Republic of Benin

FY2023 Ex-Post Evaluation Report of
Japanese ODA Grant Aid Project
"Le Projet de Construction des Ecoles Primaires dans le Département de l'Atlantique"

External Evaluator: Maki Hamaoka,
Foundation for Advanced Studies on International Development

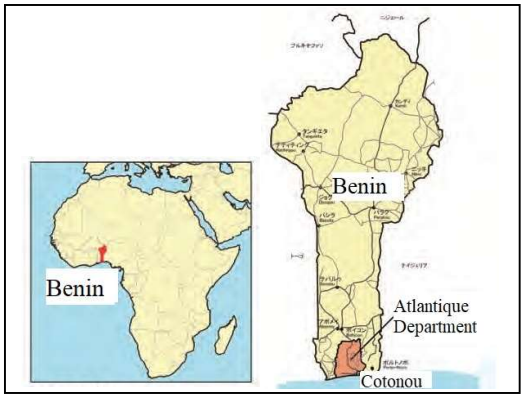
0. Summary

This project was implemented to improve access to primary and pre-primary education and learning environments by constructing additional classrooms and providing classroom furniture in the Atlantique Department, thereby contributing to improving the quality of education in the target area.

The objective of the project is consistent with the development policy of the government of Benin, which emphasizes improvement of the quality of education, and with the education sector policy, which emphasizes infrastructure development for primary and pre-primary education from the time of ex-ante evaluation to ex-post evaluation. In addition, the project is consistent with Benin's development needs, as there is a high need for development of educational facilities. Although the objective of this project and Japan's ODA policy for Benin is coherent, no specific collaboration with other projects within JICA or coordination with organizations other than JICA was envisaged during the ex-ante evaluation, and effects were not confirmed. Therefore, relevance and coherence are high. Regarding the outputs, the project cost was within the plan for reasons such as the exclusion of three target schools due to coordination with other projects. Although the project period exceeded the plan, efficiency of the project is high as a whole. As a result of the project's implementation, the number of classrooms that can be used continuously in target schools and the number of pupils in target schools who study in the classrooms that can be continuously used achieved target values. In addition, the project's impact on improving learning environments was also confirmed, with improvements in pupils' motivation to learn and in the way the teachers manage classes. The project has mostly achieved its objectives. Therefore, effectiveness and impacts of the project are high. No issues have been observed in the policy/system, institutional/organizational, technical, financial, environmental, and social aspects, including the current status of operation and maintenance. Therefore, sustainability of the project effects is very high.

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

1. Project Description



Project Location(s) (source: preparatory survey report)

Photo1: The two-story school building constructed under this project (TOGOUDO/BC Primary School) (source: photo taken by the external evaluator)

1.1 Background

The gross enrollment rate[1] for primary education in Benin improved from 66.8% (1996/97) to 98.4% (2006/07), and the government of Benin made primary education at public educational facilities completely free of charge. As a result of the complete free education, the number of pupils attending school increased significantly, and the construction of classrooms could not keep up, so the average number of pupils per classroom in primary schools increased from 43.6 (2005/06) to 50.6 (2015/16). In particular, the population of the Atlantique Department had been increasing as a bedroom community adjacent to Benin's largest economic city, Cotonou. The number of pupils in the Atlantique Department in primary schools increased by 1.28 times over the five years from 2011/12 to 2015/16, the highest growth rate in the country, while the national average increase was 1.14 times. In addition, the average number of pupils per classroom in primary schools was 64.9 (2017/18), well above the national standard of 50 pupils. Regarding pre-primary education, the government of Benin positioned it as essential for improving the output of primary education. Still, the total pre-primary enrollment rate was only 14.7% (2014/2015). To achieve the target for the pre-primary enrollment rate set by the government of Benin[2], it was necessary to construct classrooms. Given this background, the government of Benin requested grant aid from the government of Japan for this project to improve the learning environments for primary and pre-primary education in the Atlantique Department.

1.2 Project Outline

The objective of this project is to improve access to primary and pre-primary education and learning environments by constructing additional classrooms and providing classroom furniture

[1] The gross enrollment rate is the number of pupils enrolled divided by the population of children of school age. It may exceed 100% because some pupils are older than the age at which they should be enrolled.

[2] The government of Benin set a target of increasing the enrollment rate for pre-primary education from 15.6% in 2016 to 25% in 2021, 28.7% in 2025, and 33.3% in 2030. (*Plan Sectoriel de l'Education Post 2015 (2018- 2030)* p. 83.)

in the Atlantique Department, thereby contributing to improving the quality of education in the target area.

Grant Limit / Actual Grant Amount	1,457 million yen / 1,140 million yen
Exchange of Notes Date / Grant Agreement Date	December 2017 / January 2018
Executing Agency(ies)	From preparatory survey to April 2019: Ministry of Maternal and Primary Education (Ministère des Enseignements Maternel et Primaire) (hereinafter referred to as "MEMP") From April 2019: Agency for the Construction of Infrastructures of Education Sector (Agence pour la Construction des Infrastructures du Secteur de l'Education) (hereinafter referred to as "ACISE")
Project Completion	March 2021
Target Area	Seven communes in the Atlantique Department (Tri Bossito, Ouida, Toffo, Zè, Kpomassé, Allada, Abomey-Calavi)
Main Contractor(s)	Lot 1: Joint Venture DYJESCK-VICO, Lot 2: Joint Venture SOGEI-SCACU, Lot 3: MAPOLO SARL.
Main Consultant(s)	Mohri, Architect & Associates, Inc.
Preparatory Survey	December 2016 - December 2017
Related Projects	<Grant Aid> "Project for Primary School Construction (Phase I)" (September 1996) "Project for Primary School Construction (Phase II)" (June 1997) "Project for Primary School Construction (Phase III)" (September 2003), "Project for Primary School Construction (Phase IV)" (December 2007) "Project for strengthening capacity of training institution for primary school teachers in Djougou" (August 2011) "Project for Construction of Public Primary Schools in Benin (Phase V)" (December 2012) <Other donors> "Global Partnership for Education and Community Budget Fund" (Common Basket consisting of the World Bank, Islamic Development Bank, African Development Bank, etc.)

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: November 2023 - January 2025

The duration of the Field Study : February 23 - March 8, 2024, and May 20 - May 24, 2024.

2.3 Constraints During the Evaluation Study

The project objective in the ex-ante evaluation sheet was "to improve access to primary education and learning environments in the target area by constructing additional classrooms and providing classroom furniture for primary education in the Atlantique Department, thereby contributing to improving the quality of education in this country."

If evaluating this project according to the logic of the ex-ante evaluation sheet, the improvement of the quality of education in Benin as a whole is to be evaluated in terms of impact. However, the logic that constructing schools in the target area in the Atlantique Department contributes to improving the quality of education in Benin as a whole seemed to be a leap in logic. Therefore, the impact of the project in the target area was evaluated in the ex-post evaluation.

In addition, although this project included the construction of pre-primary schools, the ex-ante evaluation sheet did not include pre-primary education in the project objective, so pre-primary education was added to the objective of the project in the ex-post evaluation.

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

3.1 Relevance/Coherence (Rating: ③[4])

3.1.1. Relevance (Rating: ③)

3.1.1.1 Consistency with the Development Plan of Benin

At the time of the ex-ante evaluation, the government of Benin stated "improving the quality of education" as a priority area in its *Government Action Plan 2016-2021 (Programme d'Action du Gouvernement [PAG] 2016-2021)*. In addition, in 2006, the government of Benin formulated the *Ten-Year Plan for the Education Sector 2006-2015 (Plan Décennal de Développement du Secteur de l'Education 2006-2015 [PDDSE])*, which made primary education completely free. In *PDDSE Phase 3 (2012)*, the government of Benin set a goal of expanding access to pre-primary education through constructing pre-primary education facilities, with 314 classrooms to be built annually by 2020. In addition, for primary education, the government of Benin set the goal of

[3] A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

[4] ④: Very High, ③: High, ②: Moderately Low, ①: Low

expanding access and improving learning environments through the expansion of educational facilities and it was necessary to construct 1,199 classrooms per year by 2020.

Even at the time of the ex-post evaluation, the government of Benin states "improving the quality of education" as a priority area in its *PAG 2021-2026*.[5] Regarding education sector policies, the *Post-2015 Education Sector Plan (2018-2030) (Plan Sectoriel de l'Education Post 2015 (2018-2030))* explicitly targets children aged 5 to 15 in economically disadvantaged areas. It has a specific strategy to improve basic education facilities (classrooms, toilets, infirmary, fences, etc.) and pre-primary education facilities.[6]

In light of the above, this project is consistent with Benin's development policy, both at the time of ex-ante evaluation and ex-post evaluation. The government of Benin emphasizes improving the quality of education in its national development plan and promotes the construction of educational facilities in its education sector plan.

3.1.1.2 Consistency with the Development Needs of Benin

(1) Primary Education

At the time of the ex-ante evaluation, the gross enrollment rate for primary education (2017)[7] was 126% for boys, 117% for girls, and 122% overall. Although it declined slightly from 2018 to 2020, it has recovered since 2021. The rate at the ex-post evaluation (2022)[8] was 117% for boys, 107% for girls, and 113% overall, maintaining a high level from the time of the ex-ante evaluation to the ex-post evaluation. The number of pupils enrolled in the country is approximately 240,000 (2021/22); the number in the Atlantique Department is 43,000 (2021/22), accounting for 18% of pupils enrolled in the country and the most significant proportion among the 12 departments in the country. In addition, the average number of pupils per classroom in public primary schools at the time of planning was 64.9 (2017/18), well above the Benin standard (50 pupils). On the other hand, the number of pupils per classroom at the time of the ex-post evaluation[9] was 52.8 (2021/22) in the Atlantique Department, compared to a national average of 47.4 (2021/22), an improvement from the time of planning but still above the Benin standard. Furthermore, in terms of classroom quality,[10] the percentage of classrooms "both with walls and roofs of permanent materials and in good condition" averaged 71.4% nationally and 69.6% in the Atlantique Department (2017/18) at the time of the ex-ante evaluation, and 74.1% nationally and 68.1% in the Atlantique Department at the time of the ex-post evaluation.[11] While the total enrollment rate

[5] *PAG* p. 13.
[6] *Plan Sectoriel de l'Education Post 2015 (2018- 2030)* p. 81, p. 84.
[7] World Bank Data (2017)
[8] World Bank Data (2022)
[9] Annuaires statistiques 2021/22
[10] The MEMP's education statistics classify classroom conditions into four types: "walls and roof are solid (permanent materials)," "walls are permanent materials, the roof is temporary," "walls are temporary, the roof is permanent materials," and "classrooms made of temporary materials," with each type classified as "good" or "bad."
[11] Annuaires statistiques 2021/22

has improved, the hardware did not improve much from the planning time to the ex-post evaluation, indicating a need for continued improvement in the learning environments.

(2) Pre-Primary Education

At the time of the ex-ante evaluation, the government of Benin had positioned pre-primary education as important for improving learning effects in primary education, but the gross enrollment rate for pre-primary education was only 16.8% nationwide and 17.9% in the Atlantique Department.[12] The government set a goal of increasing the national gross enrollment rate in pre-primary education to 25% in 2021, 28.7% in 2025, and 33.3% in 2030.[13] However, the rate in pre-primary education at the time of the ex-post evaluation (2021/22)[14] was 15.9% nationwide and 18.6% in the Atlantique Department, still far from the target of the government.

Concerning classroom quality, the percentage of classrooms "both with walls and roofs of permanent materials and in good condition" was 62.6% (2017/18) for the national average and 65.3% (2017/18) for the Atlantique Department at the time of ex-ante evaluation, and 73.9% (2021/22) for the national average and 72.9% (2021/22) for the Atlantique Department at the time of ex-post evaluation. The quality of classrooms showed improvement from the time of planning to the time of the ex-post evaluation. Still, considering that about 30% of classrooms are "not in good condition, not made of permanent materials," the need to continue to improve the learning environments in terms of hardware is recognized even in pre-primary education.

In light of the above, from the ex-ante evaluation to the ex-post evaluation, there is a high need to improve physical education environments for both pre-primary and primary education, and this project is in line with the development needs of Benin and the Atlantique Department.

3.1.1.3 Appropriateness of the Project Plan and Approach

During the ex-ante evaluation, a lesson was learned from the results of a similar project: "When implementing a construction project in Benin using local contractors, a lack of technical and financial capacity of the local contractors can lead to delays in obtaining materials and affect the construction schedule. Therefore, in this project, it was required to "confirm the implementation capability of local contractors in the preparatory survey, list contractors who could properly manage the process, determine bidding qualifications, and draw a design and construction plan compatible with the local contractors' capability."[15] In response to this, during the field survey for the preparatory survey, the consultant confirmed the company profiles, order records, sales, equipment and facilities owned, etc. of 18 local construction companies that had previously undertaken construction work for Japan's Grant Aid for Community Empowerment. Based on the

[12] Annuaires statistiques 2017/18
[13] *Plan Sectoriel de l'Education Post 2015 (2018- 2030)* p. 83.
[14] Annuaires statistiques 2021/22
[15] Ex-ante evaluation sheet p. 3.

planned scale of this project and the financial situation of the construction companies interviewed, the consultant, in consultation with ACISE, set conditions for the tender, such as sales over the past 5 years, actual amounts, and construction experience. As a result of utilizing the past lesson learned, there was no effect on the construction period due to the lack of implementation capacity of the local construction contractors.[16]

From the perspective of "consideration and fairness to those who are prevented from equitable social participation," the project considered the installation of separate toilets for boys and girls (with particular consideration for girls), and multipurpose toilets and ramps with consideration for disabled children, during the project formation.

Lessons learned from similar projects were applied in this project, and no particular problems were found in the project planning and approach. In addition, there were no problems from the viewpoint of "consideration and fairness to those who are prevented from equitable social participation," as consideration was given to gender and children with disabilities in the formulation of the project, such as by installing separate toilets for boys and girls as well as ramps. These considerations were applied to the project.

3.1.2 Coherence (Rating: ②)

3.1.2.1 Consistency with Japan's ODA Policy

The "*Country Assistance Policy for the Republic of Benin*" (December 2012) positioned "human resource development" as a priority area, and aimed to provide support to resolve the classroom shortage associated with free primary education and improve equitable access to and quality of education.[17] In addition, gender disparities in primary education and net enrollment rates[18] have improved markedly in many African countries under the "*Education for All*" initiative, but *the TICAD V Yokohama Action Plan (2013-2019)* stated that to build a solid foundation for higher education, it would be necessary to continue increasing school attendance and completion rates and improving the quality of primary and secondary education.[19]

Based on the above, it can be judged that the project was coherent with Japan's ODA policy at the time of the ex-ante evaluation.

3.1.2.2 Internal Coherence

From the ex-ante evaluation to the ex-post evaluation, no collaboration with other JICA projects was envisaged for this project. At the time of the ex-post evaluation, collaboration to improve the quality of education was confirmed, such as JICA overseas cooperation volunteer dispatched to

[16] Answers to the questionnaire by the consultant
[17] Ex-ante evaluation sheet p. 1.
[18] The net enrollment ratio is the ratio of the number of pupils of the age who should be enrolled in school divided by the population of that age. The ration never exceeds 100%.
[19] https://www.mofa.go.jp/mofaj/area/page3_000210.html#16, accessed December 7, 2023.

Ouida commune supporting teaching math and physical education at the three schools targeted by the project and proposing math teaching materials to the parties involved in education in the commune. Still, no effects have been confirmed.

3.1.2.3 External Coherence

Since the project did not plan collaboration with other donors from ex-ante evaluation to ex-post evaluation, no synergistic effects were confirmed.

Of the 36 targeted schools at the time of the planning, three schools were excluded due to duplication with projects supported by other organizations (see Efficiency "3.2.1 Project Outputs"). The reason for this was that, in addition to the fact that this project covered a considerable number of schools, other organizations' school construction projects progressed quickly from the time of the decision to the implementation of the project. It was difficult for the MEMP to keep track of all the other organizations' projects and coordinate overlaps. In fact, it was only at the time of detailed design and bidding for the contractors that those involved in the project became aware of the overlap with other organizations.[20] In addition, the Japanese grant aid system did not allow the addition of alternative schools as new target schools.[21] Based on these circumstances, the ex-post evaluation did not find any problems with coordinating this project with other organizations or with subsequent actions taken.

Based on the perspective of "Leave No One Behind (LNOB)," the project, which involved installing ramps and multipurpose toilets for people with disabilities, aligns with *the Convention on the Rights of the Child* (1989) and *the Convention on the Rights of Persons with Disabilities* (2006), which are international conventions on equity and inclusiveness.

Regarding relevance, the objective of the project is consistent with the government of Benin's development policy, which emphasizes improvement of the quality of education, and with the education sector policy, which emphasizes infrastructure development for primary and pre-primary education, from the time of ex-ante evaluation to ex-post evaluation. In addition, the

[20] As Benin promotes decentralization, local governments can negotiate and coordinate directly with donors and NGOs without going through the MEMP. Therefore, commune governments built schools with funds from NGOs and community without going through it. Since school construction projects by other organizations than Japanese take less time from planning to construction, the MEMP and Japanese parties concerned did not quickly notice the overlap between this project and similar projects. (source: answers to the questionnaire by the consultant, interview with the MEMP).

[21] As for grant aid that provides the facilities and equipment (utilization of local companies), the cooperation component is determined based on the request from the recipient government and the results of the preparatory survey for cooperation. Schools that were excluded from the project in the process of the preparatory survey for cooperation were judged to be appropriate to be excluded from the plan due to no lack of classrooms and difficulties in construction on poor access roads during the rainy season. JICA determined that there were no changes in these conditions during the implementation of the project and that it would be difficult to select alternative schools from the original request list. JICA also determined that it would be difficult to add a school that was not on the requested list, as this would be a use of funds that deviated from the content of the plan approved by the Cabinet after the financial implementation consultation. (source: answers to the questionnaire by JICA).

project is consistent with Benin's development needs, as there is a high need to develop educational facilities, from planning to ex-post evaluation. Lessons learned from previous similar projects were used in the implementation of the project, and the approach was appropriate. Regarding coherence, there was coherence between the objective of the project and Japan's ODA policy for Benin. In terms of collaboration with other projects within JICA, JICA overseas cooperation volunteer provided support for teaching mathematics and physical education at the primary schools constructed in the course of this project, but the effects have not yet been confirmed. No specific collaboration was made between the time of the ex-ante evaluation and the ex-post evaluation, and the effects were not confirmed.

Therefore, its relevance and coherence are high.

3.2 Efficiency (Rating: ③)

3.2.1 Project Outputs

(1) Output on the Japanese Side

The Japanese outputs consist of construction of school facilities (hard component) and technical assistance for toilet maintenance (soft component).

1) Hard Component

The actual number of classrooms was 176, compared to the planned 210. The difference between the planned and actual numbers was due to the exclusion of three schools based on overlapping with similar projects by other organizations and communities as well as design changes in ten schools. Given that these changes occurred in response to actual on-the-ground needs and that the change to alternative schools was difficult under the Japanese grant aid system, the series of changes were appropriate.

Table 1 Planned and Actual Outputs of Facility Construction

Facility name	Plan	Actual
<Primary school>		
Number of sites	34	31
Classrooms (rooms)	202	168
Directors' offices (rooms)	34	26
General toilet booths (booths)	84	74
Multipurpose toilet booths (booths)	68	62
<Pre-primary school>		
Number of sites	2	2
Classrooms (rooms)	8	8
Directors' offices (rooms)	2	2
General toilet booths (booths)	6	6
Multipurpose toilet booths (booths)	4	4

Source: Documents provided by JICA

Table 2 Planned and Actual Procurement of Furniture

Unit: Set

	Plan	Actual
<Primary school>		
Desks and chairs for pupils (25 sets in each classroom)	5,050	4,200
Desks and chairs for teachers	202	168
Mobile blackboards	202	168
Directors' desks and chairs	34	26
Visitors' chairs	136	104
<Pre-primary school>		
Desks and chairs for pupils (26 sets in each classroom)	208	208
Directors' desks and chairs	2	2
Visitors' chairs	8	8

Source: Documents provided by JICA

Table 3 Changes in Planned and Actual Facility Construction

School name	Classrooms (rooms)			Director's offices (rooms)			Toilet booths (booths)			Reason for change
	Plan	Actual	Difference	Plan	Actual	Difference	Plan	Actual	Difference	
HEKANDJI Primary School	4	0	4	0	0	0	2	0	2	Three classrooms and a director's office were constructed with community funds.
HOUNGUEME-ADJAKANME Primary School	3	0	3	1	0	1	4	0	4	Six classrooms, a director's office, and 12 toilet booths were constructed with funds from the WB.
UNION ZEBEVEDJIGON Primary School	3	0	3	1	0	1	4	0	4	Three classrooms and a director's office were constructed with community funds.
FINAGNON/B Primary School	6	3	3	0	0	0	2	2	0	Classrooms were constructed with funds from the community, NGOs, and other donors.
TORI-CADA-GBEGOUDO Primary School	6	3	3	1	0	1	4	4	0	
HOUNGO Primary School	5	2	3	1	0	1	2	2	0	
GBEDJEWIN Primary School	6	3	3	1	0	1	2	2	0	
DEKANME/B Primary School	7	4	3	1	1	0	2	2	0	
SENANDE Primary School	3	3	0	1	1	0	4	2	2	Toilet booths were constructed with other organizations' funds
GBETO Primary School	6	3	3	1	0	1	6	6	0	Classrooms were constructed with funds from the community, NGOs, and other donors.
DOGOUDO-DANKOLI/B Primary School	9	6	3	2	1	1	8	8	0	
TOGOUDO/BC Primary School	18	12	6	2	1	1	12	8	4	Six classrooms, a director's office, and four toilet booths were constructed with funds from the WB.
WOMEY-SODO Primary School	2	5	-3	1	1	0	4	4	0	Three existing classrooms were demolished due to deterioration of facilities, and three new classrooms were constructed.
Reduction number	34			8			16			

Source: Documents provided by JICA

2) Soft Component

In this project, technical assistance (soft component) for properly using and maintaining the constructed toilets was implemented as planned (see Table 4).

Table 4 Planned Activities and Outputs of Soft Component

Outputs	Activities	Results
Output 1: Knowledge will be acquired for the appropriate use of toilets.	1-1 Prepare explanatory materials (manual for toilet use) for each school. 1-2 Explain the contents of the soft component to the ACISE, the MEMP, and the Department Direction of Maternal and Primary Education (Direction Departementale des Enseignements Maternel et Primaire, hereinafter referred to as "DDEMP")[22] for the soft component. 1-3 Explain the contents of the soft component to the Regional Education Office (Région Pédagogique, hereinafter referred to as "RP") and the Inspector Office (Circonscription Scolaire, hereinafter referred to as "CS"). 1-4 Hold briefings on toilet use at each school. (The following was added at the initiative of the Beninese NGO in charge of the activity.) 1-5 Propose a preliminary draft of the appropriate wall design. 1-6 Select a draft wall design. 1-7 Paint the wall design.	1-1 Materials regarding separate toilets for boys and girls, defecating in a hole, cleaning up after use, etc., were prepared and used in orientation sessions held at each school. Four copies of a simplified version of these materials for children were distributed to each school to raise awareness. Some schools were still using these simplified materials during the ex-post evaluation. 1-2, 1-3 The activities of the soft components were explained to the ACISE, the MEMP, the DDEMP, the RP, and the CS. Based on this explanation, the DDEMP, the RP, etc., were contacted and coordinated to conduct an explanation session for each school. 1-4, 2-1 An explanation session on toilet use was held, and maintenance plans, including cleaning toilets, were discussed at 33 target schools (31 primary schools and two pre-primary schools) from March to May 2021. Pre- and post-tests of understanding for pupils, teachers, and parents confirmed that the level of understanding regarding the proper use of toilets and the need for cleaning toilets had improved. Each school also decided on a maintenance plan for their toilets. 1-5, 1-6, 1-7 Each school chose one of the four designs, which the illustrator drew on the wall behind the hand-washing tank.
Output 2: The plan for the appropriate use, operation, and maintenance of the toilets will be confirmed.	2-1 Support discussions between concerned parties in each school.	

Source: Documents provided by JICA

[22] The DDEMP is subordinate to the MEMP , and the CS is subordinate to the DDEMP at the commune level. The CS supervises each school's educational activities. During the project's implementation, the RP was in place as a coordinating body between the DDEMP and the CS due to a lack of school inspectors, but since February 2024, when the CS became functional, the RP has not existed. (source: interview with the MEMP)

Photo 2: Wall design on the toilet booth. Illustration encouraging hand washing. (KPODJAVA Primary School) (source: photo taken by the external evaluator)

Photo 3: Toilets with girls' and boys' signage above the door. (TORI-CADA-GBEGOUDO Primary School) (source: photo taken by the external evaluator)

(2) Output on the Beninese Side

The planned outputs for the Benin side were "opening of bank accounts (issuance of Bank Arrangement [B/A] and Authorization for Payment [A/P])," "landscaping" "tree cutting," and "procurement of furniture and equipment not included in the Japanese side's outputs." These outputs were completed as planned, with the exception of the B/A and A/P delays. Both B/A and A/P were delayed 8 months from the plan due to procedural delays by Benin's Ministry of Foreign Affairs and Cooperation. The delays in B/A and A/P did not affect the project's progress because the Japanese consultant carried out the detailed design and bidding work without receiving the payment they should have received.[23]

3.2.2 Project Inputs

3.2.2.1 Project Cost

The total planned project cost was 1,459 million yen (1,457 million yen for the Japanese side and 2 million yen for the Beninese side), while the actual cost was 1,141 million yen (1,140 million yen for the Japanese side and 1 million yen for the Beninese side), which was within the plan (78% of the plan). The difference between the planned and actual project costs on the Japanese side was due to the exclusion of target schools, the changes in components, and the fact that no preliminary expenses were incurred. The output in terms of the number of classrooms was 176 classrooms, 83% of the planned 210 classrooms, and the actual project cost was 78% of the planned cost, which was judged to be generally in line with the reduction in output.

Among the project costs on the Beninese side, it was confirmed that the soft component implementation expenses (daily allowance and fuel for participating in activities at the school) were paid, but the actual amount could not be confirmed. The planned amount for Benin,

[23] The B/A is expected to be signed within one month after the G/A is signed. In this project, while the G/A was signed in January 2018, the B/A was opened in September 2018, which was an eight-month delay compared to the plan. The A/P is supposed to be issued within one month after signing the consultant contract; the consultant contract was signed in March 2018, while the A/P was issued in November 2018, a delay of 8 months. In these circumstances, the consultant carried out the detailed design and tendering to select contractors without receiving payment. (source: answers to the questionnaire by the consultant and interview with the MEMP)

including the cost of implementing the soft component, was 1.5 million yen, and 1.2 million yen without it. The actual amount, excluding the cost of implementing the soft component, was 1.3 million yen.

3.2.2.2 Project Period

The actual project period was 39 months, against a planned 28 months, exceeding the plan (139% of the plan). The main differences between the plan and actual results were due to the fact that the detailed design period exceeded the plan because of delays in procedures on the Beninese side, and because more time was required than planned for the Japanese consultant to work on the detailed design in Japan after the field survey. Additionally, the period from the bid announcement to the conclusion of the contractor's contract exceeded the plan due to a change in the executing agency in April 2019; moreover, due to the outbreak of the new coronavirus infection, the importation of materials from overseas and the approval process of bidding results and contractor contract by the client took longer than usual.[24]

Table 5 Planned and Actual Project Period

	Plan	Actual
Total Note 1	28 months (December 2017 - March 2020)	39 months (January 2018 - March 2021)
<Detail>		
Signature of G/A	December 2017	January 2018
Consultant contract	January 2018	March 2018
Detailed design period	7 months (March - September 2018)	10 months (April 2018 - January 2019)
Bid announcement-conclusion of the contract of the contractor	4 months (October 2018-January 2019)	8 months (March-October 2019)
Construction period	15 months (February 2019 - April 2020)	17 months (November 2019 - March 2021)
Completion of construction	April 2020	March 2021
Soft component	March - May 2020	March - June 2021

Source: Documents provided by JICA
Note 1: The starting point is the G/A signature, and the ending point is starting of the operation (completion of construction).

In light of the above, although the project period exceeded the plan, the project cost was within the plan; therefore, efficiency of the project is high.

[24] Although the client's approval took much longer due to the influence of the new coronavirus outbreak, the G/A was not extended, and there was no formal documentation indicating that the new coronavirus outbreak affected the project period. Therefore, the influence of the new coronavirus outbreak was not considered in the calculation of the project period.

3.3 Effectiveness and Impacts[25] (Rating: ③)

3.3.1Effectiveness

3.3.1.1.Quantitative Effects (Operation and Effect Indicators)

(1) Operation and Effect Indicators

At the time of planning, the project's operation and effect indicators were set as (1) the number of classrooms that can be used continuously in target schools (rooms) and (2) the number of pupils (persons) who study in classrooms that can be used continuously (solid classrooms made of permanent materials). The operation and effect indicators are shown in Table 6.

Table 6 Operation and Effect Indicators

	Baseline value Note 2	Baseline value Note 3	Target value Note 4	Actual value
	2017	2020/21	2023/24	Year 2024
			2 Years After Completion	2 Years After Completion
Indicator 1: Number of classrooms that can be used continuously in target schools (rooms)	141 (140 primary schools, one pre-primary school)	168 (164 primary schools, four pre-primary schools)	Original: 351 (342 primary schools, nine pre-primary schools) Modified: 344 (332 primary schools, 12 pre-primary schools))	344 (332 primary schools, 12 pre-primary schools)
Indicator 2: Number of pupils in target schools who study in classrooms that can be used continuously (persons) Note 1	7,026	7,304	Original: 17,334 Modified: 16,912	16,873

Source: Documents provided by JICA

Note 1: Calculated by multiplying the number of classrooms for continuous use by the standard number of children per classroom (50 in primary schools and 26 in pre-primary schools)

Note 2: Ex-ante evaluation sheet

Note 3: The value was modified after the second detailed design due to the exclusion of target schools and the increase/decrease of components

Note 4: The original target value was 141 existing classrooms (140 for primary schools, 1 for pre-primary school) + 210 initially planned classrooms (202 for primary schools, 8 for pre-primary schools) = 351; the modified target value is 168 classrooms (164 for primary schools, 4 for pre-primary schools), which is baseline after the second detailed design, + 176 planned classrooms after design modification (168 for primary schools, 8 for pre-primary schools) = 344.

- Indicator 1 (Number of classrooms that can be used continuously in target schools [rooms])

The actual value was 344 classrooms compared to the original target of 351 classrooms (98% of the target). The difference between planned and actual values is due to the reductions in the number of sites and change in components due to overlap with projects supported by other donors

[25] When providing the sub-rating, Effectiveness and Impacts are to be considered together.

and communities, as described in "3.1.2.3 External Coherence" and "3.2.1 Project Outputs." The achievement rate against the modified target (344 classrooms) is 100%.

- Indicator 2 (Number of pupils in target schools who study in classrooms that can be used continuously [persons])

The total number of pupils registered for the 2023/24 school year was 16,873 in the 33 target schools. The achievement rate against the original target was 97.3% and 99.8% against the modified target.

(2) Complementary Indicator: "Number of pupils per classroom (number of schools meeting the national standard of 50 pupils or less per classroom)"

In addition to the above indicators set at the time of ex-ante evaluation, "the number of pupils per classroom (persons) (number of schools meeting the national standard of 50 pupils or less per classroom)" was added as a complementary indicator at the time of ex-post evaluation with the consent of the relevant parties. As for the target schools, many of them had classrooms that were not made of permanent materials (sun-dried bricks or straw-bale classrooms) at the time of planning and were overcrowded, with the number of pupils per classroom exceeding the Beninese standard (50 pupils per classroom in primary schools and 26 pupils per classroom in pre-primary schools). In fact, among the 33 target schools, 24 schools (22 primary schools and two pre-primary schools) were overcrowded, which exceeded the Beninese standards. In addition, none of the schools met both criteria for permanent-material classrooms and the number of pupils per classroom. At the time of the ex-post evaluation, the number of schools with classrooms of permanent materials and the pupils per classroom within the Beninese standards increased to 13 (12 primary schools and one pre-primary school).[26]

As described above, access to primary and pre-primary education and learning environments in the target areas generally improved through construction of classrooms by this project as planned, which is the objective of the project.

3.3.2 Impacts

3.3.2.1 Intended Impacts

"Improvement in the quality of education," which was an impact expected at the time of the ex-ante evaluation, was verified in terms of pupils' motivation to learn and teachers' proper

[26] NONKOUKO Primary School (Tori Bossito commune), FINAGNON/B Primary School (Tori Bossito commune), TORI-CADA-GBEGOUDO Primary School (Tori Bossito commune), BAZOUNKPA Primary School (Ouida commune), FONSRAME/B Primary School (Ouida commune), GOMEY-NORD/AB Primary School (Ouida commune), COLLI-BOSSOUVI/C Primary School (Toffo commune), WINYIKPA-CENTRE Primary School (Allada commune), GBETO Primary School (Allada commune), MISSESSINTO/B Primary School (Abomey-Calavi commune), TOGOUDO/BC Primary School (Abomey-Calavi commune), TAKILI Primary School (Abomey-Calavi commune), ZINVIE-CENTR Pre-primary School (Abomey-Calavi commune)

management of classes through the improved learning environments. The external evaluator also confirmed the impact of improvement in female pupils' motivation to go to school linked to the availability of separate toilets for boys and girls, which was expected in the ex-ante evaluation. In verifying the impact of the project, a qualitative survey was conducted from the perspective of LNOB, and the results were considered in the evaluation of the effectiveness and impact of the project (see the boxed article below for an outline of the qualitative survey [method]).

Qualitative Survey for In-depth Analysis of LNOB

In this ex-post evaluation, a qualitative survey was conducted from February 28 to March 5, 2024, in 10 of the 33 target schools, for an in-depth analysis of LNOB.

Item	Contents
Objective	To understand the heterogeneity of the project effects between girls etc., who are likely to be left behind, and others and its factors from the perspective of LNOB
Target for the survey	Ten schools. Eight primary schools and two pre-primary schools. Eight primary schools were selected from the 31 project target schools based on the following selection criteria. ・ At least one school is selected from each of the seven communes. ・ To verify the effectiveness of the toilets constructed, priority was given to schools where usable toilets did not exist at the time of planning and toilets were constructed in the course of the project. ・ Priority was given to schools where 1st through 6th graders were enrolled at the time of planning. Toilet access during menstruation among female pupils may be related to their willingness to go to school, and the inclusion of 5th and 6th grades, which is equivalent to the age at which menstruation begins, was considered. ・ The availability of water sources (public taps, hand pumps, rainwater tanks, etc.) on the school compound was considered. Schools with and without water sources were selected. ・ Schools with various location conditions, such as those along main roads and those far from the center of the commune, were selected. <Eight primary schools> TORI-CADA GBEDO Primary School (Tori Bossito commune), GOMEY-NORD/AB Primary School (Ouida commune), HOUEGBO-GARE Primary School (Toffo commune), HOUEDAZOUNKPA Primary School (Zè commune), SENANDE Primary School (Kpomassé commune), WINYIKPA-CENTRE Primary School (Allada commune), AGBANDONOU/B Primary School (Allada commune), WOMEY-SODO Primary School (Abomey-Calavi commune) <Two pre-primary schools> WOMEY-YENAWA Pre-primary School (Abomey-Calavi commune) and ZINVIE-CENTR Pre-primary School (Abomey-Calavi commune)
Interviewee	With the cooperation of the directors of the target schools/pre-primary schools, interviewees who met the following criteria were preselected for each school. As a result, 105 interviewees were subject to the qualitative survey. ・ One director or teacher who had been working at the target school since before the project was implemented ・ Male and female pupils (three males and three females [six in total] who had been attending the target school since the project was implemented) ・ Two to three parents (with both male and female school-aged children) ・ Two members of the Pupils' Parents Association (Association des Parents d'Elèves, hereinafter referred to as "APE") (assuming a president and a girls' learning facilitator) <Summary of respondents> ・ A total of 105 people (48 female and 57 male) ・ Breakdown: Seven directors (two female, five male), 22 teachers (10 female, 12 male), 39 pupils (19 female, 20 male), 14 parents (board members of APE) (four female, ten male), 22 parents (other than board members of APE), (13 female, nine male), and others (one male local intellectual). With no significant differences among the responses of directors, teachers, and parents, they were grouped as adult females and adult males when compiling the responses.

Methodology	The survey was conducted as a self-administered questionnaire with questions requiring supplementary information asked by the local consultant on the spot. The local consultant conducted the interviews for respondents who had difficulty filling out the questionnaire on their own due to reading or writing difficulties.
Main survey items	・ Did the pupils' motivation to learn change after the completion of the project? What are the possible reasons for changes or a lack thereof? ・ Did the pupils' motivation to go to school change after the completion of the project? What were the possible reasons for changes or a lack thereof? ・ Have separate toilets for boys and girls changed pupils' willingness (especially girls) to go to school?

(1) Improvement of Pupils' Motivation to Learn[27] by Improving the Educational Environment

The qualitative survey results showed that 95% (100 respondents) indicated that pupils' learning motivation improved after the project was completed.

Specific examples include "Pupils now respond more actively in class," "Children listen to the lesson more intently" (teachers' responses), "I can concentrate on what the teacher says," and "We can take notes at our desks" (pupils' responses). As shown in Table 8, "The classroom is more spacious" and "Better ventilation (no more humidity and heat)" accounted for about half of the reasons. In particular, the most common reasons given by the pupils were "I can be seated comfortably" and "Ventilation improved."

As mentioned in "3.3.1 Effectiveness," before the project implementation, none of the schools had classrooms with permanent materials and less than 50 pupils per classroom, and the pupils sat on the floor or at desks and chairs, with three to four pupils for every two sets of desks and chairs. In addition, when it rained, it was difficult for the pupils to concentrate in class because their textbooks, notebooks, and the pupils themselves got wet due to roof leaks. Therefore, the learning environments were unfavorable, and the pupils could not concentrate in class. As a result of this project, the learning environments at the target schools have improved; children can now sit on two-seater chairs, maintain an appropriate distance from each other, and take notes on sturdy desks.

Table 7 Change in Motivation to Learn

Unit: persons

	There was a change (%)	Don't know (%)	No change (%)
Adult men	35 (94.6%)	2 (5.4%)	0 (0%)
Adult women	26 (89.7%)	3 (10.3%)	0 (0%)
Male pupils	20 (100.0%)	0 (0%)	0 (0%)
Female pupils	19 (100.0%)	0 (0%)	0 (0%)
Total	100 (95.2%)	5 (4.8%)	0 (0%)

Source: Qualitative survey results

[27] In the qualitative survey, the local consultant asked about willingness to attend school and willingness to learn separately. When the local consultant explained the difference, the respondents could not clearly distinguish between the two. In fact, the responses were almost the same, so in this report, they are summarized as willingness to learn.

Table 8 Reasons for Improved Motivation to Learn (multiple answers)

Unit: persons

Reasons	Adults (Yes = 61)		Pupils (Yes = 39)		Overall (Yes = 100)	
	Number of answers	Ratio	Number of answers	Ratio	Number of answers	Ratio
Classroom size	13	21.3%	14	35.9%	27	27.0%
Classroom ventilation	13	21.3%	17	43.6%	30	30.0%
Teachers' teaching methods and approaches to pupils	3	4.9%	11	28.2%	14	14.0%
Proper seating [Note]	6	9.8%	17	43.6%	23	23.0%
Building (new, clean)	16	26.2%	23	59.0%	39	39.0%
Easy to see blackboard	0	0.0%	4	10.3%	4	4.0%

Source: Qualitative survey results

Proper seating = being able to sit at a sturdy table and chairs without feeling cramped or sitting on the floor

(2) Appropriate Class Management by Teachers Through Improvement of the Educational Environments (Proposed Complementary Indicator)

The construction of solid classrooms with permanent materials not only enabled pupils to concentrate on their lessons but also brought about an improvement in teachers' class management. Before the project was implemented, the children were unable to concentrate on their lessons in the poor learning environments, and the teachers were also unable to concentrate on teaching. It was confirmed that the improvement of the educational environment enabled the teachers to concentrate on teaching.

(3) Improvement of Female Pupils' Motivation to Go to School by Providing Separate Toilets for Boys and Girls

As a result of the qualitative survey, 65% of the respondents indicated that the construction of separate toilets for boys and girls positively affected pupils. The specific reasons for this were "Each gender can use the toilet with peace of mind" and "The privacy of each gender is respected." However, regarding the change in motivation to learn after the project completion, no respondents cited the toilets as the reason for their improved motivation. Seven out of 10 girls who had reached menarche among the 20 female pupils surveyed in the qualitative survey cited soiling their clothes with menstrual blood as a menstrual problem, but difficulty in going to the toilet or in using the toilets was not mentioned as a factor. In addition, regarding coping with menstruation, female pupils who had reached menarche wanted the school to provide disposable sanitary products, but no specific requests were made regarding toilets. Thus, the impact of improving girls' motivation to go to school through the provision of separate toilets for boys and girls, which was expected at the time of the planning, was not confirmed.

According to the interviews with several school directors[28] that the external evaluator conducted during the school visits in parallel with the qualitative survey, while separating the toilets by gender is important for both boys and girls to use the toilet with peace of mind, it was confirmed that many of the families of the pupils at the target school do not have toilets at home, and whether or not the toilets are separated by gender does not have much of an effect on the pupils' motivation to go to school. In addition, it was confirmed that both the parents and the pupils place more importance on comfortable learning environments and school lunches than on the toilets.

3.3.2.2 Other Positive and Negative Impacts

(1) Impacts on the Environment

There were no negative environmental impacts from the implementation of this project.[29]

(2) Resettlement and Land Acquisition

The project was classified as Category C based on *JICA's Guidelines for Environmental and Social Considerations (April 2010)*, as it had few undesirable impacts on the environment and society.[30] In fact, resettlement and land acquisition did not occur, as the site selection criteria required that there were no environmental and social concerns and that resettlement was not necessary.[31]

(3) Gender Equality/Marginalized People/Social Systems and Norms, Human Well-Being, and Human Rights

The effectiveness of the multipurpose toilets and ramps installed by the project was confirmed: three children with leg disabilities attend WOMEY-YENAWA Pre-primary School and use the ramp to enter the classroom.[32] The other target schools have never received children with disabilities before, so the effectiveness of these facilities cannot be confirmed.

With regard to those living in poverty, who are likely to be relatively left behind in terms of project effects, it was confirmed that some children in the commune were not enrolled in school, even though school facilities were accessible and the school fee was free; they did not attend school because of economic reasons such as the inability to purchase school uniforms and supplies.[33] In fact, in the eight primary schools where the qualitative survey was conducted, 61

[28] SEY-MATANDE Primary School (Toffo commune), TANGBO-DO Primary School (Zè commune), HOUEDAZOUNKPA Primary School (Zè Commune), SENANDE Primary School (Kpomassé commune), GBETO Primary School (Allada commune), AGBANDONOU/B Primary School (Allada commune)

[29] Answers to the questionnaire by the executing agency and the consultant

[30] Ex-ante evaluation sheet p. 2.

[31] Answers to the questionnaire by the consultant

[32] Onsite inspection by the external evaluator

[33] Qualitative survey and interviews with school directors by the external evaluator (TORI-CADA-GBEGOUDO

of the 93 respondents (65%) indicated that some children of school age were not enrolled in school within the commune. The main reasons were financial (inability to purchase study supplies, and inability to pay for refreshments and school lunches[34]) (44% of the above 61 respondents), the child's willingness (21% of the above respondents), and the parents' unwillingness (not understanding the need for school attendance) (11% of the above respondents). In addition, some children in the target schools did not attend school or only attended in the morning so as to help their parents with farm work or at the market.

(4) Unintended Positive/Negative Impacts

None in particular.

<Conclusion in terms of LNOB>

(1) There was an increase in motivation to learn, regardless of gender, when the learning environments were improved.

(2) Regarding the relationship between toilets and female pupils' motivation to go to school, toilets cannot be a factor promoting motivation, as parents placed more importance on solid facilities and school lunches than on toilets, and female pupils mentioned the provision of disposable sanitary products as a request to the schools.

(3) The effects of the project's installation of multipurpose toilets and ramps for children with disabilities were confirmed by the use of the ramps in a pre-primary school that received children with leg disabilities. Other surveyed schools have never received children with disabilities, and the effect could not be confirmed.

(4) Regarding those living in poverty, who are likely to be relatively left behind in terms of the project effects, it was confirmed that some children could not attend school even if school facilities were constructed and school tuition was free, due to economic reasons such as the inability to purchase school uniforms and supplies.

The construction of classrooms through this project achieved the target value on the number of pupils learning in classrooms that can be used continuously, which was the operation and effect indicator. In addition, although none of the schools met both criteria for classrooms of permanent materials and the number of pupils per classroom before the project implementation, the number of schools satisfying these criteria increased at the time of the ex-post evaluation. Moreover, the

Primary School (Toffo commune), HOUEDAZOUNKPA Primary School (Zè Commune), KPODJAVA Primary School(Allada Commune), TOGAZOUN Primary School (Allada commune), AGBANDONOU/B Primary School (Allada commune)). However, although the survey confirmed the existence of children not enrolled in school, the external evaluator did not directly survey such children or their parents.

[34] Parents pay an average of 25 FCFA (6.5 yen) per lunch, and snacks sold in the school around 10:00 a.m. cost an average of 25-50 FCFA (6.5-13 yen). These fees are used to purchase materials. Japanese yen figures are calculated based on JICA's settlement rate for June 2024 (1 FCFA = 0.258840 yen). (source: interview with the MEMP).

project has also produced positive results in motivation to learn and improved class management, and the objective of the project, "to improve access and learning environments in primary and pre-primary education in the target areas," appears to have been achieved.

In light of the above, this project has mostly achieved its objectives. Therefore, effectiveness and impacts of the project are high.

3.4 Sustainability (Rating: ④)

3.4.1 Policy and System

PAG 2021-2026 identifies "improving the quality of education" as one of its priority areas,[35] and the policy is still valid at the time of the ex-post evaluation.[36] *Plan Sectoriel de l'Education Post 2015 (2018-2030)* is also valid for education sector policies.

Based on the above, the government of Benin emphasizes the development of facilities for primary and pre-primary education at the time of the ex-post evaluation, and thus sustainability in terms of policy and system is ensured.

3.4.2 Institutional/Organizational Aspect

The education sector structure includes the DDEMP, a subordinate body of the MEMP, and the CS, a subordinate body of the DDEMP at the commune level, which oversees educational activities under its jurisdiction.

As mentioned in "3.2.1 Project Outputs, (1) Output on the Japanese Side, 2) Soft Component," when the soft component on the appropriate use of toilets was implemented, the MEMP explained the purpose and content of the soft components to the DDEMP and CS; the DDEMP and CS staff already understood the soft components when the Japanese consultant in charge of the soft component visited the target schools. In addition, many APE members and local government officials attended awareness-raising sessions held at the schools. Furthermore, regarding the question concerning measures against defects in facilities or equipment that the school is unable to handle, many responded that the school would contact the CS, and the CS would take measures along the appropriate administrative lines, indicating that a relationship of trust has been established between the educational administrative body and the school.

[35] *PAG* p. 13.
[36] Answer to the questionnaire by the MEMP

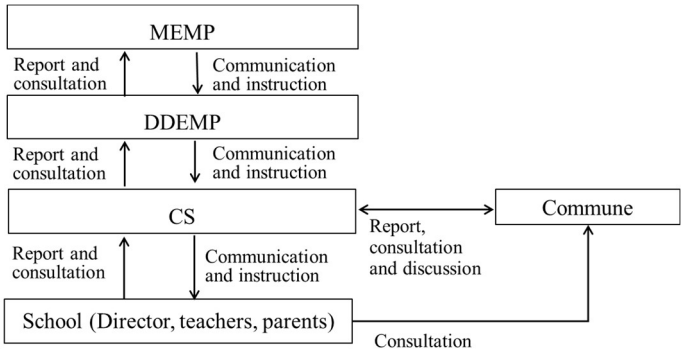


Figure 1 Organizational Chart in School Operation and Maintenance

Primary schools have a homeroom teacher system at the school level and are run by a director and five teachers.[37] When government teachers cannot cover school operations due to a shortage of teachers, measures are taken, such as assigning interns, communities hiring teachers, or combining classes. At the time of the defect inspection, 19 classrooms in 10 schools[38] were confirmed not to be utilized, mainly due to a shortage of teachers. Therefore, the Japanese consultant in construction supervision requested the MEMP to promptly assign the necessary number of teachers to each school to ensure that all classrooms would be utilized and to achieve the project objective of improving the learning environments. At the time of the ex-post evaluation, this situation had improved, and teachers were generally assigned without problems. According to the answers to the questionnaire to the target schools, 21 schools indicated that the number of teachers was sufficient, 11 schools indicated that it was insufficient, and one school was not certain about it.[39] For the 11 schools that indicated a shortage, the community employed teachers to meet the required number of teachers in five schools. Another six schools were in the process of requesting teacher assignments from the MEMP via CS.

One qualified pre-primary school teacher and an assistant teacher are assigned to each class in

[37] In Benin, as a general rule, the maximum size of a single primary school consists of six classrooms (one classroom for each grade level). If the number of pupils increases and the school is to have seven classes or more, an application for extension is filed with the MEMP; when the seventh or eighth class is established and the ninth class is ready, an application for secession is filed, and if approved, a new group school is established on the same site or in the neighborhood. Schools belonging to a group school are named in order of the oldest year of establishment + A, B, C. (source: Preparatory Survey Report p. 1-18)

[38] TORI-CADA-GBEGOUDO Primary School (Tori Bossito commune), BAZOUNKPA Primary School (Ouidah commune), SAVI-LOKOSSA Primary School (Ouidah commune), GOMEY-NORD/AB Primary School (Ouidah commune), SEY-MATANDE Primary School (Kpomassé commune), HOUEGBO-GARE/C Primary School (Toffo commune), TANGBO-DO Primary School (Zè commune), WINYIKPA-CENTRE Primary school (Allada commune), TOGAZOUN Primary school (Allada commune), MISSESSINTO Primary School (Abomey-Calavi commune)

[39] Of the 11 schools that reported shortages of teachers, the five schools where communities have hired teachers to meet the number of teachers needed are SEGBEYA 3 Primary School (Kpomassé commune), WOMEY-SODO/ AB Primary School (Abomey-Calavi commune), KPODJAVA Primary School (Allada commune), DJEKPOTA Primary School (Abomey-Calavi commune), TAKILI Primary School and WOMEY-YENAWA Pre-primary School (Abomey-Calavi commune). The six schools that have requested the MEMP to assign teachers are GBEDJOUGO/B Primary School (Tori Bossito commune), HOUEDAZOUNKPA Primary School (Zè commune), DEKAME/B Primary School (Kpomassé commune), KPODJAVA Primary School (Allada commune), TOGAZOUN Primary School (Allada commune), and WOMEY-YENAWA Pre-primary School. The school that responded "don't know" is GBEDJOUGO/B Primary School (Tri Bossito commune).

pre-primary schools. The government hires the teacher only and basically, the community hires the assistant teachers. From the planning to the ex-post evaluation, there was no shortage in the number of teachers.

At the school level, all of the target schools have an APE comprising approximately ten members. At regular meetings (held at the beginning and end of the school year), the APE approves the use of operating funds, activity plans, and expenditure reports; and reports on the acceptance of teaching materials etc. It is also responsible for inspecting and repairing school facilities and equipment, hiring teachers when there is a shortage, and considering ways to secure water sources. In fact, in cases in which there is a shortage of teachers, communities hire teachers, and in cases in which schools are closed due to a lack of pupils, the APE president visits households with the school director to encourage pupils to go to school. In schools where there is no water source, the APE collects funds from pupils' parents and extends pipes from nearby water pipes to the school compound.[40] Many APEs were found to be actively supporting school management in cooperation with schools and commune governments.

In light of the above, the sustainability of institutional/organizational aspect is ensured.

3.4.3 Technical Aspect

Table 9 shows the frequency of daily cleaning of school facilities. In primary schools, pupils clean the classrooms and toilets regularly under the guidance of teachers and upper-grade pupils. In primary school classrooms, brooms are placed at the back of the classrooms or under the desks of the pupils on duty so that they are always ready for cleaning. Toilets are cleaned once a week on Wednesdays or Fridays or twice a week on Wednesdays and Fridays, on fixed days, so that pupils know which day to clean.[41] In the pre-primary schools, teachers clean classrooms and cleaners employed by the pre-primary schools clean toilets.

Table 9 Frequency of Cleaning Classrooms and Toilets, Water Use for Cleaning Toilets

Unit: Schools

Frequency of classroom cleaning		Frequency of toilet cleaning		Toilet cleaning with water	
Frequency	Answer.	Frequency	Answer.	Frequency	Answer.
Every day	24	Every day	4	Always	25
Once a week	5	Once a week	15	Sometimes	7
Once a month	2	Twice a week	8	No answer	1
Three times a week	1	Three times a week	3	Total	33
Nine times a week	1	Once a month	2		
Total	33	No answer	1		
		Total	33		

Source: Answers to the questionnaire by the target schools

[40] AGBANDONOU/B Primary School (Allada commune), HOUEGBO-GARE/C Primary School (Toffo commune)
[41] Answers to the questionnaire by the target schools, interviews with pupils

Ninety percent of the target schools regularly inspect school facilities and furniture. In addition to the regular facility and equipment inspections by the schools, the DDEMP conducts annual on-site inspections of school facilities and equipment.

Table 10 Frequency of Inspection of School Facilities and Furniture

Unit: Schools

Frequency	Answer
Every day	9
Twice a month	4
Once a month	5
Quarterly	6
Semiannual	1
Once a year	4
Not implemented (implemented when problems occur)	1
No answer	3
Total	33

Source: Answers to the questionnaire by the target schools

The schools or their APEs have repaired minor defects in all schools. No major malfunctions have occurred to date. According to the answers to the questionnaire, if significant repairs are needed in the future, the schools and APEs will work together to report to the CS and DDEMP to request funds for repairs. They will also work with the local government to seek support from NGOs. In fact, if a school needs to spend more than its operating budget for repairs, the school will ask the CS for assistance, and the CS will ask the commune's government for assistance.

As described above, pupils carry out the daily maintenance of school facilities at all target schools at a frequency determined by the schools. Problems are handled appropriately, and there are no major technical problems.

3.4.4 Financial Aspect

The MEMP distributes 150,000 FCFA (about 38,826 Japanese yen[42]) per classroom per year as a subsidy for the operation and maintenance of primary and pre-primary schools. The MEMP budget is stable, and the school subsidies are distributed without delay. These subsidies are used to pay for chalk, teachers' notebooks, photocopying, electricity, water, and school facilities and equipment repairs.

[42] JICA 2024 settlement rate June (1 FCFA = 0.258840 yen)

Table 11 MEMP's Financial Statements

Unit: thousands of CFA francs

	2021	2022	2023	2024
(1) Current expenditure				
Personnel	87,018,982	109,030,630	121,964,306	128,488,201
Purchase of goods and services	11,897,619	8,493,768	16,487,773	20,215,196
Transfer (subsidies for schools, the commune development support fund, etc.)	28,163,878	21,905,062	21,105,545	21,105,545
Acquisitions and major repairs, etc.	250,000	250,000	200,000	200,000
Sub-total of current expenditure	127,330,479	139,679,469	159,757,624	170,008,942
(2) Capital expenditure				
Internal funds	8,772,970	7,612,036	88,861,085	7,884,000
External funds Note	0	9,146,625	0	0
Sub-total of capital expenditure	8,772,970	16,758,661	88,861,085	7,884,000
Total	136,103,449	156,438,130	248,618,709	177,892,942

Source: Documents provided by the executing agency

Note: External funds are included only in FY2022 because the FY2022 budget included funds for a construction project (IDB Phase 4) financed by the Islamic Development Bank. No external funding was planned for other years.

Based on the records of their income and expenditure over the past 3 years, it was confirmed that all of the target schools were operating within their budgets and that budget shortfalls did not cause particular problems in the operation and maintenance of the schools.[43] In public primary and pre-primary schools in Benin, when expenditures are required to the extent that subsidies could not cover, such as major repairs, the schools request assistance from the CS, and the CS requests assistance from the commune's government. The commune government allocates an annual budget for the maintenance of school facilities, and when several schools request assistance for maintenance, the CS and the commune's government prioritize and decide the budget allocation through consultations. Such support by the education sector and the local government has generally been functional from the time of planning to the time of ex-post evaluation.

As described above, the budget for school operation and maintenance has been secured, and there are no particular problems with financial sustainability.

3.4.5 Environmental and Social Aspect

No environmental or social impacts were identified, which were confirmed in "Impacts" and had not been anticipated at the planning time.

[43] Answers to the questionnaire by the target schools

3.4.6 Preventative Measures to Risks

No risks were assumed at the time of planning, and no risks were encountered during the project's implementation.

3.4.7 Status of Operation and Maintenance

(1) Operational Status of School Facilities at the Time of Ex-post Evaluation

- Classrooms

At the time of the ex-post evaluation, 14 classrooms in seven schools were not being utilized; three of the seven schools had a shortage of pupils, one school had a shortage of teachers, and three schools were applying for extension or scission.[44] At the time of the planning, one school (TOGAZOUN Primary School) had 76 pupils attending, but as of January 2024, the number of pupils has dropped to 10, and the school is closed, mainly due to family economic circumstances and the parents' unwillingness. The MEMP is considering how to use the school facilities until sufficient pupils can be secured.

- Directors' offices, toilet booths

All facilities constructed were used as intended.

- Warehouses

All the warehouses constructed were used as intended for storage of educational materials and food for school lunches, but several schools commented that they wished for more ingenuity in design. The open ventilation space between the top of the wall and the roof has induced theft, and thus they have placed blocks in the gap to prevent theft.

- Hand-washing tanks

Hand-washing tanks were not used in 16 of the 33 target schools. The main reasons cited by 12 schools[45] were theft or malfunction of the faucets, rust inside the tanks, and inability to remove the padlocks on the faucets, while four schools[46] cited difficulty in securing water. When the hand-washing tanks installed by the project are not in use, pupils wash their hands with water from mobile polyethylene tanks in front of the classroom buildings or from plastic bottles from

[44] Unused classrooms are SEY-MATANDE Primary School in Toffo commune (1 classroom), WINYIKPA-CENTRE Primary School in Allada commune (3 classrooms), and TOGAOUN Primary School (3 classrooms) due to lack of pupils. BAZOUNKPA Primary School (2 classrooms) in Ouida commune, COLLI-BOSSOUVI/C Primary School (1 classroom) and HOUEGBO-GARE/C Primary School (3 classrooms) in Toffo commune are due to pending extension or secession applications, and WOMEY-YENAWA Pre-primary School (1 classroom) in Abomey-Calavi commune is due to the lack of teachers.

[45] FINAGNON Primary School (Tori Bossito commune), GBEDJOUGO Primary School (Tori Bossito commune), TORI-CADA-GBEGOUDO Primary School (Torri Bossito commune), SEY-MATANDE Primary School (Toffo commune), TANGBO-DO Primary School (Zè commune) DEKANME Primary School (Kpomassé commune), SEGBEYA3 Primary School (Kpomassé commune), KPODJAVA Primary School (Allada commune), AGBANDONOU/B Primary School (Allada commune), DOGOUDO-DANKOLI/B Primary School (Abomey-Calavi commune) TOGOUDO/BC Primary School (Abomey-Calavi commune), ZINVIE-CENTR Pre-primary School (Abomey-Calavi commune)

[46] HOUEGBO-GARE/C Primary School (Toffo commune), HOUEDAZOUNKPA Primary School (Zè commune), SENANDE Primary School (Kpomassé commune), TOGAZOUN Primary School (Allada commune)

home.

(2) Status of Operation and Maintenance of School Facilities at the Time of Ex-post Evaluation

Table 12 shows the status of operation and maintenance of school facilities and equipment based on on-site observation. Except for the hand-washing tanks, classrooms, toilets, and furniture such as desks, chairs, and blackboards were all maintained in good condition.

As for the classrooms, they are kept clean and well maintained with regular cleaning, as described in "3.4.3 Technical Aspect" of Sustainability. As for the desks and chairs, although there were some loose or detached screws on the tops of desks and seat plates of chairs, there were no signs of graffiti on the tops or intentional scraping of the tops by the pupils, and they were generally in good condition.

Regarding the toilet booths, there was very little soiling of the toilet bowls or the area around the toilet bowls in any of the schools, and there was no accumulation of excreta in the toilet pits. According to the answers to the questionnaire regarding the timing of removal of excreta, the target schools are aware that excreta should be removed when it accumulates.[47]

One reason for such well-maintained facilities and equipment is that regular cleaning by pupils, under the guidance of teachers, has become an established practice. In fact, in the schools that the external evaluator visited, pupils were aware of what days of the week they should clean the toilets. When asked what they would do if they found an unsanitary toilet, the children responded appropriately, saying things like "flush it with water" and "throw the trash away in the provided trash can."

[47] The plan at the time of the preparatory survey assumed that toilet sediments would be removed every 5 years (source: Preparatory Survey Report, p. 3-61).

Table 12 Status of Operation and Maintenance of School Facilities and Equipment

Unit: Schools

Observation part	Observation items	Good	Functioning with some problems	Not functioning due to problems
Exterior of the classroom building	Exterior walls of classroom building (peeling paint, cracks)	31	2	0
	Classroom building corridors, stairs, and ramps (leaks, cracks, broken PVC pipes for drainage)	31	2	0
Interior of the classroom building	Ceiling (leak)	33	0	0
	Floor (cracks and peeling mortar)	33	0	0
	Door (mounting hardware, door handles, and locks)	33	0	0
	Windows (fittings)	33	0	0
Classroom furniture	Pupils' desks and chairs (tops, screws, seat boards)	33	0	0
	Teacher's desks and chairs (tops, screws, seats, drawers)	33	0	0
	Blackboards (painting, damage)	32	1	0
	Storage shelves (doors, shelves)	33	0	0
Director's office furniture	Directors' desks and chairs (tops, screws, seats, drawers)	26	2	0
	Visitors' chairs (tops, screws, seats)	28	0	0
Toilet booth	Exterior walls and corridors (cracks, paint)	32	1	0
	Door (mounting hardware, door handles, and locks)	33	0	0
	Interior (toilet bowl, floor)	31	2	0
	Accumulation of excreta	33	0	0
Hand-washing tank	Exterior (peeling paint, faucets), interior (rust)	17	0	16

Source: Field survey

Photo 4: Well-maintained desks and chairs (TOGOUDO/BC Primary School) (source: photo taken by the external evaluator)

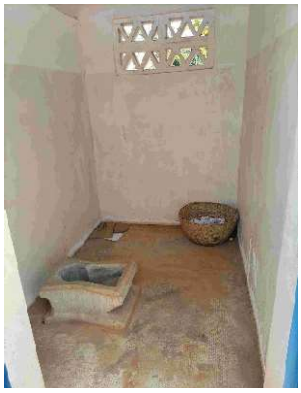


Photo 5: A clean and well-maintained toilet. In the back is a trash bin to dispose of paper after use. (TORI-CADA-GBEGOUDO Primary School) (source: photo taken by the external evaluator)

Based on the above, no issues have been observed in the policy/system, institutional/organizational, technical, financial, and environmental and social aspects, including the current status of operation and maintenance. Therefore, sustainability of the project effects is very high.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This project was implemented to improve access to primary and pre-primary education and learning environments by constructing additional classrooms and providing classroom furniture in the Atlantique Department, thereby contributing to improving the quality of education in the target area.

The objective of the project is consistent with the development policy of the government of Benin, which emphasizes improvement of the quality of education, and with the education sector policy, which emphasizes infrastructure development for primary and pre-primary education from the time of ex-ante evaluation to ex-post evaluation. In addition, the project is consistent with Benin's development needs, as there is a high need for development of educational facilities. Although the objective of this project and Japan's ODA policy for Benin is coherent, no specific collaboration with other projects within JICA or coordination with organizations other than JICA was envisaged during the ex-ante evaluation, and effects were not confirmed. Therefore, relevance and coherence are high. Regarding the outputs, the project cost was within the plan for reasons such as the exclusion of three target schools due to coordination with other projects. Although the project period exceeded the plan, efficiency of the project is high as a whole. As a result of the project's implementation, the number of classrooms that can be used continuously in target schools and the number of pupils in target schools who study in the classrooms that can be continuously used achieved target values. In addition, the project's impact on improving learning environments was also confirmed, with improvements in pupils' motivation to learn and in the way the teachers manage classes. The project has mostly achieved its objectives. Therefore, effectiveness and impacts of the project are high. No issues have been observed in the policy/system, institutional/organizational, technical, financial, environmental, and social aspects, including the current status of operation and maintenance. Therefore, sustainability of the project effects is very high.

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

4.2 Recommendations

4.2.1 Recommendations to the MEMP (including subordinate organizations)

(1) Early Reopening of the Closed School

Regarding the TOGAZOUN Primary School in Allada commune, which has been closed since January 2024 due to a lack of pupils, it is desirable that the MEMP, the DDEMP, the CS, and other

Benin-side parties should urgently consult officials of the local governments such as commune and arrondissement and reopen it if possible. If there is no prospect of reopening it, it is desirable to use the school facilities effectively for community activities, literacy classes, etc.

(2) Securing Water Sources

For schools without a water source within the school compound, it is desirable to seek financial support from NGOs, donors, and communes and take an action to secure one. In fact, some schools have secured water sources on their school grounds by utilizing subsidies and support from the commune, and there are also schools that have made plans to secure water sources in the same way. It is expected that sharing such good practices will expand the possibilities of securing water sources for schools without a water source.

4.2.2 Recommendations to JICA

Regarding the TOGAZOUN Primary School, which has been closed since January 2024 due to a lack of pupils, the MEMP is considering how to use the school facilities effectively. The JICA Benin Office should work with the MEMP to monitor progress toward reopening the school. If there is no progress, it is desirable to confirm with the MEMP about using the school facilities effectively.

4.3 Lessons Learned

Consideration of Equipment that Suits Local Conditions

The hand-washing tanks installed in front of the toilet booths in this project were not utilized in 16 of the 33 schools due to theft or damage to the faucets, rust inside the tanks, and difficulty securing water.

Schools secure water for hand-washing and cleaning according to their situation, for example, by obtaining water from a polyethylene tank with a faucet or from an onsite water source, by having pupils go offsite to fetch water and store it, or by having pupils bring water from home. Even if the hand-washing tanks provided by the project are not available, each school has a large-capacity hand-washing tank with a faucet installed in front of the classroom building for hand-washing. It seems that during the planning stage, insufficient consideration was given to how to sustainably use the hand-washing tanks, including such elements as the tank material, types that would not attract theft, anti-theft measures, and methods of securing water. When installing similar equipment — for example, in the case of securing a water source — it is desirable to consider how to develop a water source, including the possibility of support from the community and local government and collaboration with NGOs. Considering the tank type, it is desirable to consider the kind of equipment to be installed in the project after studying the type of tanks available locally (e.g., polyethylene tanks with faucets).

5. Non-Score Criteria

5.1 Performance

5.1.1 Objective Perspective

During the coronavirus pandemic, JICA and the consultant were able to conduct remote supervision through appropriate and close communication, including new coronavirus infection control measures, regular online meetings, emails, and phone calls.[48]

5.2 Additionality

None.

(End)

[48] Answers to the questionnaire by JICA and the consultant