (S-5)

During the ex-post evaluation, in Dilla Zuria Woreda, Gedeo Zone, school S-5 was in the process of acquiring land for a sports ground from the land owner.

In light of the above, this project’s implementation has fully contributed to alleviating overcrowding at the existing primary schools and to improving access to basic education as well as the educational environment through the construction of new secondary schools. The implementation has generally achieved the initial project’s effect targets. In addition, all 20 visited schools had impacts such as reduced dropouts and repetition, improved motivation for learning, improved teachers’ motivation for teaching, and improved class management through an improved educational environment. Therefore, the effectiveness and impact of the project are high.

### 3.4 Sustainability (Rating:②)

#### 3.4.1 Institutional/Organizational Aspect of Operation and Maintenance

The roles of stakeholders in education from the planning stage to the ex-post evaluation are shown below.

Table 14: Administrative Organization in the Education Sector

Organization	Role
Regional education bureau	To formulate and implement regional education development plans, provide professional and technical support to zonal and woreda education bureaus, assign teachers, develop and formulate primary education curricula, standardize education levels in the region, and supervise construction projects by donors
Zonal education bureau	To implement various tasks and activities that cannot be carried out at the woreda level, coordinate the distribution of textbooks, and distribute teaching materials
Woreda education bureau	To establish and manage primary, secondary and vocational training schools, form concrete plans based on regional education development plans and their implementation, comply with federal and regional education standards, form measures for disseminating education in the woreda (especially primary education) and their implementation, and form necessary community-mobilization plans for constructing schools and procuring educational equipment
Community	To provide labor, materials, and funds for the school’s operation and maintenance through a PTA and share maintenance costs and form and monitor the school-improvement plan (including the budget)

Source: Developed by the evaluator based on the field study

With regard to the assignment of teachers, almost the required number of teachers is assigned in both primary and secondary schools. Regarding school staff, since the primary schools are existing schools, it was not necessary to increase the number of staff, which was sufficient even at the time of ex-post evaluation. Most of the secondary school staff serve as multiple posts due to a lack of budget, but there is no problem with the school’s functioning. Since FY 2016, six out of 10 secondary schools have not assigned laboratory technicians because the budget for internally displaced persons has been prioritized in the SNNPR and has not been sufficiently allocated to the woreda education bureaus. Due to that, there is a problem

that experiments cannot be properly conducted in these schools.

PTA is active in all target schools. The main roles of PTA are (1) formulation and monitoring of the school improvement plan, (2) awareness-raising activities to promote school attendance, (3) sharing of school operation and maintenance costs, and (4) provision of labor for school maintenance and so on.

It was confirmed that the operation and maintenance system of the target primary schools did not change from the planning stage to the time of the ex-post evaluation and that the target schools were functioning without any problems. In the secondary schools, the PTA actively participates in the operation and maintenance. Although the operation system is generally functioning, the lack of staff has affected the facility's operation. The support of the woreda education bureau, which plays a central role in operation and maintenance, is weak, and the overall operation and maintenance is judged to be moderate.

### 3.4.2 Technical Aspect of Operation and Maintenance

#### (1) Items, Frequency, Implementer, and Records of Daily Maintenance

At almost all the target schools, PTA or school staff inspect facilities and equipment at a frequency set by the school, mainly during school closures (Table 15). The school or PTA repairs the defect, and the local repair company repairs the facilities that the school cannot handle.

Table 15: Frequency of Periodical Inspection

	Frequency			
	Twice a year (end of semester)	Once a year (end of school year)	Every 3 months	Irregular
Primary schools	7	2	1	0
Secondary schools	7	2	0	1

Source: Developed by the evaluator based on interviews conducted at the time of the field study

At the planning stage, it was said that the facilities to be constructed under the project would not require maintenance for a few years after handing them over to the Ethiopian side. As shown in Table 16, the volume of defects in the 10 primary schools visited was small in four schools, medium in four schools, and large in two schools. Overall, the schools are generally dealing with defects without problem. For the secondary schools, although only 3–4 years have passed since the start of operation, observation at the time of ex-post evaluation revealed defects such as the door key and handle coming off, the door itself being damaged or missing, the tablet chair being damaged, and the fittings being loose. The volume of neglected defects in the 10 target schools was large in four schools, medium in four schools, and small in two schools. As a whole, it cannot be said that taking measures to defects is sufficient (Table 17). The schools repair defects collectively during the school holidays between the first and second semesters in

February and during the school holidays between school years in July and August. Most of these defects seem to be able to be repaired in a usable state if they are repaired immediately when they were noticed, but most of the defects are left unrepaired for half a year to over 1 year because they usually repair defects collectively during the school holidays.

Table 16: Technical Sustainability and Maintenance Status by School (Primary Schools)

School ID	Zone	Woreda	School	Defects unrepaired <sup>Note 1</sup>	Results of direct observation	Technical sustainability <sup>Note 2</sup>
P-1	Dawuro	Mareka	Tercha	3	The classrooms and desks are kept very clean, although some notice boards, blackboards and doors are damaged.	3
P-2	Siltie	Worabe Town	Duna	2	5 desks are damaged out of 46 desks checked. One window glass is left broken.	2
P-3	Wolayita	Areka Town	Addis Fana	2	<ul style="list-style-type: none"> <li>• 3 holes in a blackbord.</li> <li>• 2 notice boards are damaged out of 2 notice boards observed.</li> </ul>	2
P-4	Gamo Gofa	Sawula Town	Botre	n.a.	n.a.	n.a.
P-5	Gamo Gofa	Mearab Abaya	Koyite Millennium	2	The classrooms and desks are kept very clean, although some notice boards and doors are damaged.	2
P-6	Sidama	Malga	Tankaro	2	<ul style="list-style-type: none"> <li>• 10% of the desk is damaged.</li> <li>• The doors of 7 of the 8 classrooms are</li> </ul>	2
P-7	Sidama	Dale	Abosto Tula	1	<ul style="list-style-type: none"> <li>• 10% of the desk is damaged.</li> <li>• The doors of 5 of the 8 classrooms are damaged.</li> <li>• The notice boards in 4 of the 8 classrooms</li> </ul>	1
P-8	Gedeo	Yirga Chefe Town	Abeyot Fere	1	<ul style="list-style-type: none"> <li>• The doors of 4 of the 8 classrooms are damaged.</li> <li>• The notice boards of 3 of the 8 classrooms are damaged.</li> </ul>	1
P-9	Kembata Tembaro	Tembaro	Bajo	3	There is a leak in the ceiling in one place, but the desk, bulletin board, and blackboard are not damaged, and the classroom is well cleaned.	3
P-10	Hadiya	Misha	Hagiye	3	Although some notice boards and doors are damaged, the desks are used very carefully and the classrooms are kept clean.	3
P-11	Hawassa City	-	Edget Bandnet	3	Although some notice boards and doors are damaged, the desks are used very carefully and the classrooms are kept clean.	3
			Volume of defects unrepaired	Number	Technical sustainability	Number
			Small	4	High	4
			Medium	4	Medium	4
			Large	2	Low	2

Source: Developed by the evaluator based on visual confirmation and interviews conducted at the time of the field study

Note 1: The judgment was made as follows, mainly based on the visual results at the time of the field study: 3: Many defects (e.g., nearly 20% of desks and chairs and more than half of doors and bulletin boards are damaged); 2: Medium (around 10% of desks and chairs and 10 to 40% of other equipment are damaged); and 1: Less (some damage is found, but there are almost no problems in general).

Note 2: The following judgments were made based on visual inspection of the facility at the time of the field study and interviews with school officials: 3: High (fixing defects in a timely and appropriate manner); 2: Medium (fixing defects to some extent); and 1: Low (leaving defects that can be repaired immediately).

Table 17: Technical Sustainability and Maintenance Status by School (Secondary Schools)

School ID	Zone	Woreda	School	Defects unrepai <sup>red</sup> <sup>Note 1</sup>	Results of direct observation	Technical sustainability <sup>Note 2</sup>
S-1	Halaba	Halaba Town	Kulito	2	- The water supply pipes in the laboratory and handwashing facilities in toilets are disconnected. -Taps for hand-washing in the toilet are missing. - Many electric switches are missing	1
S-2	Hadiya	Soro	Berkuncho	2	Repairs to electricity and water that have been out of order for more than half a year have not been completed (the school has not been able to identify the cause).	1
S-3	Hadiya	Lemo	Jawe	3	Although there are leaks on the ceiling, there is almost no damage to the tablet chairs, notice boards, and doors found in other secondary schools, and the facilities and equipment are generally well maintained.	3
S-4	Sidama	Aleta WondoTown	Belesto	1	- Half of the doors of the 12 general classrooms observed were damaged (no doorknobs, doors left off, etc.) - Electricity switches are missing in half of the 12 general classrooms observed. -The window glass of the laboratory is left broken.	1
S-5	Gedeo	Dilla Zuriya	Kuka Tunticha	1	- 40 out of 240 tablet chairs observed are damaged. - Most of the electric switches in the regular classrooms and corridors are missing.	1
S-6	Guraghe	Wolkitie Town	Camp Sefer	2	The water supply pipe, faucet and some doors of toilets for students are missing	2
S-7	Guraghe	Soddo	Tiya	3	Some ceiling leaks and cupboards with the glass doors removed are found, but there was almost no damage to tablet chairs, notice boards, doors, etc. as seen in other secondary schools.	3
S-8	Wolayita	Bolloso Sorrie	Gurumo Koyisha	2	Although there is one leak on the ceiling of the corridor, the facilities and equipment are generally well maintained.	2
S-9	Siltie	Sankura	Jata	1	- 15% of tablet chairs in general classrooms are damaged. - All 8 notice boards observed are damaged. - 5 out of 8 doors observed are damaged. - 4 out of 8 electric switches observed are damaged.	1
S-10	Camo Gofa	Arba Minch Town	Chamo	1	- All the 4 notice boards in general classrooms observed are damaged. -15 of the 43 tablet chairs observed are damaged. In addition, damaged chairs are piled up behind the school building.	1
			Volume of defects unrepai <sup>red</sup>	Number	Technical sustainability	Number
			Small	2	High	2
			Medium	4	Medium	2
			Large	4	Low	6

Source: Developed by the evaluator based on visual confirmation and interviews conducted at the time of the field study

Note 1: The judgment was made as follows, mainly based on the visual confirmation the time of the field study: 3: Many defects (e.g., nearly 20% of desks and chairs and more than half of doors and bulletin boards are damaged); 2: Medium (around 10% of desks and chairs and 10 to 40% of other equipment are damaged); and 1: Less (some damage is found, but there are almost no problems in general).

Note 2: The following judgments were made based on visual confirmation of the facility at the time of the field study and interviews with school officials; 3: High (fixing defects in a timely and appropriate manner); 2: Medium (fixing defects to some extent); and 1: Low (leaving defects that can be repaired immediately)

As mentioned above, although it is evaluated that the target schools carry out daily inspections at a certain frequency, it was judged that the technical sustainability is moderate because the repairs of secondary schools' defects are not timely and appropriate.





Tablet chair without tablet



Removed doors and notice boards stored in the store

### 3.4.3 Financial Aspect of Operation and Maintenance

The budget for school operation and maintenance is funded by public subsidies and community support. The former includes (1) Block Grant<sup>18</sup> and (2) GEQIP School Grant,<sup>19</sup> and the latter are (1) PTA annual fees, (2) donations, (3) income-generating activity profits, and (4) tuition fees (25–125 Birrs/year for G11–12 students). Tables 18 and 19 show the evaluation of the operation and maintenance budget and financial sustainability of the target primary schools, and Tables 20 and 21 show those of the target secondary schools.

Table 18: Operation and Maintenance Budget by School (Primary Schools)

Unit: Ethiopian Birr

School ID	P-1		P-2		P-3		P-4		P-5		P-6		P-7		P-8		P-9		P-10		P-11	
	At the time of planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)	At the Time of Planning (2011/12)	At the Time of Ex-post Evaluation (2019/20)
Enrollment	267	379	240	888	2,356	2,332	3,360	2,179	385	431	223	1,200	1,077	1,024	1,752	1,955	645	921	353	614	724	1,150
<b>Source of Budget</b>																						
<b>1. Public Subsidies</b>																						
(1) Block Grant	3,370	0	4,065	30,945	31,491	29,325	n.a.	n.a.	n.a.	6,640	3,587	9,000	15,768	13,972	22,920	11,780	2,600	0	3,375	0	7,960	27,000
(2) School Grant	10,115	8,019	10,480	21,044	94,255	46,261	n.a.	n.a.	n.a.	8,884	14,000	25,000	23,065	45,665	67,038	40,000	21,000	19,933	13,355	12,978	41,200	34,000
(3) Total of Public Subsidies ((1)+(2))	13,485	8,019	14,545	51,989	125,746	75,586	n.a.	n.a.	12,320	15,524	17,587	34,000	38,833	59,637	89,958	51,780	23,600	19,933	16,710	12,978	49,160	61,000
Annual Public Subsidies per Student	51	21	61	59	53	32	n.a.	n.a.	32	36	79	28	36	58	51	26	37	22	47	21	68	53
Comparison of Public Subsidies at the times of Planning and Ex-post Evaluation (%)	42%		97%		61%		n.a.		113%		36%		162%		52%		59%		45%		78%	
<b>2. Community Contribution</b>																						
(1) PTA Annual Fees and Donations	0	5,000	2,000	5,980	55,494	130,500	n.a.	n.a.	n.a.	15,250	4,000	0	4,400	0	10,000	9,000	2,700	6,000	5,000	52,000	7,200	320,000
(2) Income-generating Activity	0	0	900	0	7,200	10,000	n.a.	n.a.	n.a.	0	0	4,600	0	0	34,000	0	0	6,000	6,000	20,000	0	0
(3) Total Community Contribution ((1)+(2))	0	5,000	2,900	5,980	62,694	140,500	n.a.	n.a.	n.a.	15,250	4,000	4,600	4,400	0	44,000	9,000	2,700	12,000	11,000	72,000	7,200	320,000
Total of Budget (1+2)	13,485	13,019	17,445	57,969	188,440	216,086	188,581	n.a.	12,320	30,774	21,587	38,600	43,233	59,637	133,958	60,780	26,300	31,933	27,710	84,978	56,360	381,000
Budget per Student	51	34	73	65	80	93	56	n.a.	32	71	97	32	40	58	76	31	41	35	78	138	78	331
Comparison of Total Budget at the Times of Planning and Ex-post Evaluation (%)	68%		90%		116%		n.a.		0%		33%		145%		41%		85%		176%		426%	

Source: Preparatory survey report and developed by the evaluator based on the interviews at the time of ex-post evaluation.

Note: The amount at the time of planning is the actual result confirmed at the time of the preparatory survey (2011).

<sup>18</sup> Subsidies distributed by the Federal Government. They are distributed from the Federal Ministry of Education to the regional education bureau and then to the woreda education bureau. The amount per student is 10 Birrs per year for G1–4 and 15 Birrs per year for G5–8 at the time of planning (2011), 25 Birrs per year for G5–8, and 20 Birrs per year for G1–4 at the time of ex-post evaluation (2020). Although the amount is fixed, the actual amount varies depending on the financial situation of the region and woreda (Source: Interviews with the Regional Education Bureau at the time of ex-post evaluation).

<sup>19</sup> As part of the school improvement plan of GEQIP, a fixed amount per student is allocated directly to the school. The amount was 40 Birrs per student per year at the time of planning (2011) and 50 Birrs per year at the time of ex-post evaluation (2020) (Source: Interviews with the Regional Education Bureau at the time of ex-post evaluation).

Table 19: Evaluation of Financial Sustainability by School (Primary Schools)

School ID	P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	P-9	P-10	P-11
(1) Public subsidies <sup>Note</sup>	1	3	1	n.a.	1	1	1	1	1	1	3
(2) Community contribution	1	1	3	n.a.	3	1	1	1	1	3	3
(3) Sufficiency of operation and maintenance costs according to the schools	1	1	1	n.a.	1	1	1	1	1	1	1
Overall evaluation	1	2	2	n.a.	2	1	1	1	1	2	2
Remarks	- Block grant has not been distributed. - The amount collected from the community is small.	The amount collected from the community is small.	The amount of public subsidy is small compared to the number of students.	Site survey was not conducted due to road blockage caused by heavy rain.	- The amount of public subsidy is small compared to the number of students. - The amount of annual fee collected by PTA is large.	- The amount of public subsidy is small compared to the number of students. - The source of cash income is scarce and it is difficult to obtain financial support from the community.	- The amount of public subsidy is small compared to the number of students. - At the time of the ex-post evaluation, there was no financial support from the community due to ethnic issues.	- The amount of public subsidy is small compared to the number of students. - The amount collected by PTA is also small.	- Block grant has not been distributed. - The amount collected from the community is small.	- Block grant has not been distributed. - A lot of financial support for the community such as annual fee collection from parents and hay sales income.	Sufficient public subsidy community support.

Source: Developed by the evaluator based on interviews during the field study

Note: The degree of sufficiency of each item is judged to be 3: High, 2: Medium, and 1: Low in three stages. Public subsidy is judged to be 1 if Block Grant was not allocated as of March 2020. Also, when it is less than the specified amount, it is judged to be 1.

The primary schools make up the lack of public subsidies with annual PTA fees and donations and profit gained from income generation activities such as selling livestock and hay for livestock under the initiative of PTA. All of the 10 primary schools visited stated that the operation budget was not sufficiently allocated, even for purchasing consumables to be used at school, and thus the maintenance budget was insufficient. Taking into account public subsidies and community support, the overall financial status is judged to be medium in five out of 10 visited schools and low in five schools.

Table 20: Operation and Maintenance Budget by School (Secondary Schools)

Unit: Ethiopian Birr

School ID	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10										
Number of classrooms	32	16	16	32	12	32	8	16	8	32										
Enrollment <sup>Note 1</sup>	Grade	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual									
	G9-10	2,080		1,280	720	1,280	517	2,560	2,007	960	836	2,080	1,138	640	312	1,280	950	640	250	2,080
	G11-12	480		0	0	0	0	0	0	0	0	480	0	0	0	0	0	0	0	480
Total	2,560	1,568	1,280	720	1,280	517	2,560	2,007	960	836	2,560	1,138	640	312	1,280	950	640	250	2,560	775
<b>Source of budget</b>																				
<b>1. Public subsidies</b>																				
(1) Block Grant <sup>Note 2</sup>	41,600	0	25,600	17,000	25,600	0	51,200	32,000	19,200	12,937	41,600	60,000	12,800	6,900	25,600	0	12,800	6,500	41,600	53,995
(2) School Grant <sup>Note 3</sup>	132,800	30,800	64,000	10,000	64,000	9,854	128,000	126,010	48,000	20,866	132,800	230,000	32,000	6,400	64,000	16,321	32,000	4,693	132,800	28,754
(3) Total of public subsidies ((1)+(2))	174,400	30,800	89,600	27,000	89,600	9,854	179,200	158,010	67,200	33,803	174,400	290,000	44,800	13,300	89,600	16,321	44,800	11,193	174,400	82,349
Annual public subsidies per student	68	20	70	38	70	19	70	79	70	40	68	255	70	43	70	17	70	45	68	106
Comparison with the expected amount of public subsidies (%)		29%		54%		27%		112%		58%		374%		61%		25%		64%		156%
<b>2. Community contribution</b>																				
(1) Tuition fee for G11-12	36,000	0	0	0	0	0	0	0	0	0	36,000	0	0	0	0	0	0	0	36,000	0
(2) PTA annual fees and donations	0	86,600	0	0	0	50,000	0	58,000	0	0	0	455,200	0	62,400	0	0	0	0	0	72,280
(3) Income-generating activity	0	0	0	7,000	0	25,000	0	0	0	0	0	0	0	30,000	0	35,000	0	39,950	0	0
(4) Total of community contribution ((1)+(2)+(3))	36,000	86,600	0	7,000	0	75,000	0	58,000	0	20,000	36,000	455,200	0	92,400	0	35,000	0	39,950	36,000	72,280
Total budget (1+2)	210,400	117,400	89,600	34,000	89,600	84,854	179,200	216,010	67,200	53,803	210,400	745,200	44,800	105,700	89,600	51,321	44,800	51,143	210,400	154,629
Budget per student	82	75	70	47	70	164	70	108	70	64	82	655	70	339	70	54	70	205	82	200
Actual budget compared to plan (%)		91%		67%		234%		154%		92%		797%		484%		77%		292%		243%

Source: Preparatory survey report and developed by the evaluator based on the interviews at the time of ex-post evaluation.

Note 1: The number of students at the time of planning was calculated as the number of planned classrooms × the number of students per classroom, namely (40 students × 2 (double shift)).

Note 2: The Block Grant at the time of planning was 20 Birr per student for G9–10. The estimation was calculated by multiplying the above enrollment capacity by 20 Birr.

Note 3: School grant was 50 Birr per year for G9–10 and 60 Birr for G11–12 at the time of planning. It is 60 Birr for G9–10 and 70 Birr for G11–12 at the time of ex-post evaluation.

Table 21: Evaluation of Financial Sustainability by School (Secondary Schools)

School ID	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10
(1) Public subsidies <sup>Note</sup>	1	1	1	1	1	3	2	1	1	3
(2) Community contribution	2	1	3	2	1	3	3	2	3	2
(3) Sufficiency of operation and maintenance costs according to the schools	1	1	1	1	1	1	1	1	1	1
Overall evaluation	1	1	2	1	1	2	2	1	2	2
Remarks	- Block Grant has not been distributed. - Water pipes are not connected to the laboratory and the toilets due to lack of budget of the woreda.	No electricity or water connection due to lack of budget of the woreda.	- Block Grant has not been distributed.	Water connection has not been completed and a laboratory technician is not assigned due to lack of budget of the woreda.	- Electricity and water connection, provision of computers and assignment of laboratory technician have not been completed due to lack of budget of the woreda. - The community contribution is small.	Both public subsidies and community contribution are sufficient.	Public subsidies are not sufficient, however, there is sufficient financial contribution from the community (PTA annual fee, income generation from the sale of hay and firewood), which covers a small amount of public subsidies.	- Block Grant allocation delayed. - The woreda cannot secure a budget for electricity connections. - There is a certain financial capacity of the community, such as purchasing a generator by PTA to cope with uncompleted electricity connection and hiring a cleaner.	- Due to lack of budget of the woreda, electricity and water connection, provision of computers have not been completed and a laboratory technician is not assigned. - The community has financial capacity; they contribute the income from the sale of hay and maize for the operation and maintenance of the school.	Public subsidies are sufficiently allocated and the community has a certain financial capacity.

Source: Developed by the evaluator based on interviews during the field study.

Note: The degree of sufficiency of each item is judged to be 3: High, 2: Medium, and 1: Low in three stages. Public subsidy is judged to be 1 if Block Grant was not allocated as of March 2020. Also, when it is less than the specified amount, it is judged to be 1.

Regarding the secondary schools, three schools have not received public subsidies, and other schools have also suffered from delayed and/or decreased public subsidies. The lack of financial resources is covered by the PTA's annual fees and community contribution. The budget for operation and maintenance is not sufficient for all 10 target schools to purchase consumables used in the schools, and then the financial resources that can be used for maintenance, such as equipment repairs, are insufficient. Regarding the financial status of the 10 target schools, it was judged that five schools were medium and five schools were low, considering the sufficiency of public subsidies and community contribution.

Late distribution and reduction in amounts of public subsidies in both primary and secondary schools are due to the federal government's budget deficit. Under these circumstances, it is expected that the budget for the education sector will be further reduced in order to take measures against COVID-19, which has been spreading worldwide since March 2020.<sup>20</sup>

Financial sustainability is judged to be slightly low regarding the primary schools and low regarding the secondary schools. As mentioned earlier, intensifying ethnic conflicts in some parts of the SNNPR since 2016 has given priority to the woreda's budget for internally displaced persons, which has affected the budget for the woreda education bureaus. Therefore, there is no concrete outlook for budget allocation to schools where electricity and water supply are incomplete. Based on the above, it is judged that sustainability of the financial aspect of operation and maintenance is low as a whole.

<sup>20</sup> Source: Interviews with the regional education bureau and the target schools.

#### 3.4.4 Status of Operation and Maintenance

As a result of the visual confirmation of the maintenance status of facilities and equipment, it was confirmed that there was damage to notice boards, desks, chairs in classrooms, electrical switches, lockers, drainage pipes, and water faucets at work tables of laboratories, as well as issues such as water leakages in ceilings. Tables 16 and 17 of 3.4.2 Technical Aspect of Operation and Maintenance indicate the problems as well as the maintenance status according to the school.

There are some problems with the facilities and equipment at the primary schools, but, overall, maintenance is being carried out properly. Regarding facilities and equipment at the secondary schools, there were many problems at several schools. The main causes of these were that (1) the users (mainly students) did not treat school property carefully and (2) schools did not do proper repairs at the proper time, resulting in lingering damage. As mentioned previously, schools have plans to do repairs when schools are closed every half-year, but, in reality, half of the secondary schools had only carried out repairs once or twice as of the time of the ex-post evaluation, which was 3 to 4 years after school operation began. Regarding the looseness of door handles and bolts in desks and chairs, if preventive measures were carried out, such as tightening whenever looseness was noticed instead of every half-year, it seems that most problems would not lead to damage.

Based on the above, although the operation and maintenance status of the primary schools' facilities are good overall, since there are many issues related to the operation and maintenance status of the secondary schools, it was determined that the overall status of the operation and maintenance was low.

Some minor problems have been observed in terms of the financial aspect and current status. Therefore, sustainability of the project effects is fair.

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

#### 4.1 Conclusion

This project was implemented to upgrade eight incomplete primary schools (primary schools targeting G1-4 only instead of all eight grades) into complete ones, and extend/upgrade three primary schools by increasing the number of classrooms in order to mitigate the number of overcrowded classrooms, and increase the number of total classrooms by constructing 10 secondary schools in the SNNPR, thereby contributing to improved access to and educational environment of basic education in the SNNPR.

This project's implementation is highly consistent with Ethiopia's development policy, which emphasizes improved access to basic education and educational environment as well as the target region's developmental needs for basic education, and with Japan's assistance policy

for Ethiopia, which emphasized the education sector. Therefore, the project's relevance is high. Although the project outputs and the project costs were as planned, the project period exceeded the plan. Therefore, the project's efficiency is fair. The implementation of the project contributed to alleviating the overcrowding of existing primary schools, improving access to basic education, and improving the educational environment through constructing new secondary schools. The project generally achieved the initial project effect indicators. In addition, the facilities constructed by the project are fully operational in both primary and secondary schools. Impacts such as enhanced motivation among teachers for teaching, class management, and students' motivation for learning by improving the educational environment were also confirmed. The project's effectiveness and impact were judged to be high. Some minor problems have been observed in terms of the financial aspects and the current status of the operation and maintenance system. Therefore, the sustainability of the project's effects is fair.

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

## 4.2 Recommendations

### 4.2.1 Recommendations to the Executing Agency

#### (1) Immediate Completion of Ethiopia's Obligations at All the Secondary Schools

The obligations of the Ethiopian side were planned to be completed prior to the start of school operation, but due to budget shortages and delays with procedures, it was found that water and electricity had not yet been completed at some schools and that computers were not being provided at some secondary schools at the time of ex-post evaluations. Therefore, at some schools, facilities, such as laboratories and ICT centers, are only partially used or are not being used at all. To utilize facilities constructed through this project in accordance with the initial purpose, it is necessary for the Ethiopian side to complete its obligations as soon as possible. To facilitate this, the regional education bureau is recommended to encourage zonal education bureaus, woreda education bureaus, and administrations in target woredas to secure sufficient budgets for infrastructure at target schools in this project. If it seems difficult to secure the budget from the woreda, it is recommended that the zonal education bureau and woreda education bureau discuss how to ensure financial resources and educational equipment available locally, such as the PTAs asking for donations, implementing or strengthening income-generation activities for creating revenue, and receiving computers and laboratory equipment that are no longer used at nearby universities if available. In addition, it is desired that the regional education bureau makes a regular report about the progress of the obligations, such as every month or every quarter, to the JICA Ethiopia office until the obligations are completed.

(2) Immediate Repair to Damaged Equipment and Strengthening Daily Maintenance  
(Recommendation to the executing agency and the target schools)

First of all, it is desired that schools with damaged equipment and furniture immediately repair the damaged equipment. Although it is appreciated that the schools are carrying out repairs to damaged equipment through teachers, PTAs, and local contractors with limited financial resources, it is found that the main cause of the damage is the users based on physical observation conducted at the time of ex-post evaluation and interviews with related parties. It is suggested that the regional education bureau share photos of school facilities that remain in good conditions (Ex: S-7) with the target woreda education bureau, directors and teachers of other target schools, and PTA members, and then directors of the target schools should take the initiative to raise students' awareness regarding the proper usage of school facilities and equipment.

In addition, periodic inspections have been carried out at all surveyed schools, but most schools do not perform repairs immediately, even when they recognize that the equipment is going to be damaged, and they repair all damaged equipment while the school is closed between semesters. Such "curative maintenance" is important, but from now on, it is desirable to strengthen "preventive maintenance," such as repairing damage while the equipment is still usable, and tightening loose bolts based on inspection results.

#### 4.2.2 Recommendations to JICA

(1) Continuous Monitoring on the Obligations of Ethiopian Side

Regarding the obligations of the Ethiopian side, it is desirable that the JICA Ethiopia office regularly check the progress with the regional education bureau via e-mail or telephone, as it has practiced so far, and encourage the implementation of the obligations frequently.

#### 4.3 Lessons Learned

(1) Communication in Harmony with the Sociocultural Characteristics of the Target Area

Regarding the obligations of the secondary schools among the obligations of the Ethiopian side, it was found that water and electricity connections have not been completed at some schools, fences have not been installed, and computers and distance learning equipment had not been provided at the time of ex-post evaluation. Since these obligations were not completed, at some schools, laboratories and ICT centers are only partially being operated or are not being used. The procurement agency regularly confirmed the progress of obligations on the Ethiopian side during project implementation, and if there were delays, they encouraged the regional education bureau to fulfill their obligations in writing and through meetings. In addition, after project completion, the JICA Ethiopia office has on several occasions encouraged the regional education bureau to take action in writing. Such an approach by project-related parties was

overall appropriate, but the SNNPR, which is the target of this project, consists of zones based on ethnicity, so the zonal and woreda education bureaus play a larger role than in other regions. In actuality, secondary schools that could afford the expenses for electricity and water connections borne by the woreda and PTA had close collaboration among the woreda education bureau, school, and community. Based on characteristics of the target region and such cases, it is believed that it was necessary to have an approach that corresponds to the region in collaboration with the target region; for example, concerned parties of the Japanese side should have encouraged the target zones and woredas to follow the procedure for securing the budget immediately after the project began, and if it was difficult for woredas to secure the budget, they should have involved the community in the early stages to promote activities for donations and income generation.

As for the implementation of future projects, it is desirable to properly encourage related local governments and groups in counterpart governments in order to proceed with matters efficiently according to the target society's administration and sociocultural characteristics.