

2-2-4 Implementation Plan

(1) Implementation Policy

The elements of this project include facility construction work, supply and installation of equipment. The scope of cooperation regarding the project undertaken by the Japanese side will be implemented according to the framework of Japanese Grant Aid. Implementation of this plan shall be initiated officially only after it is approved by the governments of both countries and the Exchange of Notes (E/N) is signed. Immediately after signing of the E/N, the RMI organization responsible for implementation of this project and the Japanese consultant firm shall enter a contract and initiate the detailed design work for the project. When the design is completed, Japanese construction firm(s) and equipment supply and installation firm(s) will participate in the tender for the works. Upon completion of the tender, the successful tenderers for construction of facilities and supply and installation of the equipment will proceed to the work itself. The basic principles and items to be proposed for implementation of this project are described below.

1) Executing organization

The implementing entity in the project is the Ministry of Health of the RMI, and the Majuro Hospital and the Bureau of the PHC will be responsible for operation and maintenance of the facilities and the equipment provided by Japan.

2) Consultant

After the signing of the E/N, the Japanese consultant firm and the Government of the RMI shall enter a consultant contract according to the formal procedure for the Grant Aid System of the Government of Japan. This consultant firm will execute the following activities under this Contract.

- ① Detailed design of the project: To prepare the design documents (specifications and technical reference materials on the facilities and equipment included in the project).

- ② Tender: To cooperate in selection of the construction firm(s) and equipment supply and installation firm(s) through the tender and in transaction of procedures required under the contract.
- ③ Construction supervision: To supervise so that instructions for construction of facilities, delivery and installation of the equipment, operation and maintenance are given properly.

In the detailed design stage, the consultant will determine the construction plan and the equipment supply plan in detail based on the basic design investigation of the project, review the equipment, and prepare tender documents consisting of specifications for the project plan, tender terms and conditions, and drafts of the contracts required for the construction work and procurement of equipment.

Cooperation to the tender procedure means to observe selection of the construction firm(s) and the equipment supply and installation firm(s) through the tender and to help them transact the formal procedures required for execution of their contracts and preparation of the reports to be submitted to the Government of Japan.

Construction supervision means to check whether or not each work item done by the construction firm(s) and the equipment supply and installation firm(s) as specified in each contract and to confirm that the contents of their contracts are executed appropriately. Particularly in the RMI, it is mandatory to utilize epoxy coating reinforcing steel bar, and the supervision will be implemented in accordance with the Japanese and/or the U.S. standards. In addition, to promote smooth implementation of the project, the consultant shall, in the neutral position, provide related parties with advice and guidance and serve as a coordinator among them.

Listed below are major items in the scope of the construction supervision work.

- ① Procedures required for verification and approval of the work implementation plan, implementation drawings, equipment specifications and other documents submitted by the construction firm(s) and equipment supply and installation firm(s).
- ② Inspection and approval prior to shipment of the construction materials, supply, installation and handling of the equipment.
- ③ Confirmation of instructions for the construction machines and materials, supply, installation and handling of the equipment.
- ④ Checking and reporting the progress of the construction.
- ⑤ Observation of the handover of the completed facilities and equipment.

The consultant shall execute the above items and report to the related authorities of the Government of Japan about the progress of this project, the payment procedure, and the handover of the completed facilities.

3) Construction firm(s) and equipment supply and installation firm(s)

The construction firm(s) and equipment supply and installation firm(s) shall be selected through an open tender for Japanese corporations that meet the specific requirements. In principal, contracts will be made through negotiations between the Ministry of Health and the construction firm(s) and the equipment supply and installation firm(s) that proposed the lowest prices and succeeded in the subsequent negotiations.

The construction firm(s) and the equipment supply and installation firm(s) shall construct the facilities, supply, deliver and install necessary construction materials and equipment according to the terms and provisions of contracts, and provide technical guidance for operation, maintenance and management of the installed equipment to the RMI side. Besides providing guidance for securing a system of supply by suppliers, manufacturers and agencies of spare parts and consumables needed for the different equipment to be used continuously after it is provided, construction firm(s) and the

equipment supply and installation firm(s) shall provide support to make it possible to receive services such as gratis repair during the period of guarantee, paid repair after the period of guarantee, technical guidance, etc.

4) Japan International Cooperation Agency

The Grant Aid Management Department of the Japan International Cooperation Agency shall give due advice to the consultant so that the project is implemented in conformity with the Grant Aid System. The department shall also hold consultations with the executing organizations of this project as necessary for the untroubled implementation of the project.

5) Preparation for implementation plan

The representatives of the executing organization on the RMI side and the consultant shall review the implementation plan during the implementation design period. In doing so, they shall clarify the scopes of the construction work to be handled by the Japan and RMI sides, confirm through consultations the starting time and method of each work, and carry out necessary discussion to ensure that all the works are carried out smoothly according to the implementation schedule in this report. In particular, the RMI side has to secure and prepare the land, dismantle the road, and shift the existing the water pipe, etc., at its own expense, before commencement of the facility construction work.

(2) Implementation Conditions

Described below are those items to be noted for implementation of the project. They should be fully taken into consideration when making the implementation plan.

1) Schedule Management

The foundation work will be started, if at all possible, before the rainy season. In drawing up the work schedule, project members shall duly heed that superior quality will be attained if the finishing work is completed before the rainy season arrives.

2) Dispatch of Technicians for Equipment Installation

It is extremely important to impart knowledge and skills regarding appropriate operation and maintenance of the equipment so as to contribute to medical services through continuous proper operation of the supplied equipment after implementation of the project. That being the case, technicians who are thoroughly familiar with the operation of the different equipment will be selected as the equipment installation technicians, and sufficient time will be allotted for them to explain operation thereof (operation techniques, simple repair techniques, inspection methods, etc.) and to make sure that those concerned on the receiving side acquire sufficient understanding concerning its operation and maintenance.

3) Safety Control

A temporary fence will be established. The appointment of persons in charge of giving directions to enter within the site and other measures will be provided to give sufficient safety control since the construction will be implemented next to the hospital in service on this project.

(3) Scope of Works

The successful implementation of this project depends on the mutual cooperation between Japan and the RMI. When this project is implemented under Japan's Grand Aid system, it is advisable that the Governments of Japan and the RMI undertake the respective scopes of works described below.

1) Undertakings to borne by the Government of Japan

The Government of Japan undertakes consultation of this project and the works related to construction of the facilities and procurement and installation of equipment, as described below.

① Consultation

- i To prepare implementation design documents for the facilities and equipment subject for this project and their tender terms documents.
- ii To cooperate in selecting the construction firm(s) and equipment supply and installation firm(s), and in executing contracts for the project.

iii To supervise the instructions for the construction of the facilities and the delivery, installation, operation and maintenance of the equipment.

② Construction of facilities, supply and installation of equipment

i To construct facilities subject to this project.

ii To procure construction materials and equipment subject to this plan, and to transport and deliver them to the site.

iii To supervise and give guidance on the installation of the equipment subject to this project, conduct a trial run, and make adjustments.

iv To explain operation and maintenance methods for the equipment subject to this project.

2) Undertakings borne by the Government of the RMI

The Government of the RMI is to bear the cost of, and implement, the following work concerning the preparation of the facility construction site, among other things.

① Preparation of the construction site

i To secure and prepare the land for the construction and the temporary work.

ii To dismantle the road beside the hospital.

iii To alter the existing rainwater pipeline.

iv To connect electricity, a telephone line, a water supply, and a sewage line to each point and take necessary subsequent procedures.

② Outdoor work

i Boundary fence work

ii Landscape planting, etc.

③ To purchase medical equipment, furniture and equipment, and to transfer the existing machines, furniture and equipment.

④ To take necessary measures to exempt the Japanese firm(s) from the national tax, local tax, and various financial loads imposed by the Government of the RMI on the purchase of goods and provision of services executed according to the formally approved contracts.

- ⑤ To provide measures to facilitate speedy custom clearance and surface transportation procedure for the equipment and materials to be exported from Japan and other foreign countries according to the approved contracts.
- ⑥ To provide measures to facilitate procedures for those Japanese who enter the RMI and stay there to carry out their roles for the project.
- ⑦ To issue approvals and permissions required for implementation of this project.
- ⑧ To pay all the necessary expenses other than those borne by the Government of Japan.

(4) Consultant Supervision

1) Implementation supervision policy

Under the policy of the Grant Aid System of the Government of Japan, the consultant forms, based on the concept of the basic design, a team that is responsible for executing the project, including preparation of the implementation design, in order to achieve smooth and successful implementation. The implementation supervision policy for this project is outlined below.

- ① To keep close contact with those who are in charge of the project representing related organizations of both countries so that construction of the facilities and installation of equipment will be completed without delay.
- ② To provide quick and appropriate advice and suggestions from the neutral standpoint to the construction firm(s), equipment supply and installation firm(s), and others concerned.
- ③ To provide appropriate guidance and suggestions regarding suitable equipment layout and adjustment of tie-in with facilities, as well as operation and management after the handover. To confirm that implementation has been completed and that the terms of each contract are fulfilled, to observe the handover of the facilities and equipment, and to obtain an approval of receipt from the RMI side.

2) Construction supervision plan

As the types of construction works involved in this project are versatile, a resident supervisor (in

charge of construction) is appointed and the following engineers will be dispatched from time to time to monitor and keep in step with the progress of the construction works.

- Manager of general affairs (overall coordination, process control)
- Engineer in charge of construction (confirmation of construction methods, design concept, construction drawings, material specifications, etc.)
- Engineer in charge of structure (confirmation of the ground conditions, foundation work, framework)
- Engineer in charge of electrical installation (power supply & distribution system, electric service, substation, etc.)
- Engineer in charge of mechanical installation (utility supply and processing system, air conditioning, water supply, drainage and hygiene system, etc.)
- Engineer in charge of equipment (instruction on equipment installation, adjustment with the facility, confirmation of operation instructions, etc.)

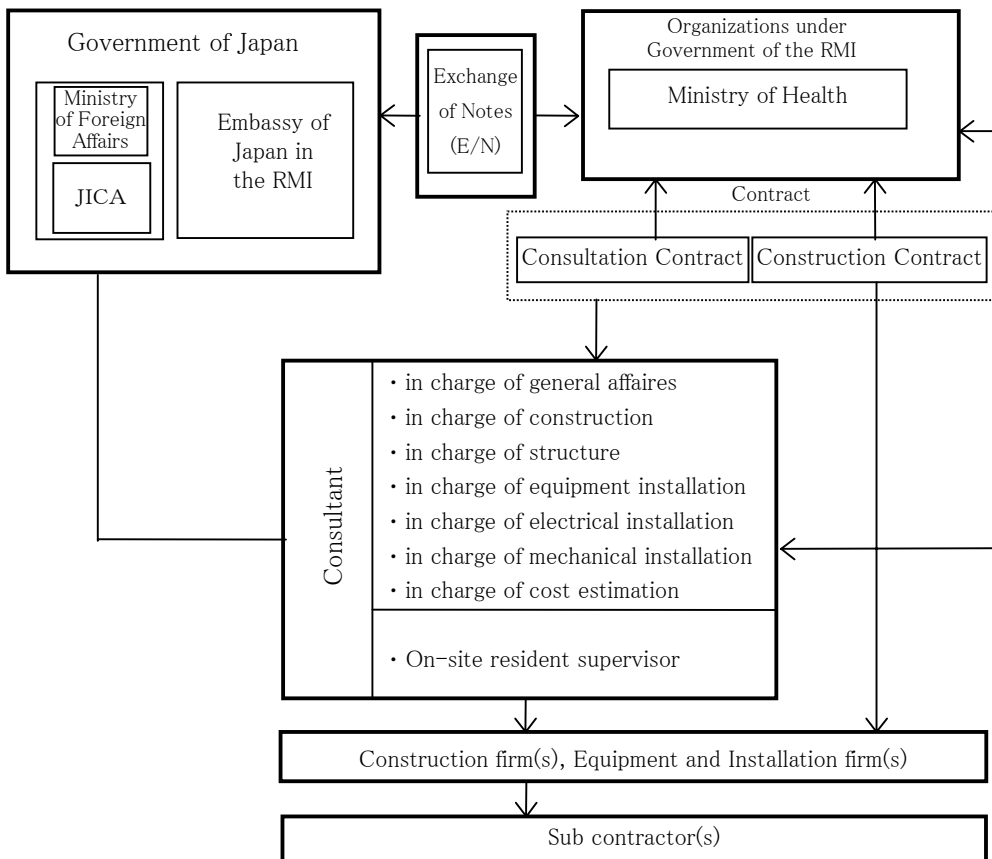


Figure 2-10 Construction Administration System

(5) Quality Control Plan

1) Quality Control of Facility

The Construction firm(s) will submit the construction plans to the consultant in advance, according to the construction contract (drawings, specifications, etc.) Prior to the commencement of construction, the consultant will verify the adequacy, list the specific inspection items, and indicate the frequency to work for securing high level of quality control.

Major controlling items are listed below.

① Materials

The on-site resident supervisor will inspect the following in inspections of construction materials received.

- i Reinforcing mill sheets, results of tension strength tests, and makers names
- ii Analysis tables of cement material identification, tables of test results and makers names
- iii Analysis of salt components in aggregate, size distributions, densities and percentages of absorption

iv Reinforced concrete

a Checking Mixing Plans

Confirmation and determination of the aggregate quantity, slump, cement-water ratio, air quantity and salt components through test mixings

b Compression Tests

Determination of the standard control values from analysis of result tables

c Control of material quantity measures and complete control of material storage

d Prior submittals of concrete casting plans

② Standards of Control

The consultant will carry out the construction surveillance with certain standards of control based on the approved construction schedule plans. The standards of control will be basically governed by the standards of Japan.

③ Soil Bearing Capacity

Confirmation of the soil bearing capacity will be carried out with the presence of the on-site resident supervisor by implementing plane table loading tests.

2) Quality Control of Medical Equipment

Ready-made medical equipment to be procured for this project will be selected from among equipment that has past records of delivery to medical facilities in various countries. The consistencies between the equipment to be procured and the contents of the contract will be confirmed at the inspections carried out before shipment and at the inspections carried out by third agencies for the components of shipment and containers.

(6) Procurement Plan

1) Construction material

When there are limits in the construction materials that can be procured domestically, body materials, including cement, reinforcing steels, equipment, etc., will be procured from third countries (the U.S., Australia, etc.). Aggregate of sand, gravel, etc. used for concrete in the RMI is made from coral gathered at lagoon owing to the geographical environment. Dead coral is collected at the place directed by the Ministry of Public Works, and living coral is not collected. The collected coral is washed before using.

As for the labor services, very few engineers are available in the RMI, and most construction companies hire engineers from Australia and the Philippines. The Ministry of Public Works also hires many Philippine engineers. Most of the Marshallese involved in the project will work as construction workers, and their wages are specified in a minimum wage law. Pension programs are secured for welfare, and the wages are paid twice a month. With the limited amount of construction conducted in the RMI, local skilled engineers cannot be developed easily. This will result in a shortage of skilled engineers and deteriorated labor conditions. The dispatch of Japanese supervisory staff is essential.

Table 2-25 Procurement of Construction Materials and Equipment

Materials and Equipment	On the Spot	Third Countries	Japan	Remarks
I Construction materials				
1. Solidification material for concrete (sand, crushed stone)	○			
2. Cement		○		
3. Reinforcing Rod		○	○	
4. Lumber		○		
5. Concrete blocks	○			
6. Roofing materials (both steel frames and setting beds)			○	
7. Fitting materials (both glass and fixtures)			○	
8. Interior materials			○	
9. Paint			○	
10. Working tables, sink, furniture			○	
II Equipment				
1. Wires, cables		○		
2. Lighting equipment		○		
3. Generator equipment		○		
4. Transformers		○		
5. Control panels		○		
6. Telephone system equipment, weak electricity equipment		○		
7. Water supply, drainage and sanitary equipment, piping		○		
8. Pumps		○		
9. Water storage tanks, septic tanks		○		
10. Air-conditioning equipment, fans		○		

2) Equipment

In principle, the equipment will be procured from Japan since there are liner services from Japan to the procurement destination, and the transportation distance from Japan is shorter than the distance from the U.S. mainland or the European Union nations. However, the products of the third countries will be selected when Japanese products fail to meet the requirements for technique and agency, or Japanese equipment is so expensive that could potentially compromise the effectiveness of the Grant Aid.

3) Method of Transportation and Point of Delivery

Regarding transportation of the equipment and materials, basically the construction materials are to be shipped by maritime transportation in wooden crate packing or containers, and the equipment is

to be shipped by maritime transportation in containers. There are liner services from Japan to the RMI's main cargo receiving port of Majuro Port (voyage takes 2 to 3 weeks). Inland transportation is necessary from Majuro Port to the site, but the road conditions are good and no problems are expected. The procurement plans will also schedule in about 1 week for unloading, customs clearance, and other formalities. This will leave plenty of time leeway.

(7) Implementation Schedule

1) Project Implementation Schedule

To implement this project by the Grand Aid from the Government of Japan, the E/N will be made and entered by and between the both countries followed by the tender for selecting construction firm(s) and equipment supply and installation firm(s) and Contracts. Thereafter, construction, equipment supply, and installation will be implemented in two stages of a single fiscal year base. The Table below lists the periods for detailed design, tender, construction/procurement and installation.

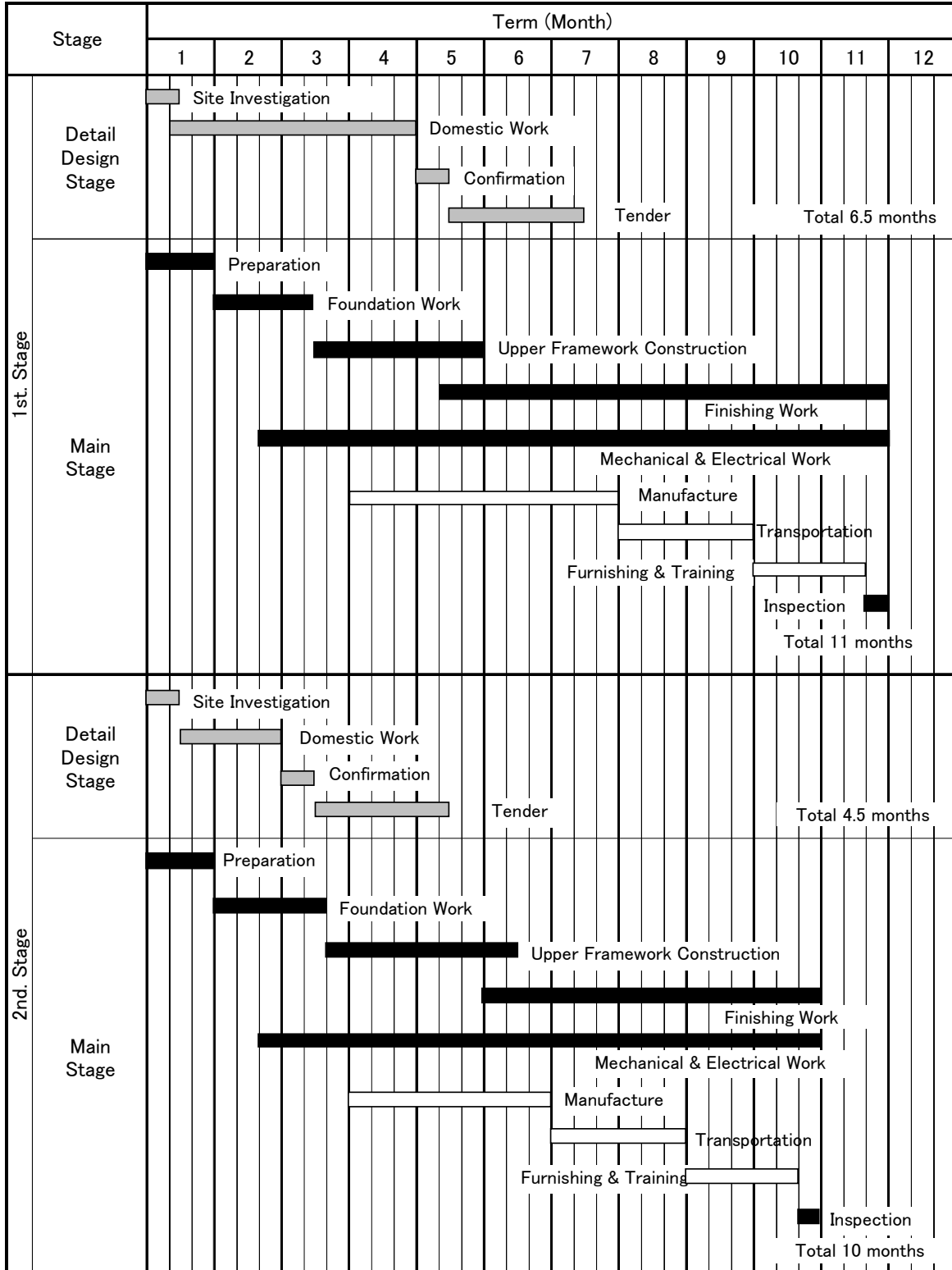
Table 2-26 Project Implementation Schedule

	1st stage construction	2nd stage construction
Detailed Design Stage	4.5 months	2.5 months
Tender Stage	2.0 months	2.0 months
Construction / Procurement & Installation Stage	11.0 months	10.0 months

2) Project Implementation Plan

The table below shows Project Implementation Plan.

Table 2-27 Implementation Schedule



2 – 3 Obligation of the Recipient Country

The scope of works for this project is described in “2-2-4 (3) Scope of Works.” The following outlines the scope of works on the RMI side.

(1) Procedures

1) Acquisition of the site

The site is within the leased land of the Government of the RMI.

2) Exemption from tax

When Japanese companies and building constructors working on this project procure construction materials and equipment within the country, or import from abroad to the RMI for this project during the construction period, exemptions from custom duties, consumption tax, and other inclusive taxes, surcharges, etc. will be required. Measures should be taken for the prompt landing procedures required for custom clearances.

3) Streamlined treatment for materials and equipment imported from Japan or third countries

The Ministry of Health will grant streamlined treatment for prompt customs clearance and inland transportation procedures for materials and equipment imported from Japan or third countries.

4) Acquisition of Building Permission

The application and acquisition of building permission regarding this project have to be completed without delay prior to the commencement of construction. The other applications and acquisitions required for the commencement of construction are the same.

5) Issuance of Banking Arrangement and Authorization to Pay

The Hospital Administrator of the Majuro Hospital in the Ministry of Health will be the contact person on this project. This person will promptly issue the Banking Arrangement and the Authorization to Pay based on the agreement of the consultant and the contract of the executing agency.

(2) Obligation of the RMI

Following is an outline of the obligations of the RMI side essential for the smooth implementation of this project.

1) Clearance of obstacles and grading work in the site

Parking, roads, and underground rainwater pipes have been established within the site and need to be cleared or transferred. There is a slight slope of about 0.3m from south to north, though most of the site is flat. Prior to the commencement of construction, the RMI side needs to clear the parking and roads and underground rainwater pipes, as well as to complete rough grading works in accordance with the designed ground of the site.

None of the above works will incur high expenses or require high technology, hence they certainly can be undertaken by the RMI side.

2) Infrastructure

① Electric Power

Installation of the wiring connecting the main line within the site to the newly established transformers and meters

② Telephone

Installation of piping and wiring connecting the newly established MDF in accordance with the clearance and new MDF

3) Transferring works of existing equipment and furniture

Transferworks of existing equipment and furniture installed at the existing facilities and the purchase of required equipment (including CT scanner) are in the range of works to be undertaken by the RMI side.

As these works will be performed right after the completion of the 1st and 2nd stage construction, the timing of the works will depend on the progress of the construction.

(3) Estimation of the Cost to be borne by the RMI

US\$832.900

1) Rainwater pipes transferring works within the site	US\$ 27,850
2) Grading works at the site	US\$ 20,000
3) Repair of the installed parts of the existing buildings from the newly established buildings	US\$ 2,000
4) Cost for fence removal and construction	US\$ 22,500
5) Roads within the premises	US\$ 37,800
6) Cost for purchase of furniture and fixtures	US\$104,000
7) Cost for purchase of CT Scanner	US\$600,000
8) Cost for purchase of medical equipment	US\$ 18,700

2 – 4 Project Operation Plan

2-4-1 Administration Plan

(1) Operation System and Organization

The Ministry of Health of the RMI is the supervisory authority and executing agency of this project.

The Majuro Hospital Bureau and the Bureau of the PHC will undertake the management and maintenance of the hospital after the handover. This project aims at improving the healthcare services provided in the Majuro Hospital, which have deteriorated both in quality and quantity.

However, this project does not set out to establish new departments to replace the existing ones.

To the contrary, the existing organizations are expected to handle the new hospital without undergoing any major modifications themselves.

(2) Personnel Disposition

As of 2003, the number of personnel working in the Majuro Hospital Bureau and Bureau of the PHC totals 21 doctors, 7 assistant doctors, 106 nurses, 9 midwives, 3 dentists, 1 dental nurse, 2 dental

laboratory technicians, 1 pharmacist, 5 radiology technicians, 11 laboratory technicians, 2 nutritionists, 5 health educators, 1 social worker, 2 mental health nurses, 16 maintenance people, and another 47 staff members, 244 in total. Since this project takes over the existing departments, the current number of staff should be enough to handle the Majuro Hospital Bureau and the Bureau of the PHC after the handover, although it will be necessary to employ one CT engineer.

2-4-2 Maintenance System

(1) Maintenance System of the Majuro Hospital

The Majuro Hospital covers the facility and equipment maintenance by itself, since no department of maintenance has been established within the Ministry of Health.

The Building and Ground Maintenance Department takes charge of the facility maintenance. One Building and Ground Maintenance Supervisor, 1 Carpenter, 1 Electrician, 1 Plumber, and 10 Special Workers, 14 in total, are now engaged in facility maintenance works such as inspection and daily maintenance. The large-scale renovations and extensions are planned and executed by the Ministry of Public Works and construction companies. The current maintenance staff manages the existing facilities properly.

One Filipino Biomedical Engineer and 1 local Biomedical Technician, 2 in total, are deployed at the Biomedical Equipment Maintenance Division, taking charge of the daily inspection and repair of general medical equipment. The procurement of repair parts works well and stock is adequate. Responsible persons in departments and persons in charge of procurement order repair parts directly from agents when necessary. The maintenance for radiology and laboratory equipment is requested from third parties in surrounding countries of such as Guam and Hawaii, and planned equipment for this project can be maintained in the same manner.

2-4-3 Financial Plan

(1) Analysis of Finances of the Majuro Hospital Bureau and the PHC

Most of the income in the Majuro Hospital Bureau and PHC can be classified into general government revenue, the US Compact Fund, and the US Federal Fund. The income generated from medical fees fluctuates above and below 10% of the total revenues. Basically, the Majuro Hospital and the PHC will be managed under the same level of budget distribution.

Comparing the budget of FY1999 to FY2003, the budget of the Majuro Hospital Bureau has increased by about 45 % and the budget of the Bureau of the PHC has increased by about 15%. About 44% of the budget of the Ministry of Health has been given to the total budget of the Majuro Hospital Bureau and the PHC.

The MISSA is one of the income resources in the Bureau of the Majuro Hospital. It has been financed from a compensation fund, an item of the social security taxes paid by all the labors and employers (3.5% of the income each, 7% in total). The MISSA is an organization that takes charge of the collection and payment of healthcare funds on behalf of the government. Medical fees, one of the hospital's revenues paid by patients, is paid by insured patients (many Marshallese are covered) and noninsured patients (many foreigners are uninsured). However, each amount is fixed on a flat rate; there is no difference in money paid for different types of medical examinations and treatments rendered. In addition, the income from medical fees charged by the Bureau of the PHC is not recorded in the books as such, since patients who visit the Bureau of the PHC pay the fee at the Reception area at the Bureau of the Majuro Hospital. Thus, all the incomes are recorded as income for the Majuro Hospital.

Patients receiving services free of charge due to low incomes or poor home conditions are few. The decision to grant free services is left to the discretion of the Hospital Administrator.

The medical fees in the Majuro Hospital are as follows, and are the same as those in the Ebeye Hospital. Additionally, the medical fees in the clinic are standardized at the following amounts: US\$1.50 for outpatient medical fee and US\$3.00 for hospitalization fee.

Table 2-28 Medical Fee in the Majuro Hospital (US\$)

		Insurers	Non-Insurers
Outpatient fee	General	5.00	17.00
	Emergency	10.00	35.00
Hospitalization fee	First Payment	5.00	17.00
	Per Night	5.00	115.00
Obstetrics fee	The First Period of Pregnancy	5.00	115.00
	Later	20.00	115.00
Dental Services fee		5.00	17.00

Source: Ministry of Health

(2) Projected Operation Cost

The following table shows the budget transition of the Majuro Hospital Bureau and the PHC. The amounts listed for FY1999 to FY2002 indicate the executed budget transitions, and the amounts listed for Oct. 2002 to FY2003 indicate the planned budget.

Table 2-29 Financial Affairs in the Bureau of the Majuro Hospital

Items	Year	FY1999		FY 2000		FY 2001		FY 2002		FY 2003	
		Budget (US \$)	Ratio (%)	Budget (US \$)	Ratio (%)	Budget (US \$)	Ratio (%)	Budget (US \$)	Ratio (%)	Budget (US \$)	Ratio (%)
Income	General Fund	1,644,795	55.8	2,099,488	58.3	2,520,224	63.9	2,829,867	61.6	3,126,270	64.8
	Year-on-year Increase (%)			27.6		20.0		12.3		10.5	
	MISSA	713,430	24.2	912,393	25.4	1,099,809	27.9	1,052,401	22.9	1,134,901	23.5
	Year-on-year Increase (%)			27.9		20.5		-4.3		7.8	
	Uses Fee	452,127	15.3	454,001	12.6	208,137	5.3	517,649	11.3	400,200	8.3
	Year-on-year Increase (%)			4.1		-54.2		148.7		-22.7	
	Others	138,805	4.7	131,798	3.7	112,840	2.9	191,472	4.2	164,436	3.4
	Year-on-year Increase (%)			-5.0		-14.4		69.7		-14.1	
Total Income	2,949,157	100.0	3,597,680	100.0	3,941,010	100.0	4,591,389	100.0	4,825,807	100.0	
Year-on-year Increase (%)			22.0		9.5		16.5		5.1		
Expense	Salary	1,564,900	59.2	1,855,178	54.3	1,688,738	47.8	2,225,152	53.3	2,514,680	52.1
	Year-on-year Increase (%)			18.5		-9.0		31.8		13.0	
	Medicine Expenses	265,946	10.0	362,921	10.6	897,367	25.4	480,276	11.5	497,000	10.3
	Year-on-year Increase (%)			36.5		147.3		-46.5		3.5	
	Material Expenses	245,858	9.3	595,000	17.4	545,232	15.4	596,240	14.3	780,000	16.2
	Year-on-year Increase (%)			142.0		-8.4		9.4		30.8	
	Medical Equipment Expenses	243,427	9.2	174,001	5.1	-	-	149,482	3.5	221,601	4.6
	Year-on-year Increase (%)			-28.5		-		-14.1(2000)		48.2	
	Maintenance Expenses for Equip.	43,288	1.6	21,924	0.6	45,646	1.3	25,028	0.6	60,000	1.2
	Year-on-year Increase (%)			-49.4		108.2		-45.2		139.7	
	Maintenance Expenses for Facility	-	-	14,000	0.4	23,500	0.7	2,422	0.1	-	-
	Year-on-year Increase (%)			-		67.9		-89.7		-	
	Expenses of elec., water & gas	150,157	5.7	131,798	3.9	112,840	3.2	191,472	4.6	164,436	3.4
	Year-on-year Increase (%)			-12.2		-14.4		69.7		-14.1	
	General Fund	53,201	2.0	163,059	4.8	177,704	5.0	278,125	6.7	464,989	9.6
	Year-on-year Increase (%)			206.5		9.0		56.5		67.2	
	Transportation	76,776	2.9	100,670	2.9	41,970	1.2	225,835	5.4	123,101	2.6
	Year-on-year Increase (%)			31.1		-58.3		438.1		-45.5	
	Total expense	2,643,553	100.0	3,418,551	100.0	3,532,997	100.0	4,174,032	100.0	4,825,807	100.0
Year-on-year Increase (%)			29.3		3.3		18.1		15.6		
Balance	305,604		179,129		408,013		417,357		0		
Year-on-year Increase (%)			-41.4		127.8		2.3		-		

Source: Ministry of Health

Table 2-30 Financial Affairs in the Bureau of the PHC

Items	Year	FY1999		FY 2000		FY 2001		FY 2002		FY 2003	
		Budget (US \$)	Ratio (%)	Budget (US \$)	Ratio (%)	Budget (US \$)	Ratio (%)	Budget (US \$)	Ratio (%)	Budget (US \$)	Ratio (%)
Income	General Fund	425,133	21.8	426,929	21.6	568,866	26.2	765,286	32.5	898,728	39.1
	Year-on-year Increase (%)			0.4		33.2		34.5		17.4	
	Compact Fund	315,363	16.2	316,932	16.0	315,400	14.5	248,299	10.5	363,570	15.8
	Year-on-year Increase (%)			0.5		-0.5		-21.3		46.4	
	US Federal Fund	1,210,549	62.0	1,237,055	62.4	1,288,730	59.3	1,341,984	57.0	1,034,773	45.1
	Year-on-year Increase (%)			2.2		4.2		4.1		-22.9	
Total Income	1,951,045	100.0	1,980,916	100.0	2,172,996	100.0	2,355,569	100.0	2,297,071	100.0	
Year-on-year Increase (%)			1.5		9.7		8.4		-2.5		
Expense	Salary	700,467	35.9	695,225	35.1	825,454	38.0	783,842	33.3	1,029,913	44.8
	Year-on-year Increase (%)			-0.7		18.7		-5.0		31.4	
	Medicine Expenses	-	-	-	-	-	-	16,401	0.7	10,594	0.5
	Year-on-year Increase (%)									-35.4	
	Material Expenses	-	-	-	-	-	-	1,886	0.1	-	-
	Year-on-year Increase (%)										
	General Fund	40,029	2.1	48,636	2.5	58,812	2.7	211,456	9.0	221,791	9.7
	Year-on-year Increase (%)			21.5		20.9		259.5		4.9	
	US Federal Fund	1,210,549	62.0	1,237,055	62.4	1,288,730	59.3	1,341,984	56.9	1,034,773	45.0
	Year-on-year Increase (%)			2.2		4.2		4.1		-22.9	
Total Expense	1,951,045	100.0	1,980,916	100.0	2,172,996	100.0	2,355,569	100.0	2,297,071	100.0	
Year-on-year Increase (%)			1.5		9.7		8.4		-2.5		
Balance	0		0		0		0		0		
Year-on-year Increase (%)			-		-		-		-		

Source: Ministry of Health

(3) Expense Analysis and Perspectives after the Handover

The Majuro Hospital Bureau is organizationally divided from the Bureau of the PHC, and the budgets are booked respectively. However, the virtual expense of the Bureau of the PHC is only salary, with the exception of refundment. There are items of medicine fee and material fee, but the amount is very small. In fact, it can be said that the Bureau of the PHC is managed under the budget of the Majuro Hospital Bureau (excluding salaries). Thus, the items of the Majuro Hospital Bureau are investigated here. In addition, the inflation rate for the decade starting from 1990 is determined as 5.3%. (Source: Statistical Abstract, 2000)

1) Salary

The salary expense ratio has been fluctuating above and below 50% of the total (except in FY2001), and thus accounts for a large part of the total expenses. The year-on-year increase ratio has tended to increase every year, except in FY2001. This has been mainly resulted from the increased number of staff. The salary expense after the handover is calculated from the estimated basic improvement of the wage level, assuming that no major increase in staff will be necessary (after

including the one additional CT engineering). Thus, the budget for the salary expense at the time of the handover will be secured considering the estimation of the wage level improvement for averaged staff as 1.9% per staff (the percentage derived from the annual salary and the number of staff). In addition, the expenses for radiologists, pathologists, and respiratory care engineers to serve on duty in 2003 are included in the budget for FY 2003.

2) Medicine Expense

The medicine expense ratio has been fluctuating above and below 10% of the total (except in FY2001), with a slight tendency to increase. A large portion of medicine was purchased in FY2001. The quantity of medicine use is forecasted to increase in accordance with the increase of medical activities. The budget for medicine expense at the time of handover will be secured considering the average yearly increase of 2.9% and the price increase of 5.3%.

3) Material Expense

The material expense remained almost flat for the three years from FY2000 to FY2002. There were drastic increases from FY1999 to FY2000 and from FY2002 to FY2003. The statistics show only 5 years, hence the correlation with the actual activities cannot be determined (the work requires statistics covering a longer period). Regarding the materials for radiology equipment, only the CT scanner requires cost for films, and the current material expenses are not expected to be affected. There will be a slight increase in the number of equipment, but they will not require reagent or consumption materials. Thus, the budget for material expense at the time of the handover will be secured considering the actual value of FY2003 and the price increase of 5.3%.

4) Medical Equipment Expense

The medical equipment expense includes the expenses for basic medical equipment such as auscultators and surgical knives. Expensive equipment such as CT scanners are excluded since they are purchased from the government budget after obtaining a parliamentary approval. The expense was around US\$200,000 from FY1999 to FY2003 (excluding FY2001), and no special tendency can

be determined. Thus, the budget at the time of the handover will be secured considering the past average and the inflation rate of 5.3%.

5) Equipment Maintenance Expense

The equipment maintenance expense includes the purchasing expense required for equipment maintenance and repair and the consigning expense for agents in the surrounding countries. The increased amount in FY2003 resulted from the automation of inspection equipment and the introductions of endoscopes, etc. From FY1999 to FY2000, the equipment maintenance expense has fluctuated between about US\$20,000 to US\$60,000 per year, but no special tendencies can be seen. Thus, the equipment maintenance expense at the time of the handover will be secured considering the average value of past records and the inflation rate of 5.3%.

6) Facility Maintenance Expenses

The ratio of facility maintenance expenses has accounted for a small ratio, 0.1 – 0.7% of the total, and some years had no budget. There was an explanation that the years without budget utilized the remaining budget of the previous year, but it still should be small amounts. Early after the handover, the newly established buildings will be almost maintenance-free. However, they will require the same regular annual maintenance expenses for replacement of electric bulbs, consumption, and other maintenance activities performed at the existing buildings. The current area is 5,875 m², and it will be increased by 50% at the completion of the project. Thus, the budget for the facility maintenance expenses at the time of the handover should be arranged to secure a 50% increase of the largest budget from FY1999 to FY2003, in addition to the inflation rate of 5.3%.

7) Expenses of Electricity, Water & Gas

The expenses for electricity, water and gas fluctuate above and below US\$150,000. As described above, the area will be increased by 50% at the completion of the project. Thus, the budget for electricity, water and gas expenses at the time of the handover should be arranged to secure a 50% increase from average value from FY1999 to FY2003, in addition to the inflation rate of 5.3%.

8) General Fund

The budget for the general fund includes not only the general administration expenses but also the expenses for education and training. This budget has increased continuously from 1999, rising a total of 8.7 times between the years 1999 to 2003. This has resulted from the increased opportunity for education and training for staff. Though the education and training are thought to be necessary, the increasing rate will be a problem if it has increased by similar levels in the future (could place pressure on the budget). Thus, the budget at the time of the handover should be secured based on the general fund of FY2003 plus the inflation rate of 5.3%.

9) Transportation

The transportation expenses have depended on the number of patients transferred overseas each year. In the future, the transportation of patients overseas is expected to decrease, but the budget at the time the handover will be secured based on the average of the last five fiscal years, plus the inflation rate of 5.3%.

(4) Management and Maintenance Expense

The expenses in the year of 2006 will be assumed from the prospect after the handover described previously in the item on the facility maintenance expense.

As described in the following table, the estimated expense in the FY2006 is US\$5,456,668, increased by 13.1% (3.3% average in the year). There are concerns that the increase is rather low compared to the past average increases of 11.4%. Moreover, it is difficult to predict the increase of the US Compact Fund and other, which account for about 60% of the total government revenues at present. However, there has been a plan to devote the compact fund to the area of healthcare and education starting from FY2004. Thus, the amount should be reasonable and proper, and could be secured.

Table 2-31 Estimation of the Expenses in the FY2006 of the Majuro Hospital (Unit: US\$)

	Budget of the FY2003	Estimation of the FY2006	Ratio (%)	Remark
Salary	2,514,680	2,660,757	48.8	The budget for the FY2003 in addition to the 1.9 % of the estimated natural increase of the wage level, assuming that major increase in staff will not be necessary after hand-over even if the increase of CT engineering by one is included in the consideration.
Medicine Expenses	497,000	629,562	11.5	The budget for FY2003 plus 2.9 % of the estimated increase of medical activity expenses from 1999 to 2003 plus the 5.3% inflation rate
Material Expenses	780,000	910,709	16.7	The budget for FY2003 in addition to the 5.3% inflation rate (because there is no correlation between each year from 1999 to 2002)
Medical Equipment Expenses	197,128 (Average)	230,162	4.2	The average between each year from 1999 to 2002 in addition to the 5.3% inflation rate
Maintenance Expenses for Equip.	39,177 (Average)	45,742	0.8	The average between each year from 1999 to 2002 in addition to the 5.3% inflation rate
Maintenance Expenses for Facility	35,250 (Maximum + 50%)	41,157	0.8	The maximum budget between 1999 to 2003 in addition to the increase owing to the 50% expansion of floor space, plus the 5.3% inflation rate (because there is no correlation between each year)
Expenses for Elec., Water, & Gas	225,211 (Average + 50%)	262,951	4.8	The average budget between 1999 to 2003 in addition to the increase owing to the 50% expansion of floor area, plus the 5.3% inflation rate
General Fund	464,989	542,910	10.0	The budget of the FY2003 in addition to the 5.3% inflation rate
Transportation	113,670 (Average)	132,718	2.4	The average budget between 1999 to 2003 in addition to the 5.3% inflation rate
Total	4,825,807 (Actual value)	5,456,668	100	

1) Facility Running Cost

Expenses of energy and water estimation are described as follows.

<Expenses of Energy and Water >

- | | |
|-----------------------|----------------------|
| ① Water Expense | US\$ 32,200.00/year |
| ② Electricity Expense | US\$ 67,400.00/year |
| ③ Oil Expense | US\$ 200.00/year |
| ④ Telephone Expense | US\$ 2,400.00/year |
| Total | US\$ 102,200.00/year |

① Water Expense

Quantity of water supply: $Q_d = [\text{average quantity per day}] \times [\text{number of users}]$

$$Q_d = 250 \text{ (l/day)} \times 270 \text{ (persons)}$$

$$= 67,500 \text{ (l/day)} \rightarrow 67.5 \text{ m}^3/\text{day} \text{ (14,900 gal./day)}$$

average quantity per day: 250 l (in the hospital and others)

number of users: 270 persons

0.2 人/m² per effective area (set as 3,000 m²)

effective area is set as 45% of the floor area

$$3,000 \text{ m}^2 \times 0.45 \times 0.2 = 270 \text{ persons}$$

water expense: 14,900 gal./day \times 30 day/mon. \times 12 mon./year = 5,364,000 gal./year

$$5,364,000 \text{ gal./year} \times \text{US\$ } 0.006/\text{gal.} = \text{US\$ } 32,184.00/\text{year}$$

→ US\$ 32,200.00/year

② Electricity Expense

Quantity of electricity: contract demand,

$$\text{transformer } 750 \text{ KVA} \times 0.8 \text{ (phase factor)} \times 0.3 \text{ (demand factor)} = 180 \text{ Kw}$$

Quantity of usage:

$$180 \text{ Kw} \times 65\% \text{ (usage rate)} \times 10 \text{ h/day} \times 30 \text{ day/mon.} = 35,100 \text{ Kw/mon.}$$

Electricity Expense:

$$35,100 \text{ Kw/mon.} \times 12 \text{ mon./year} \times \text{US\$ } 0.16/\text{Kw} = \text{US\$ } 67,392.00 \text{ /year}$$

→ US\$ 67,400.00 /year

③ Oil Expense

Quantity of generator oil usage: generator, 150Kw, fuel usage 40 l /h (=3.78 gal./l /h)

$$\text{Regular inspection: } 1.0 \text{ h/mon.} \times 12 \text{ mon./year} \times 10.566 \text{ gal./h} = 126.79 \text{ gal./year}$$

$$= 130.00 \text{ gal./year}$$

Oil Expense: 130.0 gal./year \times US\$ 1.54/gal. = US\$ 200.20/year

→ US\$ 200.00/year

④ Telephone Expense

Regular rate: outside line, US\$12.00/mon., and internal line, US\$4.00/mon.

(US\$12.00/mon. × 5 of outside lines)+(US\$4.00/mon. × 50) = US\$260.00/mon.

US\$260.00/mon. × 12mon./year = US\$2,400.00/year

2) Equipment Operation and Maintenance Cost

The operation and maintenance cost for the equipment to be procured by the implementation of the project is estimated here. These prices are estimated with the reference price list of the Majuro Hospital.

The consumables necessary for each operation of the apparatuses are X-ray films, film developing solution, ultrasound gel, and ECG electrodes. The annual cost for consumables are estimated based on the numbers of patients and tests of the hospital. The annual cost for maintenance is calculated with respect to X-ray tubes, bulbs for operating lights, etc. Trial calculations are made to determine the amounts by which costs would increase, by classifying the equipment into two categories: replaced equipment for which the current running costs will not increase, and supplementary/newly introduced equipment for which costs are expected to increase.

The trial calculations for the increased amount covers two categories: replacing equipment that has no increase from the current running costs and supplementary/newly introduced equipment that has increases in running costs.

Results of the estimations follow.

Table 2-32 Annual Operation Cost of Equipment (per total quantities) (US\$)

No.	Description	Consumable	Unit price	Annual consumption		Cost	Total
1	X-ray Apparatus (General)* ¹	Film	0.5 /pc	General test 15,000pcs	15,000 pcs	7,500	8,940
		Developer/fixer	60 /set	Twice a month	24 set	1,440	
2	X-ray Apparatus (Fluoroscopy)* ¹	Film	0.6 /pc	Barium test 1000pcs	1,000 pcs	600	1,600
		Barium	1 /set	1,000set	1,000 set	1,000	
		Developer/fixer	— /set	Shared with general test	— set	0	
3	Ultrasound Diagnostic Apparatus * ²	Gel	25 /kg	1,500 exam. 20g/patient	30 kg	750	1,050
		Recording paper	20 /roll	2pc/patient 200pcs per roll	15 roll	300	
4	Patient Monitor * ²	Electrode	0.08 /pc	2,000patient, 3pcs/patient	6,000 pcs	480	616
		Recording paper	4 /roll	2,000patient, 0.5m/patient, 60 patient per roll	34 roll	136	
5	Ventilator * ²	Filter	15 /pc	Once a month	12 pcs	180	180
6	Ventilator (Infant)* ²	Filter	15 /pc	Once a month	12 pcs	180	180
7	Dental X-ray Unit * ¹	Film	0.1 /pc	Dental test 2,000pcs	2,000 pcs	200	440
		Developer/fixer	10 /set	Twice a month	24 set	240	
* ¹ : Replaced equipment				Total costs of replaced equipment		10,980	
* ² : Supplementary/newly introduced equipment				Total costs of supply./new equipment		2,026	

Table 2-33 Annual Maintenance cost of Equipment (by total quantities) (US\$)

Description	Spare parts	Unit price	Annual consumption		Cost	Total
X-ray Apparatus (General)* ¹	X-ray tube	11,000 /pc	Once per 5 years	1/5 pc	2,200	2,200
X-ray Apparatus (Fluoroscopy)* ¹	X-ray tube	22,000 /pc	Once per 5 years	1/5 pc	4,400	4,400
Patient Monitor * ²	Patient cable	60 /set	Once a year	1 pc	60	345
	NIBP cuff	35 /roll	Once a year	1 pc	35	
	SpO2 probe	250 /roll	Once a year	1 pc	250	
Operating Light* ¹	Halogen bulb	45 /pc	2pcs a year	2 pc	90	90
* ¹ : Replaced equipment			Total costs of replaced equipment			6,690
* ² : Supplementary/newly introduced equipment			Total costs of supply./new equipment			345

The annual operation and maintenance cost is calculated to be US\$ 20,041, but the operation and maintenance cost for supplemented/newly introduced equipment for which the current running costs are predicted to increase amounts to US\$ 2,371 (only around 12% of the total cost). These will be covered primarily out of material expenses, but are less than 0.4% of the material cost expenditure of US\$ 596,240 for fiscal 2002. These expenses will not create an unreasonable burden.

Chapter 3 PROJECT EVALUATION AND RECOMMENDATIONS

Chapter 3 PROJECT EVALUATION AND RECOMMENDATIONS

3 – 1 Project Effect

The Majuro Hospital provides primary healthcare services to the local people as the core hospital in the RMI (only two major hospitals in the country). Thus, by implementing this project, some 30,000 residents (estimated population in 2007) in the Majuro Atoll and its vicinity can receive benefits.

The effects of the project can be outlined as follows.

Table 3-1 Project Effect and Degree of Improvement over Current State

Current state and issues	Project Targets	Project Effect and Degree of Improvement
Although the demand for medical services is increasing in accordance with the increased number of life-style related diseases, growing population, and worsening environment, the facilities of the Majuro Hospital have deteriorated, and much of the medical equipment has been used for longer than its intended lifetime. This has degraded the quality and quantity of medical services provided in the Majuro Hospital.	Facility construction and transfer of departments centered on the Outpatient Department and the PHC (the latter department responsible for preventive medicine). The development of medical equipment.	<ul style="list-style-type: none"> •Enhanced convenience for outpatients. Better, easier prevention of in-hospital infection by clearly separating buildings for hospitalized patients and surgery. •As a core of preventive medicine, the PHC is included in the range of the project. Measures for adult diseases could be enhanced and benefits for subjects of maternal and child health could be increased. •The transfer of two buildings located on the north side of the existing buildings will facilitate future development.

Indicators of project achievements that show the purpose of the project (project targets) are listed below. In addition, the timing for evaluation is set for FY2007, when the facilities and equipment will be finally handed over.

Table 3-2 Indicators of Project Achievements

Indicators of Achievements	FY2002	FY2007
Number of ultrasound diagnostic examinations for gastrointestinal and urological complaints	cannot be carried out	can be carried out (about 1,000 cases expected)
Number of Respiratory control care procedures using ventilator	cannot be carried out	can be carried out (about 20 – 30 cases expected)
Number of dental arch diagnoses by dental panorama X-ray	cannot be carried out	can be carried out (about 500 cases expected)

① Ultrasound Diagnostic Examination

Ultrasound diagnostic examination is available in the Reproductive Health Division of the PHC for the exclusive use of the obstetrics department, but it is not available in the Bureau of the Majuro Hospital. Diagnoses for abdominal and urological complaints could be carried out by installing ultrasound diagnostic examination devices under the project plan. A total of 1,000 cases per year is expected.

② Ventilator

The ventilator is not available in the current Emergency Department. Respiratory control care could be carried out by installing ventilator under the project plan. A total of 20 to 30 cases per year is expected.

③ Dental Panorama X-Ray for Dental Clinical Services

The dental panorama X-ray for dental clinical services is not available in the current Dental Services. Dental arch diagnosis could be carried out by installing the dental panorama X-ray under the project plan. A total of 500 cases per year is expected.

In addition to the above-mentioned items, the project is expected to yield the following direct and indirect benefits for the Majuro Hospital.

① Direct Benefit

- By establishing a waiting area (154 m²) for the exclusive use of outpatients, the currently poor conditions could be improved (blocked passages, long waits in the corridors with nowhere to sit).
- More organized use of staff and medical equipment could be realized by establishing examination corridors for staff use connecting the treatment rooms in the Outpatient

Department and Public Health Division (currently separated).

- The installation of one more examination chairs in the Dentistry would shorten waiting hours for patients and allow more time for patient examinations and treatment.
- The current 159 m² floor area will be expanded to 210 m² in the Laboratory Department to improve the narrow and overcrowded space. The efficiency and safety of the laboratory tests could be enhanced by dividing the Laboratory Department into the following three units: the Hematology & Biochemistry Laboratory, the Microbiology Laboratory and the Pathology & Cytology Laboratory.
- By establishing the Observation Room in the Emergency Department, nurses could monitor the progress of plural numbers of patients inside the Emergency Department.
- The development facilities and equipment would decrease the number of patients transferred outside the country for tests, as some of the laboratory tests not currently performed in the RMI would become possible to implement.

② Indirect Benefit

- By establishing an operation corridor for the exclusive use of radiologists in the Radiology Department, the radiologists would be exposed to smaller doses of radiation.

3 – 2 Recommendations

(1) Recommendations

Following is a summary of issues that the Government of the RMI should work on in order to make maximum use of, bring out, and maintain the effects of the facility construction and equipment procurement provided through this construction project.

① Securement of Human Resources

Many of the staff are foreigners, and only few Marshallese doctors and nurses are

available. No CT operator is currently available, and one should be promptly hired (even a foreign one). The hiring of foreign staff is expected to continue. However, qualitative aspects such as technical skills and staff motivation should be improved while taking steps to secure greater numbers of doctors and nurses.

② Facility and Equipment Maintenance

The Department of Building and Ground Maintenance takes the charge of facility maintenance of the Majuro Hospital. One Building and Ground Maintenance supervisor, 1 Carpenter, 1 Trade Specialist, 1 Plumber, and 10 Special Workers, 14 in total, are deployed at the Department of Building and Ground Maintenance to carry out the facility inspection and daily maintenances. As for the medical equipment, 1 Filipino Biomedical Engineer and 1 local Biomedical Technician, 2 in total, are deployed at the Biomedical Equipment Maintenance to carry out the equipment inspection and daily maintenance chores. To provide effective maintenance of facilities, machines, and medical equipment, regular inspection notes and repair notes should be taken, and manuals should be kept to further strengthen the maintenance system. Although the facility and equipment maintenance costs differ greatly year by year within the total hospital budget, a certain amount needs to be secured for maintenance every year as a fixed cost.

③ Maternal and Child Health

Deliveries can be performed safely by taking steps such as women's health education, providing checkups for pregnant woman, and administering thorough perinatal care. On the other hand, maternal and infant mortality can be decreased through a thorough regimen of maternal and child healthcare combined with infant checkups, immunization, nutrition education, family planning, etc. Better protection of privacy for the patient's peace of mind and further enhancements in the Bureau of the Majuro Hospital and the

Bureau of the PHC are desirable.

④ Minimizing the cost of patient transfers abroad

The Majuro Hospital and the Ebeye Hospital provide primary and secondary level overall healthcare services in the RMI. For advanced treatments requiring third level healthcare services, patients are transferred to hospitals in Hawaii, the Philippines, etc. based on the referral system. The Majuro Hospital and Ebeye Hospital need to work together to strengthen laboratory and diagnostic functions in order to minimize the numbers of patients transferred overseas for diagnosis and laboratory work, and thereby bring down costs. Hopefully the huge amount of money spent for patient transfers abroad could be utilized to improve inland medical care.

(2) Technical Cooperation and Relation with Other Donors

This project aims at improving the healthcare services provided in the Majuro Hospital and the activities provided in the PHC, both of which have deteriorated in both quality and quantity due to age, overuse, etc. Although the RMI side originally requested the reconstruction of the whole hospital, phased expansion should be appropriate as many of the medical staff are foreigners, and rapid expansion of the scale could impose an excessive burden on hospital running costs and thereby interfere with the administration of the hospital. Thus, this project proposes to transfer the departments centered on the Outpatient Department in the Majuro Hospital and the PHC (assigned to preventive medical care).

Thus, no department will be newly established in this project. Rather, the existing departments will be modified and expanded in a manner that will enable the existing numbers of staff to operate them after the handover. Equipment to be procured in this project would pose no problem as well. In view of that, technical cooperation from the Government of Japan will not be necessary in this project.

APPENDICES

- 1. Member List of the Study Team**
- 2. Study Schedule**
- 3. List of Parties Concerned in the Recipient Country**
- 4. Minutes of Discussions**

1. Member List of the Study Team

1-1 Basic Design Study

Position	Name	Period(2002)	Organization
1.Leader	Ms. Yumiko ASAKUMA	5 Nov.- 14 Nov.	Second Project Management Division, Grant Aid Management Department, Japan International Cooperation Agency
2.Adviser	Dr. Yoshiko TSUYUKI	29 Oct.- 14 Nov.	Bureau of International Cooperation, International Medical Center of Japan, Ministry of Health Labor & Welfare
3.Chief Consultants/ Architectural Planner	Mr. Hozumi OGAWA	27 Oct.- 5 Dec.	International Department, Azusa Sekkei Co., Ltd.
4.Structure Engineer /Execution Planner	Mr. Takayuki YONEMARU	3 Nov.- 22 Nov.	Design & Engineering Department, System Science Consultants Inc.
5.Equipment Planner	Mr. Naoki MIMURO	27 Oct.- 5 Dec.	ODA Department, International Techno Center Co., Ltd.
6.Mechanical Engineer	Mr. Shuhei IKEDA	3 Nov.- 22 Nov.	Environmental Division, Azusa Sekkei Co., Ltd.
7.Cost Estimator/ Procurement	Mr. Yasushi ISHIKAWA	14 Nov.- 28 Nov.	Cost Planning & Supervising Division. Azusa Sekkei Co., Ltd.
8. Architectural Planner	Mr. Hiroyuki KOIKE	10 Nov.- 27 Nov.	Second Planning Division Azusa Sekkei Co., Ltd.,

1-2 Draft Report Explanation

Position	Name	Period(2003)	Organization
1.Leader	Ms. Yumiko ASAKUMA	26 Feb.- 6 Mar.	Second Project Management Division Grant Aid Management Department, Japan International Cooperation Agency
2.Adviser	Dr. Yoshiko TSUYUKI	25 Feb.- 6 Mar.	Bureau of International Cooperation International Medical Center of Japan Ministry of Health Labor & Welfare
3.Chief Consultants/ Architectural Planner	Mr. Hozumi OGAWA	23 Feb.- 9 Mar.	International Department, Azusa Sekkei Co., Ltd.
4.Structure Engineer /Execution Planner	Mr. Takayuki YONEMARU	23 Feb.- 9 Mar.	Design & Engineering Department, System Science Consultants Inc.
5.Equipment Planner	Mr. Naoki MIMURO	23 Feb.- 9 Mar.	ODA Department, International Techno Center Co., Ltd.

2. Study Schedule

2-1 Basic Design Study

From 27 October, 2002 to 5 December, 2002 (40days)

No.	Date	Time	Activity
01	27 Oct. (Sun)	10:00 14:25	Lv. Tokyo by JO-941 (Mr. Ogawa & Mr. Mimuro) Ar. at Guam
02	28 Oct. (Mon)	All day	Survey of local contractors and material suppliers (Mr. Ogawa) Survey of local equipment suppliers (Mr. Mimuro)
03	29 Oct. (Tue)	All day	Survey of local contractors and material suppliers (Mr. Ogawa) Survey of local equipment suppliers (Mr. Mimuro)
		10:00 14:25	Lv. Tokyo by JO-941 (Dr. Tsuyuki) Ar. at Guam
04	30 Oct. (Wed)	08:10 18:45	Lv. Guam by CO-956 (Dr. Tsuyuki, Mr. Ogawa & Mr. Mimuro) Ar. at Majuro
05	31 Oct. (Thu)	09:30 10:30 11:00 11:50 14:00 18:30	Courtesy call to the MOH and submission and explanation of the inception report and questionnaire Courtesy call to the Majuro Hospital Courtesy call to the Embassy of Japan Courtesy call to JICA/JOCV Observation of the Majuro Atoll Meeting with COMPACT
06	1 Nov. (Fri)	09:00 09:30 13:30 16:00	Meeting with the Majuro Hospital Observation of the Majuro Hospital Observation of the Majuro Hospital (continuation) Report to JICA/JOCV
07	2 Nov. (Sat)	09:00	Meeting with to the Majuro Hospital
08	3 Nov. (Sun)	All day	Internal meeting, Filing documents
		17 : 05 21 : 40	Lv. Tokyo by CO-007 (Mr. Yonemaru & Mr. Ikeda) Ar. at Guam
09	4 Nov. (Mon)	09:00 13:30 14:00 15:00 16:30 08:10 19:00	Meeting with the Majuro Hospital Report to JICA/JOCV Report to the Embassy of Japan Meeting with the Embassy of USA Meeting with the Majuro Hospital Lv. Guam by CO-956 (Mr. Yonemaru & Mr. Ikeda) Ar. at Majuro
10	5 Nov. (Tue)	10:45 11:40 14:30 10:00 14:25	Lv. Majuro by CO-957 (Dr. Tsuyuki, Mr. Ogawa, Mr. Mimuro, Mr. Yonemaru & Mr. Ikeda) Ar. at Kwajalein Observation of the Ebeye Hospital Lv. Tokyo by JO-941 (Ms. Asakuma) Ar. at Guam
11	6 Nov. (Thu)	09:00 18:05 19:00 08:10 19:00	Observation of the Ebeye Hospital (Dr. Tsuyuki, Mr. Ogawa, Mr. Mimuro, Mr. Yonemaru & Mr. Ikeda) Lv. Kwajalein by CO-956 Ar. at Majuro Lv. Guam by CO-956 (Ms. Asakuma) Ar. at Majuro

No.	Date	Time	Activity
12	7 Nov. (Thu)	09:00	Courtesy call to the MOH and the Majuro Hospital
		14:00	Observation of the Majuro Hospital
		09:00	Meeting with land surveying companies (Mr. Yonemaru) and visiting Marshall Energy Co. & Majuro Water & Sewer (Mr. Ikeda)
13	8 Nov. (Fri)	09:00	Meeting with the Majuro Hospital (Ms. Asakuma, Dr. Tsuyuki, Mr. Ogawa & Mr. Mimuro)
		14:00	Meeting with the Majuro Hospital
		15:45	Observation of the Laura Health Clinic
		09:00	Meeting with land surveying companies & visiting Majuro Weather Station (Mr. Yonemaru)
		09:00	Visiting Marshall Energy Co. & Majuro Water & Sewer (Mr. Ikeda)
14	9 Nov. (Sat)	All day	Internal meeting Filing documents
15	10 Nov. (Sun)	All day	Internal meeting Filing documents
		17 : 05	Lv. Tokyo by CO-007 (Mr. Koike)
		21 : 40	Ar. at Guam
16	11 Nov. (Mon)	09:00	Discussion on the Minutes at MOH (Ms. Asakuma, Dr. Tsuyuki, Mr. Ogawa & Mr. Mimuro)
		11:00	Observation of the Majuro Clinic (Private Clinic)
		14:00	Discussion on the Minutes at MOH (continuation)
		09:00	Contract with the land surveying company (Mr. Yonemaru)
		09:00	Visiting Marshall Energy Co. & Majuro Water & Sewer (Mr. Ikeda)
		08:10 19:30	Lv. Guam by CO-956 (Mr. Koike) Ar. at Majuro
17	12 Nov. (Tue)	09:00	Discussion on the Minutes at the MOH (Ms. Asakuma, Dr. Tsuyuki, Mr. Ogawa, Mr. Mimuro & Mr. Koike)
		14:00	Discussion on the Minutes at the MOH (continuation)
		09:00	Observing the land survey and surveying material costs (Mr. Yonemaru)
		09:00	Visiting the National Telephone Authority (Mr. Ikeda)
18	13 Nov. (Wed)	09:30	Signing on the Minutes of Discussion at the MOH (Ms. Asakuma, Dr. Tsuyuki, Mr. Ogawa, Mr. Mimuro & Mr. Koike)
		11:00	Report to JICA/JOCV (Ms. Asakuma, Dr. Tsuyuki, & Mr. Ogawa)
		14:00	Report to the Embassy of Japan
		10:30	Observation of the Majuro Hospital (Mr. Mimuro & Mr. Koike)
		09:00	Observing the land survey and surveying material costs (Mr. Yonemaru)
		09:00	Visiting the CATV Company (Mr. Ikeda)
		19:50 02:30 12:50	Lv. Majuro by CO-956 (Ms. Asakuma & Dr. Tsuyuki) Ar. at Honolulu Lv. Honolulu by JL-73
		19	14 Nov. (Thu)
14:00	Meeting with the PHC		
09:00	Observing the land survey and surveying material costs (Mr. Yonemaru)		
09:00	Surveying mechanical and electrical matters (Mr. Ikeda)		
16:45	Ar. at Tokyo (Ms. Asakuma & Dr. Tsuyuki)		
10:00 14:25	Lv. Tokyo by JO-941 (Ms. Ishikawa) Ar. at Guam		
20	15 Nov. (Fri)	09:00	Meeting with the Majuro Hospital (Mr. Ogawa, Mr. Mimuro & Mr. Koike)
		09:00	Observing the land survey, surveying costs and the Majuro Port (Mr. Yonemaru) and surveying mechanical and electrical matters (Mr. Ikeda)
		08:10 19:00	Lv. Guam by CO-956 (Mr. Ishikawa) Ar. at Majuro

No.	Date	Time	Activity
21	16 Nov. (Sat)	All day	Internal meeting Filing documents
22	17 Nov. (Sun)	All day	Internal meeting Filing documents
23	18 Nov. (Mon)	09:00	Internal meeting & preparation of documents (Mr. Ogawa, Mr. Mimuro & Mr. Koike)
	Holiday	09:00	Observing the land survey (Mr. Yonemaru, Mr. Ikeda & Mr. Ishikawa)
24	19 Nov. (Tue)	09:00	Meeting with the Majuro Hospital & the PHC (Mr. Ogawa, Mr. Mimuro & Mr. Koike)
		09:00	Observing the land survey & surveying material costs (Mr. Yonemaru & Mr. Ishikawa)
		10:45	Lv. Majuro by CO-957 (Mr. Ikeda)
		17:45	Ar. at Guam
25	20 Nov. (Wed)	09:00	Meeting with the Majuro Hospital & the PHC (Mr. Ogawa)
		09:00	Inspection of equipment in the Majuro Hospital (Mr. Mimuro)
		09:00	Preparation of documents (Mr. Koike)
		09:00	Observing the land survey & surveying material costs (Mr. Yonemaru & Mr. Ishikawa)
		10:45	Visiting the Ministry of Finance
		09:00	Survey of mechanical & electrical companies at Guam (Mr. Ikeda)
26	21 Nov. (Thu)	09:00	Report to JICA/JOCV (Mr. Ogawa, Mr. Mimuro & Mr. Koike)
		09:30	Meeting with the Majuro Hospital & the PHC
		09:00	Surveying material costs (Mr. Ishikawa)
		10:45	Lv. Majuro by CO-957 (Mr. Yonemaru)
		17:45	Ar. at Guam
		09:00	Survey of mechanical & electrical companies at Guam (Mr. Ikeda)
27	22 Nov. (Fri)	09:00	Inspection of equipment in the Majuro Hospital (Mr. Mimuro)
		14:00	Meeting with the Majuro Hospital & the PHC (Mr. Ogawa, Mr. Mimuro & Mr. Koike)
		09:00	Surveying material costs (Mr. Ishikawa)
		15:45	Lv. Guam by JO-942 (Mr. Yonemaru & Mr. Ikeda)
		18:25	Ar. at Tokyo
28	23 Nov. (Sat)	09:00	Meeting with the Majuro Hospital (Mr. Ogawa, Mr. Mimuro & Mr. Koike)
		09:00	Surveying material costs (Mr. Ishikawa)
29	24 Nov. (Sun)	All day	Internal meeting Filing documents
30	25 Nov. (Mon)	10:00	Meeting with the Majuro Hospital & the PHC (Mr. Ogawa, Mr. Mimuro & Mr. Koike)
		09:00	Surveying material costs (Mr. Ishikawa)
31	26 Nov. (Tue)	09:00	Meeting with the Majuro Hospital & the PHC (Mr. Ogawa & Mr. Mimuro)
		10:45	Lv. Majuro by CO-957 (Mr. Ishikawa & Mr. Koike)
		17:45	Ar. at Guam
32	27 Nov. (Wed)	09:00	Meeting with the Majuro Hospital & the PHC (Mr. Ogawa & Mr. Mimuro)
		09:00	Surveying material costs at Guam (Mr. Ishikawa)
		10:00	Lv. Guam by CO-006 (Mr. Koike)
		18:25	Ar. at Tokyo
33	28 Nov. (Thu)	09:00	Meeting with the PHC & directors of the Majuro Hospital (Mr. Ogawa & Mr. Mimuro)
		11:30	Discussion on the Memorandum at the MOH
		14:00	Meeting with directors of the Majuro Hospital
		15:45	Lv. Guam by JO-942 (Mr. Ishikawa)
		18:25	Ar. at Tokyo

No.	Date	Time	Activity
34	29 Nov. (Fri)	09:30	Signing on the Memorandum at the MOH (Mr. Ogawa & Mr. Mimuro)
		10:45	Report to JICA/JOCV
		11:30	Report to the Embassy of Japan
		14:00	Receiving the documents at the Majuro Hospital
35	30 Nov. (Sat)	10:00	Surveying the trash system and the market (Mr. Ogawa & Mr. Mimuro)
			Filing documents
36	1 Dec. (Sun)	All day	Internal meeting
			Filing documents
37	2 Dec. (Mon)	09:00	Collecting data (Mr. Ogawa & Mr. Mimuro)
		19:50	Lv. Majuro by CO-956
		02:30	Ar. at Honolulu
		09:00	Survey of local contractors and equipment suppliers at Honolulu
38	3 Dec. (Tue)	09:00	Survey of local contractors and equipment suppliers at Honolulu (Mr. Ogawa & Mr. Mimuro)
			Filing documents
39	4 Dec. (Wed)	12:50	Lv. Honolulu by JL-73 (Mr. Ogawa & Mr. Mimuro)
40	5 Dec. (Thu)	16:45	Ar. at Tokyo

2-2 Draft Report Explanation

From 23 February, 2003 to 9 March, 2003 (15days)

No.	Date	Time	Activity
01	23 Feb. (Sun)	10:00	Lv. Tokyo by JO-941 (Mr. Ogawa, Mr. Mimuro & Mr. Yonemaru)
		14:25	Ar. at Guam
02	24 Feb. (Mon)	08:10	Lv. Guam by CO-956 (Mr. Ogawa, Mr. Mimuro & Mr. Yonemaru)
		18:45	Ar. at Majuro
03	25 Feb. (Tue)	10:00	Courtesy call to the MOH & submission and explanation of the draft report
		11:00	Courtesy call to the Embassy of Japan
		11:50	Courtesy call to JICA/JOCV
		14:30	Discussion on the draft report at the Majuro Hospital (Mr. Ogawa & Mr. Mimuro)
		09:30	Surveying construction materials (Mr. Yonemaru)
		10:00	Lv. Tokyo by JO-941 (Dr. Tsuyuki)
04	26 Feb. (Wed)	14:25	Ar. at Guam
		09:00	Discussion on the draft report at the Majuro Hospital (Mr. Ogawa & Mr. Mimuro)
		09:00	Surveying construction materials (Mr. Yonemaru)
		08:10	Lv. Guam (Dr. Tsuyuki,) & Lv. Pohnpei (Ms. Asakuma) by CO-956
05	27 Feb. (Thu)	18:45	Ar. at Majuro
		08:30	Courtesy call to the MOH (Ms. Asakuma, Dr. Tsuyuki, Mr. Ogawa & Mr. Mimuro)
06	28 Feb. (Fri) Holiday	10:30	Courtesy call to the Majuro Hospital
		11:00	Courtesy call to the Embassy of Japan
		11:50	Courtesy call to JICA/JOCV
		14:00	Discussion on the draft report at the Majuro Hospital
		09:00	Surveying construction materials (Mr. Yonemaru)
06	28 Feb. (Fri) Holiday	09:00	Meeting with the Majuro Hospital and the PHC for medical equipment (Ms. Asakuma, Dr. Tsuyuki & Mr. Mimuro)
		09:00	Filing documents (Mr. Ogawa & Mr. Yonemaru)

No.	Date	Time	Activity
07	1 Mar. (Sat)	All day	Internal meeting Filing documents
08	2 Mar. (Sun)	All day	Internal meeting Filing documents
09	3 Mar. (Mon)	09:00	Discussion on the Minutes at the Majuro Hospital (Ms. Asakuma,. Dr. Tsuyuki, Mr. Ogawa & Mr. Mimuro)
		09:00	Surveying construction materials (Mr. Yonemaru)
10	4 Mar. (Tue)	09:00	Discussion on the Minutes at the MOH (Ms. Asakuma,. Dr. Tsuyuki, Mr. Ogawa, & Mr. Mimuro)
		09:00	Surveying construction materials (Mr. Yonemaru)
11	5 Mar. (Wed)	10:00	Signing on the Minutes of Discussion at the MOH (Ms. Asakuma,. Dr. Tsuyuki, Mr. Ogawa, Mr. Mimuro & Mr. Yonemaru)
		11:00	Report to JICA/JOCV
		14:00	Internal meeting
		19:50	Lv. Majuro by CO-956 (Ms. Asakuma & Dr. Tsuyuki)
		02:30	Ar. at Honolulu
		12:50	Lv. Honolulu by JL-73
12	6 Mar. (Thu)	09:00	Meeting with the Majuro Hospital & the PHC (Mr. Ogawa & Mr. Mimuro)
		09:00	Surveying construction materials (Mr. Yonemaru)
		16:45	Ar. at Tokyo (Ms. Asakuma & Dr. Tsuyuki)
13	7 Mar. (Fri)	10:00	Signing on the Memorandum at the MOH (Mr. Ogawa, Mr. Mimuro & Mr. Yonemaru)
		14:00	Report to JICA/JOCV
		20:00	Report to the Embassy of Japan
14	8 Mar. (Sat)	10:45	Lv. Majuro by CO-957 (Mr. Ogawa, Mr. Mimuro & Mr. Yonemaru)
		17:45	Ar. at Guam
15	9 Mar. (Sun)	15:45	Lv. Guam by JO-942 (Mr. Ogawa, Mr. Mimuro & Mr. Yonemaru)
		18:25	Ar. at Tokyo

3 . List of Parties Concerned in the Recipient Country

Organization	Position	Name
Ministry of Health	Minister	Mr. Alvin T. Jacklick
	Secretary	Mr. Donald F. Capelle (transferred to MOFA on Dec. 2002) Ms. Justina R. Langidror (from Dec. 2002)
	Assistant Secretary	Mr. Dwight Heine
	Bureau of Health Planning & Statistics	
	Director of Health Planning & Statistics	Mr. Jonathan Santos
	Bureau of the Majuro Hospital	
	Hospital Administrator	Mr. Sandy Alfred
	Chief of Staff	Dr. Masao Korean
	Chief Nurse	Ms. Cathelina Antolok
	Chief Pharmacist	Mr. Andrew Harding
	Director of Medical Records	Mr. Daniel Hone
	Lab. Technologist	Ms. Sala Elbourne
	Radiologist	Mr. Jokna Lang
	Biomedical Engineer	Mr. Ariel S. Poblete
	Building & Ground Maintenance	Mr. Vincent Moses
	Bureau of the PHC	Ms. Justina R. Langidrik (until Nov. 2002) Mr. Russell Edwards (from Dec. 2002)
	Assistant Secretary	
	Director of Public Health	Dr. Kennar Briand
	Director of Dental	Dr. Kyaw K. Tut
	Director of Health Promotion	Mr. Kam Wase
Bureau of the Kwajalein Atoll Health Care		
Assistant Secretary	Ms. Irene A. Paul	
Hospital Administrator	Mr. Tommy Milne	
Medical Doctor	Dr. Tin Soe	
Laura Health Care Center		
Medex	Mx. Biten Batol	
Ministry of Finance	In charge of Foreign Assistance	Mr. Casten Nemra
	In charge of Finance & Tax	Mr. Minna Andrike
Ministry of Internal Affaires	In charge of Loan for Land	Mr. Willy Rada
	In charge of Loan for Land	Mr. Hilton Kendall
Ministry of Public Works	Assistant Secretary	Mr. Federic J. Debrun
	CIP, Civil Engineer	Mr. Renaldo V. Sunga
	CIP, Civil Engineer	Mr. Jhon Kaiko
Majuro Clinic	Principal of Clinic	Dr. Alexander Z. Piñano, M.D.
Port Authority	In charge of Port	Mr. Ninruij Abon
Majuro Weather Station (MWS)	Director	Mr. Atran A. Lakabung
Majuro Water & Sewer (MWSC)	Manager	Mr. Terry Mellan
Marshall Energy Co. (MEC)	General Manager	Mr. William F. Roberts
National Telephone Authority (NTA)	Manager	Mr. Colin Allen

Organization	Position	Name
TEL Mainte. Co.	President	Mr. Brian V. Velde
CATV	Consultant	Mr. Dave Wooding
Contractor	PII, President	Mr. Jerry Kramer
	PII, Manager	Mr. Gordon Macpherson
	Anil Inc., President	Mr. Chares T. Domnick
Supplier	MJCC, Manager	Mr. Hideo Kikuchi
	PII, Chief of Purchase for Material	Mr. Soil Hainrick
	RRE, President	Ms. Jessica R. Reimers
Embassy of USA	Deputy of Missionary	Ms. Jennifer L. Brush
	Military Liaison/Program Specialist	Mt. Thomas R. Maus
Embassy of Japan	Charge d' Affaires demissi	Mr. Toru Hayashi (until Feb., 2003) Mr. Akira Ikeda (from Mar., 2003)
	Researcher/Adviser	Ms. Megumi Kobayashi (until Nov., 2002)
JICA/JOCV	Coordinator	Ms. Noriko Ishii
	Assistant Coordinator	Mr. Thomas R. Jack
	Volunteer (Midwife)	Ms. Nobue Kawae (until Nov., 2002)
	Volunteer (Midwife)	Ms. Ayako Katagiri (until Dec., 2002)
	Volunteer (Midwife)	Ms. Ryoko Kuwabara
	Volunteer (Nurse)	Ms. Fumiko Sugiyama

4. Minutes of Discussions

4-1 Basic Design Study

MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON THE PROJECT FOR IMPROVEMENT OF THE MAJURO HOSPITAL
IN THE REPUBLIC OF THE MARSHALL ISLANDS

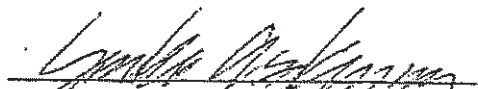
In response to a request from the Government of the Republic of the Marshall Islands (hereinafter referred to as "RMI"), the Government of Japan decided to conduct a basic design study on the Project for Improvement of the Majuro Hospital (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to the RMI the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Ms. Yumiko Asakuma, Second Management Division, Grant Aid Management Department, Japan International Cooperation Agency, and is scheduled to stay in the country from October 30 to December 2, 2002.

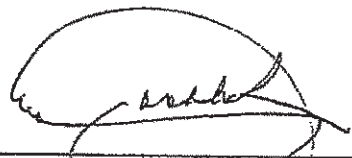
The Team held discussions with the officials concerned of the Government of the RMI and conducted a field survey at the study area.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Majuro, November 13, 2002



Ms. Yumiko Asakuma
Leader
Basic Design Study Team
Japan International Cooperation Agency



Hon. Alvin T. Jacklick
Minister
Ministry of Health
Republic of the Marshall Islands

YMA

[Handwritten mark]

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve the medical service at the Majuro Hospital in the RMI, through construction (a) new annex building(s) and procurement of necessary medical equipment.

2. Project Site

Majuro Hospital

3. Responsible and Implementing Agency

The responsible and implementing agency is the Ministry of Health, RMI.

4. Items requested by the Government of the RMI

Despite the original request of a new Majuro Hospital by the RMI, the Team mentioned the difficulty for acceptance of the Japanese Government. Therefore the project has been scaled down. Based on the submission by the Team as revised and as mutually agreed upon between the Team and the RMI, it is now planned that a new Annex Building that will house selected medical services will be recommended rather than a new hospital facility.

After discussions with the Team, the items described in Annex-1-1 and Annex-1-2 were finally requested by the RMI side. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval.

5. Japan's Grant Aid Scheme

- 5-1 The RMI side understands the Japan's Grant Aid Scheme explained by the Team, as described in Annex-2.
- 5-2 The RMI side will take the necessary measures, as described in Annex-3, for smooth implementation of the Project, as a condition for the Japan's Grant Aid to be implemented.

6. Schedule of the Study

- 6-1 The consultants will proceed to conduct further studies in the Marshall Islands until December 2, 2002.
- 6-2 JICA will prepare the draft report in English and dispatch a mission in order to

explain its contents in February 2003.

- 6-3 In case that the contents of the report is accepted in principle by the Government of the RMI, JICA will complete the final report and send it to the Government of the RMI around May, 2003.

7. Other relevant issues

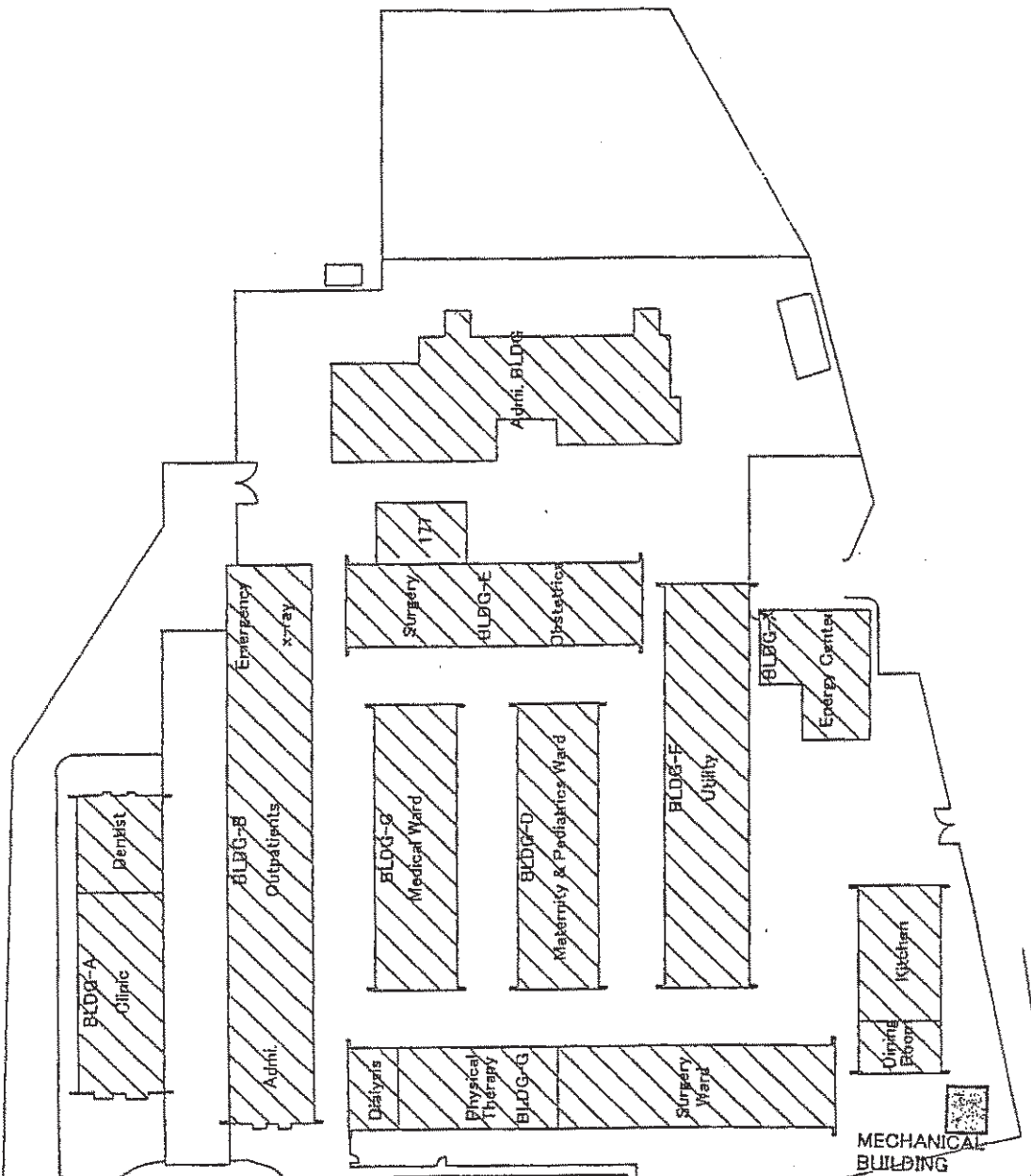
- 7-1 The RMI side has agreed to secure and prepare the land for the construction of the annex building before the beginning of the extension work.
- 7-2 The RMI side has agreed to dismantle the road beside the hospital as mentioned in Annex 1-1 before the beginning of the extension work.
- 7-3 The RMI side has agreed to relocate the existing equipment and procure necessary equipment which is not covered by the Japan's Grant Aid for the new annex building at completion of the extension work.
- 7-4 The RMI side has agreed to secure and allocate enough budgets to operate and maintain the new annex building and the medical equipment built and supplied by the Grant Aid properly and effectively.

Annex-1-1: Draft of the new Annex Building

Annex-1-2: List of Equipment

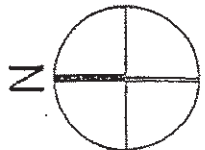
Annex-2: Japan's Grant Aid Scheme

Annex-3: Major Undertakings to be taken by Each Government



- NEW ANNEX BUILDING**
- OUTPATIENT
 - EMERGENCY
 - PUBLIC HEALTH
 - PHARMACY
 - LABORATORY
 - DENTISTRY
 - MEDICAL RECORDS
 - RADIOLOGY
 - OPHTHALMOLOGY
 - ENT
 - ADMINISTRATION

The road will be disma by the RMI.



The Majuro Hospita

S=1/1000

List of Equipment

Annex-1-2

No.	Section	Description	Quantity
1	Radiology	X-ray Apparatus (General)	1
2	Radiology	X-ray Apparatus (Fluoroscopy)	1
3	Radiology	Film Illuminator	2
4	Radiology	Film Processor	1
5	Radiology	Ultrasound Diagnostic Apparatus	1
6	Emergency	Ventilator	1
7	Emergency	Ventilator (Infant)	1
8	Emergency	Operating Table	1
9	Emergency	Film Illuminator	2
10	Emergency	Patient Monitor	2
11	Emergency	Electrocardiogram	1
12	Emergency	Operating Light	1
13	Emergency	Electrosurgical Unit	1
14	Dentistry	Dental Unit	5
15	Dentistry	Dental X-ray Unit	1
16	Dentistry	Dental X-ray Processor	1

YAN

A

Japan's Grant Aid Program

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.

Application (request made by a recipient country)

Study (Basic Design Study conducted by JICA)

Appraisal & Approval (appraisal by the Government of Japan and approval by the Cabinet of Japan)

Determination of Implementation (Exchange of Notes between both Governments)

Implementation (implementation of the Project)

(2) Firstly, an application or a request for a Grant Aid project submitted by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Japan's Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study Report prepared by JICA and the results are then submitted to the cabinet for approval.

Fourth, the project approved by the cabinet becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Contents of the Study

(1) Contents of the Study

The purpose of the Basic Design Study conducted by JICA on a requested project is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

- a) confirmation of the background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) evaluation of the appropriateness of the project for the Grant Aid Scheme from a technical, social and economical point of view,
- c) confirmation of items agreed on by the both parties concerning a basic concept of the project,
- d) preparation of a basic design of the project,
- e) estimation of cost of the project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request. Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

(2) Selection of Consultants

For smooth implementation of the study, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on the proposals submitted by the interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the study is (are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds to procure the equipment and services (engineering services and transportation of the

products, etc.) for economic and social development of the country under principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials or such.

(2) Exchange of Notes (E/N)

Both Governments concerned extend Japan's Grant Aid in accordance with the Exchange of Notes in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid etc., are confirmed.

(3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

(4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. The Government of Japan shall verify those contracts. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

(6) Undertakings Required to the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

a) to secure land necessary for the sites of the project prior to the installation work in case

the project is providing equipment,

b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,

c) to secure buildings prior to the installation work in case the project is providing equipment,

d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,

e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,

f) 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 the recipient country and stay therein for the performance of their work.

(7) Proper Use

The recipient country is required to maintain and use the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for the operation and maintenance as well as to bear all expenses other than those covered by the Grant Aid.

(8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(9) Banking Arrangement (B/A)

a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in a bank in Japan. The Government of Japan will execute the Grant Aid by making payments in Japanese yen to

cover the obligations incurred by Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

ya

R

Major Undertakings to be taken by Each Government

NO	Items	To be covered by Grant Aid	To be covered by Recipient side
1	To secure land		⊗
2	To clear, level and reclaim the site when needed		⊗
3	To construct gates and fences in and around the site		⊗
4	To construct the parking lot	⊗	⊗
5	To construct roads		
	1) Within the site	⊗	
	2) Outside the site		⊗
6	To construct the building	⊗	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		⊗
	b. The drop wiring and internal wiring within the site	⊗	
	c. The main circuit breaker and transformer	⊗	
	2) Water Supply		
	a. The city water distribution main to the site		⊗
	b. The supply system within the site (receiving and/or elevated tanks)	⊗	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		⊗
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	⊗	
	4) Gas Supply		
	a. The city gas main to the site		⊗
	b. The gas supply system within the site	⊗	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame / panel (MDF) of the building		⊗
	b. The MDF and the extension after the frame / panel	⊗	
	6) Furniture and Equipment		
	a. General furniture		⊗
	b. Project equipment	⊗	
8	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		⊗
	2) Payment commission		⊗
9	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	⊗	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		⊗
	3) Internal transportation from the port of disembarkation to the project site	⊗	

10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
13	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

GA

7

4-2 Draft Report Explanation

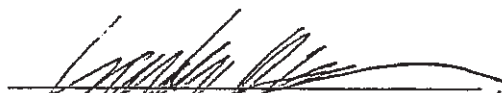
MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON THE PROJECT FOR IMPROVEMENT OF THE MAJURO HOSPITAL
IN THE REPUBLIC OF THE MARSHALL ISLANDS
(EXPLANATION ON DRAFT REPORT)

In November 2002, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Basic Design Study Team on the Project for Improvement of the Majuro Hospital (hereinafter referred to as "the Project") to the Republic of the Marshall Islands (hereinafter referred to as "RMI"), and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the Study.

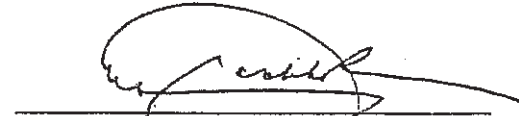
In order to explain to and consult with the RMI on components of the draft report, JICA sent to the RMI the Draft Report Explanation Team (hereinafter referred to as "the Team"), which is headed by Ms. Yumiko Asakuma, a project officer of the Second Project Management Division, Grant Aid Management Department, JICA, from February 24 to March 8, 2003.

As a result of discussions, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Majuro, March 5, 2003



Ms. Yumiko Asakuma
Leader
Draft Final Explanation Team
Japan International Cooperation Agency



Hon. Alvin T. Jackliek
Minister
Ministry of Health
Republic of the Marshall Islands

ATTACHMENT

1. Components of the Draft Report

The Government of the RMI agreed and accepted in principle the components of the draft report explained by the Team.

Modifications described in Annex-1 were requested by the RMI side, and will be reflected in the Basic Design Study Report.

The list of equipment is attached to Annex-2.

The final decision will be made by the Government of Japan based on the examination of the result of the Basic Design Study.

2. Japan's Grant Aid scheme

The RMI side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of the RMI as explained by the Team and described in Annex-2 and Annex-3 of the Minutes of Discussions signed by both parties on November 13, 2002.

3. Schedule of the Study

JICA will complete the final report in accordance with the confirmed items and send it to the Government of the RMI in June 2003.

4. Other relevant issues

4-1 The RMI side understands that the Project will be executed in a manner described in the basic design report. The Project modifications will not be requested unless any unpredicted circumstances arise.

4-2 Both sides confirmed that the equipment specifications and the other technical information shall be confidential before the tender to be held in the implementation stage of the Project.

4-3 The RMI side agreed to take necessary measures for the implementation of the Project as mentioned in Annex-3

4-4 The RMI side will purchase a CT scanner within FY 2003.

4-5 The RMI side requested a zigzag shape corridor to avoid transferring a major A/C unit in the Building G, against the original plan of a straight corridor, and the Team

accepted to consider.

Annex-1: Modifications to be reflected in the Basic Design Study Report

Annex-2: List of Equipment

Annex-3: Undertakings to be taken by the Government of the RMI

ym

AD

Modifications to be reflected in the Basic Design Study Report

1. Pharmacy

- 1) The U-shaped counter will be furnished in the Dispensing Room.
- 2) The fixed window (approx.900x1,200mm) will be furnished between the Dispensing Room and the Compounding Room
- 3) The door next to the dispensing window will be deleted.

2. Outpatient Department & Public Health

- 1) The doors will be furnished between the Examination Rooms and the Examination Corridor in the Outpatient Department and the Public Health.

3. Laboratory

- 1) The layout of the Laboratory will be changed as recommended by the RMI.
- 2) The Safety Cabinet Room will be furnished in the Microbiology Room.
- 3) The small room for the tissue processor, etc. will be furnished in the Pathology & Cytology Room.
- 4) One emergency shower will be furnished in the Laboratory area.

4. Emergency

- 1) In the Examination Cubicles, the partition wall will be changed to the curtain and the sinks will be furnished in the Treatment Room and the Nurse Station.
- 2) The Nurse Station & Staff Room will be divided by the wall (without door) and the Counter will be extended towards the Examination Cubicles.
- 3) The sink for operation will be furnished close to the entrance door of the Minor Surgery Room.
- 4) The entrance will be arranged for the ambulance.

5. Radiology

- 1) The size of the CT Scanner Room will be considered based on the CT scanner size purchased by the RMI.

lym

~~10~~

List of Equipment

No.	Section	Description	Quantity
1	Radiology	X-ray Apparatus (General)	1
2	Radiology	X-ray Apparatus (Fluoroscopy)	1
3	Outpatient	Ultrasound Diagnostic Apparatus	1
4	Emergency	Ventilator	1
5	Emergency	Ventilator (Infant)	1
6	Emergency	Operating Table	1
7	Emergency	Patient Monitor	2
8	Emergency	Operating Light	1
9	Emergency	Electrosurgical Unit	1
10	Laboratory	Laboratory Center Table	4
11	Outpatient, Public Health	Instrument Cabinet	8
12	Dentistry	Dental Unit	4
13	Dentistry	Dental X-ray Unit	1
14	Dentistry	Dental X-ray Processor	1
15	Dentistry	Treatment Cabinet for Dental	6

ym

D

Measures to be taken by the Government of the RMI

So as not to delay the following measures, the Government of the RMI shall take following measures within a reasonable period time.

	Items	Period
1. Formalities	1) To secure land	Contracted
	2) Tax exemption	At any time during construction
	3) Customs clearance of the products at the port and internal transportation	At any time during construction
	4) Construction permit	Before the tender
	5) Banking Arrangement(B/A) and advising commission of Authorization to Pay(A/P)	After contracts immediately
2. Constuction	1) To dismantle/transfer existing Parking, Road, Fence and Rainwater Pipe	Before the tender
	2) Grading works at the Site	Before the tender
	3) Electrical line to the Site	Before the commencement work
	4) To transfer existing furniture and equipment	After the completion of construction as reasonably possible
3. Equipment	1) To purchase CT scanner	Within FY2003
	2) To purchase necessary furniture	Before the completion of the construction
	3) To purchase necessary medical equipment	Before the completion of the construction
4. Staff	1) To employ following staffs;	
	1-1) Radiologist	As soon as possible
	1-2) Radiology technician for CT	Retrain or hire before purchase CT scanner
	1-3) Ophthalmologist	As soon as possible
	1-4) ENT Physician	As soon as possible
	1-5) Respiratory therapist	Before the completion of the construction
5. Maintenance	1) To exchange the X-ray tube for General X-ray apparatus	When necessary (approximately every 5 years recommended)
	2) To exchange the X-ray tube for Fluoroscopy X-ray apparatus	When necessary (approximately every 5 years recommended)
	3) To exchange the bulbs for operating light	After a bulb burns out
	4) To maintain the General X-ray apparatus	At least once a year
	5) To maintain the Fluoroscopy X-ray apparatus	At least once a year
6. Consumables	1) To secure necessary budget for purchasing following items ;	
	a) X-ray film	15,000 pcs per year approximately
	b) Developer & fixer solution	15,000 tests per year approximately
	c) Barium	1,000 tests per year approximately
	d) Ultrasound gel	1,000 tests per year approximately
	e) Thermal paper for ultrasound	1,000 tests per year approximately
	f) Disposable electrode	6,000 pcs per year approximately
	g) Recording paper for monitors	2,000 tests per year approximately
	h) Bacterial filter for Ventilators	24 pcs per year approximately
	i) X-ray film for dental	2,000 pcs per year approximately
	j) Developer & fixer for dental	2,000 tests per year approximately