

The Republic of Mozambique

FY2018 Ex-Post Evaluation of Japanese Grant Aid Project

“The Project for the Construction of Monapo Primary Teacher Training Institute in Nampula Province”

External Evaluator: Masako IWASHINA, ICONS Inc.

## 0. Summary

The project was implemented to increase the number of qualified primary school teachers by constructing new facilities and procuring necessary equipment for a Primary Teacher Training Institute (hereinafter referred to as IFP) in Nampula Province in Mozambique, thereby contributing to the improvement of the quality of primary teachers in Nampula Province.

The project’s relevance is high because the project is highly consistent with the Mozambican education development plans and development needs, as well as Japan’s ODA policy.

The outputs by the Japanese side were produced as planned without problems, but some of the outputs of the Mozambican Government had not been accomplished by the time of project completion as well as the ex-post evaluation. The change of the project scope was relevant. Although the project cost was within the plan, the project period exceeded the plan (115%). Therefore, the efficiency of the project is fair.

Regarding effectiveness, all the quantitative indicators were achieved, and it can be said that the project contributed to promoting the increase in the number of qualified teachers. In addition, some qualitative effects were observed, such as the promotion of female student enrollment by building dormitories. Regarding the qualitative improvement of teachers in Nampula Province, which was expected as an impact, although the quality improvement measured by the internal efficiency of primary education needs to be monitored in the mid-term, the effectiveness and impact are high because the percentage of girl students in primary education has improved and the project provides an inclusive learning environment in IFP.

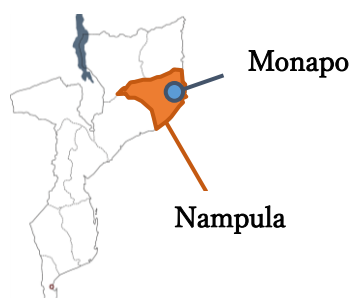
Regarding sustainability, the institution’s operation and maintenance structure secured enough teachers and administrative staff for the implementation of the 10+1 program, which provided one-year teacher training to the current secondary school graduates (who have completed 10th grade). However, the staff in charge of the operation and maintenance of the electrical, water, and drainage systems and those in charge of building maintenance had not been employed as planned. Regarding the financial aspects, Ministry of Education and Human Development<sup>1</sup> (hereinafter referred to as MINEDH) disbursed amounts close to the planned

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<sup>1</sup> The Ministry of Education and Human Development was renamed in January 2015 from its former name of the Ministry of Education. In this report, “Ministry of Education and Human Development” is used throughout.

amounts to IFP Monapo, and IFP Monapo had obtained self-income through school production activities as planned. However, the payment of salaries to the assistant staff had been continuously delayed. There was no technical problem in the daily maintenance of buildings and facilities, but there was some room for improvement in small repairs, timely periodic checks to prevent wasteful use of water and electricity, and records of these check and repairs. Thus, some minor problems were observed in terms of the institutional/organizational aspect, financial aspect, and current status. Therefore, the sustainability of the project effects is fair. In light of the above, this project is evaluated to be satisfactory.

## 1. Project Description



Project Location



A Classroom of IFP Monapo

### 1.1 Background

The Government of Mozambique positions human and social development, including education, as one of the key objectives for inclusive economic growth and poverty reduction in the consecutive five-year plans and the *Poverty Reduction Action Plan*, the implementation plan of the five-year plans. The Government of Mozambique developed *Education Sector Strategic Plan* (Plano Estratégico do Sector da Educação: PEE) as the basic plan for the education sector, aiming to achieve universal quality primary education for seven years (Escola Primária: EP1 [from Grade 1 to 5] and EP2 [from Grade 6 to 7]). In this respect, the Government of Mozambique identified the development of new teachers and the qualification of unqualified teachers as major issues and has tackled these through revision of the teacher development curriculum and expansion of In-Service Teacher Training (INSET).

The number of students in primary education rapidly increased by 1.5 times to 5.31 million students in seven years from 2004 to 2011 after the introduction of the free primary education policy in 2005. On the other hand, the supply of teachers did not catch up with the increase in the number of students, as evidenced by the Pupil-Teacher Ratio (PTR) increasing to 76 for EP1 in 2006 showing a serious shortage of teachers. The Government of Mozambique employed unqualified teachers (implemented until 2009) and introduced Urgent and Short-Term Teacher Development Program with one-year teacher training to the secondary school graduates

(teacher development program of 10+1) since 2007 to increase the number of new teachers. However, as a result of these urgent measures, the number of teachers without qualification or sufficient professional capacity had increased, so the education quality was considered to have deteriorated. The MINEDH planned to introduce a new teacher development program of 10+3, including two-year institutional training for teachers to ensure the quality of newly trained teachers. Nevertheless, the demand for more teacher development and more teachers has remained high in the target areas due to the lack of teachers.

Nampula Province, the target area of the project, had 960,000 primary school-age children, who accounted for 18% of all primary school-age children in the country. The PTR of Nampula Province was 74.8 for EPI, substantially exceeding the national average of 62.9 in 2011<sup>2</sup>. The expanding of the capacity for new teacher development was greatly needed to meet the increasing demand for new teachers and achieve the improvement in the teacher quality.

In that circumstance, the Government of Mozambique developed the plan to build a new primary teacher training school in Nampula Province, which was suffering a great shortage of qualified teachers, and requested a Japanese Government for Grant Aid Project to implement the plan.

## 1.2 Project Outline

The objective of this project is to increase the number of qualified primary school teachers by constructing new facilities and procuring necessary equipment for an IFP in Nampula Province in Mozambique, thereby contributing to the improvement of the quality of primary teachers in Nampula Province.

Grant Limit / Actual Grant Amount	1,024 million yen / 1,024 million yen
Exchange of Notes Date /Grant Agreement Date	April 2013 / April 2013
Executing Agency	Ministry of Education and Human Development (MINEDH)
Project Completion	December 2015
Target Area	Nacololo Village, Monapo District, Nampula Province
Main Contractors	(Building) CETA Construcao E Servicos, S.A (Facilities) L. Duarte dos Santos, Lda, A-One Distributors Lda, Compuworks. Lda.
Main Consultant	Matsuda Consultants International Co., LTD
Procurement Agency	Japan International Cooperation System
Outline Design	April to May 2011, October 2011, December 2012
Related Projects	<Grant Aid Project> <ul style="list-style-type: none"> <li>• “The project for rehabilitation of the Chibututuine Primary Teacher Training Institute in the Republic of</li> </ul>

<sup>2</sup> MINEDH, Education Statistics 2011/2012.

	<p>Mozambique” (1996)</p> <ul style="list-style-type: none"> <li>• “The project for the reconstruction of the Xai-Xai Primary Teacher Training Center in the Republic of Mozambique” (2004)</li> <li>• “The project for construction of the Chimoio Primary Teacher Training Institute in the Republic of Mozambique” (2005)</li> <li>• “The project for construction of the Cuamba Primary Teacher Training Institute in the Republic of Mozambique” (2007)</li> </ul> <p>&lt;Technical Cooperation&gt;</p> <ul style="list-style-type: none"> <li>• “The Project for Strengthening of Primary Education in Gaza Province in Mozambique” (2006-2009)</li> <li>• [In-country training] Improvement of Teaching-Learning of In-Service Training in Teacher Training Institute (2013-2016)</li> <li>• “Project for Expansion of New Curriculum of Teacher Training Institute (Instituto de Formação de Professores: IFP) (2016-2020)</li> </ul>
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## 2. Outline of the Evaluation Study

### 2.1 External Evaluator

Masako IWASHINA, ICONS Inc.

### 2.2 Duration of Evaluation Study

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

Duration of the Study: September 2018 – October 2019

Duration of the Field Study: November 11, 2018 – November 27, 2018

### 2.3 Constraints during the Evaluation Study

This ex-post evaluation study was held in the second year since the first graduates of IFP Monapo started teaching in primary schools. Therefore, it was implausible that improvements of student learning achievement in primary schools would be found in the evaluation of impact.

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

### 3.1 Relevance (Rating: ③<sup>4</sup>)

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

The Government of Mozambique positioned human and social development including education as one of the three key objectives of the *Poverty Reduction Action Plan* (PARP: 2011–2014) at the planning stage of the project and set the strategic target of compulsory primary education for seven years and education quality improvement. *PEE* (2012–2016) aimed

<sup>3</sup> A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

<sup>4</sup> ③: High, ②: Fair, ①: Low

at universal quality primary education for seven years and expansion of access to post-primary education including secondary education. It also proposed the necessity to train enough teachers due to the extension of the teacher training period to three years (two-year training in IFPs) in alignment with the introduction of a new teacher development curriculum for primary education's quality improvement and a consequent decrease in the number of IFP graduates. In addition, the *Teacher Development Strategy* (2004–2015) identified training new teachers and increasing opportunities for INSET as the key elements to improving the quality of primary and secondary education and it outlined challenges and action plans for the short-term, medium-term, and long-term until 2015.

As of this ex-post evaluation, the *Teacher Development Strategy* has continued to be valid since the succeeding policy document, the national qualification framework, has been developed but not yet finalized. In addition, the *Operational Plan of PEE* (2015–2018)<sup>5</sup> has identified universal quality primary education for seven years and the acquisition of learning competencies in EP1 as the priority issues and has aimed to improve the PTR of EP1 from 62.5 in 2014 to 59 in 2019 as indicators of the objectives of operational plan while securing the budget for the deployment of 8,600 EP1 teachers per year.

In that circumstance, it is confirmed that the project has continued to have high consistency with the Development Plans at both planning and ex-post evaluation stages.

### 3.1.2 Consistency with the Development Needs of Mozambique

Mozambique achieved great improvement in access to primary education and the Net Enrolment Rate (NER) of EP1 reached 92.8% in 2011. However, teacher supply did not increase enough to meet the increase in number of primary school students and the PTR of EP1 in 2011 became 62.9. Especially Nampula Province had the highest PTR in the country and 74.8 for EP1 in 2011. To make up for the lack of teachers, unqualified teachers were continuously employed, which lead the low percentage of qualified teachers. The number of students per qualified teachers in 2011 was 79.8 in the country and 93.6 in Nampula Province<sup>6</sup>. Students' learning achievement was low due to the low internal efficiency caused partly by the low percentage of qualified teachers. On the other hand, urbanization, population, and economic growth were expected along the Nacala Corridor in Nampula Province.

As of ex-post evaluation in 2018, PTR of EP1 remained high as 64.2 in the country and 74.1 in Nampula Province due to the increase of enrolled students. MINEDH continues teacher training program of 10+1 in 25<sup>7</sup> IFP/EPF<sup>8</sup> among 38 IFP/EPF in the country. MINEDH plans

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<sup>5</sup> PEE (2012–2016) was extended until 2019.

<sup>6</sup> MINEDH, Education Statistics 2011-2012

<sup>7</sup> Among 25 IFP/EPF which implement 10+1, 5 IF/EPF implement both 10+1 and 10+3.

<sup>8</sup> EPF stands for Escolas de Professores do Futuro (Schools for Teachers for Future) runned by Ajuda de Desenvolvimento de Povo para Povo (ADPP), Danish NGO. Graduates can acquire the formal teacher status equivalent with IFP graduates.

to introduce new teacher training program of 12+3 providing three-year teacher training to the Grade 12 graduates, to replace the existing 10+1 and 10+3 completely in 2022. Even after transitioning to the system of 12+3, students will study for two years in teacher training institutes with one year of teaching practice in primary schools. Therefore, the number of classrooms is continuously needed as the original plan. In addition, number of enrolled students, number of school-age children, Gross Enrolment Rate, and NER have been increasing in both the country and Nampula Province, and education quality indicated in the promotion, dropout, repetition and completion rate have not been improved yet. Therefore, the demand for training quality teachers is still high. Furthermore, regarding the appropriateness of site selection, Monapo District is located almost in the middle of Nampula, provincial capital, and Nacala. In addition, Monapo has water source. Districts with high needs of teacher deployment identified by the high PTR were mainly located in the east part of Nampula Province and mostly consistent with the origins of students of IFP Monapo. Thus, site selection of Monapo District was appropriate.

### 3.1.3 Consistency with Japan's ODA Policy

The project is positioned in the *“Basic Education Access and Quality Improvement program”* in the priority area “Human Development” of the Japan's *Country Assistance Program for Mozambique* (March 2013), while it is also positioned in the *“Development of Social Infrastructure and Human Development of the Corridor and Nearby Area”* as measures for the development issues in the *“Nacala Corridor Development and Rehabilitation Program”*. Thus, consistency with Japan's ODA policy was confirmed. In addition, the project is consistent with the improvement of primary education enrollment, completion, and quality specified in the *Yokohama Action Plan of the Tokyo International Conference on African Development (TICAD) IV* (2008–2012) and *TICAD V* (2013–2017).

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

## 3.2 Efficiency (Rating: ②)

### 3.2.1 Project Outputs

The project built the facilities and provided equipment as described in Tables 1 and 2 below to accommodate 400 students (200 females and 200 males) per year as planned. The following facilities were all built without any problem.

The change of project scope included a modification to the design of the gymnasium, which was deleted from the list in detailed planning and then re-approved due to the amount of funds remaining after bidding which allowed the design to be completed within the budget. In

addition, modifications were made in the layout of female dormitories to preserve baobab trees. The design of the storm water drainage was altered to meet the requirements of the torrential rains in Monapo District. Further changes included the specification of printers and computers, as well as omission of the musical instrument and sports equipment. These last two changes were due to the failure of the tender for which the decision to purchase was made through the budget of the Government of Mozambique. With the exception of these, all other changes are considered appropriate within the project budget to ensure the necessary adjustments to the facilities and equipment to suit the local situation. The omission of the musical instruments and sports equipment was due to the tender failure. The appropriateness of these changes was also confirmed in interviews with the executing agency, teachers, and students of IFP Monapo.

Table 1 List of facilities and education furniture provided by the project

No.	Facilities	Education furniture
1	Administration and Pedagogical Block	Office desks, chairs, cabinet etc., 15 items, 174 pieces
2	Classroom Blocks (3 blocks)	Desks, chairs, lockers, etc., 5 items, 498 pieces
3	Computer Room and Library Block	Desks, chairs, bookshelves, etc., 11 items, 162 pieces
4	Science Laboratory Block	Desks, chairs, tables for experiment, etc., 8 items, 219 pieces
5	Workshop Block	Desks, chairs, chairs with small table, etc., 10 items, 220 pieces
6	Music Block	Desks and chairs, 2 items, 41 pieces
7	Gymnasium Block	Nothing
8	Toilet Blocks (2 blocks)	Nothing
9	Utility Block	Lockers, 1 item, 4 pieces
10	Guard Hut	Desks, chairs, cabinets, etc., 4 items, 4 pieces
11	Refectory Block	Dining tables, chairs, etc., 6 items, 237 pieces
12	Dormitory Blocks (2 blocks each for female and male)	Desks, chairs, double-deck beds, etc., 9 items, 872 pieces
13	Water tower	Nothing
14	Corridor	Nothing
15	Pedagogical Laboratory Block	Desks, chairs, cabinets, etc., 5 items, 76 pieces
16	Staff Quarters (1 quarter for school board members)	Beds, etc., 2 items, 6 pieces
17	Staff Quarters (2 quarters for 4 households of ordinary teachers)	Beds, 1 item, 8 pieces
	Total	32 items, 2,521 pieces

Source: documents provided by JICA

Table 2 List of equipment provided by the project

No.	Categories	Total numbers
1	General administration equipment	Photocopier, bookbinding machine, overhead projector, screen, etc., 8 items, 13 pieces
2	IT equipment	Computers, UPS, printers, servers, digital cameras, LAN cables, projectors, extension codes, etc., 16 items, 139 pieces
3	Audio visual equipment	Amp, microphone set, stereo system, TV, etc., 7 items, 7 pieces
	Total	31 items, 159 pieces

Source: documents provided by JICA

The outputs by the Mozambican Government did not cause a delay in the project progress. However, the below components of the outputs by the Mozambican Government had not been completed at the time of the ex-post evaluation.

- Construction of perimeter fence and gates
- Procurement of laboratory and workshop equipment
- Musical instruments
- Construction of the access road to the teachers houses

According to the results of interviews with students and teachers, their highest need was for a perimeter fence and gates. Security problems such as the loss of students' personal property and the entry of suspicious individuals into the female dormitories could not be prevented without a surrounding fence and gates. In addition, the demands for laboratory and workshop equipment as well as musical instruments were also high, as described in the section on Effectiveness and Impacts below. Activities using the Science Laboratory and Music Block have been implemented to a limited extent mainly because laboratory and workshop equipment as well as musical instruments have not been purchased.

These outputs were not completed during the project period due to the budget. The Directorate of Infrastructure and School Equipment (Direcção de Infraestruturas e Equipamentos Escolares: DIEE) of MINEDH, the executing agency, recognized that they could not secure the budget and has been requesting the budget since 2015. On the other hand, the budget allocation to DIEE was decreased after a governmental financial crisis in April 2016 and DIEE has not been able to allocate the budget to IFP Monapo. DIEE planned to request this budget (55 million meticaís, approximately 102 million yen<sup>9</sup>) in the budget plan for fiscal year 2020.

The uncompleted outputs by IFP Monapo were planting lawns and greenery, and IFP Monapo had already started implementing them. However, the soil was still sliding into the trenches and was hard to remove. Therefore, IFP Monapo planned to continue planting lawns

<sup>9</sup> The amount in Japanese yen is calculated by the JICA settlement rate of November 2018 (1 metical = 1.86890 Japanese yen) when the field study was implemented.



and greenery.

It is ideal that bedsheets and blankets for the dormitories be purchased by the school budget, but IFP Monapo had not been able to purchase them owing to their difficult financial situation, as they were not able to pay even the salaries of guards and cooking staff. IFP Monapo recommended that the students who could afford to bring bedsheets and blankets did so.

### 3.2.2 Project Inputs

#### 3.2.2.1 Project Cost

The project cost was 1,024 million yen as planned (100%). Project inputs by the Mozambican Government were planned as a total amount of 70,690,700 meticaís<sup>10</sup> (approximately 203 million yen) consisting of 17,190,700 meticaís (approximately 49 million yen) for construction and 53,500,000 meticaís (approximately 153 million yen) for tax exemption. The actual disbursed amount was 1,423,500.13USD (approximately 156 million yen<sup>11</sup>) and most of this amount was for tax exemption.

#### 3.2.2.2 Project Period

The project period was planned as 26 months, and the actual project period was 30 months, exceeding the planned duration (115%). This four-month extension was caused by unusually heavy rains that led to the collapse of a bridge, precluding the transport of construction materials, as well as deposited soil and dust on the construction site. This extension did not have any effect on the preparation for the school opening.

Based on the above, although the project cost was within the plan, the project period exceeded the plan. Therefore, efficiency of the project is fair.

### 3.3 Effectiveness and Impacts<sup>12</sup> (Rating: ③)

#### 3.3.1 Effectiveness

The outcome of this project has been defined as “promotion of developing qualified teachers.” The quantitative and qualitative indicators of the project implementation were the number of newly developed primary school teachers in the target IFP, percentage of qualified primary school teachers in Nampula Province, teachers’ capacity development through the implementation of a qualification program for unqualified teachers and expansion and implementation of INSET, and the increase in number of teachers through the improvement of the learning environment for female IFP students by building the same numbers of dormitories and toilets for both female and male students.

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<sup>10</sup> Report of Preparatory Survey, p. 118

<sup>11</sup> Exchange rate to Japanese yen is IMF exchange rate in the project period (June 2013 to December 2015)

<sup>12</sup> Sub-rating for Effectiveness is to be put with consideration of Impacts.

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

#### (1) Number of newly developed primary school teachers of the target IFP

The number of newly developed primary school teachers of IFP Monapo achieved the target as shown in Table 3 below:

Table 3 Number of newly developed primary teachers of the target IFP and percentage of qualified primary teachers in Nampula Province

	Baseline	Target	Actual		
	2011	2018	2016	2017	2018
		2 Years After Completion	Completion Year	1 Year After Completion	2 Years After Completion
Number of graduates of the target IFP (total)	0	200	0	295	476
Number of graduates of the target IFP (female)	0	100	0	159	233
Percentage of qualified primary teachers in Nampula Province (EP, %)	81.0	86.7	97.9	98.5	99.0

Source: IFP Monapo

Remarks: The target values were decided based on the assumption that IFP Monapo will have 200 newly recruited students and 200 graduates (newly developed teachers) per year through the introduction of a teacher development program of 10+3 with 2-year teacher training in IFP through the discussion with Directorate of Planning and Cooperation (Direcção de Planificação e Cooperação: DIPLAC) in the planning stage. However, the teacher development program that IFP Monapo has been implementing is decided by the Directorate of Teacher Development (Direcção Nacional de Formação de Professores: DNFP) and 10+1 has still been implemented since school opening in 2016. Thus, students of IFP Monapo study there for one year and become teachers the next year. Therefore, the actual number of newly developed primary teachers is well over the target value.

#### (2) Percentage of qualified primary school teachers in Nampula Province

The percentage of qualified primary school teachers in Nampula Province was 81.0% in 2011 as baseline and achieved 99.0% for both EP1 and EP2 in 2018 well over the target indicator of 86.7% in 2018. The project contributed to an increase in the percentage of qualified primary school teachers through the professional development of qualified primary school teachers every year according to the teacher development plan designated by DNFP.

### 3.3.1.2 Qualitative Effects (Other Effects)

(1) Teachers' capacity development through the implementation of a qualification program for unqualified teachers and the expansion and implementation of INSET

The number and percentage of qualified primary school teachers both in the country and in Nampula Province had been steadily improving through the affirmative implementation of the Urgent and Short-Term Teacher Development Program (10+1). The qualification program for unqualified teachers through expansion of INSET had not been implemented since 2015 under the strategy of DNFP, reflecting the improvement of the percentage of qualified teachers in Nampula Province and in the country. Instead, teachers' capacity development through the expansion and implementation of INSET is of great importance, and in 2018 INSET were provided to 4,689 teachers by way of periodical review on primary school curriculum implementation, participatory learning methods, as well as lesson reflection and analysis. The equipment in Núcleo de Formação de Professores em Exercício (NUFORPE) that the project provided was used for implementation. Tests comparing participants' understanding before and after INSET were not conducted, but lecturers of IFP Monapo recognized the effects of INSET on primary school teachers to steadily implement the curriculum and to attend more carefully to the understanding of students.

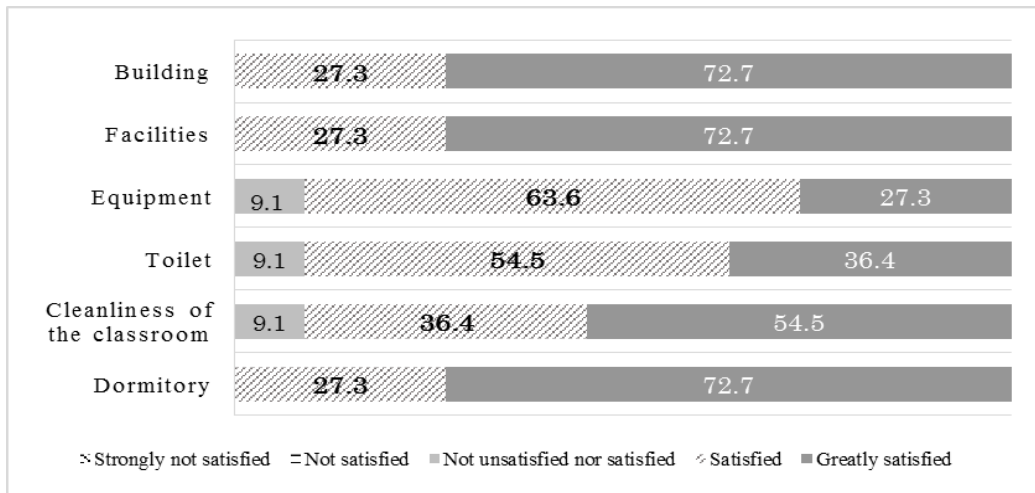
(2) Increase in number of teachers through improvement of the learning environment for female IFP students by building the same number of dormitories and toilets for both female and male students

IFP Monapo had tried to contribute to increasing the number of female teachers by improving the learning environment of female students by recruiting and accepting the same number of female students as male students and by building toilets. The percentage of female students of IFP Monapo was 53.9% in 2016 and 48.9% in 2017, and the average percentage until 2017 (50.8%) showed that female students made up more than half the student body. As described later, most of the students became primary school teachers after graduation. Therefore, the project can be considered to have contributed to the increase of female teachers.

Interviews with students (11 students<sup>13</sup> total, consisting of 6 males and 5 females) of IFP Monapo were conducted through questionnaires to research their level of satisfaction with the facilities and equipment on a 5-point scale (1: Strongly not satisfied to 5: Greatly satisfied). There was no student who answered "Strongly not satisfied" or "Not satisfied," showing that the level of satisfaction with the facilities and equipment was high, as shown in Figure 1 below.

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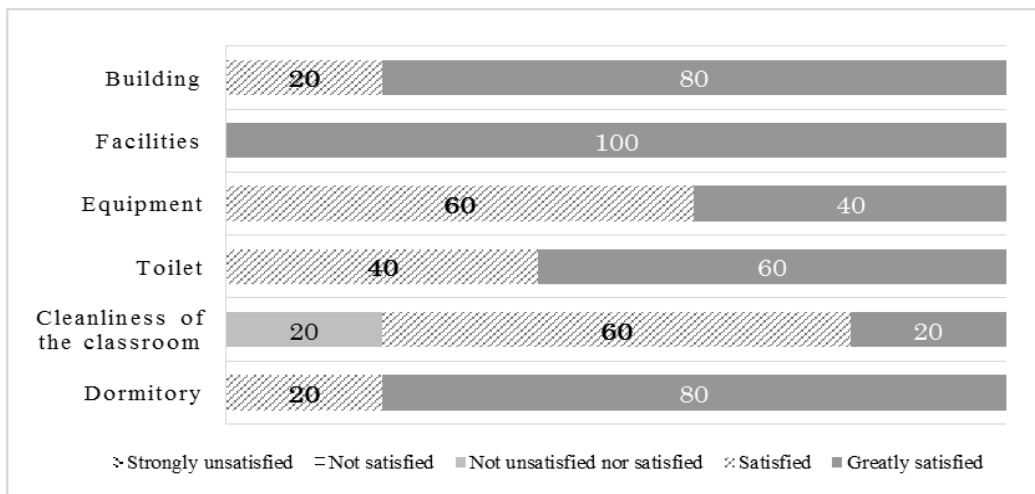
<sup>13</sup> Selection of the interviewees was done by random sampling from the list of all students' names.



Source: Results of interview

Figure 1: Students' level of satisfaction with facilities and equipment (%)

The level of satisfaction of female students with facilities and equipment, although the number of interviewees were limited to 5 students only, was high, with no students answering “Strongly not satisfied” or “Not satisfied” as shown in Figure 2 below. The level of satisfaction with students’ toilets, which female students and male students are in charge of cleaning separately, was higher among female students than among male students. The level of satisfaction with cleanliness of classrooms, for which female and male students are responsible together, was a little lower among female students than among male students. Regarding facilities, all students answered “Greatly satisfied.”



Source: Results of interview

Figure 2: Female students' level of satisfaction with facilities and equipment

Regarding the question, “If there were no toilet, would it be possible for you to continue to study in IFP Monapo?” three of the four students who answered they would go to other schools were female.

Regarding the question of what actions students would take in case where there would be no dormitory, all three students who answered “rent a house near IFP Monapo” were male. Three of the four students who answered they would commute despite the long distance were female. The one student who answered that she would take an exam to go to another IFP and give up going to IFP Monapo was female. Another female student answered that she would stay in a relative’s house, and one male student answered that he would have no problem going to IFP Monapo because his parents’ house is near the school. Although the small sample size does not provide decisive information, it can be presumed that the female students’ dormitory is a factor in promoting the enrollment of female students since it can be assumed that it is difficult for female students to rent a house for security and financial reasons.

In relation to the “increase in the number of teachers through improvement of the learning environment for female IFP students by building the same number of dormitories and toilets for both female and male students,” although the small sample size does not provide decisive information, it can be considered that separate toilet blocks for female and male students and dormitories improved the learning environment for female students and contributed to increases in the number of students.

### 3.3.2 Impacts

#### 3.3.2.1 Intended Impacts

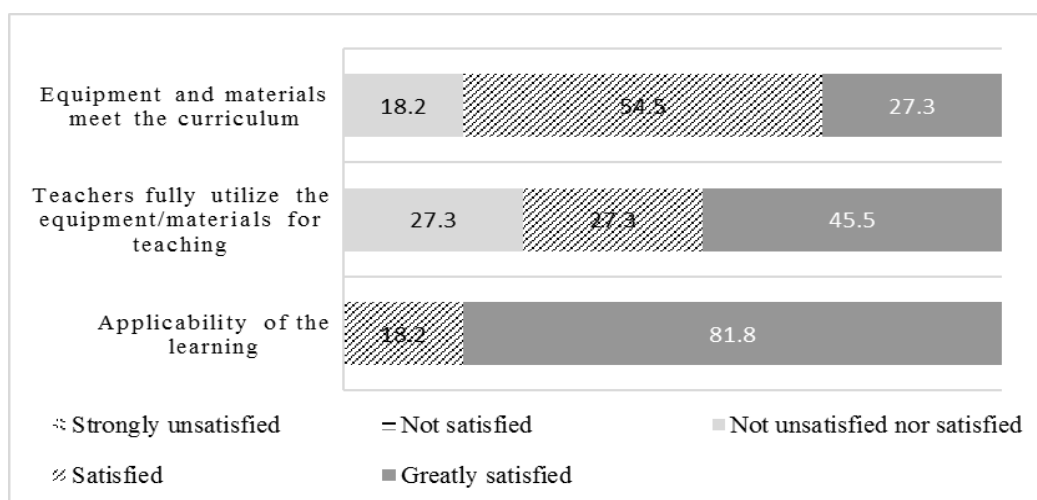
The intended impact of the project was the improvement to the overall quality of the teachers in Nampula Province. The logic for the impact of the program through the provision of facilities and equipment by the project is as follows: The quality improvement of the teachers in Nampula Province would be brought about by the following steps—teachers would be newly trained with the facilities and equipment provided by the project in alignment with the new curriculum; graduates would be deployed as teachers; graduates would implement teaching methods that they learned in IFP Monapo at primary schools; and the PTR in Nampula Province would be increased. Impacts were analyzed by the above logic.

(1) Improvement of teaching utilizing the facilities, equipment and teaching materials provided by the project

IFP Monapo had been continuously implementing the 10+1 teacher training curriculum and had not introduced a new curriculum. Therefore, the quality improvement of teacher training by the facilities and equipment provided by the project was analyzed without reference to the introduction of the new curriculum by confirmation of the high quality of the teacher

training through the use of these facilities and equipment. Meanwhile, the facilities, equipment, and teaching materials correspond well with the new curriculum, according to the interviews with the MINEDH.

According to the results of the interviews with the eleven students based on the questionnaires (5-point scale) about the relevance and applicability of the equipment/material use by teachers to the curriculum, there were no students who answered “Strongly unsatisfied” and “Not satisfied,” as shown in Figure 3 below. The students who answered “Greatly satisfied” and “Satisfied” were over 70 percent in all questions, but there were a certain number of students who answered “Unsatisfied nor satisfied,” which shows that there is some room to improve the teachers’ use of equipment and materials.



Source: Results of interview

Figure 3: Students' opinion on the relevance and applicability of equipment/material use by teachers to the curriculum (%)

Teachers’ opinions collected by questionnaire with free descriptions from the 12 teachers (one teacher per subject) showed the inconvenience that teachers felt during their teaching resulted from the insufficient provision of equipment and materials. Interviews with teachers after questionnaire found that these inconveniences arose because the experimental materials, sports materials, and musical instruments that the Mozambican Government is responsible for providing had not been supplied.



Source: Results of interview

Figure 4: Teachers' level of satisfaction with facilities and equipment (%)

### (2) Deployment of graduates as primary school teachers

The deployment of teachers is performed by the Provincial Department of Education and Human Development (DPEDH)<sup>14</sup>, but detailed data connecting the target IFP graduates and deployed teachers were not obtained from DPEDH nor IFP Monapo. However, according to the interview with the DPEDH of Nampula Province, almost all graduates had been deployed as teachers.

### (3) Graduates implementation of IFP teaching methods in primary schools

According to the results of the interviews with five graduates<sup>15</sup>, graduates implemented the teaching methods from IFP Monapo. In particular, teaching methods for Portuguese and mathematics were helpful for graduates. According to interviews with the five principals of the primary schools where graduates were deployed, the graduates appropriately organized teaching according to the curriculum and there was no problem. In addition, regarding the questions for the students of IFP Monapo, "Do you think you will be able to apply what you have learned in the IFP Monapo when you are assigned as a teacher next year?," 82% of the students answered "highly applicable", and 18% of the students answered "applicable" (please refer to Figure 3). Therefore, the majority of students think that they can apply the methods from IFP.

<sup>14</sup> Graduates can submit a list of up to five districts (as of 2018) where they want to work and DPEDH decides the district for each student. However, data on the IFP of each newly deployed teachers were not collected.

<sup>15</sup> Since the school names where graduates have been deployed were not obtained for the selection of interviewees, interviews were held with the graduates of IFP Monapo whom the District Service of Education, Youth, and Technology (Serviços Distritais de Educação Juventude e Tecnologia: SDEJT) of Monapo District recognized and could contact at the time of ex-post evaluation.

#### (4) PTR

Introduction of new teachers had been conducted to some extent, but the PTR had not improved in either the country or Nampula Province due to the severe fiscal situation of MINEDH which made it impossible to deal with the more rapid increase in the numbers of enrolled students (refer to Table 4). As of this report, Nampula Province had IFP Nampula and IFP Marrere besides IFP Monapo, and the number of newly adopted teachers was higher than the total number of graduates from these three IFPs, although there were some fluctuations in the number of students each year. It is presumed that some of the newly deployed teachers in Nampula Province include graduates of IFPs from other provinces. On the other hand, the improvement of the Net Enrollment Rate of Nampula Province since 2017 was sharper than in both previous years and above the average for the country. Thus, it is considered to be an unexpected increase in the number of primary school enrolled students.

Table 4: PTR of the country and Nampula Province of EP1 (Person)

Year	2011	2018
PTR (EP1, country)	74.8	74.1
PTR (EP1, Nampula Province)	62.9	64.2

Source: MINEDH

#### (5) Progress of internal efficiency rate

Education quality as measured by the promotion rate, dropout rate, repetition rate, and completion rate had not shown improvement since this ex-post evaluation was implemented in the second year since the first graduates of IFP Monapo started teaching in primary schools, so it is still too early to expect great improvements in education quality (Table 5).

Table 5: Education internal efficiency rates of EP1 in the country and Nampula Province (%)

Year	2013		2014		2015		2016		2017	
	Total	Girls	Total	Girls	Total	Girls	Total	Girls	Total	Girls
Promotion rate (National)	83.8	84.3	84.2	84.5	77.1	77.5	75.7	76.3	78.5	79.1
Promotion rate (Nampula)	82.4	82.7	82.0	82.0	74.9	74.9	73.4	73.4	75.3	75.4
Dropout rate (National)	7.0	6.6	6.8	6.5	9.9	9.5	11.4	11.0	9.1	8.7
Dropout rate (Nampula)	8.1	7.3	8.2	7.6	10.9	10.1	12.0	11.4	11.1	10.4
Repetition rate (National)	9.2	9.0	9.0	8.9	13.1	13.0	12.8	12.7	12.4	12.2
Repetition rate (Nampula)	9.5	9.9	9.8	10.4	14.2	15.0	14.6	15.2	13.6	14.3
Completion rate (National)	62.3	59.1	60.9	57.8	56.7	53.8	63.0	60.0	67.6	63.9
Completion rate (Nampula)	52.2	48.4	48.0	44.9	46.9	43.7	50.4	47.3	53.3	48.8

Source: MINEDH



### 3.3.2.2 Other Positive and Negative Impacts

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

Impacts on the natural environment by and after the construction of IFP Monapo were not observed in particular in the results of interviews with the executing agency, consultants, and teachers of IFP Monapo.

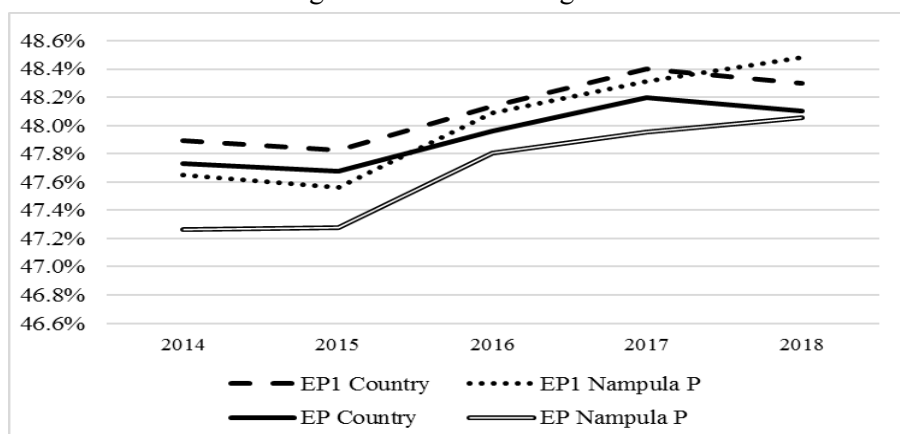
#### (2) Resettlement and Land Acquisition

Resettlement in relation to the project and problems in land acquisition for the construction of IFP Monapo did not arise, according to interviews with the executing agency, consultants, and teachers of IFP Monapo.

#### (3) Unintended Positive/Negative Impacts

##### Increase of girl students in primary schools in Nampula Province

The percentage of girl students in EP1 of primary schools was 47.9% in the country and 47.6% in Nampula Province in 2014, lower than the percentage of boy students<sup>16</sup>. The effectiveness indicators of this project include “the increase of teachers through improvement of the learning environment for female IFP students by building the same number of dormitories and toilets for female and male students,” presumably because the increase of girl students in primary education or promotion of girls’ education was expected. Therefore, the percentage of girl students in primary education in Nampula Province and in the country was researched in this ex-post evaluation. The percentage of girl students calculated based on the number of students in primary education by gender has improved, as shown in Figure 5. In particular, the percentage of girl students in primary education in Nampula Province exceeded the national average for the first time in 2018. Therefore, this project can be assumed to have made a certain contribution to girls’ education through the increase in female teachers.



Source: MINEDH

Figure 5: Percentage of girl students in primary education (EP1 and EP)

<sup>16</sup> MINEDH, Education Statistics (each year from 2014 to 2018)

### Inclusive learning environment

IFP Monapo was designed to be barrier-free in such facilities as dormitories and toilets. One male student with an impediment in his lower limb<sup>17</sup> studies in IFP Monapo and answered in an interview that IFP Monapo provided an inclusive education environment that allowed him to study with the other students.

### Synergy effect with other projects

The Technical Cooperation Project, “Project for Expansion of New Curriculum of Teacher Training Institute (IFP)” (2016–2020), has been implemented to improve the teaching capacity of IFP students in mathematics and science. Teaching-learning materials for IFP and lesson plans are to be introduced in all IFPs in the country, and a synergy effect with the Technical Cooperation Project is expected in IFP Monapo by using equipment and materials provided by the project in the new curriculum. The Introduction Workshop of the IFP teaching-learning materials and lesson plans are for all IFPs in the country, and IFP Monapo participated as well. The Technical Cooperation Project has organized monitoring of the distribution and use of IFP teaching-learning materials for IFPs in the country based on monitoring guidelines. Synergy effects of the teaching-learning materials and monitoring by the Technical Cooperation Project can be expected. However, since the ex-post evaluation was implemented about one month after the Introduction Workshop was implemented, improvements to the education quality indicators such as promotion rates, dropout rates, repetition rates, and completion rates, which can be expected to improve through the synergy effects, had not improved as of this ex-post evaluation.

From the results mentioned above, although quality improvement as measured by the internal efficiency of primary education needs to be monitored in the mid-term, the project contributed to improvements in the number and percentage of qualified teachers of primary education and in the percentage of girl students in primary education, and the provision of an inclusive education environment in IFPs. Consequently, this project has achieved its objectives. Therefore, the effectiveness and impacts of the project are high.

## 3.4 Sustainability (Rating: ②)

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

The institutional and organizational structure of the operation and maintenance was the same as expected in the planning stage: The newly established IFP Monapo assumed the main role in operation and maintenance under the supervision of MINEDH and DPEDH of Nampula

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<sup>17</sup> He does not need to use a wheelchair but had difficulty in walking and needed help from his friends when he moving.

Province. Daily maintenance of facilities was performed by IFP Monapo. If major repairs exceeding the capacity of IFP Monapo are needed, the procedure, roles, and responsibilities are defined as follows: IFP Monapo first makes repair plans, receives the permission from SDEJT and DPEDH, and implement the plan after the budget is disbursed by the DIEE of MINEDH. Regarding the human resource structure, IFP Monapo prioritized the employment of teachers and had already secured a sufficient number of teachers to implement the current teacher development curriculum of 10+1. The office staff was limited to four people compared to the original plan of eight people, but daily office work had been implemented without major problems. However, the teacher who can normally have classes served as the Deputy Director in charge of dormitories. Therefore, to allow the Deputy Director to work as a teacher in order to implement the new teacher development curriculum of 12+3 in the future, which requires more teachers, it is preferable to increase the office staff who is exclusively in charge of dormitories as well. In addition, the staff in charge of the operation and maintenance of the electric, water, and drainage system and one in charge of building maintenance (one each) had not yet been employed due to a lack of funds. Furthermore, one computer and one projector were stolen by the former IT teacher in 2016, who absconded with them. Therefore, the institutional and organizational operation and maintenance is inadequate.

The human resource structure of IFP Monapo is shown in Table 6.

Table 6: The human resource structure and number of staff of IFP Monapo

Position	Number of staff	Permanent/Temporary
Director	1	Permanent
Deputy Director in charge of technical matter	1	Permanent (teach as well)
Deputy Director in charge of dormitories	1	Permanent
Deputy Director in charge of administration	1	Permanent
Deputy Director in charge of education laboratory (attachment school)	1	Permanent
Lecturers	33	Permanent
Technical staff	0	Teachers take the tasks
Administration staff	4	Permanent
Assistant staff (Cooks: 3, guards: 3, cleaners: 10)	17	Temporary (They have not received their 2018 salary yet.)

Source: IFP Monapo

### 3.4.2 Technical Aspect of Operation and Maintenance

Daily maintenance had been conducted without any problems according to direct observations of the current situation, and technical problems were not observed.

IFP Monapo understood the procedures and roles in case of major repairs exceeding their capacity for daily maintenance. On the other hand, some technical skills for the maintenance of such devices as the electrical switchboard, switches, interconnections, circuit breakers, fuses,

and water pipes were required but difficult for the teacher in charge. Therefore, staff in charge of the operation and maintenance of the electrical, water, and drainage systems and one in charge of building maintenance were necessary but had not been employed due to lack of funds. Regarding building maintenance, cracks occurred on the walls of the dormitory that could not be repaired by IFP Monapo. However, with the support of the construction company, teachers were taught how to repair the cracks and became able to repair them by themselves. As of the ex-post evaluation, the walls did not have any cracks and problems were not observed. Regarding the maintenance of the computers, technical staff in charge of computer maintenance had not been employed yet due to lack of funds. Therefore, the technical maintenance of computers was not well implemented.

### 3.4.3 Financial Aspect of Operation and Maintenance

Approximately 95% of the budget of IFP Monapo was distributed by MINEDH, and the actual disbursed amount for the operation and maintenance of the building was close to the planned amount except for 2015, when the planned amount was significantly large (doubled from the previous year), and 2017, just after the governmental financial crisis. Thus, it was confirmed that the budget for building operation and maintenance was disbursed for most of the needed amounts although the amount varied depending on the year. The minimum required budget was disbursed to maintain the planned number of students even under the government budget crisis. On the other hand, regarding the budget for human resources, salaries for the assistant staff had continuously been paid late. Budget for equipment was insufficient since the equipment for experimentation and so on had not been purchased, which is an output expected from the Mozambican Government. Therefore, financial sustainability was not sufficient. Table 7 shows the budget disbursement to IFP Monapo (planned and actual) and Table 8 shows the amount that IFP Monapo earned by itself<sup>18</sup>.

Table 7: Budget disbursement to IFP Monapo (planned and actual)

(Unit: thousand Meticaís)

Year	2014	2015	2016	2017	2018 (By October)	2019 (Expected)
Planned	20,632.64	41,096.00	28,447.74	20,832.12	28,820.74	31,702.81
Actual	19,807.24	23,702.79	28,208.46	16,132.10	27,152.36	

Source: IFP Monapo

<sup>18</sup> IFP Monapo earned about 1.3 million meticaís every year by selling fruit cultivated in the school and obtained the self-earned income planned every year. The actual amount of 2018 (until October) counts for 4.88% of the total budget of IFP Monapo.

Table 8: The self-earned funds of IFP Monapo

(Unit: thousand Meticaís)

2016		2017		2018		2019	
Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
1,328.70	1,328.70	1,514.00	1,514.00	1,326.00	1,326.00	1,176.00	-

Source: IFP Monapo

#### 3.4.4 Status of Operation and Maintenance

Buildings and facilities of IFP Monapo were used very cleanly and maintained quite well. The toilets of the Education Laboratory (the attached primary school) were very cleanly maintained. Students of IFP Monapo decided the shifts they would take to perform cleaning, including toilets of the Education Laboratory, and made collaborative efforts to keep the school buildings and facilities clean with the instruction of teachers. Although it is said that keeping toilets clean is quite difficult in primary schools in Mozambique, the cleaning of school buildings and facilities through good collaboration among students and teachers is good practice, and it is expected that the case of IFP Monapo will be referred to in the future when similar projects are implemented.

On the other hand, there was some room for improvement in small repairs, such as net windows and broken glass windows that relate to the students' safety. In addition, the waste of water and electricity, such as when students forget to close the faucets or turn off the electricity, could be prevented by putting up posters, etc. It was also preferable to implement periodic checks and record these checks and maintenance.

The number of classrooms is appropriate for the capacity of the dormitories and the current number of teachers. In the future, when the teacher training program of 10+3 or 12+3 is introduced, it has already been planned to make the number of students (the number of graduates) 50% of capacity. Therefore, the number of classrooms is appropriate.

From the above results, some minor problems were observed in terms of the institutional / organizational aspect, financial aspect, and current status. Therefore, sustainability of the project effects is fair.

## 4. Conclusion, Lessons Learned and Recommendations

### 4.1 Conclusion

The project was implemented to increase the number of qualified primary school teachers by constructing new facilities and procuring necessary equipment for the IFP in Nampula Province in Mozambique, thereby contributing to the improvement of the quality of primary teachers in Nampula Province.

The project's relevance is high because the project is highly consistent with the Mozambican education development plans and development needs, as well as Japan's ODA policy.

The outputs by the Japanese side were produced as planned without problems, but some of the outputs of the Mozambican Government had not been accomplished by the time of project completion as well as the ex-post evaluation. The change of the project scope was relevant. Although the project cost was within the plan, the project period exceeded the plan (115%). Therefore, the efficiency of the project is fair.

Regarding effectiveness, all the quantitative indicators were achieved, and it can be said that the project contributed to promoting the increase in the number of qualified teachers. In addition, some qualitative effects were observed, such as the increase of female student enrollment by building dormitories. Regarding the qualitative improvement of teachers in Nampula Province, which was expected as an impact, although the quality improvement measured by the internal efficiency of primary education needs to be monitored in the mid-term, the effectiveness and impacts are high because the percentage of girl students in primary education has improved and the project provides an inclusive learning environment in IFP.

Regarding sustainability, the institution's operation and maintenance structure secured enough teachers and administrative staff for the implementation of the 10+1 program. However, the staff in charge of the operation and maintenance of the electrical, water, and drainage systems and those in charge of building maintenance had not been employed as planned. Regarding the financial aspects, MINEDH disbursed amounts close to the planned amounts to IFP Monapo, and IFP Monapo obtained self-income through school production activities as planned. However, the payment of salaries to the assistant staff had been continuously delayed. There was no technical problem in the daily maintenance of buildings and facilities, but there was some room for improvement in the institutional/organizational aspect, financial aspect, and current status including small repairs, timely periodic checks to prevent wasteful use of water and electricity, and records of periodical check and repairs. Therefore, the sustainability of the project effects is fair.

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

## 4.2 Recommendations

### 4.2.1 Recommendations to the MINEDH

#### (1) Uncompleted components of the outputs by the Mozambican Government

The below components of the outputs by the Mozambican Government are described in the Minutes of the Discussion signed by December 20, 2012, but had not been completed at the time of this ex-post evaluation. The teachers' and students' needs were high for the perimeter

fence and gates as well as laboratory and workshop equipment. Therefore, the budget allocation for those components as planned is necessary.

- Construction of perimeter fence and gates
- Procurement of laboratory and workshop equipment
- Musical instruments
- Construction of the access road to the teachers houses

(2) Further contribution to quality improvement in collaboration with the on-going Technical Cooperation Project

The Technical Cooperation Project, “Project for Expansion of New Curriculum of Teacher Training Institutes (IFP)” (2016–2020) has been implemented. IFP Monapo participated in the introductory workshop on the IFP teaching-learning materials and lesson plans and in monitoring, as did all IFPs in the country. On the other hand, the improvement of education quality indicators such as promotion rates, dropout rates, repetition rates, and completion rates, which are expected to improve through synergy effects, had not yet improved as of this ex-post evaluation. Therefore, to increase the impact of this project on education quality improvement, it is preferable that teachers of IFP Monapo receive continuous training and technical advice from MINEDH and other relevant institutions.

#### 4.2.2 Recommendations to DPEDH Nampula

Since the deployment of teachers is performed by DPEDH, it is preferable that DPEDH summarize the information on newly deployed teachers, indicating from which IFP they graduate and which teacher development curriculum they studied (i.e., 10+3, 12+3). Furthermore, it is recommended for DPEDH to share the information with the IFPs to ensure all IFP graduates are certainly employed as teachers so as to ensure the efficiency of teacher development. These data also allow each IFP to be able to follow up their graduates to provide advice on daily teaching in primary school as well as for IFP teachers to confirm whether their teaching methods are effective in real classroom teaching in primary schools.

#### 4.2.3 Recommendations to IFP Monapo

There was some room for improvement in small repairs such as net windows and broken glass windows that are related to students’ safety, and in prevention of the waste of water and electricity. It is preferable to implement periodic checks and record the periodic checks and maintenance.

#### 4.2.4 Recommendations to JICA

Follow up on the status of the budget distribution of the Mozambican Government as a whole and to MINEDH due to the financial crisis, and encourage the implementation as the financial situation improves

It is preferable to follow up on the status of the budget distribution of the Mozambican Government as a whole and to MINEDH concerning the outputs by the Mozambican Government, which had not been completed by the end of the Project in December 2015. In addition, it is preferable to encourage the implementation of the uncompleted components when the financial situation of the government improves.

#### 4.3 Lessons Learned

Encouragement of the implementation of the outputs by the recipient country

It is necessary to improve the effectiveness of the encouragement toward the executing agency, as the outputs by the Mozambican Government had not been achieved by the end of the Project. These outputs are described in the Minutes of the Discussion signed on December 20, 2012, and continuous encouragement was made by consultants, the procurement agency, and the JICA Mozambican office toward the executing agency in monthly meetings and other venues. However, those outputs were not achieved. Therefore, it is preferable to conduct not only continuous encouragement in monthly meetings and direct encouragement toward the executing agency, but also to hold high-level meetings with Minutes of the Discussion when making the budget for the next year in the recipient country and one month before project completion with continuous follow-up.

End