

Republic of Senegal

FY2017 Ex-Post Evaluation of Japanese Grant Aid Project

“Project for construction of classrooms for primary and secondary schools in Dakar and Thiès Regions”

External Evaluator: Akemi Serizawa, TAC International, Inc.

## **0. Summary**

The objective of this project was to improve learning environment of the target primary and secondary schools in Dakar and Thiès Regions and to strengthen stakeholders’ motivation to participate in maintenance of school facilities by construction of schools, provision of furniture and implementation of soft component to strengthen capacity in maintenance, thereby contributing to the improvement of pupils’ motivation to attend schools, school attendance situation, and consciousness of hygiene.

Relevance of the project is high as it has been highly relevant to the country’s development plan and development needs, as well as Japan’s ODA policy. Efficiency of the project is fair because, although the project cost was within the plan, the project period exceeded the plan. Effectiveness and impacts of the project are high because it has largely achieved its objectives. The main objective, improvement of learning environment, was achieved. Other intended effects such as improvement of stakeholders’ motivation to participate in maintenance of school facilities and pupils’ motivation to attend school, school attendance situation as well as consciousness of hygiene were achieved to a certain extent, while the causality with this project was not very clear. No serious problems were observed in the institutional and financial aspects of operation and maintenance. There is a minor problem in the technical aspects because they do not prepare annual maintenance plans while the target schools perform daily cleaning and small repair as necessary and the have minimum maintenance skills. Since some schools do not fix minor malfunctions or break downs of facilities, there are some problems in the status of operation and maintenance. Sustainability of the project effects is fair because there are minor problems in technical aspect and status of operation and maintenance as stated above.

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

## 1. Project Description



Project locations



Classrooms constructed by the project  
(Cheikh Awa Balla Mbacké Secondary School,  
Dakar Region)

### 1.1 Background

The gross enrolment ratio<sup>1</sup> for primary education<sup>2</sup> in Senegal improved from 75.8% (2003) to 94.4% (2010) and that for lower secondary education<sup>3</sup> improved from 27.2% (2004) to 45.0% (2010). With the improvement of enrolment ratio, primary and secondary schools needed more classrooms. In the school year 2008/09, 17% of the utilized classrooms of primary schools and 13% of those of secondary schools were temporary structure or deteriorated. Since 1991, Japan's five Grant Aid Projects constructed about 1,800 classrooms and contributed to the increase of classrooms in Senegal. However, the shortage of classrooms was still serious, and some schools had congested classrooms and double-shift system. Under these circumstances, this project constructed classrooms and toilets of 31 primary and secondary schools in Dakar and Thiès Regions at the request of the Government of Senegal.

### 1.2 Project Outline

The objective of this project is to improve learning environment of the target primary and secondary schools in Dakar and Thiès Regions and to strengthen stakeholders' motivation to participate in maintenance of school facilities by construction of school facilities, provision of furniture and implementation of soft component to strengthen capacity in maintenance, thereby contributing to the improvement of pupils' motivation to attend schools, school attendance situation and consciousness of hygiene.

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<sup>1</sup> Gross enrolment ratio is number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education.

<sup>2</sup> Primary education in Senegal is for six years. The grades are CI (cours initial: introduction), CP (cours primaire: primary), CE1 & CE2 (cours élémentaire: elementary), and CM1 & CM2 (cours moyen: intermediate).

<sup>3</sup> Lower secondary education in Senegal is for four years. The grades are from 6ème (6th) to 3ème (3rd).

Grant Limit / Actual Grant Amount	1,213 million yen / 1,213 million yen
Exchange of Notes Date (/Grant Agreement Date)	March 2011 / March 2011
Executing Agency	Ministry of National Education
Project Completion	July 2014
Main Contractor(s)	Civil engineering: Générale d'Entreprises Equipment: SISMAR
Main Consultant(s)	Mohri, Architect & Associates, Inc.
Procurement Agency	Japan International Cooperation System (JICS)
Outline Design	July 2010 – March 2011
Related Projects	<p><u>Technical cooperation</u>  “Project for the improvement of school environment” (2007-2010) (Louga Region)  “Project for the improvement of school environment Phase 2” (2010-2015)” (whole country)</p> <p><u>Grant aid</u>  “Project for construction of classrooms of primary schools I” (1991) (Dakar Region)  “Project for construction of classrooms of primary schools II” (1994) (Dakar and Thiès Regions)  “Project for construction of classrooms of primary schools III” (1997) (Dakar and Thiès Regions)  “Project for construction of classrooms of primary schools IV”(2001) (five regions including Dakar and Thiès)  “Project for provision of school materials for primary schools” (2002) (provision of materials for the target schools in the previous grant aid projects)  “Project for the construction of classrooms for secondary schools in the suburbs of Dakar” (2013)  “Project for the construction of classrooms for secondary schools in Kaolack, Thiès and Fatick Regions (2015)</p> <p><u>Other development organizations</u>  French Development Agency (Agence Française de Développement: AFD) “Project to support development of secondary education in Dakar Region” (2014-2018)  Italy: Project for support basic education system (2016-2019)</p>

## 2. Outline of the Evaluation Study

### 2.1 External Evaluator

Akemi Serizawa, TAC International, Inc.

### 2.2 Duration of Evaluation Study

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

Duration of the Study: August 2017 – September 2018

Duration of the Field Study: November 19-29, 2017 and February 18-28, 2018

### **3. Results of the Evaluation (Overall Rating: B<sup>4</sup>)**

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

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

The national education policy at the project design, *The National Education and Training Development Plan (Plan national de développement de l'éducation et de la formation: PNDEF) Phase 3 (2009-2011)*, aimed to improve gross enrolment for primary education to 96%, that for lower secondary education to 47%, and the transition rate from primary to lower secondary education to 68%. This project was to contribute to the achievement of these goals (source: project ex-ante evaluation sheet).

The national education policy at the time of ex-post evaluation, *The Programme for the improvement of quality, equity and transparency of the education and training sector (Programme d'Amélioration de la Qualité, de l'Équité et de la Transparence (PAQUET) Secteur Education Formation) (2013-2025)*, aims at the improvement of access to education responding to individual needs. In 2017, gross enrolment for primary education was 87%, that for lower secondary education was 51%, and the transition rate from primary to lower secondary education was 65%. Further improvement is required to achieve the targets set by *PAQUET* by 2025, which are 98%, 67% and 84% respectively<sup>6</sup>.

The project is in line with the national education policy of Senegal to improve school attendance both at the project design and at the ex-post evaluation.

##### 3.1.2 Consistency with the Development Needs of Senegal

At the project design, the demand for construction of classrooms was high in the project target areas due to the improved enrolment ratio, increased number of pupils and deterioration of classrooms (source: project ex-ante evaluation sheet).

The situation at the ex-post evaluation is shown in Table 1. Primary and secondary enrolment ratio and transition rate to the secondary education in Dakar and Thiès Regions were considerably higher than the national average. Number of pupils per classroom in the two regions was also higher than the national average. Some schools visited during the ex-post evaluation had congested classrooms accommodating 60 pupils or more, or had double shift system. At the time of ex-post evaluation, number of classrooms was not sufficient compared to the number of pupils, and the needs to construct classrooms still existed. The selection of the

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

<sup>5</sup> ③: High, ②: Fair, ①: Low

<sup>6</sup> Source: *PAQUET, National report of educational situation (Rapport national sur la situation de l'Education: RNSE) 2017*, information provided by the Ministry of National Education

project target areas and schools was appropriate.

From the above, the project responded to the needs of the project target areas both at the project design and at the ex-post evaluation.

Table 1. School attendance in the project target regions, primary and secondary education

	2000-2003 Actual	2007-2009 Actual	2009/10 Actual			2017 Actual		
			National	Dakar Region	Thiès Region	National	Dakar Region	Thiès Region
Gross enrolment, primary education	75.8% (2003)	92.5% (2009)	84.7% M 80.7% F 89.1%	100.3% M 98.6% F 102.0%	92.8% M 88.4% F 97.6%	87.3% M 81.1% F 93.9%	104.5% M 100.3% F 108.7%	104.4% M 98.1% F 111.2%
Gross enrolment, lower secondary education	27.2% (2004)	41.4% (2009)	45.6% M 46.9% F 44.3%	65.7% M 65.6% F 65.9%	49.6% M 48.6% F 50.7%	51.2% M 47.2% F 55.4%	73.4% M 68.6% F 78.1%	64.4% M 57.3% F 72.1%
Transition rate from primary to lower secondary education	-	-	68.8% M 71.2% F 66.4%	76.8% M 77.8% F 76.0%	71.6% M 74.3% F 69.1%	66.4% M 67.5% F 65.4%	89.7% M 89.5% F 89.9%	71.3% M 72.5% F 70.2%
Number of pupils enrolled in CI (first grade of primary education)								
Number of pupils enrolled, primary	Dakar Region 303,294 Thiès Region 155,514 (2000)	Dakar Region 356,435 Thiès Region 231,721 (2007)	359,295 M 176,429 F 182,866	65,721 M 32,761 F 32,960	52,498 M 26,073 F 26,425	376,170 M 178,338 F 194,569	47,297 M 23,325 F 23,972	57,205 M 28,149 F 28,808
Number of pupils enrolled in 6ème (first grade of lower secondary education)								
Number of pupils enrolled, lower secondary	Dakar Region 94,685 Thiès Region 33,550 (2003)	Dakar Region 124,745 Thiès Region 61,299 (2008)	123,303 M 64,914 F 58,389	38,432 M 18,953 F 19,479	22,486 M 11,154 F 11,332	165,318 M 63,537 F 71,429	29,573 M 13,567 F 16,006	22,941 M 10,678 F 12,263
Retention rate, primary	-	-	6.4% M 6.4% F 6.4%	8.1% M 8.3% F 8.0%	6.0% M 6.1% F 6.0%	3.7% M 3.9% F 3.5%	3.1% M 2.9% F 3.2%	3.3% M 3.4% F 3.2%
Dropout rate, primary	-	-	10.3% M 10.4% F 10.2%	6.1% M 7.0% F 5.3%	8.6% M 8.6% F 8.7%	10.3% M 11.0% F 9.6%	3.9% M 5.1% F 2.3%	8.1% M 9.3% F 7.0%
Retention rate, secondary	-	-	17.1% M 16.8% F 17.5%	14.4% M 14.6% F 14.2%	16.9% M 16.3% F 17.5%	19.1% M 16.8% F 17.5%	12.0% M 14.6% F 14.2%	19.2% M 16.3% F 17.5%
Success rate of primary education completion exam (CFEE)*1	-	-	68.6% M 66.5% F 70.8%	73.5% M 74.8% F 72.3%	71.6% M 75.0% F 68.6%	56.7% M 59.4% F 54.5%	74.1% M 73.4% F 74.8%	56.7% M 60.1% F 54.1%
Number of pupils in primary schools	-	-	-	-	-	1,741,082	250,347	276,369

Number of classrooms, primary schools	-	-	-	-	-	46,532	4,724	6,093
Number of pupils per classroom, primary schools	-	76.7 (school year 2008/09)	-	-	-	37.4 (national standard: 47.8)	53.0	45.0
Number of pupils in secondary schools	-	-	-	-	-	826,521	161,420	144,014
Number of classrooms, secondary schools	-	-	-	-	-	17,975	2,586	2,510
Number of pupils per classroom, secondary schools	-	161.7 (school year 2008/09)	-	-	-	46.0 (national standard: 80.2)	62.4	57.4

Source: Data for 2000-2003 and 2007-2009: project ex-ante evaluation sheet; data for 2009-2010 and 2017: questionnaire response from the Ministry of National Education

1\*) Certificat de Fin d'Etude Elémentaire: Certificate of primary education completion

Note: "-" means "no data".

### 3.1.3 Consistency with Japan's ODA Policy

The project was expected to contribute to the improvement of access to basic education and its quality, which was one of the goals set by the 4th Tokyo International Conference on African Development (TICAD IV) in 2008. It was also expected to contribute to the achievement of universal primary education as one of the Millennium Development Goals (MDGs) as well as to the improvement of access to education, quality and management, which was included in Japan's country assistance policy for Senegal in April 2009. The project was in line with the Japan's assistance policies at the time of project design.

From the above, this project has been highly relevant to the country's development plan and development needs, as well as Japan's ODA policy. Therefore its relevance is high.

## 3.2 Efficiency (Rating: ③)

### 3.2.1 Project Outputs

#### 1) Construction of facilities

##### Outputs by the Japanese side

The project constructed classrooms, toilets and administrative blocks of 31 primary and secondary schools in Dakar and Thiès Regions. The number of classrooms and toilet booths was calculated as follows (source: documents provided by JICA):

- For each target school, anticipated number of pupils of school year 2012/13 was divided by the appropriate number of pupils per classroom (48 for primary school and 45 for secondary school)

to calculate appropriate number of classrooms. The minimum number of classrooms was six for primary school and four for secondary school in order that there was at least one classroom per grade. After deducting the number of existing classrooms in good condition from the appropriate number of classrooms, the project decided the number of classrooms to be constructed. In some schools which could not accommodate the calculated number of classrooms on the site, it was reduced to a realistic number.

• In principle, the project was to construct the same number of toilet booths as that of classrooms to be constructed. The minimum number of the toilet booths was six from the perspective of cost effectiveness. The project constructed equal number of booths for boys and girls. Two multipurpose booths for disabled persons and teachers, one for men and one for women, were included<sup>7</sup>.

The number of facilities was fixed after two detail designs as shown in Table 2 and they were constructed as planned. There were minor modifications of design such as layout in the compound, building materials and floor finish according to the actual situation of the project sites (source: documents provided by JICA). The Ministry of National Education and the procurement agency explained that these changes were appropriate with approval by JICA each time.

Table 2. Number of facilities constructed, plan (after two detailed designs) and actual

	Number of sites			Number of classrooms			Number of administrative blocks			Number of toilet booths		
	P	S	T	P	S	T	P	S	T	P	S	T
Dakar	3	13	16	16	113	129	2	4	6	14	108	112
Thiès	9	6	15	62	75	137	8	6	14	0	46	46
Total	12	19	31	78	188	266	10	10	20	14	154	158

Note: P: primary schools; S: secondary schools; T: total

Source: documents provided by JICA

### Outputs by the Senegalese side

The Senegalese side was responsible for land acquisition, land preparation work, removal of obstacles from the project sites, provision of temporary storage of building materials in the project sites, connection of electricity, water and sewage pipes, and construction of fences. The Ministry of National Education explained that all works were complete by the time of ex-post evaluation. However, information about the date of completion or cost of these works was not available because there were personnel changes after the project completion and records were lost in the ministry.

### 2) Equipment

<sup>7</sup> According to the interview of the Ministry of National Education, multipurpose toilets are obliged by the Ministry.

The equipment was procured as planned as shown in Table 3 below.

Table 3. Procured equipment, plan and actual

			Furniture (figure inside bracket is number)
Primary schools	Classroom block	Classrooms	Bench tables for two pupils (large) (8); bench tables for two pupils (small) (16); desk for teacher (1) and chair (1)
	Administrative block	Principal's office	Desk (1); chair (1), shelves type B (1)
		Storage room	Shelves type A (4)
		Teachers' room	Desk (12); chair (24); shelves type B (4)
Secondary schools	Classroom block	Classrooms	Bench tables for two pupils (large) (24); desk for teacher (1) and chair (1)
	Administrative block	Principal's office	Desk (1); chair (1), shelves type B (1)
		Storage room	Shelves type A (4)
		Teachers' room	Desk (12); chair (24); shelves type B (4)
Surveillants' room		Desk (7); chair (7); shelves type A (6); shelves type B (4)	

Source: documents provided by JICA

### 3) Soft component

In the soft component, the project trained stakeholders of the target schools including teachers and staff, community, School Inspectors' Offices at the regional level (Inspections d'Académie: IA) and School Inspectors' Offices at the department level (Inspection de l'Éducation et de la Formation: IEF)<sup>8</sup>. The purpose was to make the stakeholders understand the importance of maintenance and to strengthen their capacity in awareness raising activities for resource mobilization for maintenance as well as in development and implementation of financial plans. The project revised the existing manual titled "*Manual for maintenance of school infrastructure and hygiene status*" (*Manuel de maintenance des infrastructures scolaires et d'amélioration des conditions d'hygiène*) used by the former grant aid projects, and held trial training sessions for six schools. It included a half-day workshop at each school featuring maintenance of facilities using the manual, development of medium to long-term maintenance plans as well as resource mobilization, and a visit to the school construction site to deepen participants' understanding about the facilities. The local NGO and local consultant held same training sessions for the remaining 25 target schools. After the workshop, each school implemented regular maintenance activities, and the project followed up the schools about six months after the workshop (source: documents provided by JICA).

The project consultant confirmed that the soft component was implemented as planned in every aspect including activities, their timing, staffing and products. To ensure the participation of stakeholders, the project requested the IAs and IEFs to nominate focal points and ask them to

<sup>8</sup> IA is responsible for the implementation of education policy at the regional level and supervises lycée (high school) and regional training centers. IEF supervises schools of compulsory education (ten years) at the department level.



regularly attend the activities, and posted photos in the community to show construction process to increase interest among school staff and community. The project liaised with the JICA technical cooperation project titled “Project for the improvement of school environment (*Projet d’Amélioration de l’Environnement Scolaire*) Phase 2” (PAES 2) <sup>9</sup>, which was implemented from September 2010 to August 2015, and exchanged information on how to conduct workshops, shared the manuals developed by PAES 2 and employed the same NGO who conducted workshops in PAES 2.

### 3.2.2 Project Inputs

#### 3.2.2.1 Project Cost

##### Project cost by the Japanese side

As shown in Table 4, the grant amount agreed by the Exchange of Notes was 1,213 million yen, and the final project cost was 1,204 million yen. From the balance, 80,848,32 euros (approximately 9.4 million yen) were reimbursed to the Government of Senegal for another project to construct secondary schools, and the granted amount was totally used also covering bank commission. As the reimbursed amount was also a part of grant to Senegal, the total project cost was 1,213 million yen, same as the Exchange of Notes amount.

Table 4. Project cost by the Japanese side, plan and actual

(unit: million yen)

	Plan (after second detail design)	Actual
Construction (contract in FCFA)	809.9	806.8
Equipment (contract in FCFA)	48.6	48.6
Japanese flag stickers (contract in JPY)	0.1	0.1
Procurement agency (contract in JPY)	137.0	137.0
Design and supervision (including soft component) (contract in JPY)	203.2	203.2
Attorney’s fee (contract in JPY)	1.2	1.2
Procurement advisor (contract in FCFA)	0.7	0.7
Public inspection agency (contract in JPY)	6.5	6.5
<b>Total</b>	*1) 1,207.1	1,204.0

Source: Documents provided by JICA

Fixed exchange rate: 1EUR=655.957FCFA

JPY June 16, 2011. Transfer from the government account to the procurement account in euro:

1EUR= 116.32JPY

Note \*1) There is a discrepancy between it and the grant amount in the Exchange of Notes (1,213 million JPY) due to exchange rate.

##### Project cost by the Senegalese side

<sup>9</sup> The project purpose of PAES 2 was to improve the educational environment and school management systems through the improvement of school management by the school management committee (Comité de Gestion d’Ecole: CGE) of the primary schools and to contribute to the improvement of access to and quality of primary education. The target area of Phase 1 of the project (PAES) (2007-2010) was Louga Region. PAES 2 started in Fatick and Kaffrine Regions as pilot regions and aimed at scaling up of CGE management method in the whole country (source: Terminal evaluation report of PAES 2).

The planned project cost by the Senegalese side was 258,174 thousand FCFA (equivalent to 48 million yen) as shown in Table 5. According to the Ministry of National Education, all works were complete by the time of ex-post evaluation. However, information of actual cost was not available from the Ministry.

Table 5. Project cost by the Senegalese side, plan and actual

(unit: thousand FCFA)

	Plan	Actual
Land preparation work of the project sites (such as removal of trees)	3,416	No information
Construction of gates and surrounding fences	219,501	
Construction of temporary classrooms and toilets	18,896	
Electricity connection	2,300	
Water supply connection	2,500	
Expenses for soft component (transportation expenses to attend workshops)	1,100	
Expenses for construction of facilities (transportation cost)	3,545	
Bank commissions	6,916	
Total	258,174	

Source: documents provided by JICA

As information of the actual project cost by the Senegalese side was not available, the comparison between the plan and actual cost is possible only for the Japanese side and the actual project cost was as planned (100%).

### 3.2.2.2 Project Period

The planned project period was 37 months from March 2011 (Grant Agreement) to March 2014 (installation and handing over of furniture). The actual project period was 41 months from March 2011 to July 22, 2014 (the latest date of completion of construction, and installation and handing over of furniture) and it was longer than planned (111%). The procurement agency and the project consultant explained that there was delay in some construction work because this project was the second community development assistance grant aid project in the education sector in Senegal and the local contractors were not accustomed to the procedures of Japan's grant aid projects or to the strict observance of construction period as in Japan.

The Ministry of National Education reported that all works by the Senegalese side were complete by the time of ex-post evaluation, but information of actual completion date was not available.

Table 6. Project period, planned and actual

	Plan	Actual
Exchange of Notes and Grant Agreement	March 2011	March 2011
Contract with the procurement agency	April 2011	April 2011
Contract with the consultant	May 2011	June 2011
<b>For Dakar Region</b>		
Preparation and approval of tender documents for facility construction	May-July 2011	May-July 2011
Tender and contract	July-October 2011	July-September 2011
Construction	October 2011-February 2013	October 2011-May 2013
Tender and contract for equipment	March-June 2012	March-May 2012
Procurement and handing over of equipment	June 2012-March 2013	May 2012-May 2013
<b>For Thiès Region</b>		
Preparation and approval of tender documents for facility construction	May-June 2012	May-June 2012
Tender and contract	June-September 2012	July-October 2012
Construction	October 2012-January 2014	November 2012-July 2014
Tender and contract for equipment	June-August 2013	March-May 2013
Procurement and handing over of equipment	September 2013-February 2014	May 2013-July 2014
<b>Soft component</b>		
Preparation	February-March 2012	April 2012
Visits to the construction sites and training	March-May 2012 (Dakar) March-May 2013 (Thiès)	April-June 2012 (Dakar) April-June 2013 (Thiès)
Activities at the target schools	March-Dec. 2012 (Dakar) March-Dec. 2013 (Thiès)	June 2012-Feb. 2013 (Dakar) April 2013-Jan. 2014 (Thiès)
Follow up	October-Dec. 2012 (Dakar) October-Dec. 2013 (Thiès)	Nov. 2012-Jan. 2013 (Dakar) Nov. 2013-Jan. 2014 (Thiès)

Source: documents provided by JICA

Although the project cost was within the plan, the project period exceeded the plan. Therefore, efficiency of the project 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)

<sup>10</sup> Sub-rating for Effectiveness is to be put with consideration of Impacts.

Table 7. Actual data of the operation indicators of the project

	Baseline	Target	Actual	
	2009/10	2012/13	2017	
		3 Years After Completion	3 Years After Completion	
Indicator 1. Number of pupils per classroom, primary, average	76.7  (Below is reference information: data of the Ministry of National Education 2009, project target schools) Target regions 73.6 Dakar Region 64.6 Thiès Region 91.8	47.8 (Standard of the Ministry of National Education: 48)	Senegal 37.4 Dakar Region 53 Thiès Region 45	Target schools: Two regions 56.4 Dakar Region 68.1 Thiès Region 49.8
Indicator 2. Number of pupils per classroom, lower secondary, average	161.7  (Below is reference information: data of the Ministry of National Education 2009, project target schools) Target regions 154.9 Dakar Region 141.5 Thiès Region 233.9	80.2 (Standard of the Ministry of National Education: 45)	Lower secondary schools Senegal 48.7 Dakar Region 73 Thiès Region 61	Target schools: Two regions 61.7 Dakar Region 62.6 Thiès Region 59.9
Indicator 3. Number of classrooms in the project target primary schools	51	129 (baseline 51 + to be constructed by the project: 78)	133 in total Dakar Region 49 Thiès Region 84	Constructed by the project: 78 in total Dakar Region 16 Thiès Region 62
Indicator 4. Number of classrooms in the project target secondary schools	96	287 (baseline 96 + to be constructed by the project at the original design: 191)	295 in total Dakar Region 198 Thiès Region 97	Constructed by the project: 188 in total Dakar Region 113 Thiès Region 75

Source: Project ex-ante evaluation sheet, documents provided by JICA, questionnaire response and information from the Ministry of National Education

Note: Classrooms not to be utilized due to reasons such as deterioration are excluded from the calculation.

The operation indicators in Table 7 were set at the project design. The number of pupils per classroom for the project target schools as a whole largely improved from the baseline of 2009. However, that of primary schools did not achieve the target, and it was worse than the national or regional average. Seven primary schools (out of 12 target schools) and two secondary schools (out of 19 target schools) had larger number of pupils per classroom than the global target of all schools and each school's target at the project design. Among these nine schools, seven had more pupils than anticipated and four had one or two fewer classrooms than expected at the project design, all of which were large schools with 14 classrooms or more.

The number of classrooms in the project target schools achieved the target. The classrooms

constructed by the project had substantial proportion among all classrooms, and they have contributed to the increase of classrooms of the target schools.

While “number of pupils per classroom in primary schools” did not achieve the target, it is acceptable because some schools had larger number of pupils than anticipated and that some old classrooms which were available at the project design were no longer utilized at the time of ex-post evaluation. Since this indicator largely improved from the baseline and other indicators achieved the targets, it was concluded that the “improvement of learning environment” was quantitatively achieved.

### 3.3.1.2 Qualitative Effects (Other Effects)

The expected project effects were the improvement of learning environment and strengthening of stakeholders’ motivation to participate in maintenance of school facilities. Due to the time constraints of the ex-post evaluation, eight schools in Table 8 were selected from 31 project target schools for the qualitative survey and site visits. They were selected based on the discussion with the Ministry of National Education considering balanced representation of primary and secondary schools, Dakar and Thiès Regions, and urban and rural areas, with consideration of access to the schools.

Table 8. Schools selected for the qualitative survey

Region	School	Type	Location	Toilets constructed by the project
Dakar	EE <sup>11</sup> Castors-Sotrac	Primary	Suburban	Yes
Dakar	EE Pikine 23/A	Primary	Rural	Yes
Thiès	EE Abdoulaye Sene	Primary	Rural	No
Thiès	EE Pout 5	Primary	Rural	No
Dakar	CEM <sup>12</sup> Cheikh Awa Balla Mbacké	Lower secondary	Urban	Yes
Dakar	Lycée Pikine Est/A	Lower and upper secondary <sup>13</sup>	Urban	Yes
Thiès	CEM Darou Salam	Lower secondary	Urban	Yes
Thiès	CEM Diack Bodokhane	Lower secondary	Rural	Yes

Qualitative survey was conducted for 160 pupils of eight schools (10 boys and 10 girls at each school) and 142 gave responses. The composition of respondents is shown in Table 9. From each school, school principal, three teachers and three board members of school management committees (Comité de Gestion d’Ecole for primary schools and Comité de Gestion d’établissement for secondary schools: CGE) were also surveyed.

<sup>11</sup> Ecole élémentaire: primary school

<sup>12</sup> Collège d’Enseignement Moyen: lower secondary school

<sup>13</sup> Pikine Est A Secondary School became lycée with both lower and upper secondary education after the completion of this project. In principle, lycée is upper secondary school.

Table 9. Pupils participated in the qualitative survey

	Boys	Girls	Total
Primary schools	39	42	81
Secondary schools	23	38	61
Total	62	80	142

For better understanding of the results of the qualitative survey, it would be useful to note the following observations from the pupils' responses and the site visit:

- The project target schools in the rural areas are close to the village and most pupils walk to school only for several minutes to a half an hour. As primary and lower secondary education seems universal in these areas, construction of new classrooms does not lead to increase of new pupils.
- Girls occupy substantial proportion among pupils<sup>14</sup>. Girls are the majority in eight out of 12 project target primary schools and in 16 out of 19 project target secondary schools. While most Senegalese are Muslims, there is no separation by sex in the classroom and girls and boys share the same table in many cases.

#### 1) Improvement of learning environment

Classrooms: The result of the qualitative survey shows that the percentage of pupils satisfied with the conditions of the classrooms was nearly 90% for the space and brightness of the classrooms, about 75% for the number of pupils per classroom, and about 75% for the condition of the tables and chairs. There was no difference between boys and girls in the responses. Most school principals, teachers and CGE board members were satisfied with the classrooms' spaciousness and brightness.

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<sup>14</sup> In Senegal, considerable number of boys attend Islamic schools for Koran education and do not attend ordinary schools. It is considered as one of the reasons for lower enrolment of boys than girls. (Source: *National report of educational situation (Rapport national sur la situation de l'Education: RNSE) 2016*)

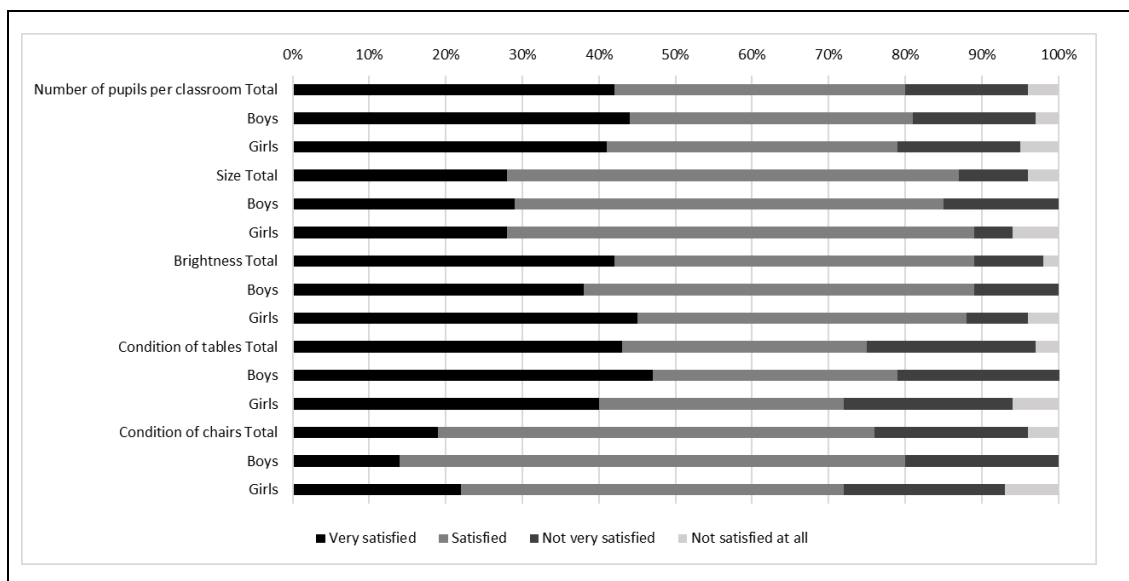


Figure 1. Pupils' satisfaction with the classrooms

Source: results of qualitative survey

Table 10. Satisfaction of school principals, teachers and CGE board members with the classrooms

	Principal	Teachers	CGE
Number of pupils per classroom	6	4	5
Size	8	7	7
Brightness	8	7	4
Condition of tables	7	6	6
Condition of chairs	6	6	5

Source: results of qualitative survey

Note: number of schools who marked "very satisfied" (first among four ranks) or "satisfied" (second among four ranks) among eight schools.

Some schools gave consolidated opinions of three teachers or three CGE board members, and others gave individual responses. For the latter, majority opinions are counted in the table above.

As observed in the site visits, some schools (Pikine 23/A Primary School, Darou Salam Secondary School and Castor-Sotrac Primary School) had congested classrooms accommodating 60 pupils or more. Three pupils shared the same table intended for two, the platform where the teacher stands and the wall behind were too close to the pupils, and the tables were lined up without enough gaps in between. The tables and chair had normal wear and tear but did not have serious problems.



Abdoulaye Sene Primary School, Thiès Region  
(Some tables are shared by three pupils instead of two)

Discipline	Cours	Garçons		filles		Total	Redbits	Nature
		A	B	A	B			
Français	CTA	26	25	30	33	114	00	CDF
	CTB	25	29	30	25	109	00	CDF
Français	CFA	33	27	25	31	116	03	CDF
	CFB	37	36	22	23	118	03	CDF
Français	CE1A	26	25	34	31	116	00	CDF
	CE1B	28	26	36	39	129	00	CDF
Français	CE2A	23	25	25	22	95	04	CDF
	CE2B	33	34	33	33	133	03	Trad
Français	CE3C	38	29	29	29	125	00	Trad
	CMA	40	38	38	38	154	00	Trad
Français	CMB	46	37	37	37	157	00	Trad
	CMC	24	21	25	28	98	00	CDF
Français	CPA	35	37	37	37	146	04	Trad
	CPB	36	35	35	35	141	04	Trad
charge	Totaux	664	655	655	655	1319	25	

Class composition of Castors-Sotrarc Primary School, Dakar Region  
(Eight classrooms in five grades are double shift. "CDF" in the table means Classe de Double Flux = double shift)

Toilets: Among eight schools visited during the qualitative survey, six had toilets constructed by this project.

In the six schools, while the pupils were generally satisfied with the toilets, many complained about the filthiness. More girls had negative feedback for the toilets than boys in each aspect of toilets. Satisfaction with the toilets of the principals, teachers and CGE board members was generally high, but in many schools, they were not happy with the frequency of breakdown such as clogging.

As observed in the site visits, the toilets constructed by the project were flush toilets and there was no odour. If the toilet blocks did not have water pipe connection, toilets were flushed with water collected from other sources. Some schools had problems such as closed booths because of frequent breakdown caused by large number of users (Cheikh Awa Balla Mbacké Secondary School), closed multipurpose toilets as there were no disabled persons (several schools) or due to loss of keys several years ago (Castors-Sotrarc Primary School), closed main plug of hand wash basin (Cheikh Awa Balla Mbacké Secondary School) because the faucets had come off (several schools), and clogging of the toilets (several schools).



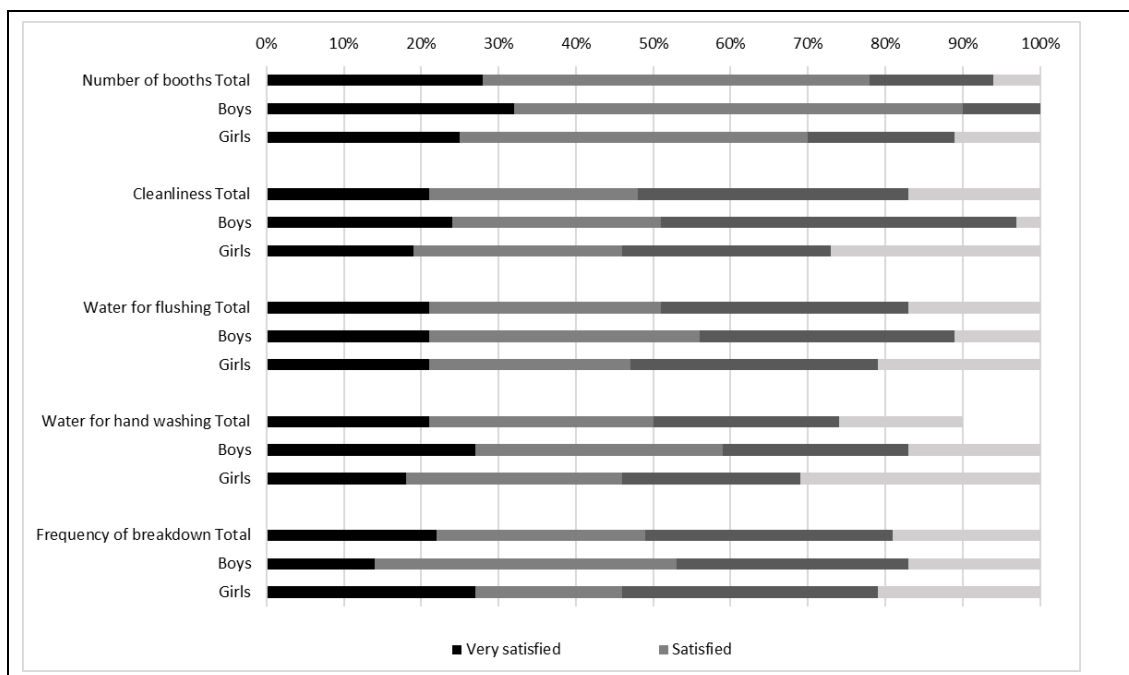


Figure 2. Pupils' satisfaction with the toilets (6 schools with toilets constructed by the project)  
Source: results of qualitative survey

Table 11. Satisfaction of school principals, teachers and CGE board members with the toilets  
(6 schools)

	Principal	Teachers	CGE
Number of booths	3	3	2
Cleanliness	4	3	6
Availability of water for flushing	5	1	5
Availability of water for hand washing	5	1	6
Frequency of breakdown	2	0	2

Source: results of qualitative survey

Note: number of schools who marked "very satisfied" (first among four ranks) or "satisfied" (second among four ranks) among six schools

Some schools gave consolidated opinions of three teachers or three CGE board members, and others gave individual responses. For the latter, majority opinions are counted in the table above.



Inside of toilet booth, Darou Salam Secondary School, Thiès Region



Hand washing basin, Diack Bodokhane Secondary School, Thiès Region

Administrative blocks: The principals and teachers were satisfied with the administrative blocks in general according to the interviews. Some schools had very small principal's office.

From the above, the satisfaction level with the classrooms and toilets was generally high except that some schools had congested classrooms and toilets with problems in cleanliness and breakdown mainly due to clogging. The learning environment has improved.

## 2) Strengthened stakeholders' motivation to participate in maintenance of school facilities

In the eight schools surveyed, facilities and equipment were repaired as necessary and regularly cleaned. Therefore, the schools and CGEs were motivated to conduct maintenance of school facilities to a certain extent. Principals of two schools participated in training workshop conducted by the soft component of this project and they stated that they developed maintenance plans and kept the "*Manual for maintenance of school infrastructure and hygiene status*" (*Manuel de maintenance des infrastructures scolaires et d'amélioration des conditions d'hygiène*) provided by the project. Other schools experienced personnel changes after the project and did not have institutional memory of the training workshop, nor developed maintenance plans or kept the manual. Still, they conducted repair as necessary and daily cleaning. Therefore, the soft component contributed to the strengthening of stakeholders' motivation to participate in maintenance of school facilities to a certain extent.

### 3.3.2 Impacts

#### 3.3.2.1 Intended Impacts

The project was expected to create impacts such as improvement of pupils' motivation to attend schools, improvement of school attendance situation and improvement of pupils' awareness of hygiene.

##### 1) Improvement of motivation to attend school

The percentage of surveyed pupils who answered that the good condition of school facilities improved their motivation to attend school was more than 80% for classrooms (eight schools) and more than 50% for toilets (six schools). More girls than boys responded that bad condition of classrooms and toilets could discourage them from attending school. This is likely to be because girls demand higher standard for the facilities, especially for the toilets, than boys. As girls' school attendance in the two target regions was the same or better than that of boys both at the project design and at the ex-post evaluation, the project did not particularly contribute to the improvement of girls' school attendance.

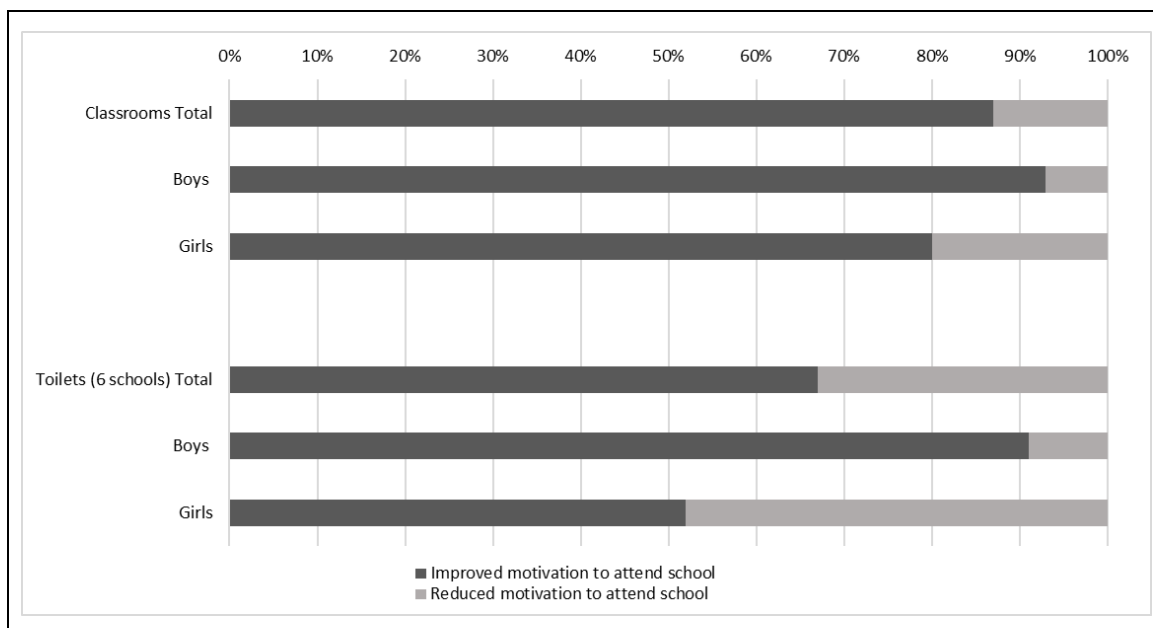


Figure 3. Impact of classrooms and toilets on motivation to attend school

Source: results of qualitative survey

Note: The graph shows the percentage of pupils who answered that “the good condition of classrooms or toilets improve their motivation to attend school” and that who answered that “the bad condition of classrooms or toilets reduce their motivation to attend school.”

Six among eight principals were positive about the impact of good condition of classrooms on pupils’ motivation to attend schools, and three among six principals of the schools with toilets constructed by the project were positive about the impact of toilets. Most teachers were positive about the impact of the good condition of classrooms and toilets on pupils’ motivation to attend school. Other schools commented that filthy toilets or insufficient number of booths discouraged pupils from attending school.

## 2) Improvement of school attendance

Out of eight schools surveyed, two provided data of school attendance and performance. At Pikine 23/A Primary School, data improved between the school year 2009/10 and 2016/17. The retention rate improved from 4% for boys and 5% for girls to less than 1% for both sexes. The dropout rate declined from 10% for boys and 12% for girls to 2% for boys and 1% for girls. Success rate of completion exam improved from 78% for boys and 63% for girls to 81% for boys and 76% for girls. At Pout 5 Primary School, current success rate of completion was 72%, which was double of that before the project. Principals of other three schools commented that performance of pupils improved thanks to the comfortable classrooms.

## 3) Pupils’ consciousness of hygiene

The results of the survey show that the hand washing was habitual among pupils of the six schools with the toilets constructed by the project. Majority of pupils replied that they “always”

or “often” performed proper use toilets and garbage disposal. There was no visible difference between boys and girls, and no impacts were observed by the provision of separate toilets by sex.

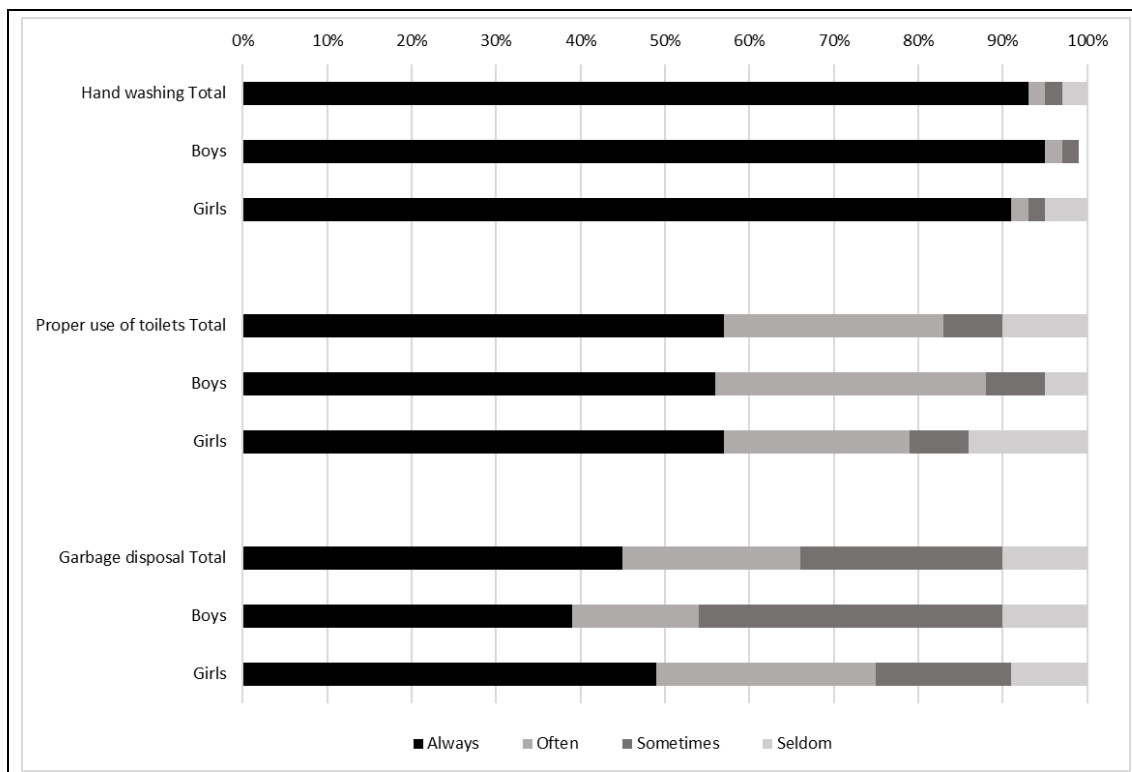


Figure 4. Pupils’ consciousness of hygiene

Source: results of qualitative survey

Most principals and teachers confirmed that pupils’ consciousness of hygiene was high. Pupils clean the classrooms in some schools.

### 3.3.2.2 Other Positive and Negative Impacts

#### 1) Impacts on the Natural Environment

According to the Ministry of National Education, no impacts on the natural environment were observed except for the noises and wastes during the construction.

#### 2) Resettlement and Land Acquisition

According to the Ministry of National Education, it acquired lands for the new schools with the consent of local authorities. There was no resettlement.

#### 3) Unintended Positive/Negative Impacts

According to the Ministry of National Education, the CGE management method developed by JICA technical cooperation project PAES 2 was standardized in Senegal through the

governmental approval of CGE management manuals<sup>15</sup> in January 2015 by the interministerial order No. 226 of January 8, 2015. In 2015, in the second half of the project period, PAES 2 implemented training for CGE representatives of primary schools for scaling up the model of functioning CGE in the whole country, and 96% of target people participated<sup>16</sup>. While this was the impact of PAES 2 and not of this grant aid project, this project also contributed indirectly to the scaling up of CGE management method through the information exchange on how to conduct workshops and sharing manuals with PAES 2. The “*Manual for maintenance of school infrastructure and hygiene status*” (*Manuel de maintenance des infrastructures scolaires et d’amélioration des conditions d’hygiène*) developed by the grant aid project was not duplication of CGE management manuals for primary schools developed by PAES 2, and it was not intended for scaling up.

Improvement of learning environment, the main project objective, was achieved. Other intended effects such as improvement of motivation of stakeholders to participate in maintenance of school facilities, improvement of pupils’ motivation to attend school, improvement of school attendance situation, and improvement of pupils’ consciousness of hygiene were observed to a certain extent, while the causality with this project was not clear. From the above, this project has largely achieved its objectives. Therefore effectiveness and impacts of the project are high.

### 3.4 Sustainability (Rating: ②)

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

In 2012, the Decree No. 2012-1276 legalized establishment of school inspectors’ offices at the regional level (Inspections d’Académie: IA) and at the department level (Inspection de l’Education et de la Formation: IEF). IA is responsible for the implementation of education policies at the regional level and supervises upper secondary schools (lycées) and regional training centers. IEF supervises schools of ten-year compulsory education at the department level. All project target schools are under IEFs because they provide compulsory primary and lower secondary level education.

Establishment and management of CGE of primary schools were legalized by the Decree No. 2002-652 in 2002 and reorganized in the Decree No. 2014-904 in 2014 through the activities of PAES 2. Its implementation was stipulated by the order of the Ministry of National Education

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<sup>15</sup> Manuals developed by PAES 2 are as follows: *Training guide for establishment of School Management Committee (Guide de formation à la mise en place des Comité de gestion d’école: CGE)*; *Training guide for preparation of voluntary action plan (Guide de formation à l’élaboration d’un Plan d’action volontariste: PAV)*; *Training guide for resource management of CGE (Guide de formation à la gestion des ressources des CGE)*; *Training guide for establishment of CGE unions (Guide de formation à la mise en place des Unions de CGE: UCGE)*; *Monitoring guide of CGE (Guide de suivi des CGE et des UCGE)* (Source: PAES 2 project completion report)

<sup>16</sup> Source: PAES 2 completion report. PAES 2 was for primary schools.

No. 1383 of January 30, 2015<sup>17</sup>. The Decree No. 2000-337 of May 16, 2000 stipulated CGEs of secondary schools. CGE consists of teachers, school staff, pupils, parents and community. The board members (president, secretary, treasurer, etc.) are elected. The mission of CGE is to improve the quality of education, to contribute to the equitable access to education, and to manage schools in participatory, effective, efficient and transparent manner. CGE's particular roles are to plan, implement and monitor school management activities.

According to the principals and CGE members of eight surveyed schools, CGE board members were elected for the term of office basically of two years, and number of board members were between six and 18 in the five schools where information of the CGE composition was available. The assembly takes place at least twice a year. CGE's sources of funding are inscription fees from the pupils and parents as well as CGE membership fees. The funds are used for the implementation of maintenance activities, such as repair and rehabilitation, employment of cleaners, and purchase of cleaning tools. Two CGEs among eight reported that they prepared annual action plans. The eight schools had the standard CGEs in terms of composition and activities, and CGEs were functioning to a certain extent. Therefore, no problem was observed in the institutional aspects of operation and maintenance.

#### 3.4.2 Technical Aspect of Operation and Maintenance

The principals of two out of eight surveyed schools (Pout 5 Primary School and Castors-Sotrac Primary School) were there during the project implementation and participated in the training workshop about maintenance of school facilities. They reported that they kept the manual of maintenance and hygiene provided by the project and developed annual action plans at the time of ex-post evaluation. However, they could not provide annual action plan documents or reports, therefore it was not possible to confirm the content. No information was available as to attendance of the project target schools in the CGE management training by PAES 2. According to the principals and CGE board members, the fund of CGE is managed by the treasurer and is kept in its bank account. IEFs explained that CGEs were supposed to have self-audits twice a year and to go through audit and site visit by IEF once a year. According to them, audits of the IEF tend to be just formalities as submission of documents is considered sufficient and they seldom perform detailed investigation or guidance.

All surveyed schools employ cleaners, clean the facilities and perform minor repair when necessary. Some schools have not repaired or replaced worn-off electric bulbs or fallen-apart faucets of hand washing basin of the toilets. They explained that they did not replace bulbs because the classrooms were not very dark and there were other working bulbs, and that faucets were easily broken due to large number of users and there were other water taps to wash hands. They do not repair immediately because they do not recognize imminent needs, and not because

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<sup>17</sup> Source: PAES 2 Terminal evaluation report, PAES 2 Project completion report.

they lack skills or funding. They reported that clogged toilets were fixed within several days.

The schools have minimum technical skills of daily and preventive maintenance. As they did not have financial problems as mentioned in the section below, they have the capacity to secure necessary funding. However, there is a room to strengthen their capacity to develop medium to long-term maintenance plans which was trained in the soft component of the project. To strengthen that capacity and make medium to long-term maintenance their regular activity, it would be necessary to train the schools in development of annual plans, securing budget, implementation of the plan and reporting throughout the cycle of at least one year. The half-day training workshop at each school and follow-up after six months were not sufficient. The outcomes of the training were not retained after personnel changes of principals, teachers and CGE board members. Therefore, it would be an excessive expectation for the schools to do medium to long-term maintenance. Still, considering the training workshops of the project in medium to long-term maintenance and insufficient examination and supervision in the audits by IEF, it can be concluded that there is a slight problem in technical aspects of operation and maintenance.

### 3.4.3 Financial Aspect of Operation and Maintenance

Four out of eight surveyed schools provided financial information of the school year 2017/18. They could not provide information of past three years at the request of evaluator. These four schools did not have financial problems in the school year 2017/18, and there was no problem in collection method and collection rate of fees from the pupils and parents. As the funds are used when necessary, there is no problem in the sustainability of financial aspects of operation and maintenance at the time of ex-post evaluation.

Table 12. Financial status of school year 2017/18

(Unit: FCFA)

	CEM Cheikh Awa Balla Mbacké	EE Pout 5	EE Abdoulaye Sene	EE Castors-Sotrac
Number of pupils (as reference)	310	656	358	1,321
Subsidy from the state	699,000	450,000	803,400	1,200,000
Contribution from pupils and parents	3,050,000	150,000	175,000	1,471,000
Income total	3,749,000	600,000	978,400	2,671,000
Personnel expenses	50,000	0	0	50,000
Tools and consumables	100,000	50,000	31,400	12,000
Repair	130,000	0	143,600	10,000
Replacement	200,000	0	262,000	10,000
Expenditure total	480,000	50,000	437,000	82,000
Balance	3,269,000	550,000	541,400	2,589,000

Source: Information provided by the schools

#### 3.4.4 Status of Operation and Maintenance

The classrooms and furniture of the eight schools visited for the qualitative survey were generally in good condition except for ordinary wear and tear. At the time of ex-post evaluation, one classroom of Abdoulaya Sene Primary School was not utilized because of the shortage of teacher. The school already submitted a request of a teacher to the IEF, but the principal explained that it was difficult to find a teacher who was willing to settle in the rural areas in Thiès Region.

The toilets are properly used in general. One school installed wire mesh above the hand washing basins without ceiling on its initiative to prevent intrusion. Some schools had problems such as fallen out faucets without replacement and frequent clogging of toilets. Classrooms and toilets are cleaned three to five times a week either by pupils in about half of surveyed schools and or by cleaners in other schools.

While the condition of operation and maintenance is good in general, there is a slight problem as some schools do not fix malfunctions or break downs of facilities.

There are no serious problems in the institutional and financial aspects of operation and maintenance of school facilities. Regarding technical aspects, the schools perform daily cleaning and small repair as necessary without difficulties and they have minimum maintenance skills. However, most schools do not prepare annual maintenance plans. Therefore, there is a small problem in technical aspects. Some schools do not fix minor malfunctions or break downs of facilities and it is a slight problem in the status of operation and maintenance. As minor problems have been observed in terms of the technical aspect and current status, sustainability of the project effects is fair.

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

### 4.1 Conclusion.

The objective of this project was to improve learning environment of the target primary and secondary schools in Dakar and Thiès Regions and to strengthen stakeholders' motivation to participate in maintenance of school facilities by construction of schools, provision of furniture and implementation of soft component to strengthen capacity in maintenance, thereby contributing to the improvement of pupils' motivation to attend schools, school attendance situation, and consciousness of hygiene.

Relevance of the project is high as it has been highly relevant to the country's development plan and development needs, as well as Japan's ODA policy. Efficiency of the project is fair because, although the project cost was within the plan, the project period exceeded the plan. Effectiveness and impacts of the project are high because it has largely achieved its objectives.



The main objective, improvement of learning environment, was achieved. Other intended effects such as improvement of stakeholders' motivation to participate in maintenance of school facilities and pupils' motivation to attend school, school attendance situation as well as consciousness of hygiene were achieved to a certain extent, while the causality with this project was not very clear. Sustainability of the project effects is fair. No serious problems were observed in the institutional and financial aspects of operation and maintenance. There is a minor problem in the technical aspects because they do not prepare annual maintenance plans while the target schools perform daily cleaning and small repair as necessary and the have minimum maintenance skills. Since some schools do not fix minor malfunctions or break downs of facilities, there are some problems in the status of operation and maintenance. Sustainability of the project effects is fair because there are minor problems in technical aspect and status of operation and maintenance as stated above.

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

## 4.2 Recommendations

### 4.2.1 Recommendations to the Executing Agency

Only after the half day workshop for stakeholders of each target school in facility maintenance in the soft component of this project, it is difficult for the schools to fully follow the maintenance method or develop medium to long-term maintenance plans taught in the workshop. School staff and CGE board members have changed since the end of the project. These are the reasons why the schools perform only daily cleaning and minor repairs as necessary. Although there are no serious problems in operation and maintenance of the target schools, it is recommended that the IEFs should discuss with the schools in the regular visits about the facilities with the possible needs of repair and about resource mobilization to prepare for large scale rehabilitation in the future

### 4.2.2 Recommendations to JICA

None.

## 4.3 Lessons Learned

### Toilets in school construction projects

This project constructed same number of toilet booths for boys and girls. However, as girls were majority of pupils in many target schools and girls need toilets more than boys, many girls were not very satisfied with the number of toilet booths according to the results of the qualitative survey. Staff of the Ministry of National Education as well as IAs and IEFs made similar comments. According to the latest *Annual Education Statistics (Annuaire statistique de l'éducation)* of Senegal in 2016, girls are majority of pupils of primary and lower secondary

schools in the whole country. As girls need toilets more than boys even if there are equal number of boys and girls, it is recommended that similar projects to construct school facilities also in other countries should consider providing more toilet booths, either per classrooms or per number of pupils, for girls than for boys.

End