# The Republic of Mali

# Ex-Post Evaluation of Japanese Grant Aid Project "Project de Construction d'Ecoles Fondamentales Premier Cycle Phase II"

### Project Location

Ghana

Togo

Sikasso

### Bankoni A Primary School, Bamako

### 1.1 Background

Guinea

Mali's primary education net enrolment rate greatly improved from 26.0% in 1989/1990 to 57.8% in 1999/00 but it still had one of the lowest rates in Sub-Saharan Africa. In the 1980s and 1990s fiscal retrenchment policies were adopted under a structural adjustment program, education budgets were restricted which severely delayed the construction of primary school facilities. Serious classroom shortages and dilapidation of the existing classrooms had become a major hindrance for Mali's education system, forcing many schools to operate a double shift system (morning and afternoon school sessions for two different groups of pupils in one school day) or a system of multiple classes (one classroom shared by more than one grade).

The Government of Mali drafted the Ten-Year Education Development Programme (Programme Décennal de Développement de l'Education: PRODEC), which aimed to enroll 95% of all children into primary education by 2010 through constructing school facilities.

### 1.2 Project Outline

The objective of this project is to improve access to primary education and enhancing the learning environments in Bamako District, and Koulikoro, Ségou, and Sikasso Regions, by

replacing and expanding educational facilities, distributing teaching equipment, and conducting educational activities on school maintenance, hygiene, and sanitation (soft component).

Planned Amount/Actual Amount		Stage I: 434 million yen / 429.953 million yen Stage II: 976 million yen / 973.8 million yen Stage III: 1,280 million yen / 1,138.794 million yen			
Exchange of Notes (Grant Agreement)		Stage I: 24 January 2002 (23 July 2002)         Stage II: 28 June 2002 (18 February 2003)         Stage III: 18 June 2004 (18 June 2004)			
Executing Agency		Ministry of Basic Education, Alphabetization, and National Language (MoE)			
Project Completion		Stage I: 13 June 2003 Stage II: 15 March 2004 Stage III: 12 February 2006			
Companies Involved	Contractor	Toda Corporation			
	Consultant	Daiken Sekkei. Inc.			
Basic Design Study		December 2001			
Detail Design		Stage I: April 2002 Stage II: October 2002 Stage III: September 2004			
Related Projects		<ul> <li>At the time of the Basic Design Study, many international organizations, individual countries and NGOs were providing support to the Malian education sector. The following are the leading donors' projects in this sector, along with examples of their activities.</li> <li>"Education Sector Expenditure Program" by the World Bank (classroom construction, teacher training, improvement in decentralized management) from 2001 to 2006</li> <li>"Basic Education Expansion Program" by the USAID/Mali-Save the Children USA (construction of community schools) 1992 – 2003</li> <li>"Support for Coordination of Education Policy" by the Canadian International Development Agency (Education policy and administrative management) 1999-2010</li> <li>"School Sanitation &amp; Hygiene Education" by UNICEF (improvement of sanitation and hygiene)</li> <li>AFD (classroom construction)</li> <li>Holland (direct financial support to the Ministry to construct</li> </ul>			

# 2 Outline of the Evaluation Study

# 2.1 External Evaluators

Shinichi MORI (IMG Inc.)

Setsuko KANUKA (IMG Inc.)

# 2.2 Duration of the Evaluation Study

Duration of the Study: October 2009-September 2010

Duration of the Field Study: January 20th 2010-February 7th 2010

# 2.3 Constraints during the Evaluation Study

The project sites (88 schools) are situated in a wide range of locations (both urban and rural), in three regions and one district. Taking the short period of field evaluation into consideration, the Ex-Post Evaluation team selected 69 schools as samples<sup>26</sup>, from which most of the qualitative information related to impact and sustainability was obtained.

The Ex-Post Evaluation team also requested quantitative data on the project schools from District Education Centers (Centre d'Animation Pédagogique: CAP), but some of them were unable to provide complete data, as after the construction of the new classrooms many of the project schools were divided into two primary schools, or gave old classrooms to other primary and/or secondary schools<sup>27</sup>. These administrative changes have made it difficult to assess the "before the project and after the project" quantitative differences at many of the project schools. The Ex-Post Evaluation team decided to use data deemed as reliable from 66 schools (surveyed schools) for the evaluation of effectiveness, collected from CAPs and individual schools.

# **3** Results of the Evaluation (Rating: B)

### 3.1 Relevance (Rating: a)

### 3.1.1 Relevance with the Malian Government Policies for Development

The Government of Mali recognizes education as a constitutional right of its citizens and identified the educational sector as one of the top priority areas within its Poverty Reduction Strategy Paper (PRSP) in 2002. The Ten-Year Education Development Programme from 2000 to 2010 (Programme Décennal de Développement de l'Education: PRODEC), sets the improvement in the quality of education and provision of access to education as main priorities. The program was aimed at: increasing the enrolment rate to 95% in primary education by 2010; increasing female enrolment to primary schools to 70%; solving disparity between urban and rural areas, and also between genders; and improving the overall quality of primary education. In order to achieve these goals, it planned to construct 18,000 classrooms by 2010<sup>28</sup>.

<sup>&</sup>lt;sup>26</sup> Samples were selected using "quota sampling", in which more than half of the project schools were used as models from each of the target districts. During the selection process it was ensured that some schools included were ones that had implemented the soft component.

<sup>&</sup>lt;sup>27</sup> Dividing of schools and/or transferring of classrooms was observed at half of 66 surveyed schools.

<sup>&</sup>lt;sup>28</sup> The number of primary schools nationwide has increased from 7,200 in 2002/2003 to 9,243 in 2007/2008 (MoE Statistics).

PRODEC has been implemented through three consecutive multi-year investment programs the Education Sector Investment Programs (Programmes d'Investissement Sectoriel de l'Education: PISE) i.e. PISE I, II and III. Both first and second PISEs (PISE I 2001-2005, PISE II 2006-2008) had components for increasing access to education and improving the quality of education; the last PISE (PISE III 2009-2012) was still being drafted as of February 2010.

The Government's firm commitment toward the development of the education sector has continued to be demonstrated by its public spending. In 2008, the public expenditure on education was 19.5% of total government expenditure<sup>29</sup>. For this project, the Government undertook measures such as: securing land for the project schools; clearing existing facilities and trees blocking the construction site; setting up temporary classrooms to be used during the construction period; and securing teachers to be placed at the project locations.

As is stated above, improvement of enrolment through the construction of classrooms was given a high priority in Mali Government's national policies at the time of the Basic Design Study and continued to be so at the time of the Ex-Post Evaluation.

# 3.1.2 Relevance with Development Needs

As stated in "1.1 Background", in Mali, there was a serious shortage of classrooms and the most of the existing facilities were severely dilapidated, causing many schools to operate either a double shift system or a system of multiple classes. The need for construction of classrooms was urgent especially in urban areas where the situation was worsening, as population growth was high due to natural growth and an influx of migrants from rural areas. In rural areas the overall number of schools was insufficient; as a result many pupils did not attend school due to long distances between home and school.

Since primary education enrolment data in the target areas could not been obtained, it was decided to use population growth data as a representative replacement for it. The Ex-Post Evaluation confirmed that there was a drastic increase in the population in the target district and regions in the last ten years (see Table 1); the population of Bamako District had drastically increased, almost doubling in ten years.

District/ Region	1998	2009	% of change (1998-2009)
Bamako	1,016,296	1,809,106	78
Koulikoro	1,570,507	2,418,305	54
Ségou	1,675,357	2,336,225	39
Sikasso	1,782,157	2,625,919	47

 Table 1 Population Growth of Target District and Regions (1998-2009)

Source: Institut National de la Statistique, Mali

<sup>&</sup>lt;sup>29</sup> UNESCO, UIS Statistics in Brief

The high development needs for classroom construction can also be ascertained by the drastic increase in net and gross enrolment rates in primary education. The net enrolment rate increased from 44% in 1999 to 66% in 2007 and the gross enrolment rate increased from 56% in 1999 to 88% in 2007<sup>30</sup>.

As demonstrated, the development needs for classroom construction was high at the target district and regions at the time of the Basic Design Study and continued to be so at the time of the Ex-Post Evaluation.

#### 3.1.3 **Relevance with Japan's ODA policy**

In both the Official Development Assistance (ODA) Charter (2003), and the Medium Term Policy on ODA (2005), which form the policy basis for Japanese development cooperation, Japan places priority on education as an important sector to be supported. It identifies the support for the education sector as a main priority under its poverty reduction policy.

In 2002, Japan announced "Basic Education for Growth Initiative" (BEGIN) at the Kananaskis Summit, identifying its strategy to support basic education in developing countries, giving due consideration to the Millennium Development Goals (MDGs) and the Education for All (EFA) -Dakar Framework for Action, both of which were adopted globally in 2000. For BEGIN Japan pledged over 250 billion yen in assistance for education to be provided for low-income countries over five years (starting in 2002)<sup>31</sup>.

Japan's commitment toward improving Africa's educational sector has clearly been demonstrated by its proactive contributions, outlined in a series of Tokyo International Conference on Africa Development (TICAD) beginning with TICAD I in 1993. TICAD II took place in 1998 and TICAD III in 2003 (the same year as the Basic Design Study). In TICAD IV in 2008 Japan reiterated the importance of improving access to basic education in Africa and committed itself to construct 1,000 primary/secondary schools there (approximately 5,500 classrooms in total).

Acknowledging the high need for primary education facilities, Japan has implemented in Mali three primary school construction projects over 10 years (FY 1997 - FY 2007). Prior to this project (Phase II) was Phase I<sup>32</sup>, in which 562 classrooms were constructed at 104 primary schools in Bamako District, and Koulikoro, Segue, and Mopti Regions; following this project was Phase III<sup>33</sup>, in which 303 classrooms were constructed at 68 primary schools in Koulikoro, Ségou, Sikasso, and Mopti Regions.

<sup>&</sup>lt;sup>30</sup> ibid

 <sup>&</sup>lt;sup>31</sup> Supporting the Joy: Japan's Support for Education of Leaning, Ministry of Foreign Affairs
 <sup>32</sup> Implementation Period; FY 1997-2000

<sup>&</sup>lt;sup>33</sup> Implementation Period; FY 2006-2007

As discussed above, the support to improve access to education and educational environments in Mali were in line with the Japanese Government's aid policies at the time of the Basic Design Study and continued to be so at the time of the Ex-Post Evaluation.

In light of the above, this project has been highly relevant with the Mali Government policies for educational development, development needs in Mali as well as Japan's ODA policy; therefore the relevance of the project is high.

# **3.2** Efficiency (Rating: b)

# 3.2.1 Project Outputs

At the time of the Basic Design Study it was planned to construct 405 classrooms, 32 principal's office with storage, 115 latrine buildings (415 pit latrines). From the original plan in the Basic Design Study, the construction of a total of 27 classrooms, 5 principal's offices with storage, and 3 latrine buildings (9 pit latrines) were cancelled because it was found during the Detailed Design Study that these facilities had already been constructed (or were in the process of being constructed) by others such as parents' associations. After this revision, the project constructed (at 88 schools) 378 classrooms, 27 principal's offices with storage, and 112 latrine buildings (406 pit latrines). It also supplied school furniture (such as desks and tables) and 153 sets of educational materials (see Table 2).

	Schools	Classrooms	Principal's Offices	Pit Latrines	
Planned	91	405	32	415	
Actual	88	378	27	406	

Table 2 Comparison between the Planned and Actual Project Outputs

Source: Basic Design Study Report and Project Completion Report

The design standards of the classroom construction conformed to Malian national building standards and regulations. It was widely recognized and acclaimed by all levels of beneficiaries including MoE's officials, principals and teachers of surveyed schools, and School Management Committee (Comité de Gestion Scolaire: CGS) members that project classrooms were of a superior quality to ones constructed by other donors and that they require minimal maintenance.

During the field visits many positive aspects of the project classrooms were pointed out by principals, teachers, CGS members and students. Ceilings and glass blocks installed in the upper side walls received the most positive comments. According to them, the project classrooms were cooler and quieter than others because the ceiling insulates the room from heat and from

the sound of rain hitting the iron roof sheets, and the classrooms also have better illumination than others because of the glass  $blocks^{34}$ .

There were no major defects commonly found in classroom buildings at the project schools, though three schools, Koko Plaine, Ouolofobougou C, and Kobalacoura, reported problems in the classroom buildings. It was reported that: at Koko Plaine, the floor levels in the classrooms were so low to the outside that rain water and dust encroached into the rooms; at Ouolofobougou C, rain water leaks from the ceiling in one of the classrooms; and at Kabalacoura, small bats have begun to nest in the space between the ceiling and roof - entering from a small opening at the roofs edge. According to the principal of Kabalacoura, bat excrement produces an extremely unpleasant odor which intensifies when it rains, disturbing an otherwise pleasant environment to study and work.

### 3.2.2 Project Inputs

### 3.2.2.1 Project period

The project was implemented in three Stages: Stage I (January 2002 - June 2003), Stage II (August 2002 - March 2004) and Stage III (July 2004 - February 2006)<sup>35</sup>. The duration of the project was longer than planned in the Basic Design Study (134% of the planned period). The table below shows the comparison between the planned and the actual construction periods.

	Stage I		Stag	ge II	Stage III	
	Design	Construction	Design	Construction	Design	Construction
Planned	5 months	8.5 months	4 months	12 months	4 months	12 months
Actual	al 6 months 12 months		7 months	13 months	7 months	13 months

Table 3 Comparison between the Planned and Actual Construction Periods

Source: Basic Design Study Report and Project Completion Reports

The three month delay in Stage I was caused by the civil war in Côte d'Ivoire that erupted in September 2002. As Mali is a land locked country it uses Abidian Port in Côte d'Ivoire as its main transit port, where items for Mali are delivered by large trucks. The war disrupted the transportation of goods, delaying the delivery of construction materials for the project (an external factor). The delays in the Design periods in both Stages 2 and 3 occurred because the Malian Government needed more time for granting official permission on the Detailed Designs of the project schools than originally projected, which decreased the project's efficiency.

<sup>&</sup>lt;sup>34</sup> Many glass blocks in the classroom buildings in Bamako District, constructed through Japan's preceding grant aid project (Phase I), were broken by stones thrown during strikes in the early 2000s. To prevent this, some project schools in Bamako have placed wire fence covers over the glass blocks.

<sup>&</sup>lt;sup>35</sup> For all stages, the starting month is when the Detail Design Study began and the end month was when the construction was completed.

# 3.2.2.2 Project cost

The total project cost was 2,543 million yen, which was lower than the amount stated in the Exchange of Notes - 2,690 million yen (95% of the planned amount). MoE claimed that the buildings constructed by Japan: were more durable with a higher level of insulation, noise reduction, and daylight; did not require much repair; and provided a more comfortable learning environment for the pupils due to their superior specifications - although the cost of the classrooms was higher than that of other donors'.

Although the project cost was lower than planned, the project period was overly longer than planned; therefore the efficiency of the project is fair.

### 3.3 Effectiveness (Rating: a)

# 3.3.1 Quantitative Effects (Results from Operation Indicators)

According to the Basic Design Study, the primary objective of the project was to provide educational facilities for approximately 5,100 children and to improve their learning environments by constructing 405 classrooms (replacement of 147 classrooms and addition of 258 new classrooms) at 91 schools.



Photo 1 Koko B



Photo 2 Sansanding



Photo 3 Lafia Cimetière

In order to assess the achievement levels of the set objective, the planned and the actual figures on the following indicators were used for comparison.

- (1) Enrolment
- (2) Pupil to classroom ratio
- (3) Number of schools where double shift and multiple classes were conducted
- (4) Pupil to teacher ratio

### (1) Enrolment

According to the Basic Design Study, the increased number of classrooms would be able to accommodate an additional 5,100 pupils. It was impossible to compare the enrolment of the schools before the project and after the project because (see "2.3 Constraints during the Evaluation Study") after the project's completion many project schools were divided into two primary schools or had given old classrooms to other primary and/or secondary schools.

	Table 4 Increase in Enrolment in Primary Education at the Target District and Regions									
	District / Region		2002/03		2007/08			Change (%) (2002/03 – 2007/08)		
		Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
	Bamako	233,841	119,858	113,983	291,364	146,994	144,370	25	23	27
	Koulikoro	253,104	151,323	101,781	335,045	191,982	143,063	32	27	41

283,911

358,447

1,834,037

159,924

202,346

1,005,673

123,987

156,101

817,364

49

47

42

42

41

36

58

56

48

Enrolment in the target district and regions has been growing steadily, as shown in Table 4.

National 1,294,672 Source: MoE

Ségou

Sikasso

The increase in the number of classrooms constructed by MoE and donors (including Japan) has contributed to an increase in enrolment. Table 4 shows the greater increase in girls' enrolment, indicating that access to education has been broadening for all.

#### (2)Pupil to classroom ratio

191,076

243,374

112,625

143,178

742,087

78,451

100,196

552,585

The project was designed to improve the learning environments at the 91 project schools by reducing the number of pupils per classroom, from 110 per class in 2001 to 82 per class in 2005. The evaluation team found that this target had been met. Table 5 shows the decrease in the number of pupils per classroom at the 66 surveyed schools, about which the Ex-Post Evaluation team was able to obtain reliable data (see "2.3 Constraints during the Evaluation Study"). The average number of pupils per classrooms at the 66 surveyed schools decreased from 105 in 2000 to 78 in  $2009^{36}$ , indicating that classroom congestion had been alleviated by the project.

District / Regions	2000	2009	No. Schools Assessed
Bamako	105	78	22
Koulikoro	104	59	7
Ségou	105	73	23
Sikasso	107	97	14
Average	105	78	-

Table 5 Number of Pupils per Classroom at the Project Schools (66 schools)

Source: Ex-Post Evaluation team

#### Number of schools where double shift and multiple classes systems were conducted (3)

At the time of the Basic Design Study (2000), out of the 91 project schools, 67 (74%) were using the double shift class system and 4 (4%) were using the multiple class system. The Ex-Post Evaluation found that among the project schools the double shift class system was in operation at 18 schools (27%) and no school was operating the multiple class system. Very few

<sup>&</sup>lt;sup>36</sup> The reduction in the number of pupils was smaller in Sikasso, compared to other district and regions. This is because 11 out of 15 project schools are located in Koutiala (Sikasso) where increases in enrolment were much higher. In Koutiala the total number of pupils enrolling in primary education doubled from 4,885 in 2002/2003 to 9,631 in 2008/2009 (according to the MoE statistics).

double shift classes were still being conducted in the first and sixth grade classes, and the number of double shift classes has also been greatly reduced in the other grades. Some of the project schools conducted double shift classes, not because there were too many pupils to be accommodated in one classroom, but because they had adopted a new curriculum which divided classes for pupils who were taught in two languages (both a local language and French) and for pupils who were taught only in French.

By resolving the double shift and the multiple class systems, pupils have longer hours to study in the classroom<sup>37</sup>. Under the double shift system, the first class usually begins at 8:30 and ends at 12:30, and the second class begins at 13:30 and ends at 17:30. Under the normal system, classes begins at 8:30, enters into lunch time at 12:00, resumes at 15: 00, and ends at 17:00. Longer study hours have enabled pupils to improve their understanding of the materials they are learning.

# (4) **Pupil to teacher ratio**<sup>38</sup>

In the 66 surveyed schools, the total number of teachers had increased from 510 in 2000 to 756 in 2009 in proportion to the increase in the number of classrooms (from 418 in 2000 to 639 in 2009). As a result the pupil to teacher ratio across these schools was reduced from 86:1 to 66:1 during the same period (see Table 6).

tuble of Number of Tupins per Teacher at the Troject Benoois (of surveyed schools							
District/Region	2000	2009	No. Schools Assessed				
Bamako	85	67	22				
Koulikoro	82	41	7				
Ségou	91	64	23				
Sikasso	83	86	14				
Average	86	66	-				

Table 6 Number of Pupils per Teacher at the Project Schools (66 surveyed schools)

Source: Ex-Post Evaluation team

### **3.3.2 Qualitative Effects**

The interviews with principals and teachers at the project schools also confirmed that the project increased pupils' concentration in their studies by lowering the number of classmates in one class and providing sufficient numbers of chairs and tables. According to the reports from the community meetings conducted during the Basic Design Study, schools in the urban areas had waiting lists and pupils could not attend a school of their choice because the capacity limit of the school had been reached or they could not afford the entrance fee (although the payment was

<sup>&</sup>lt;sup>37</sup> The Basic Design Study did not foresee the positive resulting outcome of resolving the double shift and the multiple class systems, which has enabled pupils to have longer hours to study in the classroom and lead to an improvement of their understanding of the materials they learn. This outcome was confirmed by the Ex-Post-Evaluation.

<sup>&</sup>lt;sup>38</sup> The decrease in "pupil to teacher ratio" was not foreseen by the Basic Design Study either, but was also confirmed by the Ex-Post Evaluation.

not necessarily obligatory). In contrast, the interviews with principals, CGS members and teachers of the project schools conducted during the Ex-Post Evaluation revealed that the project: increased the capacity of the schools to enroll students, eliminating entrance refusal; decreased the number of pupils being taught at one time, which allowed a teacher's message to reach pupils with greater ease and clarity than before; and had created more space in a classroom solving a situation where pupils had to sit on the ground or be cramped up on a crowded bench, leading to an increase in their concentration in their classes.

In addition to improving access to primary education and the learning environments by constructing classrooms, the Basic Design Study listed the following direct project effects.

- (1) The construction of principal's offices to ensure one principal's office per school would facilitate efficient school operation and management.
- (2) The construction of a sufficient number of latrine buildings would create a hygienic and sanitary environment for pupils to study.
- (3) The establishment of school sanitation clubs (in the soft component) would create an operational structure, through which school facilities would be properly maintained and effectively used.



Photo 4 Latrine Buildings



Photo 5 Hand Washing Basins



Photo 6 Pupils sweeping

Twenty seven principal's offices with storage were constructed to improve school management. According to school principals, the construction of their office improved the efficiency and effectiveness of their work. They are now able to keep textbooks and other teaching/learning materials within close range<sup>39</sup> and conduct their other administrative tasks such as writing reports and meeting guests without being disturbed. Improvements in principals' work environments have given them more sense of control over their work.

The hygiene and sanitation conditions have improved with the construction of pit latrines. However pit latrines were in serious shortage at the schools where a secondary school or other primary schools were located adjacent to or in the same complex as a project school. This was

<sup>&</sup>lt;sup>39</sup> The principal of Kobalacoura commented that he had to keep textbooks and other materials at his home because it was the only safe place he could think of.

because latrines built by this project were used both by the students from a project school and the other schools.

Below are main activities that have been conducted under the soft component.

- Established a Soft Component Committee comprised of the representatives from MoE, the Ministry of Health, UNICEF, CAP and World Education<sup>40</sup>.
- Produced a School Health Manual (textbooks for awareness raising, guideline for setting up a School Health Club and guidelines for maintenance) and posters for raising awareness.
- Conducted training for teachers on school health.
- Conducted seminars on cleaning and maintenance of school premises.
- Set up school sanitation clubs, monitored their activities and provided constructive advice.
- Conduced school health festivals <sup>41</sup>.

According to the project completion reports, the above mentioned activities were implemented and followed up at 30 schools<sup>42</sup> as opposed to at 26 schools as originally planned in the Basic Design Study<sup>43</sup>.

At the time of the Ex-Post Evaluation, principals, teachers, and CGS members at only a few of the schools could remember that these activities had been carried out. It can be deduced from the circumstances and interviews that sanitation clubs had effectively functioned for a few years, with their roles afterwards being taken over by the "Governments of Children" promoted by UNICEF (see "3.5.4 Current Status of Operation and Maintenance"). Those school principals and/or teachers who remembered how "seminars on cleaning and maintenance of school premises" had been carried out stated that the soft component helped increase teachers' and pupils' awareness about health and sanitation, complementing a regular health education program at schools.

This project has largely achieved its objectives; therefore its effectiveness is fair.

<sup>&</sup>lt;sup>40</sup> World Education (NGO) implemented the soft component.

<sup>&</sup>lt;sup>41</sup> According to a project completion report by the Japanese contractor for the project, the number of participants at the School Health Festivals were about 7,610 (400 participants for the festivals jointly conducted for Stages 1 and 2 and 7,210 participants for Stage 3). The impact of the festivals could not be ascertained as there was no record on the festivals kept at the schools and the CAPs and the memories of the event evaded over time.

<sup>&</sup>lt;sup>42</sup> World Education an NGO was entrusted to implement the most of the activities.

<sup>&</sup>lt;sup>43</sup> In the Basic Design Study, the soft component was planned be implemented at two schools from each CAP, a total of 26 schools from the 91 project schools. Six schools would be selected from Stage I, 12 from Stage II, 8 from Stage III. Where multiple project schools were located in the same complex, the soft component was applied to all the project schools in the complex, which increased the number of the schools that soft component was applied from that planned in the Basic Design Study.

### 3.4 Impact

### **3.4.1 Intended Effects**

One of the indirect effects projected in the Basic Design Study was that the implementation of the soft component would facilitate a change in people's awareness about school facility maintenance, which would lead to an improvement in managerial skills and promotion of similar activities in other schools through the Regional Education Centers (Académie d'Enseignement: AE) and CAP. While the Ex-Post Evaluation collected information to verify this indirect effect, quantitative data to establish if this had been achieved could not be obtained.

The activities by sanitation clubs (soft component) have been taken over by the Government of Children, introduced with the support of UNICEF (see "3.3.2 Qualitative Effects"). As of 2007, a total of 2,860 Governments of Children had been set up at schools in seven out of nine regions<sup>44</sup>. Teachers of project schools reported that many of the children continue the same hygiene practices, such as washing their hands, in their own homes, leading to an improvement in the health of a pupil's family members as seemingly (such as the reduced frequency in diarrhea) their attitudes toward sanitation had been positively influenced. It is fair to hypothesize that the soft component, which initiated hygiene practices among children, contributed to an effective implementation of UNICEF's activities.

It is also expected that in general the progression rate to secondary schools from the project schools would increase as an indirect effect of the educational environments improved by the project<sup>45</sup>. Although the data to support this hypothesis was not available, the enrolment rate in secondary education as shown in the table below had increased from 2002/03 to 2007/08 at the target district and regions due to efforts by MoE and donors including Japan.

at the Target District and Regions $(70, 2002/03-2007/08)$							
D: ( ; (D ;	2002/03			2007/08			
District/Region	Boys	Girls	Total	Boys	Girls	Total	
Bamako	74.6	64.1	69.4	81.7	76.5	79.1	
Koulikoro	52.2	24.7	38.3	64.1	37.1	50.4	
Ségou	31.6	17.8	24.6	51.1	31.1	40.9	
Sikasso	38.2	19.3	28.6	44.9	27.6	36.1	

Table 7 Increase in Gross Enrolment Rate in Secondary Education at the Target District and Regions (%, 2002/03-2007/08)

Source: MoE

### 3.4.2 Other Impacts

Neither relocation of residents nor land acquisition was needed for this project and there was no perceivable environmental impact caused by the construction of the schools.

<sup>&</sup>lt;sup>44</sup> United Nations Economic and Social Council, UNICEF, Draft Country Programme Document: Mali, 9 April 2007
<sup>45</sup> This effect was not foreseen by the Basic Evaluation Study. It was newly identified and verified during the Ex-Post Evaluation.

Through implementation of the project, the projected indirect effect has to some degree occurred and has brought about positive impacts for beneficiaries other than pupils attending the project schools.

# **3.5** Sustainability (Rating: b)

# 3.5.1 Structural Aspects of Operation and Maintenance

In Mali where decentralization of the education sector has been implemented, CGSs comprised of parents, community, and school representatives are responsible for daily maintenance of school facilities. The Basic Design Study listed the following as their main roles:

- To raise awareness among community members about the importance of being involved in school maintenance.
- To construct school facilities and maintain school equipment
- To facilitate enrolment
- To participate in employing teachers
- To participate in forming the school's curriculum

It was observed in the Ex-Post Evaluation that most of CGSs meet once or twice a month, with their involvement in school management and school facility maintenance varying widely among individual schools. While some CGSs have only done minor repairs of school equipment, such as tables and chairs, some CGSs have completed more major initiatives, even constructing a principal's office or night watchman's house. The difference in the scope of CGSs' activities depends on: the level of commitment of the parents; cooperation of the community; and management skills of the principal. This was rightly pointed out in the Basic Design Study and the same conditions still determine the scope of CGSs' activities.

# 3.5.2 Technical Aspects of Operation and Maintenance

The facilities constructed by the project were built under the deign policy that they would be within the community members' ability to financially and technically maintain; therefore, no specific technical skill beyond teachers' or CGSs' capabilities are required to fulfill these.

# 3.5.3 Financial Aspects of Operation and Maintenance

The most critical issue in the maintenance of schools is how to gather financial resources to maintain school facilities and equipment in their original state. While the facilities built by the project do not require a large scale renovation for a long time, minor repairs needed to be done

annually to tables, chairs, doors, and blackboards; in addition, pit latrines need to be pumped out periodically which requires preparation by saving large amounts of fund<sup>46</sup>.

Under Mali's decentralization policy, responsibility of school maintenance has been transferred from the State to CGSs and the fees collected from parents are managed jointly by CGS and the principals. The Basic Design Study projected that the entrance, semester and annual student fees as well as other parent's contributions to school expenses would be sufficient to cover the maintenance cost of the facilities built by the project<sup>47</sup>.

The Ex-Post Evaluation found, however, that at the majority of the project schools the fees collected from the parents were insufficient to cover the maintenance costs. The fees rates differ widely across the schools; at 50% of the project schools almost all parents (except for those who are exempt due to their low income) pay entrance fees but only half of them pay semester fees and/or annual pupil fees. Out of the limited amount of the fees collected all CGSs appeared to pay at least the minimum level of expenses required for school management, such as for the repair of tables and chairs, and for consumable school supplies and cleaning equipment, but there was no CGS that had already painted classroom walls or had been reserving funds for necessary future expenses, such as pumping out pit latrines and painting walls.

Since a majority of the CGSs do not receive any financial support from local administrations ("communes"), their financial source for school management and maintenance depends solely on the financial contributions from parents. There are some exceptions to this, such as schools that have received temporary financial assistance through the Direct Support to Improve School Performance (Appui Direct á l'Amélioration des Rendements Scolaires: ADARS)<sup>48</sup> and schools whose local administration pays their water bills.

### 3.5.4 Current Status of Operation and Maintenance

The principals of the interviewed schools uniformly claimed that all rooms were cleaned by pupils at least once a day and the latrines at least once a week. Most of the schools in the target areas have in cooperation with UNICEF introduced the Government of Children, under which

<sup>&</sup>lt;sup>46</sup> The cost of pumping out excreta is between 25,000 CFA (approx. USD 50) and 35,000 CFA (approx. USD70) per pit latrine. The frequency to pump out excreta is between 0.2 times and 3 times, depending on the number of users. Among the project schools visited by the Ex-Post Evaluation team, six schools had pit latrines, which were already filled up and no longer could be used until excreta were pumped out, and several schools would face the same  $\frac{1}{27}$ 

 $<sup>^{47}</sup>$  The amount of parent's contribution varies between schools (enrolment fee: 500 CFA – 7,500 CFA, and annual student fee: 225CFA-2,000CFA). The most typical case observed in the Ex-Post Evaluation was 5,000CFA for the enrolment fee and 1,000CFA for the annual student fee.

<sup>&</sup>lt;sup>48</sup> The first financial disbursement from ADARS (World Bank financed) benefited 2,855 schools in 2007 (the World Bank, Implementation Completion and Results Report, June 28, 2008 Report No. ICR0000422). The objective of the ADARS system was to reduce school fees, which represent one of the most important barriers to school attendance among the poor. (Mailan Chiche, "Country Desk Study. Mali, Mid-Term Evaluation of the EFA Fast Track Initiative," June 2009)

the children elected a "Minister of Health" and "Minister for the Environment" responsible for promoting sanitary practices among pupils and the cleaning of school premises. This system seems generally effective in keeping classrooms clean and raising their awareness about sanitation.

# (1) Classroom buildings

All the interviewed schools check and record an inventory of all the furniture and equipment at the end of the school year (and also at the beginning in many schools) and report it to back to the Ministry in accordance with the Government's regulations.

No major breakage in classrooms or loss of equipment was reported at the schools interviewed. The Ex-Post Evaluation team observed that at some schools the surface of many desks was peeling off and once cracks develop in the surface, pupils had started to peel it off. This was only the case with desks with a plywood surfaces, commonly observed at the project schools in Bamako District and Ségou; the surface of the other type of desks which are made from solid planks have not been damaged. Another problem that was commonly found at many schools was that the surfaces of blackboards were beginning to come off. Cleaning blackboards with a wet cloth (commonly practiced in Mali) causes the blackboard paint to be worn off overtime. Breakages of door knobs and locks on pit latrines were commonly found at the majority of project schools, which may be attributable to the use of cheap materials.



Photo 7 Tables with Damages Surface



Photo 8 Blackboard with Damage Surface



Photo 9 Filthy Latrine Building

# (2) Latrine buildings

The maintenance/condition of the latrines in half of the urban area schools and of some of the rural area schools was in a dreadful state, while those of the other schools had been kept clean. Two major factors, both of which are beyond the Government of Children's capacity, were observed to be the cause of the filthy condition of the latrines: (a) the incapability of the CGS to raise funds (details are described below) for the pumping out of excreta; and (b) the lack of determination by the school principals to exercise strong discipline to their pupils about sanitation.

The principals of some schools claimed that they were no longer capable of maintaining clean latrines because too many pupils were overburdening the number of pit latrines (see "3.3.2 Qualitative Effects"). However, the fact that there were some schools with a similar pupil to latrine ratio that were managing to maintain their latrines in good condition indicates that the condition of the latrines was mostly dependent on an individual school's discipline and attention.

As there are some areas of improvement that could be made in the organizational, financial, and technical aspects of sustainability in this project, the sustainability of the project was consequently evaluated as fair.

### (3) Distribution of textbooks

At the time of the Basic Design Study, it was projected that the delivery and quality of textbooks would improve as publishing of textbooks were to be entrusted to private companies. Several project schools reported that, as a result of the entrustment, the delivery had improved but the binding of textbook had deteriorated and most textbooks could not be reused after being used for a year. The low quality of textbooks coupled with the MoET's insufficient budget had created the situation where the majority of project schools did not have one textbook per student. At the most project schools one textbook was shared by two and four pupils at the time of the Ex-Post Evaluation.

### (4) Handing-over of manuals

Certain technical rules must be followed in order to maintain the facilities and equipment in good condition over a long period. These rules were compiled by the Japanese consultants in a technical manual and were distributed to all schools where the soft component was introduced. The Ex-Post Evaluation team found that none of the school principals at the surveyed schools who had assumed office after the construction of the classrooms knew of the existence of the technical manual. Since the handover of responsibilities from old to new school principals is neither systematic nor comprehensive, this type of important information is often permanently lost. The MoE regulations require only CGS representatives to witness a transfer, which is by no means sufficient to guarantee a transfer's thoroughness. Likewise, all manuals or brochures that were distributed through the soft component, or school cleaning campaigns supported by UNICEF, simply became personal property and thus they were never reused. Although the loss of manuals and brochures does not necessarily lead to degradation of facilities because of resulting poor maintenance due to this loss, the handing-over of these materials is indispensable in raising awareness among new principals and teachers about the necessity of maintenance activities.

Some problems have been observed in terms of the structural and financial aspects of sustainability in this project; therefore the sustainability of the project is fair.

### 4 Conclusion, Recommendations and Lessons Learned

### 4.1 Conclusion

The relevance of the project has been evaluated as high because it is in line with the Mali Government's development policies and Japanese Government's aid policies, while meeting the needs of local population. The efficiency of the project has been evaluated as fair, since the actual construction period exceeded the planned period although the construction cost was within the proposed amount and the buildings constructed by the project were highly praised by all levels of beneficiaries for their high quality and minimum needs for repair. The effectiveness of the project has been evaluated as high, as it has contributed to an increase in enrolment in the target district/regions, significantly decreased the double shift classes and eliminated multiple classes. Also the pupil to teacher and the pupil to classroom ratios decreased at the project schools (compared to the ratios before the project), which indicates improvement in the learning environments. While it was not possible to measure the effects that the soft component has had on pupils' awareness about hygiene and sanitation, the general hygiene levels at the project schools had improved with the addition of pit latrines. The sustainability of the project has been evaluated as fair, since CGSs which are responsible for school facility maintenance lack the managerial and financial skills to collect sufficient financial contributions from the community and appropriately use the funds.

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

### 4.2 Recommendations

### 4.2.1 Recommendations to the Executing Agency

Since a number of CGSs lack leadership, and the financial and operational capacity, it is recommended that MoE in collaboration with donor agencies (including JICA) compile information on examples of good CGS management and use this to formulate and implement programs for CGS capacity development. In order for CGSs to become able to exercise leadership, members need to primarily understand their roles and responsibilities in the school management system. CGS members should be trained so that they become able to keep records at meetings, establish action plans and prepare financial reports. Once a CGS (a schools governance mechanism) properly functions school principals' commitment will increase under its pressure, which will lead to an improvement in schools' daily operation and maintenance activities, including cleaning of toilets.

Since at the majority of the project schools the fees collected from the parents were insufficient to cover the maintenance costs (see"3.5.3 Financial Aspects of Operation and Maintenance"), CGSs should be encouraged to raise funds in some way or another when they cannot collect a sufficient amount of money from parents, such as by renting out classrooms to private companies and NGOs at night or during weekends for training courses and other practical uses. At some project schools, pit latrines had already filled up without any near future plan to pump out excreta and it was most likely that the number of project schools in the same situation would increase. In order to avoid the occurrence of such an unhygienic condition, it is crucial for CGSs to reserve funds aside for pumping out excreta. In May 2009, JICA launched a three year project to strengthen the CGSs by providing technical assistance, targeting 109 schools in Koulikoro Region. Once an effective support mechanism for CGSs has been developed through this technical assistance project, operational CGS models should be disseminated nationwide.

The Japanese consultancy firm responsible for the soft component prepared and distributed a technical guidance manual on maintenance and cleaning of classrooms/equipment to all schools (principals) targeted for the soft component, though none of the principals who had assumed office after the construction of the classrooms knew about the existence of this technical manual (see "3.5.2 Technical Aspects of Operation and Maintenance"). MoE's regulations require only CGS representatives to witness a transfer of services between principals, which is by no means sufficient to guarantee a transfer's thoroughness. The handover of tasks done by school principals is currently conducted in an ad hoc manner, which can lead to a loss of important information. MoE should prepare guidelines for the handover of duties, including a standard filing procedure, and the handover should be conducted in the presence of CAP representatives in order to make sure that all important information is properly handed over.

### 4.2.2 Recommendations to JICA

Since the physical problems with educational facilities discussed in "3.2.1 Project Outputs" came about after the warranty period had expired, the attribution of these problems is not clear. If the repair of facilities is judged to be done in a cost-efficient manner, it is recommended that JICA takes remedial measures while investigating the cause of the problems.

The JICA's CGS Support Project (technical assistance) that began in May 2008 and were planned to be implemented for the period of three years targets 109 primary schools in Koulikoro Region. Since a CGS's performance is the key to the successful operation and maintenance of school buildings, it is recommendable to extend CGS capacity building support to other regions so that effective usage of the facilities constructed by Japan would be ensured.

# 4.3 Lessons Learned

None of the principals who had assumed office after the construction of the classrooms knew about the existence of the technical manual (see "3.5.1 Structural Aspects of Operation and Maintenance"). Most of the manuals and brochures prepared thorough soft component simply became personal property of the teachers. When JICA provides instructions that are to be read and followed repeatedly, at least one copy should be reserved as the school's property and should be indicated as such.

There is some room for improvement in the selection of materials (see "3.5.4 Current Status of Operation and Maintenance"). Since using a wet cloth to clean the surface of blackboards is a common practice in Mali, materials that have good water resistance should be used for blackboards. As the two types of desks were supplied with different surfaces - plywood and plank, and as the desks with plywood surface proved to be easily damaged, this material should be avoided in the future.