Republic of Madagascar

Ex Post Evaluation of Grant Aid Project

The Project of Classroom Construction of Primary Schools in Antsiranana and Toliara Provinces (Le projet de construction de salles de classe d' écoles primaires dans les provinces d'Antsiranana et

de Toliara)

0. Summary

External Evaluator: Haruo Ito, ICONS Inc

The Project for the Construction of Primary School Classrooms in Antsiranana and Toliara Provinces (hereinafter: the Project) was implemented to support classroom construction in the two provinces. goal was to improve the education setting by alleviating classroom shortage, which was caused by population growth and aging school facilities. The ex-post evaluation revealed that the Project's purpose corresponded to the development policy and needs of Madagascar, and to the Official Development Assistance (ODA) policy of the Japanese government. Therefore, the relevance of the Project is considered high. The results of the field survey show that the effectiveness and impact of the Project are also high because of the increase in the number of pupils who benefited from it and the reduction in the pupil-classroom ratio. The improvement in the quality of education and achievements of the pupils brought about by the remediation of multiple classes is likewise seen as a positive impact. Efficiency is also high because both the project period and project cost were within the original plan. The sustainability of the Project is considered fair, as minor problems have been observed in the operation and maintenance system, and in financial and structural aspects; moreover, water facilities have not been properly maintained. In regard to the financial aspect, the budget allocation for each school's management board (called FAF [Fiarahana miombona Antoka ho Fampandrosoana ny sekoly]), which plays a role in maintaining school facilities, has been decreased since the political turmoil in 2009.

In light of the above, the Project is evaluated as highly satisfactory.

1. Project Description



Project Location



School Building Supported by the Project (Antsiranana)

1.1 Background

Education is considered one of the most important development issues by the government of Madagascar and the Strategic Plan for Education Sector Reform and Development (hereinafter: Strategic Plan)—the basis of the foundation policy in education of the Poverty Reduction Strategic Paper (PRSP) in 2003. The Strategic Plan aims for a 100% completion rate in basic education by 2015 through its dissemination and the improvement in the quality of and access to education. Moreover, 'Education for All' (EFA), the medium-term implementation plan of the Strategic Plan, offered free primary education and school kits for all pupils, and school subsidies in accordance with the number of pupils; it constructed 2,000 classrooms and provided 2,000 teachers. As a result, the number of pupils increased from 2.3 million in 2000 to 3.82 million in 2006. The enrolment rate also rose in the same period-from 99.7% to 139.6%, for a net enrolment rate of 97.6%. However, the existing school facilities did not have the capacity to absorb the growing pupil population; it was reported that there was a shortage of 16,186 classrooms nationwide. Moreover, of the 50,760 public school classrooms available in 2006, 10.3% were makeshift structures that had been built by community members. Because the national budget was insufficient, the government had to rely on international donors for the construction or rehabilitation of school facilities. Nevertheless, the classroom shortage remained critical. Thus, after the completion of the Primary School Construction Project (Phase II) in 2004–2005, Madagascar requested to Japan for the school construction project with the Grant Aid for Community Empowerment scheme¹, which would provide the necessary budget for primary school facilities and related equipment.

1.2 Project Outline

The Project aimed to alleviate the classroom shortage caused by population growth and aging school facilities through the provision of classrooms, principals' offices, and toilets in primary schools in Antsiranana and Toliara, using the Grant Aid for Community Empowerment scheme.

Grant Limit/Actual Grant Amount	1,032 million yen/1,032 million yen		
Exchange of Notes Date (Grant Agreement Date)	5 March 2007		
Implementing Agency	Ministry of National Education (MEN)		
Project Completion Date	Toliara: 13 June 2009		
	Antsiranana: 15 December 2009		
Main Contractors	ConstructionToliara: ENGEMAFI (Lots 1, 3, 6, 7, & 8), MANITRA (Lot 2), and HERIMANANA (Lots 4 & 5)Antsiranana: ENGEMAFI (Lots 1, 2, 3, 4, & 8), MANITRA (Lot 9), and HERIMANANA (Lots 5, 6, & 7)School Material Procurement Toliara: MENUISERIER D'ART (Lots 1, 2, & 4) and BCTP (Lot 3) Antsiranana: MENUISERIER D'ART (Lots 1, 2, 3, 4, & 5)		
Main Consultant	GROUPEMENT SERT/TSR		
Preparatory Survey	August 2006–March 2007		
Related Projects (if any)	- Primary School Construction Project (1997–1998)		
	- Primary School Construction Project, Phase II (2004–2005)		

¹ The Grant Aid for Community Empowerment, one of the Grant Aid schemes started in 2006, supports the comprehensive capacity building of communities facing poverty, starvation, epidemics, and threats to safety; promotes construction that is based on local specifications and designs; and uses local suppliers and equipment to reduce implementation cost. The Project was implemented right after the Grant Aid for Community Empowerment scheme was completed.

2. Outline of the Evaluation Study

2.1 External Evaluator Haruo Ito, ICONS Inc. (Senior Consultant)

2.2 Duration of Evaluation Study

Duration of the Study: November, 2012–November, 2013 Duration of the Field Study: 12 January–9 February 2013; 30 March 2013–13 April 2013

2.3 Constraints during the Evaluation Study

Due to budgetary and time constrains, the beneficiary survey² was carried out by local consultants only in one of the two targeted provinces—Antsiranana. The Japanese consultant, on the other hand, implemented the field survey³ in both target provinces, interviewing principals, teachers, pupils, and FAF members (parents) and conducting a visual inspection of school facilities. The current situation of the target schools was analysed using available statistical data from the Regional Branch of National Education (Direction Régional de l'Education Nationale [DREN]) in both provinces.

3. Results of the Evaluation (Overall Rating: A⁴)

3.1 Relevance (Rating: (3^5))

3.1.1 Relevance to the Development Plan of Madagascar

At the initiation of the Project in 2006, the Madagascar Action Plan 2007–2012 (MAP) was developed as a replacement for PRSP, which was due for completion in that year. MAP has eight main goals, the third being the improvement of the education system to provide internationally competitive human resources (following the promotion of good governance and development of infrastructure). However, the political turbulence in 2009 has had a negative impact on the education sector; according to a survey by the National Bureau of Statistics, the net enrolment rate has fallen from 83% in 2005 to 73.4% in 2010, thus threatening the achievement of EFA indicators. Under these circumstances, during the ex-post evaluation in April 2013, the Mid-Term Plan for Education 2013–2015 (Plan intérimaire pour l'éducation 2013–2015) has been drafted by the Ministry of National Education (MEN) and donors as a tentative sector development plan during the political stabilisation process. Increasing the number of primary school buildings will be one of the targets of the Mid-Term Plan under the overarching goal of expanding basic education.

 $^{^2}$ The beneficiary survey covered 49 of the Project's 52 target schools: 28 in Antsiranana and 21 (out of 24) in Toliara (statistical data from DREN only).

Sampling number: school principals 28, pupils 139

Survey contents: educational statistics (umber of pupils, enrol rate and pass rate) and facility conditions.

³ In addition to beneficiary survey, the Japanese consultant visited 16 schools, eight each in Antsiranana and Toliara for conducting interview to related personages and facility check. School principals, teachers, pupils and FAF members were interviewed during the visit.

⁴ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁵ ③: High, ②: Fair, ①: Low

For the above reasons, the project goal is highly relevant to the country's development plan, both at the project initiation and the ex-post evaluation.

3.1.2 Relevance to the Development Needs of Madagascar

The number of pupils in primary schools has increased because of the sensitisation of community members and heightened parent awareness of the importance of education. The school-age population at the primary level has also been expanding (see Table 1); therefore, the need for additional classrooms is still high.

Table 1: School-Age Population at the Primary Level (between 6 and 10 years old)				
2007-2008	2008-2009	2009-2010	2010-2011	
2,680,136	2,760,137	2,842,525	2,927,374	

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Source: Plan intérimaire pour l'éducation 2013-2015

In 2006, 10.3% of the 50,760 classrooms in public primary schools were makeshift structures that had been constructed by community members. Although the old classrooms are becoming run-down, and roofs and building frames are damaged by cyclones that hit Madagascar annually, classroom renovation has not been implemented properly. Since the political turbulence in 2009, school building programs by donors have been suspended. As a result, the proportion of classrooms that were temporarily built by the community increased to 13.5% in 2012. This shows that the implementation of the Project corresponds to the needs of Madagascar, as the classroom shortage is still critical.

3.1.3 Relevance to Japan's ODA Policy

In regard to Japan's aid policy for Madagascar during project initiation in 1997, the promotion of 1) basic human needs (education, health and medical care, and water supply); 2) infrastructure for regional development; 3) agriculture, fisheries, and the environment; and 4) human resource development was a priority in the policy consultation of the Ministry of Foreign Affairs in 1997. Thus, the Project's goal of improving the educational environment was consistent with Japan's aid policy. In addition, 1) poverty reduction through economic growth, 2) the promotion of human-centred development, and 3) the consolidation of the peace process were also priority development agendas in the third Tokyo International Conference on African Development (TICAD III) held in September-October 2003. The Project's support for education was relevant to 'the promotion of human-centred development' in the agendas of the TICAD III.

Since the Project is compatible with the country's development plan, development needs, and Japan's ODA policy, its relevance is considered high.

- 3.2 Effectiveness⁶ (Rating: ③)
 - 3.2.1 Quantitative Effects (Operation and Effect Indicators)
- (1) Number of Pupils in the Target Schools

The results of the beneficiary survey revealed that the number of pupils increased slightly, from 29,508

⁶ Sub-rating for effectiveness is to be set in consideration of impact.

during the preparatory survey in 2006–2007 and 29,860 at the project completion in 2009–2010, to 29,719 during the ex-post evaluation in 2011–2012 (see Table 2).

In some of the target schools, the number of pupils dropped during the project implementation, mainly because of the establishment of private schools in neighbouring areas and the displacement of people resulting from the deterioration of security in rural areas or the closure of local factories.

	Target	2006-2007	2009-2010	2011-2012
	Provinces	Baseline	Project Completion	Ex Post Evaluation
Marah an af	Toliara	18,814	18,925	19,387
Number of	Antsiranana	10,694	10,935	10,332
Pupils	Total	29,508	29,860	29,719
March on of	Toliara	225	n.a.	322
Number of	Antsiranana	115	n.a.	162
Classicollis	Total	340	n.a.	484^{7}

Table 2: Number of Pupils and Classrooms in Each Target School

Source: Beneficiary Survey

Of the 204 classrooms constructed by the Project, 126 were old classrooms that were rebuilt. The Project set the indicator showing that the learning environment for 12,600 pupils⁸ will improve once the old classrooms are rebuilt. The results of the beneficiary survey proved that even though the Project has accomplished its original target, the number of pupils studying in the 126 rebuilt classrooms has reached 16,546, thereby increasing the pupil-classroom ratio. However, as regards the improvement of the learning environment in the target schools, many of the classrooms constructed by the community or Malagasy government before the Project were makeshift structures, with noise and leaking roofs, and an insufficient number of desks and chairs. Thus, for the 16,546 pupils now studying in the classrooms rebuilt under the Project, the learning environment has nevertheless improved.



Classroom with Clay Wall Constructed by the Community

⁷ The Project built 78 new classrooms and rebuilt 126, for a total of 204. The current number of classrooms has increased because of the classroom building implemented by the local government and community.

⁸ Number of rebuilt classrooms multiplied by the ideal number of pupils per classroom multiplied by two-shift system (in this case, $126 \times 50 \times 2$).

(2) Pupil-Classroom Ratio

The results of the beneficiary survey show that the average pupil-classroom ratio in the target schools has slightly decreased (see Table 3). However, the pupil-classroom ratio of 63 after the project completion in 2008–2009 fell short of the target ratio of 52 that was set in the preparatory survey. The reason was that the number of schools with double-shift classrooms decreased since the time the indicator was set up⁹. However, the significant improvement over the pupil-classroom ratio of 91 before the Project (2003–2004) is a sign that overcrowding in classrooms has been eliminated. Therefore, by relieving teachers of the heavy burden of handle many pupils in a class and promoting contact between the teachers and the pupils, the Project has improved the quality of learning.

2006-2007	2009-2010	2009–2010	2011–2012
(Baseline)	(Target)	(Completion)	(Ex Post Evaluation)
91	52	63	61

Table 3: Pu	pil-Classroom	Ratio in	Target	School	S
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Source: Beneficiary Survey

With regard to the number of teachers in the target schools, the principals in 92.9% of the schools replied that the number of teachers has increased since the project completion. This self-help effort of the Malagasy side—the allocation of the necessary number of teachers—which also helps improve the learning environment, has likewise been implemented according to the original agreement of the Project.

#### (3) Fewer Double-Shift Classes

By increasing the number of classrooms, the Project has helped reduce the need for double-shift classes. The results of the beneficiary survey show that from 98.0% before the project implementation, the number of schools¹⁰ practicing double shifting decreased 26.6 percentage points to 71.4% after the Project increased the number of classrooms. The reduction in double-shift classes allows the target schools to secure standard class hours and the teachers to spend more hours for the preparation of teaching because of the reduction of their working load. Furthermore, teachers are able to conduct lessons in the morning, when pupils have better concentration, which positively affects the pupils' performance. Additionally, the reduction in double-shift classes has encouraged parents to send their children to school because the latter would no longer have to commute in the late afternoon.

#### 3.2.2 Qualitative Effects

A beneficiary survey was conducted on 139 pupils in the target schools regarding their satisfaction with the Project's construction of classrooms. Around 85% replied that they 'strongly agree' or 'agree' to the question 'Are there enough classrooms in your school?' (see Figure 1). This implies that the Project installed enough classrooms in the target schools.

⁹ The implementation rate of double-shift classes decreased from 98.0% (before the Project) to 71.4% (after the Project).

¹⁰ Sample size = 49 schools (out of the Project's 52 target schools): 28 in Antsiranana and 21 in Toliara.



Source: Beneficiary Survey Figure 1: Pupil Satisfaction with the Number of Classrooms

Of the 56 schools targeted by the beneficiary survey, only five refused to accept pupils: two, because of limited classroom capacity and three, because of the lack of teachers. This shows that the Project has provided most of the target schools with enough classrooms.

### 3.3 Impact

3.3.1 Intended Impacts

## (1) Result of the Elementary Certificate of Primary Education

Although the average passing rate in the final examination of primary education (Certificat d'Etudes Primaires Elémentaires: CEPE) of the target schools in Antsiranana has been slightly lower than the national average for the past three years, the average passing rate of the other target schools has been considerably higher than that of Antsiranana¹¹. Furthermore, 89.3% of the target schools responded that the learning motivation of pupils (e.g. increase in the attendance rate and attitude towards their studies) has improved since the Project built new classrooms. Various other factors contribute to a better passing rate in the final exam, and the improved learning environment resulting from the Project's classroom construction is considered one of them.

Table 4: Passing Rate of CEPE in Target Schools ¹²					
	2008-2009	2009-2010	2010-2011		
Nation	78.5%	76.9%	74.4%		
Antsiranana	67.5%	75.5%	48.9%		
Target schools	72.6%	76.6%	67.3%		

Sources: MEN, DREN, and Beneficiary Survey

(2) Enhancement of the  $FAF^{13}$  Function by the Soft Component

Seminars on school operation and maintenance analysis, budget planning and accounting, facilities check

¹¹ The reason for the low passing rate in Antsiranana in 2011 was not confirmed in the field survey.

¹² Sample size: only 28 target schools in Antsiranana.

¹³ FAF (Fiarahana miombona Antoka ho Fampandrosoana ny sekoly) means 'school development partnership' (Partenariat Pour le Développement des Etablissements Scolaires [PPDES]). FAF is sort of a school management committee that each school is required to form under ministerial ordinance No. 2002/1007, issued in 11 September 2002. The committee has seven or eight members, composed of residents, principals, teachers, pupils, etc.

and maintenance, and operation of the pupils' congress were implemented as the Soft Component of the Project. The positive impacts of the Soft Component on the enhancement of the FAF function have been confirmed, such as holding a General Assembly regularly to discuss school maintenance problems, strengthening participation in school activities, and ensuring the transparency of the FAF fund by reporting to community members how it was used. However, the activities of FAF members and monitoring of FAF activities by DREN and the Circonscription Scolaire (CISCO) have been constrained by the low budgetary allocation, decrease in the subsidies for FAF, and transfer of FAF members who had attended the seminars. As a result, the continuity of the said positive impacts has been impeded. Moreover, the fact that only 54.2% of FAF (in 13 out of 24 schools) is currently involved in the maintenance of school facilities further dampens the positive impacts.

### (3) Reduction of the Burden of School Maintenance on the Community

Across the country, 13.5% of primary school classrooms are makeshift structures that were built in 2012 with the support of the community. Low-standard materials were used, such as wood or mortared adobe bricks, and galvanised iron for the roofs. Therefore, regular building maintenance and the repair of roofs, doors, and windows damaged by cyclones were a burden on the school staff and community members. The results of the interviews show that the construction of classrooms by the Project—using high-quality materials, mortar, etc.—did away with roof leaks and ensured proper ventilation, thereby reducing the schools' maintenance expenses.

#### (4) Sanitary Improvement through the Installation of Toilets

Before the Project, few pupils used toilets because schools either had too few of them or none at all. The results of the beneficiary survey show that the sanitary environment has been improved in all target schools with the installation of toilets by the Project. Moreover, the improvement in health conditions brought about by the pupils' behavioural change (e.g. lower incidence of diarrhoea) is identified as the synergistic effect of health education; specifically, the instruction on the proper use of the toilet by other donors.

#### (5) Function as a Cyclone Shelter

The target area of the Project is frequently damaged by cyclones. The survey confirmed that since anti-cyclone specifications were applied in the project construction, the classrooms can be used as shelters when cyclones hit.

#### 3.3.2 Other Impacts

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

No negative impacts, such as the noise from school construction sites, soil disposal, and sewer water from toilets, were identified in the field survey.

#### (2) Land Acquisition and Resettlement

To be listed as a prioritised school construction site, documents proving site ownership (Certificat d'Immatriculation et de Situation juridique) have to be presented, and the target area should have no squatters. Since the classrooms, toilets, and water supply facilities of the Project were constructed on existing school sites, the Project has had no problem in the resettlement of residents.

The Project has largely achieved its objectives; therefore, its effectiveness and impact are high.

### 3.4 Efficiency (Rating: ③)

3.4.1 Outputs

(1) Outputs of the Japanese Side

The project provided classrooms, principal's offices and warehouses, toilets, and water supply facilities to 52 schools in the two target provinces. As shown in Table 5, the 64 target schools in the original plan were reduced to 52. Rising material, labour, and transportation costs, and foreign exchange losses are reported as the factors that led to the reduction of target schools in Toliara during the first term of the Project. The two schools in Antsiranana that were eliminated in the second term had private property issues and lacked access roads. Because the target schools were decreased, the number of toilets, and principal's offices and warehouses were reduced accordingly. Nevertheless, despite fewer target schools, the number of constructed classrooms increased from 200 (planned) to 204 (accomplished) because the competitive tender for the second term of the Project in Antsiranana produced surplus funds.

		Planned		Accomplished		ished
	Total	Toliara	Antsiranana	Total	Toliara	Antsiranana
Target school	64	34	30	52	24	28
Classroom	200	91	109	204	65	139
Principal's offices/warehouses	32	14	18	10	17	27
Toilets	64	34	30	52	24	28
Water supply	24	5	19	24	5	19

Table 5: Planned and Accomplished School Facilities

Sources: Preliminary Survey Report (2007) and Completion Report (2010)

Furniture and equipment were procured for the 52 target schools (see Table 6).

	Table 6:	Procured	Furniture	and Eq	uipment
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- Classroom: desks and chairs of pupils and teachers, cupboards

- Principal's office: desks and chairs of the principal, meeting chairs, cupboards, bulletin board

- Warehouse: books, storage shelf Source: Completion Report (2010)

#### (2) Soft Component

The Soft Component seminars of the Project have been implemented in the 52 target schools as planned. The attendees were representatives from CISCO and the Zone Administrative Pédagogique (ZAP), principals, teachers, and parents. The total number of participants was 2,571 (565 in Toliara and 2,006 in Antsiranana). Table 7 presents the seminars and manuals of the Soft Component.

	1
Content of the Seminars	Developed Manuals
- Understanding the present condition and future needs of the school	- Manual for the Management Planning Committee
<ul> <li>Diagnostic facilities and developing a maintenance plan for the school</li> </ul>	- Manual for the Facilities Maintenance Committee
- Formulating management financial plans of the school and school accounting for accountants	- Manual for the Budget and Accounting Committee
<ul> <li>Introducing maintenance and hygiene education for toilets and water supply facilities</li> </ul>	<ul> <li>Manual of Health Education for Pupils and Teachers</li> </ul>
	- Cartoon and Video for School Management

Table 7: Training and Training Manuals of the Soft Component

Source: Soft Component Completion Report (2010)

### (3) Outputs of the Malagasy Side

The Malagasy side carried out its obligations according to plan; for instance, it obtained the necessary land and expedited construction and equipment procurement. However, the installation of school gates and perimeter fences where needed has not been carried out in some target schools. Thus, neighbourhood residents can freely use the toilets and water supply facilities of the schools, which makes it difficult to keep them in a good condition.

## 3.4.2 Project Inputs

3.4.2.1 Project Cost

The original project cost was placed at 1,032 million yen, and the actual disbursement also amounted to 1,032 million yen (100% of the planned amount). Therefore, the project cost stayed within the budget.

### 3.4.2.2 Period of Cooperation

The planned project period was 35 months (see Table 8), but the Project was completed in 25.3 months—well within the planned period. At the start of construction, some contractors had difficulty securing human resources, equipment, and machinery due to the tight credit situation. This was precipitated by the economic crisis wrought by political instability. However, the Project was able to avoid major disruptions because the tender for local contractors was implemented under strict conditions, including the verification of the contractors' financial status. Even though local contractors were hired under the Grant Aid for Community Empowerment scheme, the transfer of technology to them and the appropriate process control by the Japanese construction supervisor contributed to the shortening of the project period.

Planned	Actual	Actual/Planned	
35 months	25.3 months (from 7 November 2007 to 15 December 2009)	72%	
Sources: Preliminary Survey Report 2007 and Completion Report (2010)			

Report 2007 and Completion Report (2010)

The contract amount of the Soft Component was 252,500,000 MGA¹⁴ (100% of the planned amount). The planned implementation period of the Soft Component was 34 months, but it was completed within 25 months (from December 2007 to December 2009) or 74% of the allotted time.

Both the project cost and project period were within the plan; therefore, the efficiency of the Project is high.

# Box: Comparison of the Grant Aid for Community Empowerment and Grant Aid for General Projects

# 1. Features of the Grant Aid Projects

The ex-post evaluation compared the Grant Aid for Community Empowerment and Grant Aid for General Projects carried out in Madagascar. The Grant Aid for Community Empowerment tried to strike a balance between quality and cost reduction in school facility construction. The quality of the facilities constructed under the Grant Aid for Community Empowerment is somewhere between the quality of those constructed by other donors (e.g. the World Bank) using local standards and that of the Japanese Grant Aid for General Projects. The advantages and disadvantages of each Grant Aid Project are as follows:

	Grant Aid for General Projects Primary School Construction Project Phase II	Grant Aid for Community Empowerment Project for the Construction of Primary School Classrooms in Antsiranana and Toliara Provinces
Advantages	- High durability - High-quality finish - Reliable term of works	- A large number of classrooms due to the low unit cost
Disadvantages	- Fewer classrooms due to higher cost	<ul> <li>Finishing quality is lower than that of the Grant Aid for General Projects</li> <li>Risks in low quality, delay of the project period</li> </ul>

## 2. Costs of the Grant Aid Projects

The unit construction cost of classrooms divided by the total cost under the Grant Aide for General

¹⁴ 1 MGA (Malagasy ariary) = 0.042 yen (as of February 2012)

Projects was 5,995 thousand yen and under the Grant Aid for Community Empowerment, 4,939 thousand yen. Therefore, the objective to reduce construction cost of the Grant Aide for Community Empowerment was attained. For comparison, the two-story school building of the Grant Aide for General Projects designed by Japanese consultants had glass windows and flushing toilets; the Grant Aide for Community Empowerment used local standard designs, specifications, and contractors. There are the factors of this reduction. In the Grant Aide for Community Empowerment, 26% of the total project cost was allocated to the indirect expenses (procurement agency and supervision expense) for the tender preparation, contractor selection and project management conducted by Japanese engineers. The proportion of the indirect expenses in the total cost was high, however it can say that this high proportion was necessary in order to secure the quality construction, even if using local contractors.

## 3. Important Factors of the Grant Aid for Community Empowerment

The Grant Aid for Community Empowerment project, even if it hired local contractors, was of appropriate quality and finished the work ahead of schedule. Its biggest asset was the Japanese technical manager under contract with the Japan International Cooperation System (JICS), the procurement agency of this project. He has 28 years of working experience in Madagascar and an interpersonal relationship with the senior management of each contractor. He handled the technology transfer to contractors and local consultants. At the start of the construction period, some construction companies had difficulty providing materials, human resources, and equipment because it was hard to secure loans from banks. This was due to the economic crisis caused by the establishment of the new regime. However, the project operated without any major disruptions, as it implemented the tender under strict conditions, including the verification of the contractors' financial status. In the selection of local consultants and contractors, it is important to confirm the financial status of bidders and reflect their status in the selection of the tender.

## 4. Outcomes of the Grant Aid Projects

The results of the facility check in the beneficiary survey (see Figures 1 and 2) show that the Grant Aid for Community Empowerment had fewer maintenance problems because local procured materials and spare parts were applied for the design of classrooms and toilets, and because local standard specification were improved in consideration of the durability of those facilities.



# Source: Beneficiary Survey Figure 1: Maintenance Status of Classrooms

Figure 2: Maintenance Status of Toilets

The reduction of construction cost and easy maintenance were identified as the major advantages of the Grant Aid for Community Empowerment. On the other hand, technology transfer to local contractors, strict process control, and the implementation of the tender, including criteria, on the bidders' financial status were identified as important factors for the effective management of the project. The comparative advantages of the Grant Aid for Community Empowerment will be strengthened by further reductions in the total costs through the efficient implementation with reflecting experiences of the former Grant Aids for Community Empowerment to other projects.

## 3.5 Sustainability (Rating: 2)

3.5.1 Institutional and Operational Aspects of the Implementing Agency Table 9 shows the maintenance management system in each administrative level.

Related Organisations		Roles in School Maintenance		
		Developing school construction and rehabilitation plans		
National	MEN	nationwide, school monitoring, and budget management.		
		Seven technicians are assigned to school facilities.		
	DREN	The Planning Division of DREN contacts CISCO and MEN in		
Province		regard to the development of the plan for school rehabilitation		
		and monitoring, and budget management. DREN scarcely has		
		technicians for school facilities.		
	CISCO	Developing school rehabilitation plans at the district level,		
District		school monitoring, and budget management. CISCO has no		
		technicians for school facilities.		
Zana	ZAP	School monitoring and reporting to CISCO. ZAP has no		
Zone		technicians for school facilities.		
Sahaal Laval	FAF	Maintenance of school facility by FAF members using the FAF		
School Level		fund.		

Table	9: C	Organisat	ions and	l their	Roles	in S	School	Maintenance
		<u> </u>						

Source: Ex post evaluation

At the national level, the Department of Land Assets and Infrastructures in MEN has seven technicians; it is in charge of the school infrastructure rehabilitation plan and monitoring school facilities. Moreover, one or two persons in the Planning Division in DREN (regional level) and CISCO (district level) are responsible for budget management and monitoring school facilities. The maintenance of facilities at the school level is the duty of FAF members, but their activities are limited by insufficient FAF funds. The results of the beneficiary survey show that FAF has been established in all target schools¹⁵. However, enhancing the school maintenance system by activating functions of FAF remains an issue, as only 13 out of 24 (54.2%) of the FAF in target schools are involved in school maintenance activities. In addition, although indispensable, the periodical monitoring of FAF activities in target schools by CISCO and ZAP is

¹⁵ FAF has managed and maintained school buildings since 2002, after the establishment of FAF in each school was legislated by ministerial ordinance.

hampered by an insufficient budget.

### 3.5.2 Technical Aspects of the Implementing Agency

The evaluation team confirmed that the engineers of the Land and Facilities Management Office, the department in charge of school infrastructures in MEN, have sufficient skills for monitoring and developing the facility repair plan. At the regional level, DREN and CISCO also have the skills for the periodical monitoring and budget management of school facilities. However, DREN and CISCO allocate a limited number of technicians for the maintenance of school facilities. The Soft Component was aimed at detecting school facility conditions; however, the maintenance being carried out at present does not require any special techniques. In fact, after the completion of the Project, actual school maintenance has not required special skills, as current repairs are limited to door locks and revarnishing—something that even residents or school staff are capable of doing. In addition, since members of FAF school maintenance committees in some schools are composed of electricians, plumbers, carpenters, and plasterers, they are considered to have enough skills for the task. On the other hand, only 43% of target schools have utilised the maintenance manuals developed by the Soft Component, as school maintenance activities reportedly involve only daily cleaning or simple repairs.

#### 3.5.3 Financial Aspects of the Implementing Agency

The national budget for the construction and maintenance of school buildings is secure in the Directorship of Land Assets and Infrastructures of MEN, and is distributed according to the prioritised applications from DREN or each school. However, since the budget is insufficient, MEN is unable to construct new school buildings. Therefore, only the emergency repair of school facilities that were damaged by cyclones or other natural calamities is prioritised. Table 10 presents the national budget of MEN for school facilities.

		(	
	2010	2011	2012
Rent, water, electricity, and communication	0	45,000	15,000
Furniture	0	41,462	35,000
Transportation	15,000	161,862	75,000
Maintenance	0	25,000	25,000
School buildings	127,500	38,826,000	1,358,044
Total	142,500	39,099,324	1,508,044

Table 10: National Budget of MEN for School Facilities

(Unit: 1 000 MGA)

Source: MEN

In addition to the national budget, governmental subvention to FAF (FAF fund) is distributed to each school according to the number of pupils. The fund is intended for buying pupils' textbooks and stationery, but part of it has actually gone to the maintenance of school facilities. The FAF fund used to be increased yearly (see Table 11), but political turbulence has caused its suspension. The purpose of the FAF fund is to reduce the financial burden of parents, so that schools do not generally require contributions

from them. However, the teachers hired by FRAM¹⁶ are paid by parent contributions; the bulk goes to the part-time FRAM teachers.

			(III MOA)
	2010	2011	2012
Total	4,743,810,340	6,298,995,563	7,803,999,990
Total per pupil	961	924	$2,000^{17}$

Table11: Governmental Subvention to FAF

(in MCA)

Source: MEN

Compared to the cost of maintaining other school facilities, that of the Project's target schools is low, as the work involves only daily cleaning and simple repairs (repainting, replacement of door locks, etc.) because of the high construction quality. Therefore, the average operation and maintenance cost of each target school is only 158,313MGA (about 6,649 yen) per year (see Table 12). Since the priority of the FAF subsidy is textbooks and stationery, it is not enough to cover the repair of damaged toilets and windows, however the minimum maintenance activities of each target school are conducted within the budget.

Table 12: Average Operation and Maintenance Cost of the Target Schools

			(in MGA)
	2010	2011	2012
Classroom	41,852	51,481	31,596
Furniture	29,217	14,291	13,333
Equipment, spares	201,199	215,830	113,384
Total	272,267	281,602	158,313

Source: Beneficiary Survey

Meanwhile, UNICEF distributes the Fonds Catalytique Local (FCL)¹⁸ to the schools to compensate for the insufficiency of the FAF fund. Though the FCL also prioritises the textbooks and stationery of the pupils, part of it can be used to improve the learning environment by maintaining the school facilities.

3.5.4 Current Status of Operation and Maintenance

In its school visits, the ex-post evaluation team confirmed that the school facilities established by the Project were sufficiently maintained. Further, the results of the beneficiary survey show that 82% of the target schools rotate pupils and teachers in cleaning the school building at least once a week (see Figure 2).

¹⁶ The salaries of the full-time teachers and subsidies of the part-time teachers hired by FRAM are paid by the government.

¹⁷ The amount of subsidies to FAF per pupil in public schools was increased because the allocation to private schools has been suspended since 2012.

¹⁸ The total FCL fund in 2012 was 9,449,940,000 MGA. Unlike the FAF subsidy, which is based on the number of pupils, the FCL fund is distributed at a flat rate in accordance with the schools' criteria.



Figure 2: Cleaning of Facilities in Target Schools

In the beneficiary survey, 96% of the pupils ticked either 'strongly agree' or 'agree' to the statement 'School facilities remain in good condition' (see Figure 3). This implies that the facilities of the target schools have been maintained at an acceptable level.



Source: Beneficiary Survey

Figure 3: Pupils' Opinions about the Maintenance of School Facilities

On the other hand, cracks in the floor of the classroom building, the lack of window glass panes, leaks in the rainwater tank, theft of water taps and rain gutters, damage to the toilet doors, and damage to furniture by pests has been confirmed in some schools. The beneficiary survey revealed some problems¹⁹ in the maintenance of toilets and water supply facilities (Figure 4). The main cause of the damaged toilets and water supply facilities are the neighbouring residents, who have free access to the facilities due to the absence of a perimeter wall or fence.

¹⁹ Certain water supply facilities cannot be used because they were damaged or the water taps were stolen.



Source: Beneficiary Survey

Figure 4: Operation and Maintenance Conditions of School Facilities

Problems have been observed in the structural and financial aspects, and current maintenance condition of water supply facilities. Therefore, the sustainability of the Project's effects is fair.

## 4. Conclusion, Lessons Learned, and Recommendations

## 4.1 Conclusion

The Project for the Construction of Primary School Classrooms in Antsiranana and Toliara Provinces (hereinafter: the Project) was implemented to support classroom construction in the two provinces. Its goal was to improve the education setting by alleviating classroom shortage, which was caused by population growth and aging school facilities. The ex-post evaluation revealed that the Project's purpose corresponded to the development policy and needs of Madagascar, and to the ODA policy of the Japanese government. Therefore, the relevance of the Project is considered high. The results of the field survey show that the effectiveness and impact of the Project are also high because of the increase in the number of pupils who benefited from it and the reduction in the pupil-classroom ratio. The improvement in the quality of education and achievements of the pupils brought about by the remediation of multiple classes is likewise seen as a positive impact. Efficiency is also high because both the project period and project cost were within the original plan. The sustainability of the Project is considered fair, as minor problems have been observed in the operation and maintenance system, and in financial and structural aspects; moreover, water facilities have not been properly maintained. In regard to the financial aspect, the budget allocation for each school's FAF, which plays a role in maintaining school facilities, has been decreased since the political turmoil in 2009.

In light of the above, the Project is evaluated as highly satisfactory.

#### 4.2 Recommendations

4.2.1 Recommendations for the Executing Agency

(1) Activation of FAF functions

FAF functions need to be reactivated by securing the subsidies to FAF, replacing FAF members and

conducting a retraining in budget management, and developing an action plan to enhance the operation and maintenance system of the facilities. In order to activate the FAF functions, DREN and CISCO should restart their monitoring of FAF, which has been suspended due to the current budget shortfalls.

(2) Use of the 'School for All' Model to Ensure the Sustainability of the School Management Committee

'School for All'²⁰ is a technical cooperation project for school management of the Japan International Cooperation Agency (JICA), which is being implemented in West African countries. Its monitoring, training methods, and training manuals promote the effective maintenance of school facilities by using school management committees such as FAF. By applying the 'School for All' model in the Soft Component of the school building project, instead of using inconsistent approaches, an effective operation and maintenance system can be established.

4.2.2 Recommendations to JICA None

#### 4.3 Lessons Learned

(1) Restriction in the Unauthorised Use of School Facilities by Local Residents

In terms of the operation and maintenance of school facilities in the Project, the damage to toilets and theft of water taps are remarkable. This was attributed to the unauthorised use of school toilets by local residents. Gates and fences need to be installed to restrict unauthorised access—a responsibility of the Malagasy side which has not been carried out because of the lack of budget. Therefore, the installation of the gates and fences in the target schools by the recipient countries should be considered for inclusion in outputs of the Japanese side.

## (2) Quality Control of School Facilities under the Grant Aid for Community Empowerment Scheme

Even if the Project reduced the unit construction cost by using local resources under the Grant Aid for Community Empowerment scheme, the quality of the facilities was not compromised, as it was almost on a par with that of the Grant Aid for General Projects. For quality management under this scheme, the administrator stationed at the project site has to enforce strict construction management.

Specifically, the following items are considered important:

- Appropriate technical guidance for local consultants and contractors by the Japanese technical supervisor
- · Strengthening the field monitoring and guidance by local consultants
- Putting strict conditions on the tender for local consultants and contractors

²⁰ Inclusive education can be achieved through the activation of FAF by using the 'School for All' model, which has been promoted by UNICEF. (Members of MEN who are in charge of the project of UNICEF have experiences in the school management improvement project of JICA in Niger.) In the interview of the ex-post evaluation, the person in charge of MEN pointed out that training manuals and the monitoring system would be effective in activating FAF functions.

It is expected that the above remarks will be systematically summarised so that they can be applied to the implementation of other projects.