

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

This project is to be implemented under the grant aid cooperation of the Government of Japan after the Government of Japan's approval for it at a Cabinet meeting and the signing of the Exchange of Notes by the governments of the two countries. Basic matters concerning construction of facilities and procurement and installation of equipment are as stated below.

(1) Period of Construction Work

This project is to consist mainly of the work to renovate the existing facilities with a total floor area of 4,100 m² and construct new facilities with a total floor area of 4,200 m² and the work to procure and install educational equipment. Judging from the details and scale of these constituents of the project, the present condition of the project site and availability of construction materials in Mozambique, it will take 12 months to complete the construction work and 7 months to complete the equipment procurement and installation work.

(2) Method of Employing the Services of the Contractor

Considerable part of the items of the equipment such as wooden furniture for the canteen, the classrooms and the dormitories are to be manufactured in Mozambique or South Africa. Therefore, supervision of manufacturers of those equipment throughout the entire production process is necessary to maintain satisfactory quality of the products. And further, delivery timing of those equipment to the site is needed to be carefully coordinated between the construction work side and the equipment work side since quantity of furniture will not be easy to be handled. With the reasons stated above, continuous supervision system is indispensable for the proper execution of the equipment work. On the other hand, the total cost of the equipment work will be less than 10% of that of the construction work. This amount is not sufficient for the company which undertake the equipment work to establish the supervision system in Mozambique and to maintain the system by itself. In view of the condition stated above, it is desirable that the equipment work be included in the construction work and the whole works be ordered to a Japanese construction firm as the construction work. As regards the method of placing orders for the construction work including the equipment work, qualified Japanese construction firms will be invited to public tender for the project.

(3) Implementation System of the Mozambican Side

This project is to be implemented under the jurisdiction of Ministry of Education of the Republic of Mozambique. The Planning Directorate of the Ministry will be the party to be responsible for implementing this project. The director of the Planning Directorate of the Ministry will be in charge of necessary procedures such as consulting service agreement, construction contract and banking arrangement of this project. The Directorate will take necessary measures for importing construction materials and equipment such as customs clearance as well as allocation of budget for customs duties and will be in charge of providing necessary information and technical advice in relation to the education and will also execute the Mozambican side work. Department of School Construction of the Directorate will give instruction as well as suggestion in terms of facilities planning. Ministry of Foreign Affairs and Cooperation will represent the Mozambican side for the E/N between the two countries regarding the implementation of the Project. Ministry of finance will take active role in securing necessary budget for the Mozambican undertakings required for implementing the Project.

(4) Execution System

1) Consultant

Immediately after signing of the Exchange of Notes between both governments, the Planning Directorate will conclude a consulting service agreement with a selected Japanese consultant and have the agreement verified by the Government of Japan. The consultant will prepare detail design drawings based on the contents of the basic design study report and then carry out tenders as well as construction supervision.

2) Contractor

Contractor for the construction work, including the equipment work is to be selected from among qualified Japanese companies by public tender. The Planning Directorate is to conclude the contract for both construction works and equipment works with the successful tenderer and have the contract verified by the Government of Japan. It is possible for the Japanese contractor to utilize local subcontractors in recruiting labors, procurement of local materials, customs clearance etc.

2-2-4-2 Implementation Conditions

Following points should be noted in implementation of this project

(1) High Percentage of Procurement from the Third Countries

Construction materials which can be procured in Mozambique are limited to basic ones such as sand, gravel, bricks, cement and concrete blocks. Other items such as aluminum window frames, glass, steel and ceiling boards are imported and available in market of Mozambique but are difficult to be procured in large quantity.

With the background stated above, the ratio of the procurement from the third countries is high in this project such as procurement of steel, re-bar, roofing materials and educational equipment. Therefore, it is necessary to work out a procurement plan in consideration of transport method, packing method and required time for importing from the third countries.

(2) Complex Procedures of Customs Clearance and Tax Exemption

This project is to be implemented within the framework of the grant aid system of the Japanese Government, so that the project shall be exempted from all the value added taxes(IVA) and customs duty. In Mozambique it is necessary for the implementation agency to allocate necessary budget in order for all value added tax refunds and exemption of customs duties. Therefore, the Mozambican side is required to allocate necessary budget at the relevant time not to cause delay in progress of the project.

(3) Completion of the Construction Work by the End of the Period of Construction Work

When the Government of the Republic of Mozambique employs the services of a local contractor to construct IMAP, the period of construction work will be approximately 24 months. If this project is to be implemented under the scheme of Japanese grant aid cooperation, the period of construction work will be up to 12 months. When using the services of local contractors as subcontractors, the Japanese contractor should therefore carefully manage the schedule in order to complete this project as scheduled.

(4) Quality Control

By international standards, it cannot be said that local contractors have an advanced technical capability. In order to maintain the quality required of construction work carried out within the

framework of grant aid cooperation of the Government of Japan, therefore, the Japanese contractor must establish a viable quality control system in close cooperation with the consultant.

2-2-4-3 Scope of Works

Within the framework of grant aid cooperation of the Government of Japan, this project is to be implemented through close cooperation between the Government of Japan and the Government of the Republic of Mozambique. The scope of the works to be conducted by each of the two governments is as described below.

(1) Works to be carried out under the Grant Aid Cooperation of the Government of Japan

1. Facilities

- Renovation and construction of the existing facilities and the new facilities, both of which are delineated in this basic design study report
- Electrical, mechanical and sanitary installation
- Telephone switchboard

2. Equipment

- Procurement of equipment
- Installation of equipment

3. Infrastructure

- Power supply within the project site
- Water supply/drainage work within the project site

4. External Works

- Roads within the project site
- Septic tanks and soak pit

5. Other works related to the above works

- Transportation of equipment and materials from third countries to Mozambique
- Transportation of equipment and materials from Japan to Mozambique
- Inland transportation of equipment and materials in Mozambique
- Procedures related to transportation of equipment and materials

(2) Works to be carried out by the Government of the Republic of Mozambique

1. Works Relating to the Project Site and External Works

- Procurement of site for this project and its delivery during the construction work
 - Removal of the existing facilities and site preparation
 - Provision of access to the project site
 - Construction of fences and other exterior structures
 - Planting and gardening
2. Infrastructure
- Supply of electricity up to the site
 - Provision of telephone lines for the project and connect them to the Main Distribution Frame
 - Water supply up to the reservoir tank
3. Preparing for the Construction Work
- Provision of suitable sites for a temporary office, workshops and places for storing materials
 - Installation of temporary electricity supply, water supply and telephone lines
4. Furniture and Fixture
- Procurement and installation of furniture, fixture, curtains and consumables which are not included in the work to be carried out by the Government of Japan
5. Procedural work and its expenses
- Banking arrangement expenses
 - Tax exemption procedure expenses
 - Prompt action related to customs clearance and inland transportation
 - Necessary measures for exempting the Japanese nationals engaged in the implementation of the project from customs duties, domestic taxes and other fiscal levies in accordance with the verified agreement
 - Arrangement to expedite acquisition of visas, customs clearance, and any other formalities that may be necessary for the entry of Japanese nationals engaged in the implementation of the project
 - Maintenance and management expenses for ensuring that the facilities constructed and the equipment installed are operated properly and effectively
 - Expenses for obtaining formal permits necessary for construction

2-2-4-4 Consultant Supervision

In accordance with Japan's grant aid system, the Japanese consultant firm will conclude a consultant agreement with the implementing organization of the Government of Mozambique. After concluding the agreement, the consultant will work out detail design documents and supervise the construction work and

the equipment work in compliance with the provisions of the consultant agreement. Supervision is aimed at ensuring that the construction work and the equipment work will be carried out in accordance with the design documents, and at providing direction, technical advice and coordination throughout the term of services from a fair point of view for the proper implementation and quality control of the work under this project. The supervision service includes the followings.

1. Assistance in tendering

The consultant shall prepare the documents necessary for tendering the construction work and the equipment work, and assist the Mozambican side in carrying out tasks such as the public announcement of invitation to tender, acceptance of applications, prequalification, distribution of documents to the tenderers, acceptance of tender, evaluation of the tender results. And the consultant also advise on concluding the contract.

2. Instruction, advice and coordination to the contractor

The consultant shall examine the construction schedule, construction plan, the building materials procurement plan and the equipment procurement/installation plan, and shall give the instruction, advice and coordination to the contractor.

3. Examination and approval of shop drawings and manufacturing drawings

The consultant shall examine and approve the shop drawings, manufacturing drawings and other relevant documents submitted by the contractor.

4. Confirmation and approval of building materials and equipment

The consultant shall confirm the consistency with the contract documents of the building materials and equipment which the contractor proposes to procure, and shall approve their adoption.

5. Plant inspection

The consultant shall inspect the building materials and equipment to ensure their quality and performance.

6. Reporting on progress of the building work

The consultant shall grasp the actual conditions of the construction site and progress, and report

them to both Governments.

7. Completion inspection and test operations

The consultant shall inspect the completed facilities and the installed equipment, and make a test run of each piece of equipment, in order to ascertain that all the works of facilities and equipment are completed in compliance with the provisions of the contract documents, and shall submit the Inspection Certificate to the Mozambican side.

8. Training in operation of the equipment

Some building equipment installed under this project will require considerable operating skills as well as good knowledge of their maintenance. For this reason, it will be necessary to have the engineers of the Mozambican side receive on-site trainings in proper equipment operation and troubleshooting techniques during the installation/ adjustment/test-run period. The consultant shall give instruction and advice concerning the training programme.

Judging from the scale of the project, it is advisable that, in carrying out the aforementioned tasks, the consultant shall station one architect/engineer to Mozambique throughout the term of works. The consultant shall also dispatch necessary architect/engineers to the site at relevant occasions for inspection, instruction and coordination, and at the same time assign necessary engineers in Japan to establish a communication and backup system. The consultant shall report the progress of the works, payment procedures, completion of the construction of the facilities and installation of the equipment, and any other relevant matters to the competent agencies of the Japanese Government.

2-2-4-5 Procurement Plan

(1) Guidelines for Procurement of Building Materials

1) Methods of Procurement of Building Materials

Materials and equipment to be used in this project will be in accordance with the following method.

Table 2-28 Materials Procurement Method

Methods of Procurement		Main materials and equipment	Remarks
Classification	Method		
Local procurement	1. Procurement of Mozambican-made products	Brick, concrete block, cement, sand, gravel, wooden furniture	Procurement of these products to be exempted from local taxes.
	2. Procurement of imported products in the Mozambican market	Cement, paint, wooden sash, reinforcing bar, steel frame	Suited for the procurement of products which require maintenance services.
Import	3. Procured in South Africa and transported to Mozambique	Steel structure glass, paint, cement	Procurement of products produced in South Africa. Common practice in Mozambique.
	4. Order fabricators in South Africa to process and transport to Mozambique	Steel frame, aluminum sash	Possible and commonly done.
	5. Direct import from Japan and third countries other than South Africa	Reinforcing bar, aluminum sash, hardware, generator, educational equipment	In case products with required quality are not available in Mozambique or South Africa, or less expensive products with required quality are available in other countries, this system will be applied.

2) Procurement Guidelines and Points to be Noted

Materials and equipment for use in this project are to be procured in accordance with the following guidelines.

1. Local procurement

In principle, building materials for this project should be procured in Mozambique so that they can be easily repaired, managed and maintained by the Mozambican side after the completion of the facilities. Sand, gravel, bricks and concrete blocks, should be procured locally since their quality is satisfactory and procurement of large quantity is possible. In educational equipment, which requires periodical maintenance services by the local distributors such as copiers, vehicles and electrical home appliances, should be imported ones that can be procured in the country.

2. Import

Those materials and items of equipment which are not available in Mozambique, which can be procured locally but are judged to be poor in quality or which are in short supply and expensive in Mozambique will be procured in South Africa and other third countries. Import of materials and products from South Africa is common practice in Mozambique and transport system between two countries is established. In case of importing materials and products, the Japanese contractors are required to arrange the prescribed procedures for tax exemption. In case products with required quality are not available in Mozambique or South Africa, or less expensive products with required quality are available in Japan or other countries, this system

will be applied as a limited procurement plan.

3) Procurement Plan

Countries where main items are to be procured are as listed in the following table.

Table 2-29 Method of Procurement

Type of work	Name of material/equipment	Country			Remarks
		Mozambique	Japan	Third country	
Construction work	Cement	○			No quality problem and can be procured easily. Stock of reinforcing bars are limited. Stock is limited. Plywood is not manufactured in the country. Manufactured in large quantities in the country. Use for partition wall, produce in large quantities in the country Those manufactured in Portugal and South Africa are imported to the country. From the standpoint of ease of maintenance, those available in the country should be procured. Metal roofing material is not manufactured in the country. Can be procured in the country. Not manufactured in the country. There are no wooden doors manufactured in the country. Not manufactured in the country. From the standpoint of ease of maintenance, those available in the country should be procured.
	Sand	○			
	Gravel	○			
	Reinforcing bar			South Africa	
	Steel frame			South Africa	
	Form			South Africa	
	Brick	○			
	Concrete block	○			
	Ceramic tile	○			
	Glass	○			
	Metal roofing material			South Africa	
	Timber	○			
	Metal sash			South Africa	
	Wooden sash	○			
Hardware			South Africa		
Paint	○				
Mechanical work	Pump			South Africa	Not produced in the country
	Fan			South Africa	- do -
	Sanitaries			South Africa	- do -
	Polyvinyl chloride pipe			South Africa	- do -
	Galvanized steel pipe			South Africa	- do -
	Water tank			South Africa	- do -
	Fire extinguisher			South Africa	- do -
Electrical work	Distribution board			South Africa	Not produced in the country
	Lighting equipment			South Africa	- do -
	Telephone exchanger			South Africa	- do -
	Condit pipe (PVC)			South Africa	- do -
	Electric wire		○		- do-, the price is more resonable than that in South Africa..
	Generator, Incoming panel		○		South African products are not preferable on their quality.

(2) Educational Equipment

1) Procurement Plan

For procurement of equipment, such as student's desk/chair, manufactured locally differ widely in quality (uniformity in size and finish) from one manufacturer to another. After a comprehensive comparison in terms of quality and price, it was decided to procure these items in South Africa. From the standpoint of maintenance parts and consumables, equipment for use in production of teaching materials, educational equipment, and office equipment are to be procured in Mozambique. Products procured in South Africa are to be transported by land from Johannesburg to Xai-Xai (the distance between the two cities is about 800 km). This land transportation route is commonly used as a

importation route.

2) Method of Procurement

In principle, materials and equipment are to be procured in South Africa, Mozambique or Japan. More specifically, educational equipment, including desk, chair and blackboard, is to be procured in South Africa. Those items of equipment which consist of a number of parts which difficult to purchase from a single manufacturer, will be procured in Japan. Equipment for information technology, photocopier, etc. which require local distributors' maintenance service will be procured in Mozambique.

Items of equipment to be procured in Japan

Boiling sterilizer, consulting/first aid set, drawing instrument set, mathematical demonstration, geometrical forms, measuring instrument set, glassware, optical experiment set, geo-science experiment set, electric/magnetic experiment set, kinematic experiment set, weather observation set, molecule model set, magnifying glasses, dissecting set, plant collecting set, slide prepared for microscope, DNA model, anatomical human body, human skeleton model, hand tools for metal work, hand tools for wood work, hand tools for electrical work, measuring instrument, sewing machine, dressmaking equipment, iron/ironing board, ceramic art set, paper craft set, oil painting set, water painting set, electric piano, classic guitar, recorder, marimba, drum set, conga, score stand, metronome

Items of equipment to be procured in South Africa

Student's desk, student's chair, teacher's desk, teacher's chair, blackboard, flannel board, work desk/chair, filing cabinet, storage cabinet, flannel board, work table, conference table, movable blackboard, book shelf, reading table, reading chair, consulting bed, bed, wagon, partition, folding chair, dining table, wagon, bed/mattress, laboratory table, anatomical human body, human skeleton model, demonstration set, champling, football goal posts, basketball goals, handball goal posts, track-event set, jump box, mat set, ball basket

Items of equipment to be procured in Mozambique

Personal computer system, manual typewriter, photocopier, cassette tape recorder, 35 mm camera set, slide projector, overhead projector, screen, TV set/video cassette desk, refrigerator, minibus, sewing machine, iron/ironing board, stencil duplicator

3) Period of Equipment Installation Work

In principle, the equipment installation work is to start after completion of the construction work.

Classification of equipment	Main items	Installation	Instruction in usage
Equipment for use in classroom	Student's desk/chair, teacher's desk/chair, blackboard	0.5 weeks	0
Equipment for use in production of teaching materials	Photocopier, stencil duplicator, personal computer system, printer	0.5 weeks	0.5 weeks
Equipment for use in lectures	Overhead projector, slide projector	0.5 weeks	0.5 weeks
Equipment for use in practical training	Equipment for use in physical training, equipment for use in experiments in natural science, equipment for use in practical training in art/craft	1 week	1 week
Equipment for Administration Department	Equipment for use in the library, the clinic and the teachers' room	0.5 weeks	0.5 weeks
Other	Equipment for use in dormitories, vehicle	0.5 weeks	0.5 weeks

2-2-4-6 Quality Control Plan

The consultant is to have the Japanese contractor prepare the manual of work procedure which details the inspection items, target values, testing method, curing methods, method of construction and governing laws prior to the start of construction work, and conduct quality control based on the document.

Table 2-30 Quality Control Plan

Type of work	Item	Target	Method of inspection	Quality standard	Frequent of measurement	Method of summarization of results
Earth work	Angle of surface of slope	Within range of design values	Gauge, visual inspection	JIS	As deemed appropriate	Photograph, document
	Excavation to designated level	Within +0 to -5 cm	Level, visual inspection		"	"
	Height of footing	Within +0 to -3 cm	"		"	"
	Thickness of soil replaced	With +5 cm to 0	"		"	"
Reinforcement work	Concrete coverage	Portion which does not come into contact with earth 30m/m Portion which comes into contact with earth Footing 60m/m Other 40m/m	Visual inspection, measurement	SABS Specifications	As deemed appropriate	Photograph, documents
	Confirmation of accuracy	Stirrup, tie hoop $\pm 5m/m$ Other $\pm 10m/m$	"		"	"
	Tensile strength test	Design strength 295N/mm ² over	On site sampling or sampling at time of shipment		As deemed appropriate	Once for every 300-ton quantity of reinforcing bars 1 test specimens 3
Concrete work (field mixing)	Compressive strength	Design strength 25N/mm ² over	Visit to project site (any time)	SABS	3 test specimens per placing for every 50 m ³	Reporting about test results
	Slump value	15cm \pm 2.5cm	Visit to project site		Per placing	Photograph, document
	Chloride content	Less than 0.3 kg/m ³	Test specimen Visit to project site		"	"
Concrete block and brick work	Compressive strength of concrete block	40~70kg/cm ²	Visit to laboratory after selection of manufacturer(s)		Once prior to shipment	Reporting about test results
Plaster work Painting work Roof Waterproofing work Carpentry	Materials, method of storage, method of execution, fixing, paint thickness, curing, accuracy in execution	As specified in specifications	Same as left	Same as left	As deemed appropriate	Photograph, document
Plumbing work	Water pipe	"	Pressure test	SABS	At time of completion of plumbing work By system	Reporting about test results
	Drainpipe		Leakage test			
Electrical work	Power cable	"	Insulation test Electric current passage test	SABS	"	"

2-2-4-7 Implementation Schedule

When the Exchange of Notes concerning the implementation of this project is concluded between the Government of Japan and the Government of Mozambique, the construction and equipment work will be implemented with the following procedures.

1. Detail design

The consultant shall prepare the design documents such as detailed design drawings, specifications and tender documents based on the contents of the basic design study report after the conclusion of the consulting service agreement. The consultant shall also obtain approval on the above-mentioned documents from the Mozambican side after consultation with them. The time required for completing the procedure is estimated at one and a half month.

2. Tendering

The contractor to take charge of the construction work will be selected by public tender. The tender work includes tender announcement, prequalification, acceptance of tenders, evaluation of the tenders, designation of a contractor and conclusion of the contract. The time required for completing this procedure is estimated at about two (2) months.

3. Construction and equipment work

Judging from the contents and scale of the work and the actual situation of the local construction industry, it will take 12 months to complete the entire project, including the equipment work, provided the procurement of building materials and the customs clearance of imported articles proceed smoothly.

The schedule of the project from conclusion of Exchange of Notes to the completion of the construction is as shown in Fig. 2-4.

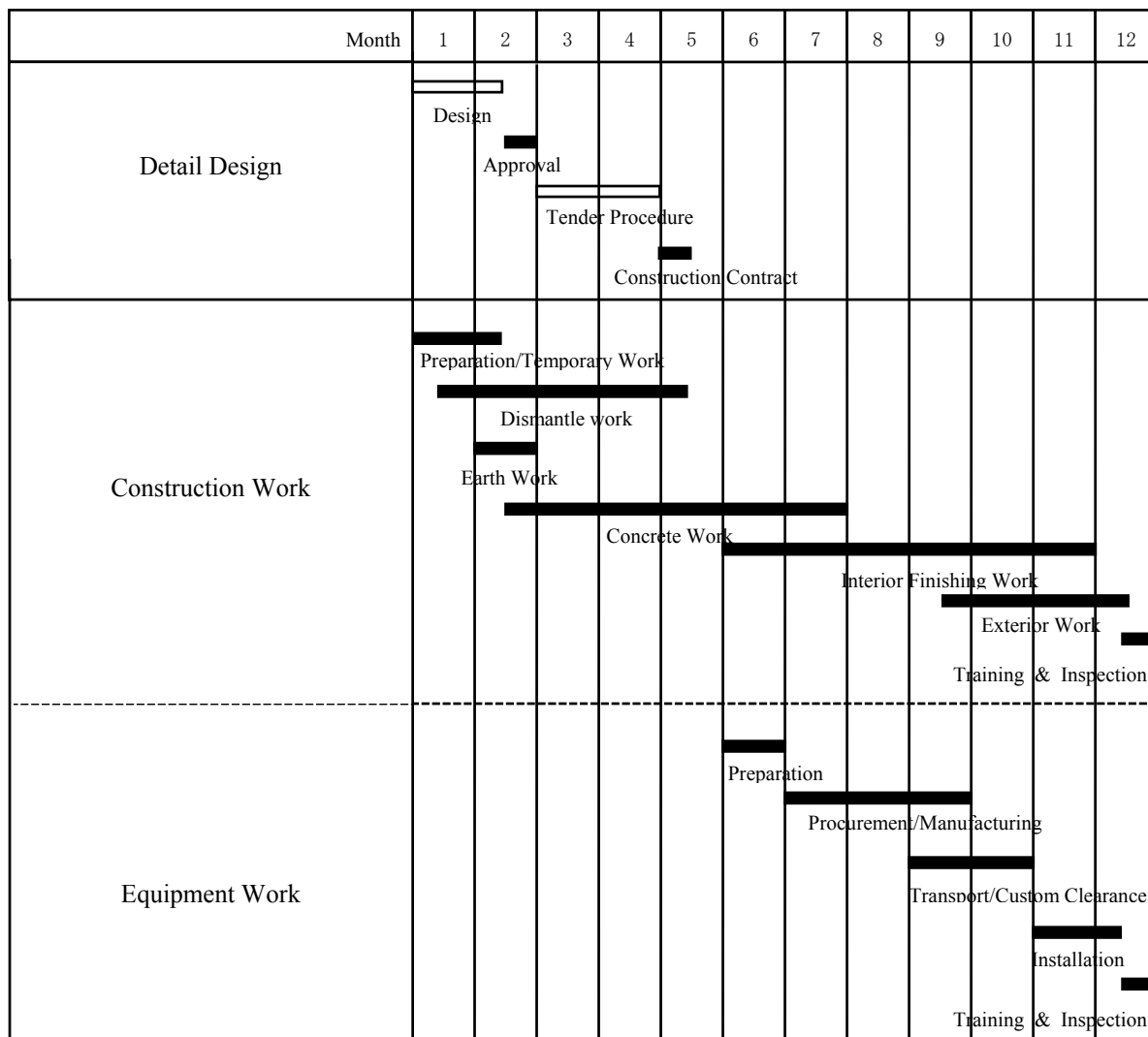


Figure 2-4 Implementation Schedule

2-3 Obligations of the Republic of Mozambique

It was agreed in the Minutes of Discussions that the following necessary measures shall be taken by the Government of Mozambique on condition that the Grant Aid by the Government of Japan is extended to the project.

1. To secure a lot of land necessary for the project;
2. To secure a temporary school facilities during the construction
3. To allocate the budget and secure the necessary staff;
4. To provide facilities for distribution of electricity, water supply, telephone trunk line and drainage and other incidental facilities outside the site;
5. To clear and level the site for the project prior to the commencement of the construction;
6. To undertake incidental outdoor works, such as gardening, fencing, exterior lighting, and other incidental facilities in and around the project site, if necessary;
7. To procure general furniture;
8. To ensure prompt unloading and customs clearance of the products purchased under the Japan's Grant Aid at ports of disembarkation in Mozambique;
9. To exempt Japanese nationals from customs duties, internal taxes and fiscal levies which may be imposed in Mozambique with respect to the supply of the products and services under the verified contracts;
10. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contracts such facilities as may be necessary for their entry into Mozambique and stay therein for the performance of their work;
11. To bear commissions, namely advising commissions of an Authorization to Pay (A/P) and payment commissions, to a Japanese foreign exchange bank for the banking services based upon the Banking Arrangement (B/A);
12. To provide necessary permissions, licenses, and other authorization for implementing the project, if

necessary;

13. To ensure that the facilities constructed and equipment purchased under the Japan's Grant Aid be maintained and used properly and effectively for the project; and
14. To bear all the expenses, other than those covered by the Japan's Grant Aid, necessary for the project.

2-4 Project Operation Plan

(1) Teaching Staff Plan

When the CFPP is upgraded to IMAP, it will be necessary to employ new teachers. The estimated number of new teacher is as described below.

1) Teacher

Those who desire to qualify as IMAP teachers have to have at least a bachelor's degree. The qualification to become a CFPP teacher graduation from EP2 is accepted. At present, the Xai-Xai CFPP has a teaching staff of 22, and some of them do not qualify as IMAP teacher. These teachers need to obtain the qualification as IMAP teachers or to be transferred to other CFPPs or educational institutions.

The number of IMAP teachers will be required at 30 in accordance with the IMAP curriculum. Within the total of 22 teachers working at the Xai-Xai CFPP, 21 do not qualify as IMAP teachers. The Ministry of Education needs to recruit a total of 29 qualified teachers to replace these CFPP teachers.

In order to become qualified IMAP teacher, Pedagogical University (UP) offers a training course for attaining IMAP teacher for the newly established IMAPs in Inhabane Province and Cabo Delgado Province. It is expected that a similar retraining program will be conducted for the new IMAP in Xai-Xai. These new IMAP teachers will be selected from among those teachers who are now ESG teachers.

The Ministry of Education is required to complete the teacher retraining program before the new IMAP opens in Xai-Xai.

2) Members

Four senior administration members--the Head Master, 2 Pedagogical Heads, and the Accounting

Head--are to be appointed by the Ministry of Education. All the other staff members are to be transferred to the new IMAP from provincial government offices. The new IMAP is supposed to have a total of 10 administration members, including the senior administration members, and a total of 20 staff members at clerical level. Therefore, a total of 30 will be there except the teaching staff. Show in the following table are the standard IMAP job titles

Table 2-31 Standard IMAP Job Titles

Department	Job • title
Administration	Head master, Pedagogical Head-1, 2, Accounting head, House master, Accounting clerk, Secretary, Public relations clerk, Student registration clerk, Typist
General staff	Maintenance technicians, Driver, Guard, Garbage collector, Laundry clerk, Cook, Gardener

At present, the CFPP has a staff of 22. So the Ministry of Education needs to recruit eight staff members (30-22=8).

(2) System for Operating, Managing and Maintaining the Educational Facilities

The Ministry of Education needs to direct the Education Directorate of Province will apply for a budget for proper staffing and proper maintenance and management of facilities for the new IMAP prior to the opening of the new IMAP and follow procedures without delay.

1) Employment of and Remuneration for Teachers

The number of teachers of each IMAP is determined every year by Education Directorate of each province on the basis of each IMAP's estimated enrollment. Based on the total number of IMAP teachers, the Ministry of Education apply for a budget for each IMAP to the central government. If the application is approved, Education Directorate of each province implement its staffing plan. Each Education Directorate can decide on the necessary number of teachers for the IMAP on its own discretion.

The amount of salary varies with the group level. Those who are graduates of institutions of higher education are classified as Level A or B, those who at Level C are IMAP graduates, those who at Level D are CFPP graduates, those who at Level E are unqualified teachers, in accordance with their educational background. Those teachers who are transferred to remote areas are paid allowance more than those who work at schools in urban areas. For example, teachers classified as Level C are paid additional amount equivalent to 20 percent of basic salary if they work at schools in urban areas,

and amount equivalent to 30 percent of basic salary if they work at schools in remote areas.

The increased amount of remuneration for teachers of the new IMAP is to be estimated under conditions as referred to "(1) Teaching Staff Plan" above.

Based on the results of the hearing conducted with the Ministry of Education, it is assumed that the average monthly salary for CFPP teachers is 6,000,000MT, that the average monthly salary for IMAP teachers is 9,500,000MT, and that the salary for the CFPP in Xai-Xai teacher qualified as IMAP teacher will not change.

- Current salary for CFPP teachers:

Salary for teachers unqualified as IMAP; 21 teachers x 6,000,000MT = 126,000,000MT/month

Salary for teachers qualified as IMAP; 1 teachers x 9,500,000MT = 9,500,000MT/month

Total 135,000,000MT/month x 12 = 1,626,000,000MT/year

- Future salary for IMAP teachers:

Salary for teachers qualified as IMAP; 30 teachers x 9,500,000MT = 285,000,000MT/month

285,000,000MT/month x 12 = 3,420,000,000MT/year

Therefore, the increase in the amount of annual salary is: 3,420,000,000MT - 1,626,000,000MT = 1,794,000,000MT

- Salary for other clerical-level staff members:

Other clerical-level staff members will not be required to obtain necessary qualifications. According to the hearing conducted with the Ministry of Education, their salaries range between 2,000,000MT/month and 4,000,000MT/month. Here it is assumed that the average salary for them is 3,000,000MT/month

8 x 3,000,000MT/month x 12 = 288,000,000MT/year

Therefore, it is estimated that the increase in the amount of annual salary will be 288,000,000MT.

These tentative calculations indicate that the increase in the amount of annual salary for teachers will be 1,794,000,000MT + 288,000,000MT = 2,082,000,000MT.

In Mozambique, education sector is positioned as one of top priorities in the central government's national development strategy. Budgetary appropriations for personnel expenses for teachers and staff have therefore been made smoothly. For the people of Mozambique, the profession of teaching is attractive in light of the current employment situation. In the case of the

Chibututuine IMAP, which was established in 1999 with the grant aid cooperation of the Government of Japan, the teaching staff plan and the student recruitment program of the IMAP have been implemented without difficulties. In this context, Mozambique's project implementing organization is positive about implementation of this project. In addition, there are no existing IMAPs that are faced with a problem of shortage of teachers. For these reasons, there will be no serious problems with recruiting teachers and budgetary appropriations for this project.

2) Facilities Operation, Maintenance and Management Costs

Estimated costs of operation and maintenance of the new facilities are as shown in "2-5-2 Cost of Operation, Maintenance and Management". The estimated costs are calculated for the 10-year period after completion of this project. Generally, facilities operation, maintenance and management costs tend to increase year by year. It is difficult to estimate the rate of increase because it is affected by the details of operation, maintenance and management work, natural conditions in and around the project site, availability and conditions of urban infrastructure. It is necessary, therefore, to make an annual review of the amount of operation, maintenance and management cost which each IMAP demands from Education Directorate. The Ministry of Education is also required to secure budgetary appropriations for operation, maintenance and management of IMAPs' facilities.

The estimated annual cost of facilities operation, maintenance and management for this project is approximately 1,300,000,000MT. On the other hand, the annual budget allocated to the present Xai-Xai CFPP is approximately 560,000,000MT (for 2000), including school fees collected from students, which is less than half of the estimated cost of facilities operation, maintenance and management. It is expected that the annual operation, maintenance and management cost will increase by 740,000,000MT.

As for other IMAPs, the annual amount of 1,260,000,000MT is allocated to the Matola IMAP as water, lighting and heating expenses (to cover power rates, telephone rates and water rates). The figure is nearly equal to the estimated cost of maintenance and management for this project. It is reported that an amount twice as much as the figure is allocated to the Nampula IMAP. This means that there is no significant difference between the estimated cost for this project and that for other IMAPs. It is very likely that budgetary appropriations for the new IMAP will be made as scheduled.

It is suggested that a manager responsible for facilities management be appointed.

(3) Facilities Maintenance and Management Staff

Although not equipped with special items of equipment, the new facilities should be taken care of by full-time facility maintenance and management staff members. The generator and the plumbing equipment installed in the existing facilities are not functioning satisfactorily. Such problems should be avoided in the new facilities. Xai-Xai is located more than 200 km away from Maputo. This means that when a certain item of equipment breaks down, it is difficult to have a local distributor immediately come to the new IMAP for troubleshooting. Under such circumstances, proper use of plumbing equipment and electrical equipment should be encouraged at the new IMAP and full-time maintenance and management staff members are to be stationed there. It is important to reduce equipment breakdowns as much as possible.

Instructions for use of individual items will be given at the time of their delivery. In this connection, the Mozambique side is required to appoint a staff member responsible for maintenance and inspection of plumbing equipment and electrical equipment and a couple of maintenance and management staff members should be appointed so that a viable maintenance and management system may be created and to make them attend the instruction giving sessions. Although not required to do advanced troubleshooting, these staff members are required to have a technical capability to conduct routine inspections paying careful attention to the use of equipment.

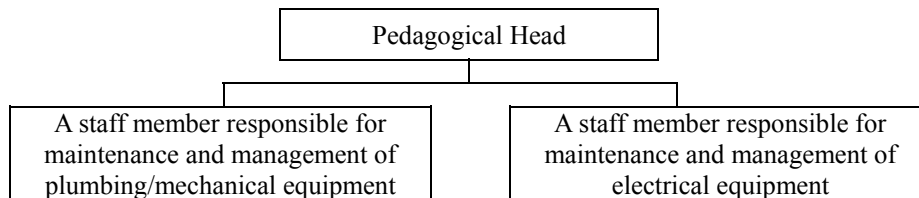


Figure 2-5 Facilities Maintenance and Management System

2-5 Estimated Total Cost of the Project

2-5-1 Estimated Total Cost of the Project

(1) Estimating Conditions

The estimating conditions are as shown below.

1. Time of estimating March 2003
2. Foreign exchange rate 1US\$=¥121.83
 1MT=¥0.005

3. Period of construction work 12 months
4. Ordering system Japanese juridical person is to be selected as a contractor for construction work and equipment work through tender.
5. Tax exemption Within the framework of grant aid cooperation of the Government of Japan, materials/equipment imported into Mozambique are to be exempted from customs duty and Japanese nationals which take part in the project are to be exempted from business tax, income tax, value-added taxes and any other taxes.

(2) Estimated Cost of the Work to be carried out by the Japanese Side

The total cost of the work by the Government of Japan, which includes the cost of construction work, the cost of equipment work and the cost of detail design and supervision, is estimated at ¥ 758.7 million. A breakdown of the estimated total cost is as shown below. (This cost estimate is provisional and would be further examined by the Government of Japan for the approval of the Grant.)

Estimated total cost: ¥ 758.7 million

(Total floor space: approx. 8,265 m²)

Item	Estimate Total Cost(in millions of yens)			
Administration Building	13.7			
Teachers Building	39.5			
Classroom Building (1)	25.6			
Classroom Building (2)	16.4			
Classroom Building (3)	16.4			
Laboratory Building	50.6			
Teacher Support and Resource Center Building	10.5			
Toilet Building	12.7			
Multi Purpose Building	48.0			
Canteen Building	31.9			
Male Accommodation Building (1)	32.8			
Male Accommodation Building (2)	32.8			
Female Accommodation Building (1)	59.6	595.6		
Female Accommodation Building (2)	47.4		646.6	
Teacher Accommodation Building (1)	11.3			758.7
Teacher Accommodation Building (2)	10.5			
Teacher Accommodation Building (3)	10.5			
Teacher Accommodation Building 4)	12.7			
Teacher Accommodation Building (5)	38.8			
Teacher Accommodation Building (6)	38.7			
Teacher Accommodation Building (7)	26.3			
Guard Building	0.9			
Garage (1)	0.7			
Garage (2)	3.0			
Electrical Building (1)	0.8			
Electrical Building (2)	0.6			
Pump Building	2.9			
Equipment		51.0		
Detail Design and Supervision			112.1	

(3) Estimated Cost of Works to be carried out by the Mozambique Side

The items, the outline and the cost of the works to be carried out by the Mozambique side are as shown below.

1.	Installation of power service	146,520,000 MT
	(cost of power intake work; distance: 250 meters; equipment is to be provided by the Government of Japan)	
2.	Installation of additional telephone lines	65,000,000 MT
3.	Water supply	20,000,000 MT
	(cost of city water connection work; distance: 50 meters)	
4.	Construction of exterior fence	4,800,000,000 MT
	(distance: 1,650 meters; concrete blocks, RC posts)	
5.	Furniture, furnishings	144,400,000 MT
6.	Curtain	15,000,000 MT
7.	Customs duties, value-added taxes (IVA),	17,959,600,000 MT
	Banking Arrangement commission, etc.	
Total		23,150,520,000 MT

2-5-2 Cost of Operation, Maintenance and Management

When this project is implemented, the Government of the Republic of Mozambique is to make appropriations for the operation, maintenance and management of the facilities as follows.

Table 2-32 Operation, Maintenance and Management Cost

Item	Amount
1. Facilities operation cost -----	885,352,754 MT/year
1) Power rates	207,579,154
2) Telephone rates	236,948,400
3) Water rates	229,975,200
4) Food cost (dormitories)	120,000,000
5) Fuel cost	90,850,000
2. Maintenance and management cost -----	294,215,000 MT/year
1) Facilities maintenance cost	206,625,000
2) Equipment maintenance cost	49,590,000
3) Educational equipment maintenance cost	38,000,000
(total)	1,179,567,754 MT/year)
3. Cost of teaching materials -----	120,500,000 MT/year
Total	1,300,067,754 MT/year

(1) Facilities Maintenance Cost

1) Power rates 207,579,154MT/year

Classification by load	Load capacity
Lighting fixtures, wall outlet	120kVA
Air conditioner, sanitary equipment	150kVA
Other	20kVA
Total	290kVA

Therefore, the transformer capacity of the power substation is 300 kVA.

- Assumed Contract Demand

Table 2-33 Tentative Calculation of Demand for Power

Facility	Assumed installed capacity	Assumed demand factor	Maximum demand for power	Remarks
Teachers Bldg.	12.90kVA	40%	5.16kVA	
Administration Bldg.	4.09kVA	60%	2.45kVA	
Canteen Bldg.	10.76kVA	30%	3.22kVA	
Multi Purpose Bldg.	13.76kVA	20%	2.75kVA	
Laboratory Bldg., etc.	22.56kVA	30%	6.76kVA	
Male Accommodation Bldg. (1)	13.40kVA	20%	2.68kVA	
Male Accommodation Bldg. (2)	13.40kVA	20%	2.68kVA	
Teacher Accommodation Bldg. (5)	16.02kVA	30%	4.80kVA	
Teacher Accommodation Bldg. (6)	16.02kVA	30%	4.80kVA	
Teacher Accommodation Bldg. (1A·1B)	6.20kVA	30%	1.86kVA	
Teacher Accommodation Bldg. (2A·2B)	6.70kVA	30%	2.01kVA	
Teacher Accommodation Bldg. (3A·3B)	6.70kVA	30%	2.01kVA	
Teacher Accommodation Bldg. (7)	11.08kVA	30%	3.32kVA	
Classroom Bldg. (2)	5.97kVA	60%	3.58kVA	
Classroom Bldg. (3)	5.97kVA	60%	3.58kVA	
Female Accommodation Bldg. (1)·(2)	27.97kVA	20%	5.59kVA	
Teacher Accommodation Bldg. (4)	5.39kVA	30%	1.61kVA	
Classroom Bldg. (1)	7.07kVA	60%	4.24kVA	
Guard Bldg.	0.16kVA	60%	0.09kVA	
Electrical Bldg.	13.28kVA	50%	6.64kVA	
Other existing facilities	40.00kVA	50%	20.00kVA	10VA/m ²
Total	259.40kVA		89.83kVA	

Maximum total demand for power is 89.83 kVA. If it is assumed that approximately 30 percent of the transformer capacity is contract demand, assumed contract demand is 90 kW.

Power subscription : 90kW

- Assumed Power Consumption

On the basis of the values of maximum demand for power as shown above,

Maximum total demand for power for the student accommodation buildings and the teacher accommodation buildings: 30 kW

Maximum total demand for power for the administration building, the classroom buildings and other buildings: 60 kW

Power consumption (kWh/month) is calculated on the basis of the values of maximum demand for power as shown above.

a : Student accommodation bldg./teacher accommodation bldg.: 2,940 kWh/month
 Weekdays : $\{(30\text{kW} \times 0.2 \times 2 \text{ hours}) + (30\text{kW} \times 0.6 \times 5 \text{ hours})\} \times 20$
 days=2,040kWh/month

Holidays : $30\text{kW} \times 0.3 \times 10 \text{ hours} \times 10 \text{ days} = 900\text{kWh/month}$

b : Administration bldg., classroom bldg., other bldgs. 5,400kWh/month

Weekdays : $60\text{kW} \times 0.4 \times 10 \text{ hours} \times 20 \text{ days} = 4,800\text{kWh/month}$

Holidays : $60\text{kW} \times 0.1 \times 10 \text{ hours} \times 10 \text{ days} = 600\text{kWh/month}$

Power consumption=a + b = 8,340kWh/month

• Annual Power Consumption

Basic rates : $90\text{kW} \times 12 \text{ months} \times 115,348\text{MT} \times 1.17(\text{IVA}) = 145,753,733\text{MT/year}$

Power rates : $8,3430\text{kWh/month} \times 12 \text{ months} \times 528\text{MT} \times 1.17(\text{IVA}) = 61,825,421\text{MT/year}$

Total 207,579,154MT/year

2) Telephone Rates 236,948,400MT/year

- Number of subscriber lines: 1 existing line + 3 new lines = 4 lines
- Subscriber line usage rates: 4 lines x 192,000MT/line monthx12monthsx1.17 (IVA) = 10,782,720MT/year...①
- Assumed telephone rates: Assumed number of outbound calls/line: 10/line day
Average length of call: 5 minutes (outbound)

Therefore, the average annual length of call is:

$4 \text{ lines} \times 10 \text{ times/line} \times 5 \text{ minutes} \times 365 \text{ days} = 73,000 \text{ minutes/year}$

It is assumed that half of the length of call is that of long-distance (more than 50 km) call.

Telephone rates

City call: $36,500 \text{ minutes/year} \times 600\text{MT} \times 1.17 (\text{IVA}) = 25,623,000\text{MT/year}$

Long Distance call: $36,500\text{minutes/year} \times 4,696\text{MT/minutes} \times 1.17(\text{IVA})$
 $= 200,542,680\text{MT/year}$

Total 226,165,680MT/year...②

Annual telephone rates

① + ② = $10,782,720\text{MT/yen} + 226,165,680\text{MT/yen} = 236,948,400 \text{ MT/year}$

3) Water Rates 229,975,200 MT/year

Daily water consumption at the CFPP (see "2-2-2-1 Facilities Plan (8) Water Supply Equipment Plan") is as shown in the following table.

• Calculation of water consumption

Students	400persons	100L/day · person	=	40,000L/day
Teachers	60persons	100L/day · person	=	6,000L/day
Teacher accommodation	120persons	100L/day · person	=	12,000L/day
				58,000L/day
				→ 60m ³ /day

$$60 \text{ m}^3/\text{day} \times 30 \text{ days} = 1,800 \text{ m}^3/\text{month}$$

Water rates in Xai-Xai break down into basic rates (227,500MT/month x 1.17 (IVA))(up to 25 m³) and consumption rates (9,100MT/m³ x 1.17 (IVA)). Therefore, monthly water rates for the IMAP will be as follows.

$$\{227,500 + 9,100 \times (1,800-25)\} \times 1.17(\text{IVA}) = 19,164,600 \text{ MT/month}$$

Thus, annual water rates are calculated as follows.

$$19,164,600 \text{ MT/month} \times 12 = 229,975,200 \text{ MT/year}$$

4) Food Cost (dormitories) 120,000,000 MT/year

The Matola IMAP's food cost (dormitories) for 2001 was 300,000MT/person year.

- $300,000\text{MT/person} \cdot \text{year} \times 400\text{persons} = 120,000,000\text{MT}$

5) Fuel Cost 90,850,000 MT/year

① Cost of fuel for emergency generator

- Capacity of emergency generator: 50 kVA (fuel consumption: 15L/h)

It is assumed that there are power stoppages (total length: 2 hours) every week.

Annual fuel cost:

$$15\text{L/h} \times 2\text{hours} \times 50\text{weeks} \times 12,500\text{MT/L} = 18,750,000 \text{ MT/year}$$

- Cost of fuel for minibus

Fuel consumption: 4L/km

Gas oil rates : 10,000MT

Calculation of Assumed Annual Mileage

Period	Assumed mileage and no. of days of training	Mileage
1 st term, 1st grade	160 km (daily mileage) x 12 (no. of days of training)	1,920km
2 nd term, 1st grade	160 km (daily mileage) x 24 (no. of days of training)	3,840km
1 st term, 2nd grade	160 km(daily mileage) x 24 (no. of days of training)	3,840km
2 nd term, 2nd grade	160 km (daily mileage) x 74 (no. of days of training)	11,840km
On-the-job training (given by teachers)	160 km (daily mileage) x 74 (no. of days of training)	7,400km
Total		28,840km

Annual fuel cost: 28,840km ÷ 4L/km x 10,000MT = 72,100,000MT/year

(2) Facilities Maintenance Cost

1) Facilities Maintenance Cost 206,625,000MT/year

The annual amount of facilities maintenance cost tends to vary widely over time. It is tentatively calculated by assuming that the average annual facilities maintenance cost per square meter for the first 10 years is 25,000MT.

$$8,265 \text{ m}^2 \times 25,000\text{MT}/\text{m}^2 \cdot \text{year} = 206,625,000\text{MT}/\text{year}$$

2) Equipment Maintenance Cost 49,590,000MT/year

It is assumed that the average annual cost per square meter of maintenance of electrical equipment, plumbing equipment and air conditioning equipment is 6,000MT.

$$8,265 \text{ m}^2 \times 6,000\text{MT}/\text{m}^2 \cdot \text{year} = 49,590,000\text{MT}/\text{year}$$

3) Educational Equipment Maintenance Cost 38,000,000MT/year

(3) Teaching Materials Cost 120,500,000MT/year

Chapter 3 Project Evaluation and Recommendations

Chapter 3 Project Evaluation and Recommendation

3-1 Project Effect

The effects of the project are as summarized in the following table.

Table 3-1 Expected Project Effects

(1) Direct Effects

Present conditions and problems	Inputs of the Project	Expected outputs and improvement
<ul style="list-style-type: none"> • In Gaza Province, there is only a CFPP with superannuated facilities. There is no IMAP to train qualified primary teachers (EP1/EP2), making it impossible to train certified primary teachers(EP1/EP2). 	<ul style="list-style-type: none"> • The CFPP's superannuated facilities are to be rehabilitated and lacking facilities are to be constructed in order to establish an IMAP in the province 	<ul style="list-style-type: none"> • The establishment of an IMAP in the province will lead to the improvement of the quality of education at a teacher training center in the province as well as the living environment for students of the center. It will also lead to recruitment of 200 certified primary teachers(EP1/EP2) in the province
<ul style="list-style-type: none"> • In Gaza Province, the annual total number of certified primary teachers (EP1) is only 100. Both the number of schoolchildren per qualified primary teacher and the percentage of unqualified primary teachers in the province are higher than the national average 		<ul style="list-style-type: none"> • As a results of the establishment of an IMAP in the province, the number of certified primary teachers will increase from 100(EP1) to 200.(EP1 /EP2), • The number of schoolchildren per unqualified primary teacher in the province, which at presents stands at 123.9, will decrease to 85.8 in 2008. • The percentage of unqualified primary teachers (EP1/EP2), which at present stands at 52.2 percent, will decrease to 33.4 percent in 2008
<ul style="list-style-type: none"> • Due to a shortage of equipment for use in the administration department and standard equipment for use in practical training, it is difficult to operate and manage the existing facilities efficiently and to give necessary training in accordance with the standard curriculum. 	<ul style="list-style-type: none"> • Items of equipment which are necessary for training in accordance with the IMAP standard curriculum, and items of equipment for use in teaching, in production of teaching materials, in lectures, in practical training and in administration, are to be procured 	<ul style="list-style-type: none"> • It will become possible to give lectures in accordance with the IMAP standard curriculum as well as to operate and manage IMAP facilities.

(2) Indirect Effects

Present conditions and problems	Inputs of the project	Expected output and improvement
<ul style="list-style-type: none"> In Gaza Province, rate of repetition of same grade and withdrawal from school are high 	–	<ul style="list-style-type: none"> * An increase in the number of certified teachers and effective teaching will lead to reductions in the repetition rate and the withdrawal rate in primary schools in Gaza province
<ul style="list-style-type: none"> Places for community people's activities are not enough 	–	<ul style="list-style-type: none"> The opening of new facilities to the local public for health activities and ceremonial occasions will contribute to enhancement of the community peoples activities
<ul style="list-style-type: none"> The surrounding area is situated in a frequent flood area, but there are no places for flood refugees. 	–	<ul style="list-style-type: none"> The new facilities will serve as primary places of flood refugees.

3-2 Recommendations

The following steps are to be taken by the Mozambique side to ensure that the facilities rehabilitated or newly constructed are utilized continuously and effectively after completion of this project.

(1) Teacher Support and Resource Center

The teacher support and resource center to be constructed is to serve as an important access point where current primary teachers in Gaza Province receive training and teaching materials from the Ministry of Education. The IMAP is required to be in close relationship with the Ministry of Education.

(2) Establishment of a System for Operation, Management and Maintenance of Facilities

The existing facilities in Xai-Xai CFPP are mostly superannuated. Some of them have deteriorated due to users' lack of operation knowledge and low awareness of facilities maintenance and management. Therefore, technical person is recommended to appoint by the time of completion of the work by the Japanese side. In this connection, it is necessary that a system for facilities maintenance and management should be established. At present, the CFPP has a meal serving system which is participated and operated by students. This system is to be expanded to activities such as cleaning classrooms, laboratories and toilets. Students' awareness of facilities maintenance and management will be heightened through these activities, and as a result maintenance and management of the facilities

will be conducted continuously and systematically by students.

(3) Education for Enhancing Awareness of Economical Utilization of Facilities and Equipment

Power, telephone and water rates form a large part of facilities operation expenses. The facilities to be built for the project are designed to minimize the utility expenses. If the utilities are used without planning, the facilities maintenance and management expenses will be large amount, or a heavy financial burden to Xai-Xai IMAP.

It is necessary that the Xai-Xai IMAP should educate the staff members and students to switch the lights off, turn the taps off, and stop operating equipment when it is not in use in order to prevent waste of energy.

(4) Educational Institution Open to the Local Community

At the existing IMAPs in the country, the multi purpose building is rented out to community for ceremonial occasions and other community activities, and the income from rented out are appropriated for the operation, maintenance and management of facilities. If classrooms are made available for general use, they can be also used for meetings of community residents and lifelong education for community residents.

The Xai-Xai area often suffers from flooding. The facilities to be constructed are to be situated on top of a hill and therefore they can be used as temporary places for flood refugees.

(5) Enhancing the Organizational Capability of Directorate of Education, Gaza Province

If this project is to prove effectiveness over the long period, it is necessary that the Government of the Republic of Mozambique enhance the organizational capability of the Directorate of Education, Gaza Province to be responsible for the operation, maintenance and management of the facilities after completion of this project.

Appendices

1. Member List of the Study Team
2. Study Schedule
3. List of Parties Concerned in the Republic of Mozambique
4. Minutes of Discussions
5. Survey of Natural Conditions

1. Member List of the Study Team

1. Member List of Study Team

(1.) Basic Design Study

No.	Name	Job title	Occupation
1	Mr. Kazunori MIURA	Leader	Director, Project Monitoring and Coordination Div., Grant Aid Management Dept., JICA
2	Ms. Yuki SHIBUYA	Planning Management	Staff, First Project Management Div., Grant Aid Management Dept., JICA
3	Mr. Mineo NAGAOKA	Chief Consultant/ Architectural Design	Yamashita Sekkei Inc.
4	Ms. Aya ARAKAWA	Education Planning/ Study on Sector Donors	Mohri, Architect & Associates, Inc.
5	Mr. Fumio ARAI	Architectural Planning	Yamashita Sekkei Inc.
6	Mr. Osamu SUZUKI	Procurement Planner/ Cost Estimator	Yamashita Sekkei Inc.
7	Mr. Keishi TAKAKUSA	Equipment Planning	Yamashita Sekkei Inc.
8	Ms. Yoshiko FUKUSHIMA	Interpreter	Yamashita Sekkei Inc.

(2.) Explanation of the Draft Report

No.	Name	Job title	Occupation
1	Mr. Noboru TSUTSUI	Leader	Resident Representative, JICA, Mozambique Office
2	Ms. Yuki SHIBUYA	Planning Management	Staff, First Project Management Div., Grant Aid Management Dept., JICA
3	Mr. Mineo NAGAOKA	Project Manager/ Architectural Design	Yamashita Sekkei Inc.
4	Mr. Fumio ARAI	Architectural Planning	Yamashita Sekkei Inc.
5	Mr. Osamu SUZUKI	Procurement Planner/ Cost Estimator	Yamashita Sekkei Inc.
6	Ms. Yoshiko FUKUSHIMA	Interpreter	Yamashita Sekkei Inc.

2. Study Schedule

2. Study Schedule

(1) Basic Design Study (February 18 – March 17, 2003)

No.	Date		Schedule
1.	Feb. 18	Tue.	<ul style="list-style-type: none"> • Lv. Tokyo Arr. Singapore (Shibuya) • Lv. Tokyo Arr. Singapore (Nagaoka, Arakawa, Suzuki, Fukushima)
2.	Feb. 19	Wed.	<ul style="list-style-type: none"> • Lv. Singapore Arr. Johannesburg • Meeting at JICA South Africa Office • Lv. Johannesburg Arr. Maputo (Shibuya, Nagaoka, Arakawa, Suzuki, Fukushima)
3.	Feb. 20	Thu.	<ul style="list-style-type: none"> • Courtesy call on the Embassy of Japan • Courtesy call on Foreign Affairs and Cooperation and the Ministry of Education (Explanation of Inception Report)
4.	Feb. 21	Fri.	<ul style="list-style-type: none"> • Meeting at DCEE • Visit IMAP Matola
5.	Feb. 22	Sat.	<ul style="list-style-type: none"> • Lv. Tokyo Arr. Singapore (Miura, Leader) • Survey at IMAP Chibututuine • Visit Maputo Primary School Project
6.	Feb. 23	Sun.	<ul style="list-style-type: none"> • Lv. Singapore Via Johannesburg Arr. Maputo (Miura, Leader) • Meeting within the Team, study the collected data
7.	Feb. 24	Mon.	<ul style="list-style-type: none"> • Meeting at Gaza Directorate of Education • Xai-Xai project site survey
8.	Feb. 25	Tue.	<ul style="list-style-type: none"> • Meeting at the Ministry of Education • Visit to DCEE
9.	Feb. 26	Wed.	<ul style="list-style-type: none"> • Meeting at the Ministry of Education on Minutes of Discussions • Lv. Tokyo Arr. Singapore (Arai, Takakusa)
10.	Feb. 27	Thu.	<ul style="list-style-type: none"> • Signing Minutes of Discussions • Report to the Embassy of Japan • Lv. Maputo Arr. Johannesburg (Miura Leader, Shibuya) • Discussion at DCEE • Lv. Singapore Via Johannesburg Arr. Maputo (Arai, Takakusa)
11.	Feb. 28	Fri.	<ul style="list-style-type: none"> • Report to JICA South Africa Office • Lv. Johannesburg (Miura Leader, Shibuya) • Discussion at the Ministry of Education and Visit DANIDA
12.	Mar. 1	Sat.	<ul style="list-style-type: none"> • Via Paris Arr. Ougadougou (Miura Leader), Via Singapore Arr. Tokyo (Shibuya) • Meeting within the Team, Study on the collected data
13.	Mar. 2	Sun.	<ul style="list-style-type: none"> • Survey on natural condition around the project site
14.	Mar. 3	Mon.	<ul style="list-style-type: none"> • Survey at Joaquim Chissano Junior high school
15.	Mar. 4	Tue.	<ul style="list-style-type: none"> • Survey Infrastructure in and around the project site (Electricity, Water supply, Sewage, Telephone, Gas)
16.	Mar. 5	Wed.	
17.	Mar. 6	Thu.	<ul style="list-style-type: none"> • Survey at Chibututuine IMAP • Discussion with World Bank (WB)
18.	Mar. 7	Fri.	<ul style="list-style-type: none"> • Survey on construction materials and equipment • Visit Meteorological department • Report the result of survey to the Ministry of Education • Lv. Maputo Arr. Johannesburg (Arakawa)
19.	Mar. 8	Sat.	<ul style="list-style-type: none"> • Meeting within the Team • Lv. Johannesburg Arr. Singapore (Arakawa)
20.	Mar. 9	Sun.	<ul style="list-style-type: none"> • Meeting within the Team and study on the collected data • Lv. Singapore Arr. Tokyo (Arakawa) • Lv. Maputo Arr. Johannesburg (Suzuki)
21.	Mar. 10	Mon.	<ul style="list-style-type: none"> • Meeting at the Ministry of Education • Survey on local contractors and equipment agents • Visit statistics department • Collection of questionnaire and study the data

No.	Date	Schedule
22.	Mar. 11 Tue.	<ul style="list-style-type: none"> • Survey at the Xai-Xai project site • Lv. Johannesburg Arr. Singapore (Suzuki)
23.	Mar. 12 Wed.	<ul style="list-style-type: none"> • Meeting at the Ministry of Education • Survey local suppliers and agents • Lv. Singapore Arr. Tokyo (Suzuki)
24.	Mar. 13 Thu.	<ul style="list-style-type: none"> • Meeting at INDE • Survey at Munhuana IMAP • Survey on local construction market and equipment agent
25.	Mar. 14 Fri.	<ul style="list-style-type: none"> • Meeting at the Ministry of Education • Report the result of the study to the Embassy of Japan
26.	Mar. 15 Sat.	<ul style="list-style-type: none"> • Meeting within the Team • Lv. Maputo Arr. Johannesburg (Nagaoka, Arai, Takakusa, Fukushima)
27.	Mar. 16 Sun.	<ul style="list-style-type: none"> • Lv. Johannesburg Arr. Singapore
28.	Mar. 17 Mon.	<ul style="list-style-type: none"> • Lv. Singapore Arr. Tokyo (Nagaoka, Arai, Takakusa, Fukushima)

(2) Explanation of Draft Basic Design (May 31 – June 9, 2003)

No.	Date	Schedule
1.	May 31 Sat.	<ul style="list-style-type: none"> • Lv. Tokyo Arr. Bangkok (Shibuya, Nagaoka, Arai, Suzuki, Fukushima)
2.	June 1 Sun.	<ul style="list-style-type: none"> • Lv. Bangkok Arr. Johannesburg
3.	June 2 Mon.	<ul style="list-style-type: none"> • Lv. Johannesburg Arr. Maputo • Meeting at JICA Mozambique Office • Courtesy call on the Embassy of Japan
4.	June 3 Tue.	<ul style="list-style-type: none"> • Meeting at the Ministry of Education on the Draft Basic Design Report
5.	June 4 Wed.	<ul style="list-style-type: none"> • Meeting at the Ministry of Education on Minutes of Discussions • Signing of the Minutes of Discussions • Courtesy call to the Minister for the Ministry of Education
6.	June 5 Thu.	<ul style="list-style-type: none"> • Report to the Embassy of Japan on the result • Report to JICA Mozambique Office on the result
7.	June 6 Fri.	<ul style="list-style-type: none"> • Additional survey at Xai-Xai project site • Lv. Maputo Arr. Johannesburg Lv. Johannesburg (Shibuya)
8.	June 7 Sat.	<ul style="list-style-type: none"> • Arr. Kuala Lumpur Lv. Kuala Lumpur Arr. Tokyo (Shibuya) • Lv. Maputo Arr. Johannesburg Lv. Johannesburg (Nagaoka, Arai, Suzuki, Fukushima)
9.	June 8 Sun.	<ul style="list-style-type: none"> • Arr. Bangkok Lv. Bangkok
10.	June 9 Mon.	<ul style="list-style-type: none"> • Arr. Tokyo

3. List of Parties Concerned in the Republic of Mozambique

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Ministry of Foreign Affairs and Cooperation	Directorate of Asia and Oceania
Mr. Hermenegildo Jose Caetano	Head, Department for North, Central & South Asia
Ministry of Education (MINED)	
Mr. Aleido Nguenha	Minister
Mr. Zefanias Seneta Mabie Muhate	Permanent Secretary
Planning Directorate	
Mr. Virgilio Juvane	Director
Mr. Andre Utui	Manager
Mr. Alberto Siteo	Technical Expert
Directorate for Training Teachers & Educational Expert	
Dr. Agostinho Barreto David Coetzee	Director
Mr. Fernando Rachide	Manager, Teaching Staffs Development
Mr. Daniel Dinis da Costa	Manager, Training Teaching Staffs
National Directorate for Construction & Equipment (DNCEE)	
Mr. Herminio Manuel Malate	Director
Institute for Teacher Upgrading (IAP)	
Ms. Maria da Graca E. Simbine da C. Bras	Group Head
Mr. Luis Loao Terumbo	Manager, Teaching Staff
National Institute for Educational Development (INDE)	
Ms. Anna Passey	Chief, Training Teaching Staff
Mr. Albertina Moreno	Manager, Curriculum Development & Planning
Mr. Laura Gomes	Coordinator, Natural Science Group,
Mr. Vasco Camundinho	Coordinator, Audio Visual and Art Group
Directorate of Education, Gaza Province	
Mr. Alberto Paulo Libombo	Director
Mr. Custodio Balate	Manager
Mr. Nataniel A. Luchinda	Manager
Mr. Isaias Jaime	Technical Expert, Project Planning
Mr. Simao A. Mahanjane	Inspector
Mr. Adolfo Baltazar Miti	Architectural Supervisor
Mr. Avelino Bernardino Doane	Technical Supervisor
Mr. Ilidio Marcos Tembe	Technical Supervisor
Xai-Xai Teacher Training School	
Mr. Yonatane Matees Mocu	Headmaster
Mr. Victor Dias Junior	Head, School Affaire
Mr. Elias Bohane Mecie	House Master
Matola IMAP	
Mr. Messias B. U. Matusse	Director
Chibututuine IMAP	
Mr. Raquel A. Rauier	Headmaster
Ms. Stela Chemane	Head, School Affaire
Mr. Bento Godinho	House Master
Mr. Regina Salome Chissano	Instructor, Physical Education
Joaquim Chissano Junior High School	
Mr. Rafael Baptista Janiario	Accountant
Ms. Leoferda Sambo	Nurse

Danish International Development Assistance (DANIDA)	
Mr. Jorgen Fris	Chief Coordinator
World Bank	
Ms. Alexandra Valerio	Expert, Staff Development and Education
Mozambique Electric Power Corporation (EDM)	
Ms. Maria Fernanda Quipico	Director, Xai-Xai Branch
Ms. Neves Xavier	Technical Expert
Xai-Xai City Water Corporation	
Ms. Baltazer Manuensa Guidanga	Director
Mozambique Telecommunication Corporation	
Mr. Gimo Mabanga	Director, Xai-Xai Branch
Meteorological Agency	
Mr. Elias Vasco	Observer
Embassy of Japan in Mozambique	
Mr. Kanji Tsushima	Ambassador of Japan
Mr. Takuo Sato	Second Secretary
Ms. Akiko Shimohira	Project Coordinator
JICA Mozambique Office	
Mr. Noboru Tsutsui	Resident Representative
Mr. Katsuyoshi Sudo	Deputy Resident Representative
Ms. Yukiko Okuno	Project Formulation Adviser
JICA South Africa Office	
Mr. Hiroshi Murakami	Resident Representative
Mr. Koji Jitsukawa	Assistant Resident Representative