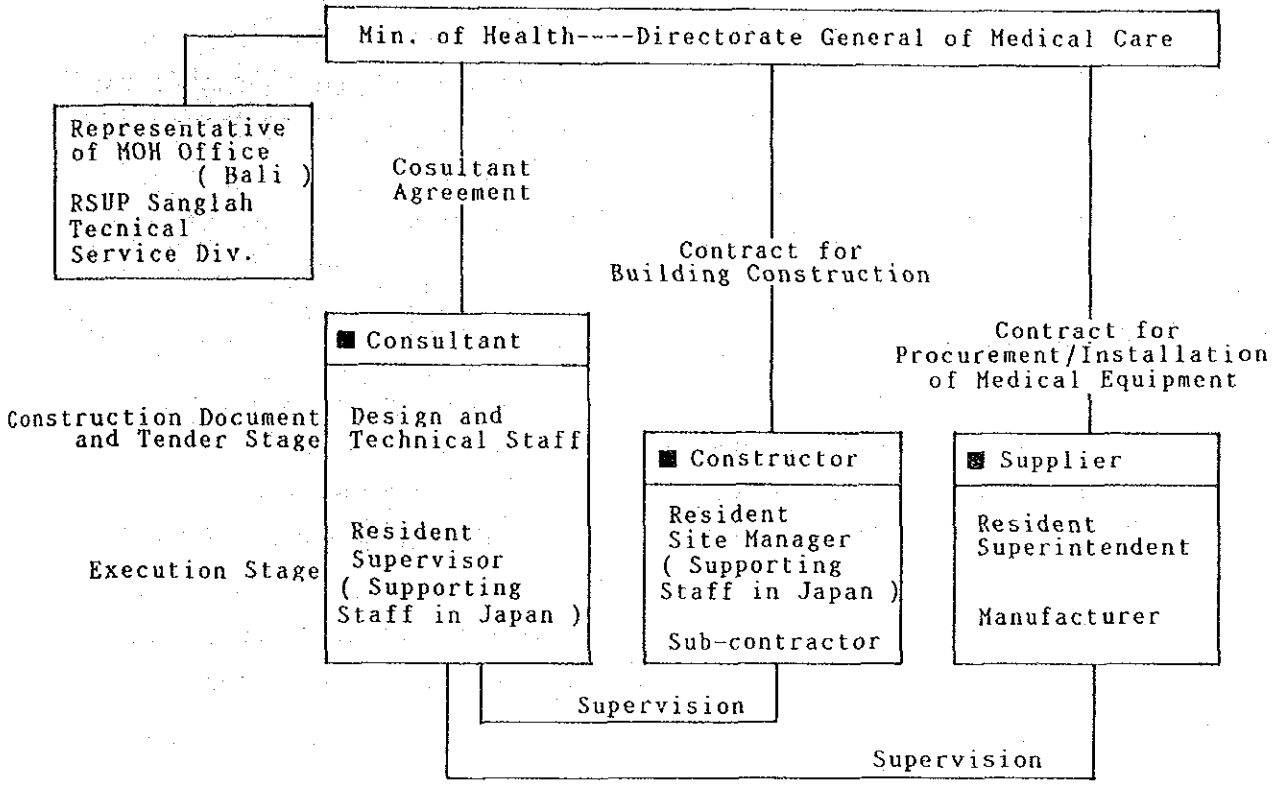
FIg.-31 Organizational Chart for Project Execution



5-2 Demarcation of Scope of Construction

The following table outlines the responsibilities and their scope to be assumed by Japan and Indonesia respectively regarding the construction of this Project if it is executed as a grant-in-aid:

Table 98 Outline of responsibilities and their scopes

Outline of construction executed by Japan	Outline of construction executed by Indonesia
1. Building Structure construction, building finish, fixtures and inspection tables	1. Engineering works on site Engineering works of existing wings, transfers and repiping
2. Engineering works for electric equipment Electrical energy receiving and transforming facilities, power and trunk line facilities, electric lights and plug sockets, telephone facilities, broadcasting facilities, lightning rods, and fire alarm systems	2. Outdoor works Landscaping, planting, gates, fences, road pavement, and streets outside the site
3. Engineering works for water supply and drain, and air conditioning systems Water supply, hot water feeding, water drainage, and ventilation systems; sanitary equipment, air-conditioning and ventilation systems and fire extinguishing equipment including portable fire extinguishers	3. Connection works for leading infrastructural wires in ·Leading-in of power lines, telephone lines, water supply pipes and drainage pipes ·Installation of radio antennas, radio equipment and cables
4. Engineering works for special systems Waste water treatment facilities, emergency power systems, nurse call and interphone systems, medical gas equipment, radio communication systems, paging systems, and central monitoring systems	4. Furnishings Curtains, blinds and ordinary furniture
5. Outdoor works Fire hydrants, outdoor drainage, and water tanks for fire fighting	
6. Engineering works for medical equipment Medical equipment	

In addition to the works listed above, some other works are to be carried out by the Republic of Indonesia in conjunction with or prior to the construction work performed by Japan. It is acknowledged by Indonesia that accomplishment of such additional works are important in order for this Project to be smoothly executed.

① To pay the following charges to a Japanese foreign exchange bank based upon a bank agreement.

1. Charges for issuing A/P (authority to pay)
2. Charges for payment

② To guarantee the exemption of charges for landing at Indonesian ports, storage in bonded warehouses, and tariffs regarding materials and equipment imported to Indonesia for the execution of the grant-in-aid.

③ To exempt, from tariffs and various taxes in Indonesia, Japanese nationals who provide materials, equipment and services pursuant to the contract approved for the execution of the grant-in-aid.

④ To carry out procedures necessary for Japanese nationals' entry into and stay in the Republic of Indonesia who will provide materials, equipment, and services pursuant to the contract approved for the execution of the grant-in-aid.

⑤ To bear necessary costs for construction of facilities, transportation, and installation of equipment which are not included in the items to be executed by the grant-in-aid program.

⑥ To correctly and effectively operate, maintain, and manage the facilities constructed and equipment provided by the grant-in-aid program.

⑦ To provide both technical and administrative counterparts sufficient in number and appropriate in capability for the execution of the grant-in-aid program.

⑧ To offer a site to be used for on-site offices, workshops, warehouses, material storage, and other purposes required for the construction work.

⑨ To provide temporary power, water supply, telephone, and other utilities required for the construction work.

⑩ The Ministry of Health will transfer, at its own responsibility, equipment being used currently in the existing emergency treatment division of Sanglah Hospital after the Center is turned over.

5-3 Execution and Supervision Plan

5-3-1 Execution Plan

The site of this Center, in the city of Denpasar provides favorable conditions for construction because of its convenience for communication and travel.

The Center is 3,700m^2. Its structure is a two-story ferro-concrete building featuring 6m spans. It is relatively easy to work out an execution plan for facilities of this size and structure, however, the Center will be composed of various medical rooms with different functions and will require medical equipment of various uses to be installed in the right places. The nature of the Center will make it more complicated than ordinary buildings and facilities. Therefore, in formulating an execution plan, the scope of both work and responsibility should be clarified in each different field: construction, facilities, and medical equipment. Interference with each other's scope of responsibility must be avoided, and schedule of work must be taken into full account.

Judging from the construction situation in Bali and the relatively small size of the facilities, it is predicted that the constriction will require a total period of twelve months from start to final completion and

turnover, despite the various complicated elements which are to be incorporated into the Center as mentioned above.

Materials and manpower for the most part will be procured in Indonesia. Hardware, some materials, and equipment including the facility equipment which are required for use in medical facilities, should be procured in Japan.

As very little medical equipment is manufactured in Indonesia, such equipment will be procured from Japan. In order to avoid problems with maintenance management and repairs, Japanese manufacturers capable of providing appropriate maintenance services in Indonesia must be selected as suppliers.

A Japanese builder will be engaged for execution management, while a local construction labor manager will perform labor management. Due to the nature of medical facilities, some special construction works for operating rooms and ICUs (intensive care units) will have to be executed with technical guidance from expert engineers dispatched from Japan.

5-3-2 Supervision Plan

With respect to the execution and supervision of this Project, it is important to secure procurement of materials locally to meet the construction schedule, to ensure their quality and accuracy, and to plan transportation of materials and equipment procured in other nations including Japan. These elements are of extreme importance when quality, performance control, and construction schedule management are worked out. Construction of the building should also correspond to local construction technologies and must proceed smoothly and steadily. To this end, it is necessary to dispatch an execution supervisor to be stationed in Indonesia. A close link between the supervision system in Indonesia and the backup system in Japan is essential.

Furthermore, as the execution body for building is different from that for medical equipment facilities construction, for the purpose of execution and supervision identification of the scope of respective works

is required in order to adjust the construction schedule as needed, and to clarify the flow of instructions.

(1) Supervision Conducted in Japan

* Overall construction control and report management including reports on stages of work.
* Works pertaining to approval of execution plan, on-site engineers, materials to be used, materials and equiment, manufacturers and contractors
* Domestic product inspection of materials, equipment and machinery supplied
* Operation report to Japanese government-related organizations

(2) Supervision Conducted by Full-time Supervisor

* Observation adn supervision of various tests, and technical guidance
* Completion test on completion of foundation and roofing, and final completion inspection
* Product inspection of locally-made materials and equipment
* Instructions on the site, including solution of problems in executing construction
* Check and approval of working drawings
* Operation report to execution body and works concerning matters to be approved by the body
* Observation of various tests
* Inspection of each stage of construction
* Instructions on the site, including solution of problems in executing construction
* Operation report to execution body on a daily basis and works concerning cooperation for the body's approval procedures

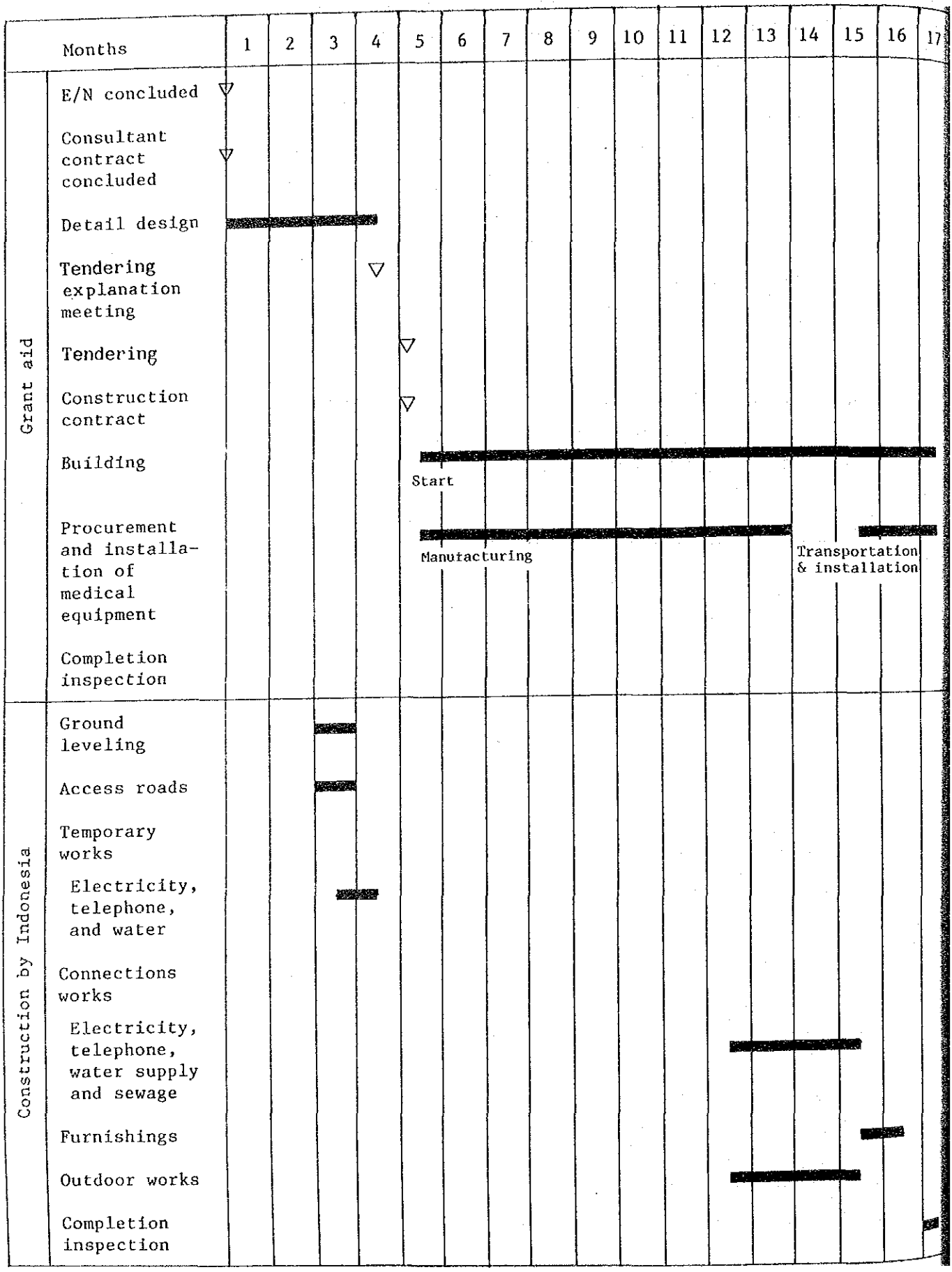
* Preparation of construction progress report diary and report on present state of construction at site progress meeting
* Check of working drawings
* Supervision of documents of instruction on the site, other meetings, briefings, tests and inspections

5-4 Execution Schedule

The construction of this Center requires a total of twelve months. This includes twelve months of building and two months, overlapping the building period, of medical equipment procurement and installation time prior to the completion of building.

The following table shows the execution schedule:

Table 99 Execution schedule



5-5 Cost Estimate

The costs for executing this project are estimated as follows:

Costs to be Covered by the Republic of Indonesia

Total costs to be covered by the Republic of Indonesia are estimated at approximately RP 268,000,000

The breakdown is as follows:

1. Costs for removing existing structures on the site RP 12,000,000
2. Costs for improving roads surrounding the site RP 32,000,000
3. Costs for water leading up to the border RP 5,000,000
4. Costs for electricity leading up to the border RP 106,000,000
5. Costs for telephone leading up to the Center RP 5,000,000

Total RP 268,000,000

CHAPTER 6 MAINTENANCE AND MANAGEMENT PLAN

CHAPTER 6 MAINTENANCE AND MANAGEMENT PLAN

6-1 Maintenance and Management System

After the Project is completed and turned over to the Republic of Indonesia, the Ministry of Health will serve as the maintenance and management body. This emergency medical center will be managed as an emergency medical service division of Sanglah Hospital, which is under the direct control of the Ministry of Health. It will be regarded as a part of Sanglah Hospital.

In order to keep this emergency medical center in good condition over a long period of time, and to manage it efficiently to accomplish the objectives of the Project, it is essential that maintenance and management systems for it as an emergency medical center be established. It is well-advised that the Ministry of Health take the initiative to formulate a plan regarding maintenance and management of the building and facilities.

Judging from its size and characteristics, the building will be well maintained and managed without special engineers. It is desirable that personnel be selected after the completion of construction to assume responsibility for maintenance and inspection of the building and its operation, and for maintenance of facilities and equipment, and that the Center be directly managed through such personnel. In order to reduce running costs, it is also advisable to provided the staff and visitors to the Center with guidance and instructions for proper utilization of the facilities.

6-2 Maintenance and Management Plan

(1) Maintenance and Management Plan for Facilities

Maintenance and management costs are comprised of the following items:

1) Criteria for Repairs

The following items should be inspected and repaired at the intervals indicated below.

① Exterior

* Repair of external walls: every 5 years
* Repair of roofing: Inspection: once a year
  Other: every 5 years
* Inspection and repair of roof waterproofing:
  Inspection: once a year
  Other: whenever necessary
* Exterior fitting painting: every 5 years
* Cleaning of drainage ditches and manholes: once a year

② Interior

* Adjustment of fittings: once a year

③ Building Equipment

Building equipment needs to be overhauled periodically. If necessary, abraded and exhausted parts should be replaced. Main equipment's length of durability is as shown below. Equipment which is no longer safe should be immediately replaced.

Main Equipment's Length of Durability

a. Electrical equipment

* Power transformer	30 years
* Switchboard	15-20 years
* Lighting fixtures	15 years
* Fluorescent lights	10,000-12,000 hours
* Incandescent lights	1,000-1,500 hours
* Telephone switchboard	15 years
* Public address system	10-15 years
* Fire alarm system	5-10 years

b. Water Supply and Drain Equipment

* Pumps	5-10 years
* Tanks	15-20 years
* Pipes and valves	10-15 years
* Sanitary porcelain	15 years
* Fire extinguishers	15 years

c. Air-conditioning Equipment

* Pipes	10-15 years
* fan	5-10 years
* Package-type air conditioner	7-15 years

(2) Maintenance and Management Plan for Medical Equipments

The maintenance and management of medical equipments can be roughly classified into two areas: constant maintenance and trouble shooting. Constant maintenance activities in turn are divided into accuracy control, cleaning, abrasion check, lubrication, consumable parts replacement, and adjustment, all of which should be carried out to maintain prescribed functions and prevent failures of the equipments. Constant maintenance

activities need to be conducted regularly, daily, weekly, or monthly depending on the type of equipments. For this purpose, a person in charge of operation or a trained medical equipment maintenance engineer (ME) will be assigned.

With regard to accuracy control, techniques do not differ from machine to machine, but certain statistical methods have been established. Normally, physicians, technicians and others so educated, are competent for such methods. Therefore, accuracy control can be performed by selecting suitable methods for each equipment from among such established methods. As for equipment and equipments for this Project, strongly constructed types have been selected.

Concerning mechanical and electrical maintenance, cleaning and lubricating procedures are described in operating manuals which are to be delivered at the time of installation. It is possible for the operator or the above-mentioned ME to control accuracy in accordance with such procedures.

With regard to trouble shooting, it is projected that a system will be established to carry out basic and simple repairs as well as parts exchanges by assigning MEs within the hospital to do the job. For the moment, assignment of three such engineers is projected. It is also expected that troubles will be addressed immediately, as spare parts of minimum necessity are to be provided along with the equipment. If troubles cannot be dealt with by an ME and other staff, it is agreed that outside agents of respective manufacturers will be called for repair. Such agents are usually called under an annual regular maintenance contract or through a user's request for trouble shooting. With respect to the major equipment provided through this Project, it is now being planned to conclude an annual maintenance contract with agents of respective manufacturers in Indonesia, as will be described later, over maintenance after the one-year guarantee period expires.

Incidentally, the existing hospital does not have any specialist for medical equipment maintenance. Constant maintenance is being performed by three radiation technicians, nine radiation assistants, three laboratory technicians and fourteen laboratory assistants. Some of the engineers complete the three year course at ATEM (Academic Technik Electro Medics) after graduating from high school, while most of the assistants are

graduates of technical high schools. Planning calls for those ATEM graduates to be educated and trained to become more highly specialized MEs. As one of the measures for individual training, the Health Ministry of Indonesia is expecting Japan's technical cooperation (acceptance of trainees), with top priority given to ME training.

Table 100 List of major medical equipment agents in Indonesia

Agents	Manufacturers
·P.T. SETIO HARTO LTD	Olympus Optical Co., Ltd.
	Nihon Kouden Corporation
·RISO (PTE) LTD	Furuno Electric Co., Ltd.
·P.T. BANTRUNK MURNI INDONESIA	Paramount Bed Co., Ltd.
·P.T. BHINEKA USADARRAYA	Atom Medical Corporation,
	Sakura Fine Technical Co., Ltd.
	Acoma Medical Industry Co., Ltd.
	Hitachi Medical Corporation
·P.T. ENSEVAL	Kimura Medical Instrument Co., Ltd.
·P.T. MURTI INDAH SENTOSA	Urma Inc., Toshiba Corporation
·P.T. RIFA JAYA MULTA	Toitu Co., Ltd.
·P.T. OPTIK TUNGGAL	Nagashima Medical Instruments Co., Ltd.
·FIRMA MEDAN AND COMPANY	Sanyo Electric Trading Co., Ltd.
·P.T. BER SAU DARA	Aloka Co., Ltd.
·P.T. KIMIA FARMA	Toyota Medical Co., Ltd., Inami Co., Ltd.
	Mizuho Medical Co., Ltd.
	Toa Medical Electronics Co., Ltd.
	Seiko Co., Ltd., Nihon Medical Co., Ltd.
	Katoman
	Shimazu Corporation
·P.T. HILAB SCIENCE TAMA	Hitachi

(3) Survey on Medical Equipment Agents

Medical equipment agents in Indonesia and manufacturers of products handled by respective agents are listed above. Almost all the agents are

located in Jakarta, several of them also have offices in Surabaja and Denpasar. Access to Bali will probably be obtained from Jakarta.

Reasons for poor maintenance of some equipment generally include the following:

1) Medical equipment manufacturers from France or the Netherlands do not have agents in Indonesia.

2) Some manufacturers, which do have agents in Indonesia, are not capable of supplying spare parts, bases, CPU boards, switchboards, and so on.

3) Engineers specializing in the particular unit are not available.

In this Project, the criteria for selection of equipment will only be fulfilled by those manufacturers with an agent in Indonesia, which is staffed with engineers specializing in the equipment to be supplied for this Project, and which are able to supply spare parts and consumable goods.

Particular references to X-rays and CT scanners are made in the following paragraphs.

P.T.HILAB SCIENCE TAMA, which deals in Hitachi products, has no problem with either the number of units supplied or the number of engineers employed. Maintenance services are provided in Indonesia by engineers who were trained in Japan so as to be thoroughly acquainted with the fields of X-rays, CT scanners, and ultrasonic equipment.

P.T.MURTI INDAH SENTOSA, which handles Toshiba products, also has adequate experience in supplying equipment and sufficient numbers of engineers. As for the number of engineers, in particular, at least two engineers who were educated in Japan, are assigned in each field including X-rays, CT scanners, ultrasonic, and gamma cameras to provide local maintenance services.

P.T.KIMIA FARMA, deals in Shimazu products and has no X-ray or CT scanners engineers in Indonesia. Such engineers are called from Singapore each time a need arises, causing delay in repairs. In the past, this agent has supplied one CT scanner to RSCM Hospital.

6-3 Maintenance and Management Costs

(1) Facilities Maintenance Costs

Maintenance costs for the facilities are estimated based upon the following items:

Table 101 Items of maintenance costs

Items	Contents
Operating costs	Personnel expenses for maintaining operation of facility equipment
Utilities costs	Expenses for use of water and electricity to operate the building
Cleaning costs	Personnel expenses for cleaning the building
Security costs	Personnel expenses for night watches at the building

1) Operating Costs

As for building equipment, management requirements should be reduced by selecting models capable of automated, maintenance-free operation. According to a survey conducted by the Japan Comprehensive Building Energy Management Technology Association, the manageable area per person is approximately 3,000m^2, though in Japan this area generally depends on the use of the building. This leads to an estimate of two persons required for operation management of this Project, including those on each shift.

Daily wage is estimated at RP3,000/day

2 persons x RP3,000/day x 12 months = RP1,116,000/year

2) Utilities Costs

Utilities costs are estimated as follows:

a. Electricity

Rates for electric power comply with rates set by the Indonesian electric power company, P.L.N.

Basic fee

620KW x RP2,100/KW x 12 months ≒ RP15,620,000/year

Power rate

450KW x 365 days x 24 hours/day x 0.1 x RP43.5/KWH

≒ 17,100,000/year

Total RP32,720,000/year

b. Water rate

Estimate of Water Supply

Water supply is estimated on an assumption of the total capacity of the building i.e. 133 persons, including 51 staff members, 52 in-patients, and 30 out-patients. It is assumed that one person uses 110 liters of water per day as in Japan.

133 persons x (110 l/day x 0.5) x 31 days/month ≒ 226 m^2

Water rate

Water rate is based on rates set by the Indonesian Water Supply Corporation.

Basic fee: none

Water rate

226m/month x RP240/m^2 x 12 months ≒ 650,000/year

c. Total Utilities Fees

RP32,720,000/year + RP650,000/year = RP33,370,000/year

3) Cleaning Costs

Cleaning of the building is classified into "daily cleaning" and "regular cleaning" depending on the frequency of cleaning.

"Daily cleaning" includes sweeping of floors, cleaning of lavatories and washrooms, and supply of consumable sanitary goods. On an assumption that one person can clean 1,000 m^2 of floor, it is estimated that

3,800 m^2 ÷ 1,000 m^2/person ≒ 4 persons

will be required.

"Regular cleaning" means cleaning done every month or at regular intervals. It is expected to require 10 workers each time.

With daily wages for cleaning presumed to be RP3,000/day,

4 persons x RP3,000/day x 31 days x 12 months

= RP4,464,000/year

10 persons x RP3,000/day x 1 time/month x 12 months

= RP360,000/year

Total RP4,824,000/year

4) Security Costs

Two persons will be constantly on guard in the building during the night.

Daily wages are calculated based on a cleaner's overtime pay of RP3,000/day x 1.5 = RP4,500/day.

2 persons x RP4,500/day x 31 days/months x 12 months

≒ RP3,348,000/year

Table 102 Total maintenance and management costs

Items	Amount (RP)/Year
Operating costs	1,116,000
Utilities costs	33,370,000
Cleaning costs	4,824,000
Security costs	3,348,000
Total	42,658,000

Consideration of above-mentioned estimates in the context of budgetary measures of Sanglah Hospital shown on Table-74 suggests the following things:

Of all maintenance and management costs, costs for operation, cleaning and security represent personnel costs, which are covered in the employees' salary payment program of the Center. Therefore, the running cost to be adjusted by the Ministry of Health is comprised mainly of utilities costs. The utilities cost of this Center is estimated at

RP33,370,000, which will add about 26% to the running cost of the existing hospital (approximately RP124,700,000). Comparison of total floor area and characteristics of facilities between the Hospital and the Center leads to the equation shown below. Estimated running cost of the Center turns out to be close to the figure predicted using the equation. This means that the budget can be reasonably adjusted by the Ministry of Health.

$$\frac{\text{Running cost of the Hospital x Floor area of the Center x Grade as Emergency medical service facilities}}{\text{Floor area of the Hospital x rate of facilities specifically for medical use}}$$

$$= \frac{\text{RP124,700,000} \times 3{,}700\ m^2 \times 2\ \text{time}}{47{,}500\ m^2 \times 0.6\ (\text{rate})}$$

$$= \text{RP32,378,245} \fallingdotseq \text{RP32,380,000}$$

(2) Medical Equipment Maintenance Costs

Maintenance and management costs in this Project are broadly divided into upkeep expenses, required for keeping the equipment running, and maintenance expenses, required for constant maintenance and trouble shooting.

Upkeep expenses in turn are divided into expenses for medical resources, that is personnel expenses for operators and users, and expenses for materials, such as reagents and consumable goods. As equipment included in the Project is to be used for everyday emergency medical services by physicians and nurses, or handled by competent individuals such as inspection and radiation engineers, these factors are projected in the annual budget of the Health Ministry to secure necessary staff for the upkeep of the equipment. As for materials, proper amounts of reagents and consumable goods to maintain operations without trouble during the initial year are appropriated in the budget upon the implementation of the projected equipment. After one year, the reagents and consumable goods of

the value shown in the following table will need to be supplied. Costs for reagents and consumable goods are as shown below:

Table 103 Costs for reagents and consumable goods

Items	Value (RP)/Year
Purchasing of reagents	25,701,000
Purchasing of consumable goods	62,270,000
Total	87,970,000

Maintenance expenses, which will hopefully be appropriated in the budget of Sanglah Hospital Emergency Medical Center, are to be calculated as follows:

1) Daily Maintenance Expenses: RP41,032,000/year

Expenses for necessary parts, cleaning detergent, and oil are taken into account, excluding reagents, consumable goods, and personnel cost. Considering the situation within Japan, such expenses are estimated at 1% of material prices.

2) Maintenance Contract Expenses: RP97,402,000/year

Maintenance contract covers equipment for central sterilizing supply department, laboratory, X-ray diagnosis, and CT scanner, which all have many parts, are difficult to adjust, and are particularly useful in emergencies. Expenses for regular inspection, parts replacement, and transport are included. Considering the situation in Indonesia, such expenses are estimated at approximately 5% of the projected equipment prices.

3) Trouble Shooting Expenses: approximately RP20,779,000/year

With regard to equipment other that mentioned in 2), repair expenses are estimated at 1% of equipment prices.

Maintenance and management costs for medical equipment are as shown below:

Table 104 Maintenance and management costs for medical equipment

Items	
Reagent and repairs	87,970,000
Daily maintenance	41,032,000
Maintenance contract	97,402,000
Trouble shooting	20,779,000
Total	247,183,000

The budgetary measures shown in Table-76 indicate an annual medical equipment maintenance cost of RP200,000,000. This is relatively close to the result calculated using the above-mentioned estimates. Therefore, maintenance and management costs for medical equipment are presumed to be within the adjustable range of the budget.

CHAPTER 7 PROJECT EVALUATION

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7-1 Expected Results of the Project

The implementation of the project is expected to produce the following results.

(1) Direct benefits

① Establishment of a wide area emergency referral system

The area to be covered by the emergency medical services of this project extends approximately 1,600 kilometers from east to west, a distance which corresponds to the length of the main of Japan. In order to enhance emergency medical standards and improve the quality of medical services for this vast area, the optimal means at present is to establish an efficient referral system by which each patient can enjoy the best possible medical care according to his/her condition.

Toward this end, the Emergency Medical Center will be furnished with the facilities and apparatuses necessary to provide a high-level referral service. The project will help realize a wide area emergency referral system in the region, and the center will be at the top of the referral framework.

It is also planned that the center will perform training functions for the staff of lower level medical facilities. It is therefore expected that the technical and intellectual level of those individuals will be enhanced, and that thereby the comprehensive referral system will function well.

Based on the above-mentioned framework and supportive activities, it will be possible to build up the emergency referral network and to establish under the center a wide area emergency referral system integrating the 27 class C and class D hospitals and about 390 health centers existing in the region.

② Improvement of emergency medical services and life-saving success rates

The top referral function to be fulfilled by the center does not simply consist of high level diagnosis and treatment services which may be applied to tertiary patients; it also provides comprehensive medical services to meet the various needs of the emergency patients who are referred to this center.

The top referral function enables the center to cope with patients in serious condition who formerly had to be transferred to the RSCM Emergency Medical Center in Djakarta or to overseas medical institutions. The center will also provide appropriate services to less serious emergency patients through its newly added emergency obstetrical section, improved clinical examination facilities, and central material laboratory. It is thereby expected that the project will contribute to increasing lifesaving success rates which are comparable to or exceed the achievements of the RSCM Emergency Medical Center.

③ Training of emergency medical specialists and development of related activities

In Indonesia, doctors who have completed medical courses in universities usually work for several years at poorly equipped health centers before becoming trainees at hospitals where they will become qualified specialists. There are, however, a considerable number of competent doctors who give up the chance to become specialists for economic reasons, because the acquisition of a specialty doctors certificate requires three to eight years' training.

For this reason, the number of specialists in each medical field is very limited. Emergency medical specialists are especially scarce due to limited training opportunities.

This center will provide young trainee-doctors with good training opportunities by employing a rotation system based on the one-gate system. At the same time, the center will provide practical training to paramedics, serving as an educational institution attached to Udayana University. The project is therefore expected to contribute to producing young and competent emergency medical specialists who will no doubt serve

to improve the medical standards of other regions in the future. Their services will help to develop the various activities related to emergency medicine.

④ Upgrading the overall medical standard of the regin

The center will provide training for 30 doctors and 30 nurses from lower grade medical facilities each year. They will receive theoretical and practical training regarding emergency medicine and then return to their respective locations of service. These medical personnel are to be engaged not only in emergency medical services in each area but also to serve as teachers of hygiene to rural people, and to improve the standards of basic medicine and public hygiene in remote regions.

In addition, the center will dispatch doctors and nurses from Sanglah Hospital to remote areas in order to aid in the spread of public health and hygiene information and to provide simple treatment.

By means of these two-way educational and training functions, the project is expected to contribute to upgrading lower level medical facilities and enhancing preventive knowledge about diseases for the people who have had little opportunity to enjoy proper medical services until now, and for those in remote areas who have had no access to emergency medical facilities. It is thereby expected that the center will save many lives which may otherwise be lost due to infectious or endemic diseases.

(2) Indirect benefits

① Promotion of National Health System

The project will serve to expand the wide area emergency referral network and thereby provide people in remote areas with opportunities for appropriate medical services which they were unable to receive in the past. This means that the project will contribute to the promotion of a national health system, which is the main theme of the Indonesian Government's medical policy, and which has as its key concept the idea that all people can enjoy comprehensive medical services of an equal level.

② Model project for other areas in similar situations

The project aims at establishing a wide area emergency referral system covering four islands (states) as an integ

rated medical area with the new Emergency Medical Center performing the top referral function.

From such a viewpoint, the present project will serve as a model for future projects which will be implemented for the same purpose in many other areas in Indonesia under similar geographical conditions. Moreover, implementation of the project will set a precedent for the improvement and integration of national medical services covering the entire nation, Which will be implemented based on the government's Sealink Plan.

③ Upgrading each department at Sanglah Hospital

The facilities and medical equipment to be supplied at the center will be operated by the medical staff of each department at Sanglah Hospital in accordance with the one gate system. Doctors and nurses who have had to work with limited equipment and facilities will now be able to undergo practical training for emergency medicine using the new center. This will hopefully result in the improvement of overall medical performance at Sanglah Hospital.

(3) Other supplementary benefits

① Indirect contribution to the development of tourism

Bali, the island on which the project will be implemented, is a key area for tourism development. The Indonesian Government places great emphasis on tourism as a means of earning foreign currency and expanding employment opportunities. The number of tourists visiting this island is increasing year by year.

In line with such circumstances, the occurrence of accidents involving tourists is increasing. The number of tourists who received treatment at Sanglah Hospital in fiscal 1987 was 659. It is therefore desirable to improve medical facilities and emergency medical services in this area from the viewpoint of tourism promotion in and around Bali.

The high standard of medical services and establishment of an emergency medical system to be provided by this center will make it possible to satisfy the demand for appropriate emergency services for tourists and thereby make a great contribution to the development of tourism in the region. As a result, the project will help to promote regional economic development.

② Response to natural disasters, airplane accidents and other contingencies

It is considered necessary to ensure appropriate measures on Bali to prepare for such natural disasters as volcanic eruptions, landslides, and tidal waves (tsunami) resulting from volcanic activities, as well as for airplane accidents which might take place at any moment due to the increased demand for air transportation in recent years.

The center will serve to improve medical deployment for such disasters because of its highly sophisticated emergency medical functions, coordination with Sanglah Hospital to make total medical care possible, and use of mobile ICUs which are quite effective in emergency rescue activities.

7-2 Appropriateness of the Project

(1) As already stated, the main purpose of the project is to build up a wide area referral network in the projected area. With the new Emergency Medical Center of Sanglah Hospital at the top of the referral system, the project is aimed at establishing a wide area emergency medical system in line with the Indonesian Government's Sealink System, and also at improving the infrastructure for the regional community medical network which should support such a system. It is consequently expected that the project will serve to promote the national health system, which is the main theme of the Indonesian Government's health policy.

The activities of the center are expected to meet the demand for various emergency medical services in the projected area by providing the highest level (tertiary) of services. It is thus planned that the

lifesaving success rate in the area will be greatly improved. The center will also provide appropriate medical treatment at minimal or no cost to the majority of inhabitants who belong to low-income groups. Furthermore, the educational and training functions of the center will contribute to the upgrading of the skills and knowledge of the personnel working at lower level medical facilities. Moreover, through the use of mobile clinics and educational activities, the project will spread basic knowledge concerning public hygiene to the people in remote areas and thus help to prevent the occurrence of infectious and endemic diseases. Consequently, the demand for emergency medical services resulting from such diseases will be reduced.

Judging from the above considerations, it is evident that the project will not only meet the national and social needs of the country, but it will also satisfy the basic human needs of the Indonesian people.

(2) The project is highly practicable because it has the following advantages in terms of its operation, maintenance and administration.

a. The project is categorized as an improvement and expansion project for the existing facilities (emergency section) of Sanglah Hospital, a hospital under the direct administration of the Ministry of Health. Since it is not regarded as a new project of this ministry, it has the procedural benefit of not requiring any new national budgetary appropriation with respect to the operation, maintenance and administration of the center as well as to the employment of additional staff.

b. The annual budget for the operation, maintenance and administration of the center will be allocated from the overall budget for hospital expenditures. Furthermore, the project costs to be defrayed by the Indonesian side, as well as the expenses for various activities to be conducted after completion, are both expected to be accommodated by the ordinary and developmental budget of the Ministry of Health.

c. It goes without saying that the center is an entity aimed at public welfare. Accordingly, it does not pursue profit as its main objective.

However, its location on Bali will bring in considerable income from nonresidents such as tourists and special patients from outside of the island. It is also expected that the center will earn income through medical services entrusted to it by tourist facilities including hotels and inns. Such income will provide the center with an extra source of funds for its operation, maintenance and administration which are not available to the RSCM Emergency Medical Center at Djakarta.

d. There is no need to employ new medical personnel for the center because its activities will be carried out by the staff of each department of Sanglah Hospital under the one-gate system arrangement. In addition, since the hospital serves as a teaching hospital for the School of Medicine of Udayana University, the center is furnished with an adequate number of interns and paramedics with which to provide round-the-clock services.

CHAPTER 8 CONCLUSION AND RECOMMENDATIONS

CHAPTER 8 CONCLUSION AND RECOMMENDATIONS

8-1 Conclusion

As noted in the previous chapters, the construction of the Emergency Medical Center and the provision of necessary equipment for it are justifiable as a project to be implemented with Japanese grant aid. The thrust of the project is summarized as follows:

(1) The center will be the first medical institution that has a top referral function in the vast Nusatengara region. The wide area emergency referral system to be established by the project will drastically improve the level of emergency medical services in the region which as of now rank far behind those of Java.

(2) The center will provide comprehensive diagnostic and treatment services including those for primary and secondary patients, as well as for tertiary emergency patients. It will therefore offer high quality services not only to patients in critical condition but also to patients with diverse conditions.

(3) The above-mentioned functions of the center will give the low-income population of the area, who have had not prior access to proper medical services, an opportunity to enjoy various medical services at low cost. The project is accordingly expected to decrease the mortality rate and help to fulfill the basic human needs of the local inhabitants.

(4) The educational programs to be provided by the center on a regular basis will constitute good training for emergency medical specialists and bring about progress in the study of emergency medicine. Furthermore, the theoretical and practical training of the medical personnel of lower grade institutions will enhance their skills and knowledge of emergency medicine and expand the scope of their activities, which will eventually serve to upgrade the bottom line of the medical services of the region.

(5) Lack of doctors required for the smooth operation of this center will not be a problem because Sanglah Hospital will also serves as an educational hospital for the medical school of Udayana University.

(6) In view of the geographical characteristics of Indonesia as an archipelagic country, the project will serve as a model for creating a wide area emergency medical system in various other regions which are similar to the project area(Nusatengara region).

(7) The project has been designed with due consideration given to the emergency medical circumstances in Indonesia, and in particular to those in the Nusatengara region. The activities and operations to be conducted by the center, as well as the equipment to be installed therein, have been selected through adequate discussions between Indonesian and Japanese experts. They are not of the highest grade but they have been deemed appropriate.

Efforts have also been made in the designing of the facility to reduce operating costs imposed on the Indonesian executive agency. The floor plan and piping have been designed to ease of maintenance and operation after completion of the center. The center will be administered without imposing too much burden on the budgetary framework of Sanglah Hospital.

8-2 Recommendations

The success of an emergency medical center depends both on its hardware, such as facilities and equipment, and on such factors as maintenance, operation, and administration, along with its personnel. In order to fully utilize the facilities of the center, and to carry out emergency medical services smoothly, the following recommendations are made to the Indonesian Government. It is hoped that the project will achieve its planned objectives by reflecting these recommendations.

(1) To strengthen the referral system in which the center may perform its functions as a tertiary emergency medical center. To upgrade the level of emergency medical service in class C and class D hospitals under the Sealink System, and by so doing, reduce the burden on the center.

(2) To eliminate regional disadvantages by applying the same budget system to the center as was implemented at RSCM Emergency Medical Center.

(3) To encourage self-help efforts which will accomplish technology transfer through the active exchange of doctors and paramedics with RSCM Emergency Center.

(4) To rehabilitate the emergency transportation and telecommunication systems and strengthen the initial actions of emergency medical services.

(5) To educate all the staff of Sanglah Hospital to the importance of hygiene, so that such facilities as the operating room, ICU, delivery room, newborn baby room, etc., which require special attention, can be kept clean.

APPENDIX

1. Minutes of Discussions (Basic Design Study)

MINUTES OF DISCUSSIONS
ON
THE BASIC DESIGN STUDY
ON
THE PROJECT FOR THE CONSTRUCTION OF
A NEW EMERGENCY UNIT OF RSUP SANGLAH, DENPASAR, BALI
IN
THE REPUBLIC OF INDONESIA

In response to the request made by the Government of the Republic of Indonesia, the Government of Japan decided to conduct a Basic Design Study on the Project for the Construction of a New Emergency Unit of RSUP Sanglah, Denpasar, Bali (hereinafter referred to as "the Project") and the Japan International Cooperation Agency (JICA) has sent the Basic Design Team (hereinafter referred to as "the Team") headed by Dr. Nobuya NAKAMURA, Public Officer, Medical Professions Division, Health Policy Bureau, Ministry of Health & Welfare, from September 13 to October 8, 1988.

The Team has a series of discussions with the authorities concerned of the Government of the Republic of Indonesia and conducted a field survey.

As the result of the study, both parties have agreed to recommend to their respective Government that the major points of understanding reached between them as attached herewith should be examined towards the realization of the Project.

Jakarta, September , 1988

Dr. Nobuya NAKAMURA
Leader
Basic Design Study Team
JICA

Dr. BROTO WASISTO M P H
Director General for Medical Care
Ministry of Health of
the Republic of Indonesia

ATTACHMENT

1. The objectives of the Project is to establish a New Emergency Unit of RSUP Sanglah, Denpasar, Bali, which will provide an improved emergency medical care, based on the National Health System, through construction of an emergency unit building, supply and installation of medical equipment.

2. The Ministry of Health of the Republic of Indonesia is responsible for administration and execution of the Project.

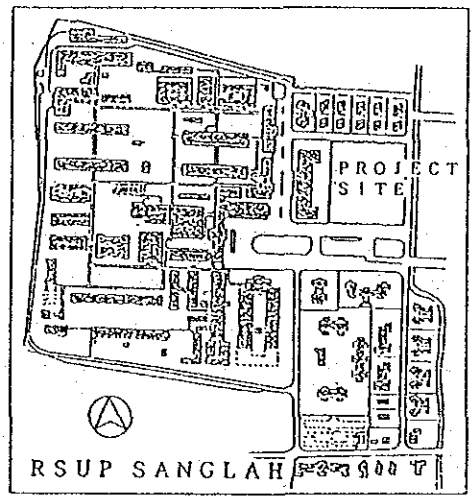
3. The Project site is located at the east side of RSUP Sanglah Complex, Denpasar, Bali as seen in Annex I.

4. The Team will convey to the Government of Japan the desire of the Government of Indonesia that the Government of Japan takes necessary measures to cooperate by providing the necessary facilities and other items listed in Annex II within the scope of Japanese economic cooperation program in grant form.

5. The Indonesian side has understood the Japanese Grant Aid System explained by the Team including a principle of use of a Japanese consulting firm, a Japanese general constructor for the construction of building and a Japanese supplier for the provision of medical equipment.

6. The Government of Indonesia will take necessary measures as listed in Annex III on condition that the Grant Aid by the Government of Japan would be extended to the Project.

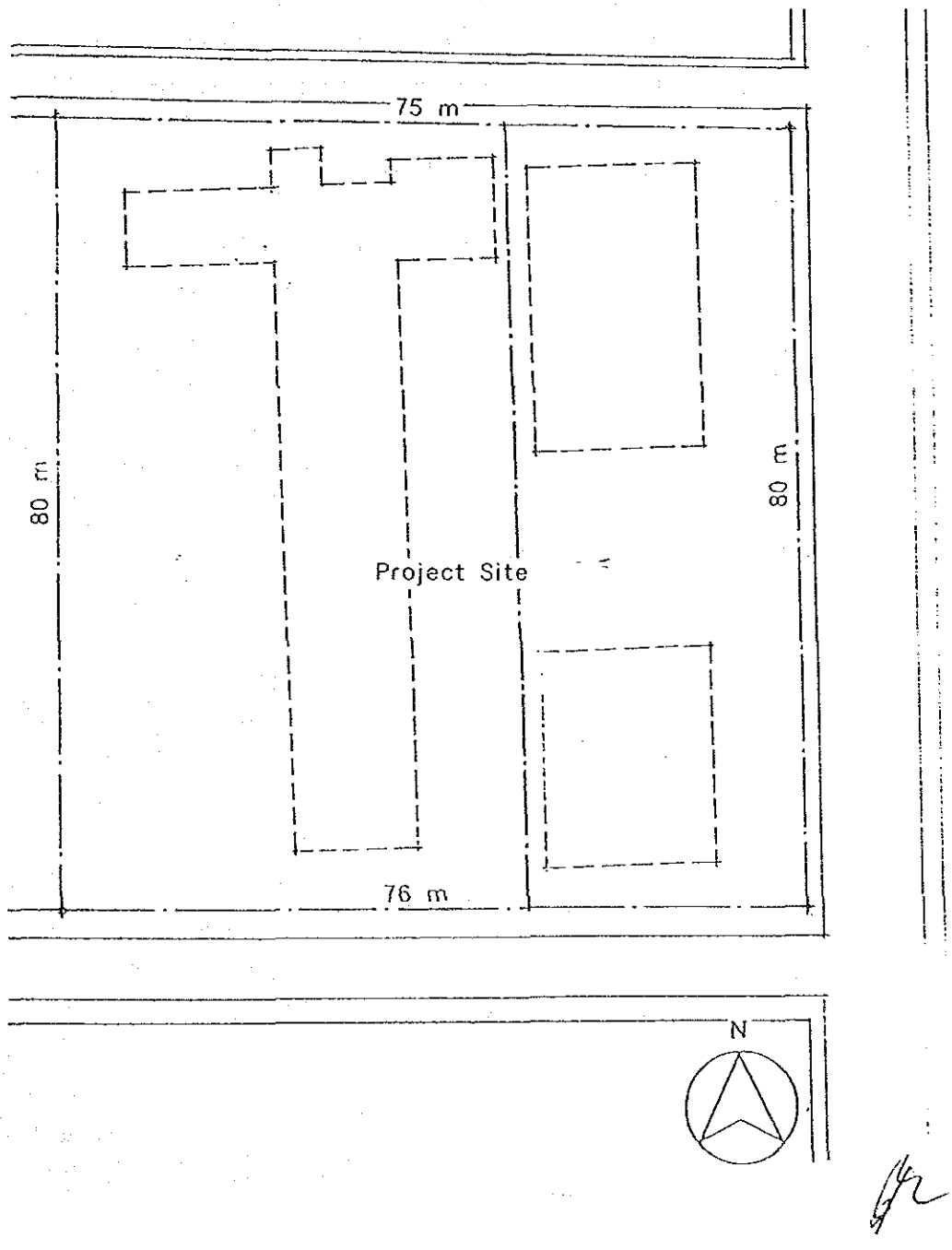
Annex I



Legend

Existing building to be demolished.

Existing boundary wall to be demolished.



ANNEX II

The basic function of the New Emergency Unit will cover the medical care in the field of; (1) Surgical emergency, (2) nonsurgical emergency. Items required by the Government of Indonesia which cost will be borne by the Government of Japan are as follows :

(1) Construction of facilities :

1) Initial Emergency Treatment
2) Emergency Examination
3) Emergency Surgery and Delivery
4) Emergency Hospital Care
5) Management of Emergency Services
6) Education of Emergency Medicine
7) Others

(2) Medical Equipment for :

1) Initial Emergency Treatment
2) Emergency Examination
3) Emergency Surgery and Delivery
4) Emergency Hospital Care
5) Education of Emergency Medicine
6) Others

ANNEX III

1. To carry out site preparation such as demolishing the existing buildings and boundary wall, clearing and leveling the site prior to the commencement of the construction work.

2. To undertake incidental out-door works such as gardening and fencing gates.

3. To provide facilities for distribution of electricity, water supply, telephone line, drainage and other incidental facilities to the proposed site before the commencement of the construction work :
   (1) Electricity distributing line to the site
   (2) City water distribution main to the site
   (3) Drainage city main to the site
   (4) Telephone trunk line to the main distribution panel of building

4. To provide general furnitures such as carpets, curtains, tables, chairs and others.

5. To bear commissions to the Japanese foreign exchange bank for the banking services upon the Banking Arrangement.

6. To ensure prompt unloading, tax exemption, customs clearance at the port of disembarkation in Indonesia and prompt internal transportation of equipment and materials provided under the Grant.

7. To exempt Japanese Nationals involved in the Project from custom duties, internal taxes and other fiscal levies which may be imposed in Indonesia with respect to the consulting firm, the constructor and the supplier under the verified contracts.

8. To accord Japanese Nationals mentioned in item 7 under the verified contracts to enter into Indonesia and stay therein for the performance of their work.

9. To maintain and use properly and effectively the facilities constructed and equipment purchased under the Grant.

10. To bear all the expenses, including V.A.T. (Value Added Tax), other than those to be born by the Grant, necessary for the construction of the facilities as well as for the transportation and the installation of the equipment.

2. Minutes of Discussion (Draft Report)

MINUTES OF DISCUSSIONS
ON
THE REPORT OF THE BASIC DESIGN STUDY
ON
THE PROJECT FOR THE CONSTRUCTION OF
A NEW EMERGENCY UNIT OF RSUP SANGLAH, DENPASAR, BALI
IN
THE REPUBLIC OF INDONESIA

In response to the request made by the Government of the Repbulic of Indonesia, the Government of Japan decided to conduct a basic design study on the Project for the construction of a New Emergency Unit of RSUP Sanglah, Denpasar, Bali(hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency(JICA). JICA sent to the Republic of Indonesia the study team from September 13 to October 8, 1988.

As the result of the survey and discussions, JICA prepared a Draft Final Report on the study and dispatched the second mission headed by Dr.Nobuya NAKAMURA, Public Officer, Medical Professions Division, Health Policy Bureau, Ministry of Health and Welfare, to explain and discuss it from February 12 to 21, 1989.

Both parties had a series of discussions on the Report and have agreed to recommend to their respective Governments that the major points of understanding reached between them, attached herewith, should be examined towards the realization of the Project.

Jakarta, February 16, 1989

Dr. Nobuya NAKAMURA
Leader
Draft Final Report Explanation Team
of Basic Design Study
JICA

Dr. BROTO WASISTO, MPH
Director General of Medical Care
Ministry of Health
Republic of Indonesia.-

ATTACHMENT

1. The Indonesian side has agreed in principle to the basic design proposed in the Draft Final Report.

2. The Indonesian side has understood Japan's Grant Aid System and reconfirmed the necessary measures to be taken by the Government of the Republic of Indonesia which are manifested in the AnnexIII of the "Minutes of Discussions" on the Project signed on September 29, 1988, on condition that the Grant Aid by the Government of Japan would be extended to the Project.

3. The Government of the Republic of Indonesia will release the necessary budget at the proper time according to the construction schedule.

4. The Final Report(10 copies in English) on the Project will be submitted to the Indonesian side within March 1989.

3. Additional Basic Plan for Training of Emergency Medicine

DIRECTORATE GENERAL FOR MEDICAL CARE

MINISTRY OF HEALTH
REPUBLIC OF INDONESIA

RAPATAN 10 - JAKARTA

TEL : 347107
349801/75

EF

NCL

Dr.Nobuya Nakamura

Team Leader - Basic Design Team
Project for the construction of
new Emergency Unit -,Sanglah
Hospital , Denpasar , Bali.

October 6 , 1988.

Re : Basic plan for training of
emergency medicine.

Dear Dr. Nakamura ,

In connection with the Minutes of Discussion of the captioned project, we are pleased to submit to you the following additional basic plan for your further study as follows:

1. Purpose

The Government of Indonesia has performed Repelita's (Five Year Development Plan) since 1969 and in the Pelita IV which began in 1984, health care is placed as apriority to be achieved through programs based on National Health System (SKN)>
Under this major policy, anew emergency unit will be constructed in RSUP SANGLAH as atop referal hospital which covers the area of Bali and other province of West Nusa Tenggara, East Nusa Tenggara and East Timor, under the name of Grant Aid Project by The Government of Japan.
And also the new unit is to be functioned as the center of training and upgrading of emergency medicine and relevant field of the qualified personnels in medical field in the area and post graduated medical students of UDAYANA University.
For the full utilization of emergency unit effectively and efficiently and for the improvement of Emergency Medicine, and the qualified personnels in RSUP Sanglah, from other C & D class hospitals including health centers, these resident doctors in the areas and paramedical staffs such as nurses, medical technicians and post graduated medical students of UDAYANA University shall be trained in technical and managerial aspects of emergency relevant field medicine at the new unit in Bali.

2. Basic Plan

2.1. The following facilities shall be furnished in a new emergency unit;
(1)Required Room
1> A Lecture Room for maximum 30 trainees.

2> A Training Room for maximum 30 trainees.
3> A Store Room for storage of training equipment.
4> Each one Lodging Room for man max. 10 persons and for woman max.20 persons.

(2)Equipment for Lecture and Training

(2)-1. For Lecture Room
1> Audio Visual system.
2> Slide projector and screen.
3> Over head projector and screen.
4> T/V screen of close circuit T/V unit.
* Camera shall be installed with operating room light in operating room.
5> Others.

(2)-2. Training Room and Store Room.
1> Phantom.
2> T/V screen of close circuit T/V unit
3> Resusitator and Ventilator.
4> Bandaging and plaster gypsum application training kits.
5> Bag and masque kits.
6> Laryngoscope, incubation set.
7> Others.

(2)-3. Lodging Room.
1> Bed.
2> Living facilities.
3> Others.

2-2. Trainer

A few trainers willbe assigned from the doctors in RSUP SANGLAH, who are familiar to Emergency Medicine.

2-3. Education Program Plan.

(1) About 30 trainees will be trained together for a period of 20 to 30 days per one class.
(2) Five to six classes of the education per year will be held.

2-4. Supporting Facilities.
(1) Mini Bus (Two Units).

We appreciate your kind attention for this additional request.

Sincerely yours,

Dr. Soemarja Aniroen. MHA

Necessity for minibuses and lodging facilities for the training of emergency medicine

- Mini Bus

For the smooth execution of the training and to minimize the number of trainees who shaal stay in the New Emergency Unit, at leas 2(two) Units of mini bus will be required for the transportation of the trainees who are living within Badung area. RSUP Sanglah will decide the bus stop at two points (some where in Badung area) considring of trainee's living area for each batch of training course and the trainees will gather at the points every morning by specified time for effective utilization of the transportation system.
During the off training, the minibuses will be utilizet for the circulating visits to class C and D. hospitals, health centers and resident doctor clinics in Bali island for the improvement and/ or support of emergency medicine periodically

- Lodging facility

Besides above trainees, some trainees who will participate the training course from outside of Badung area and also from west and east Nusa Tenggara and East Timor shall be a ccomadated in New Emergency Unit. Therefore, in order to minimise the running cots of training and its smooth fulfillment the lodging facilities for male 10 numbers and for female 20 numbers are required.

Necessity of close Circuit TV

For the education and up graiding of emergency medicine in short term training, the exact treatment methods which shall follow the real conditions in the areas shall be intruduced to the trainees properly.
Concerning of the above, Close circuit TV system consists of TV cameras furnished with operating room light, TV screens and Vidio recorder, etc. shall be required in the New Emergency Unit.

Outtline of Trainee

As the center of education of emergency medicine and general medicine, the New emergency Unit will reciive the following trainees :

1. Medical Paractitioners, such as doctor, specialist, general practicum from RSUP SANGLAH, class C and D hospitals, health center and clinic.
   : 274 person.

2. Post graduited students of UDAYANA University, medical Departement.
   : 45 person.

3. Nurses and paramedics from RSUP SANGLAH, class C and D hospitals, health centers and clinic.
   : 1.624 person.

Incentive after Completion of Training

For the improvement of consciousnees of the trainees, RSUP SANGLAH will confer the certificate of training of emergency medicine under the name of MINISTRY OF HEALTH to the trainees ter completion of Training.

CURRICULUM OF MEDICAL EMERGENCY TRAINING FOR DOCTORS

I

NO.	SUBJECTS	DURATION
1.	Organition of Emergency medical servise	4 hours
2	Opthalmic Emergency	4 hours
3	Intoxication	3 hours
4	Burn treatment	3 hours
5	Cardiac arythmia	4 hours
6	Pediatric Emergencies	8 hours
7	Drug abuse management	6 hours
8	Obtetrical and gynocologycal Emergency	2 hours
9	Resuscitation	10 hours
10	Bone Fractur management	2 hours
11	Transfortation of patient with bone fracturs	2 hours
12	Thoracic and abdominal emergencies	2 hours
13	Hemorrhage	2 hours
14	Resuscitation (practice)	8 hours
15	Myocardial infaction	3 hours
16	Neurological emergencies	6 hours
17	Examinations (theories and practice)	8 hours

II. Duration : 30 days (including on the job training and clinical practice)

III. 2 Slots per year

IV. Namber of trainees slot

V. Trainees general practicum from class C and D hospitals, health centers and Dentist.

CURRICULUM OF MEDICAL EMERGENCY FOR NURSES.

NO	SUBJECTS	DURATION
1	Organisition of emergency	2 hours
2	Disaster medical services	1 hours
3	Bone fracture	2 hoursw
4	Facial trauma	3 hours
5	Status asthmaticum	3 hours
6	Obtetrical emergency	3 hours
7	Cardio pulmonary ressusitation	2 hours
8	Opthalmic emergencies	4 hours
9	Cardiac emergencies	3 hours
10	Shock management	2 hours
11	Cardio pulmonari ressusitation (practice)	9 hours
12	Psychiatric emergencies	2 hours
13	Pharmacology	2 hours
14	Cardio pulmonary ressusition in drowning	2 hours
15	Acute allergy	2 hours
16	Facial trauma	2 hours
17	Intubation	2 hours
18	Policy of Ministry of Health	2 hours
19	Management of infection	2 hours
20	Child and infants emergencies	4 hours
21	E N T emergenceis	4 hours
22	E C G	3 hours
23	Fluid and electrulyte therapy	2 hours

24	Psychiatric emergenceis	2 hours
25	C N S disturbances and its management	2 hours
26	Pharmacology	2 hours
27	Medical emergenceis	3 hours
28	Decision making	2 hours
29	Legal aspects in E M S	2 hours
30	Role of nurses in E M S	2 hours
31	Animal bites	4 hours
32	W S D application	2 hours
33	Thoracic and abdominal trauma	3 hours
34	Management of respiratory disturbances	2 hours
35	Tracheotomy	1 hours
36	Communication	1 hours
37	C V P	2 hours
38	Nursing Care	2 hours
39	Group dynamics	1 hours
40	Pre - examinations	6 hours
41	Examination (sortted)	6 hours
42	Examinations (practicum)	12 hours

II. Duration : 12 weeks

III. 2 slots per year

IV . Namber of trainer : 30 per slot

V . Traineer - nurses and paramedics

4. Member List of the Basic Design Study Team

4-1 Basic Design Study

Name	Assignment	Present Post
Dr. Nobuya Nakamura	Team Leader	Deputy Director, Medical Professions Div., Health Policy Bureau, Ministry of Health and Welfare, The Government of Japan
Dr. Chiaki Miyoshi	Emergency Medical Service	Medical Officer, Division of Export Service, Dept. of International Cooperation, National Medical Center Hospital, Ministry of Health and Welfare, The Govvernment of Japan
Mr. Mitsuyoshi Kawasaki	Project Coordination	Staff First Basic Design Study Div., Grant Aid planning and Survey Dept., Japan International Cooperation Agency
Mr. Kazuteru Ushioda	Architectural Planning	Director-Architect Overseas Projuect Developemnt Dept., Satow Architects & Engineers Co., Ltd.
Mr. Sero Okada	Architectural Design	Senior Architect, Overseas Project Development Dept., Satow Architects & Engineers Co., Ltd.
Mr. Naoki Wakata	Mechanical Planning	Chief Engineer, Design and Engineering Dept. Satow Architects & Engineers Co., Ltd.
Mr. Kazumichi Nagashima	Medical Equipment Planning	Manager, Central Laboratory, Institute of Hospital System Development

4-2 Draft Report

Name	Assignment	Present Post
Dr. Nobuya Nakamura	Team Leader	Deputy Director, Medical Professions Div., Health Policy Bureau, Ministry of Health and Welfare, The Government of Japan
Mr. Osamu Kosegawa	Project Coordination	Staff First Basic Design Study Div., Grant Aid Planning and Survey Dept., Japan International Cooperation Agency
Mr. Kazuteru Ushioda	Architectural Planning	Director-Architect Overseas Project Development Dept., Satow Architects & Engineers Co.,Ltd.
Mr. Sero Okada	Architectural Design	Senior Architect, Overseas Project Development Dept., Satow Architects & Engineers Co., Ltd.
Mr. Kazumichi Nagashima	Medical Equipment Planning	Manager, Central Laboratory, Institute of Hospital System Development

5. Itinerary of the Basic Design Study Team

5-1 Basic Design Study

Date	Items/Contents of Study
Sept. 13th (Tue)	Arrive at Jakarta (GA-873)
14th (Wed)	Meeting with Embassy of Japan and JICA Office Courtesy call at MOH: Submission of the Inception Report and Questionnaire, Discussion with MOH and authorities concerned
15th (Thu)	Observation of: - Fatmawati Hospital - Pusat Pertamina Hospital - Tarakan Hospital - Persahabatan Hospital
16th (Fri)	Discussion with MOH and authorities concerned.
17th (Sat)	Discussion with MOH and authorities concerned.
18th (Sun)	Team Discussion Arrangement of survey results and collected data.
19th (Mon)	Observation of RSCM On-site survey of facilities, equipment and medical service activities
20th (Tue)	*a.m.* Discussion with concerned officials of RSCM on organizational framework for operation and maintenance, etc. Leave Jakarta to Denpasar. *p.m.* Courtesy visit ot RSUP Sanglah Observation of activities Discussions and confirmation of inter/intra institutional framework for implementation of the Project and etc.

Date	Items/Contents of Study
Sept. 21st (Wed)	Courtesy call on the Govern of Bali Discussion with concerned officials of RSUP Sanglah Observation of activities Discussion and confirmation of inter/intra institutional framework for implementation of the Project and etc.
22nd (Thur)	*a.m.* Observation of relevant facilities in Denpasar and its surrounding area.
	p.m. Leave Denpasar to Jakarta
23rd (Fri)	Deliberations on the Minutes of Discussions
24th (Sat)	Signing of the Minutes of Discussions Reporting to the Embassy of Japan and JICA Office.
25th (Sun)	Leave Jakarta to Tokyo (GA872)

Remarks: Consultant's team was to remain in Indonesia (Jakarta, Denpasar) for continuing the Survey from September 25th to October 7th, and leave Jakarta on October 8th.

5-2 Draft Report

Date	Items/Contents of Study
Feb. 12th (Sun)	Arrive at Jakarta (GA-873)
13th (Mon)	Meeting with JICA Office
	Courtesy call at MOH: Submission of the Draft Final Report, Discussion with MOH and authorities concerned
14th (Tue)	*a.m.* Meeting with Embassy of Japan
	p.m. Leave Jakarta to Denpasar.
15th (Wed)	Courtesy call at RSUP Sanglah: Submission of Draft Final Report, Discussion with MOH·RSUP Sanglah and authorities concerned.
16th (Thu)	Signing of the Minutes of Discousions Reporting to the Embassy of Japan and JICA Office.
17th (Fri)	*a.m.* Courtesy call at SECAB
	p.m. Leave Jakarta to Tokyo (GA872)

Remarks: Consultant's team was to remain in Indonesia (Jakarta, Denpasar) for continuing the Survey from February 18th to February 20th, and leave Jakarta on February 20th.

6. Member List of Authorities Concerned

MOH

Dr. Brotowasisto M.P.H.	Director General Directorate General for Medical Care
Dr. Soemarya Aniroen M.M.A.	Director Directorate for Special and Private Hospitals
Dr. H. Boedihartono M.H.A.	Director Directorate for Public and Teaching Hospitals
Mr. Soeripto Soetiyadi	(Former) Director Directorate for Health Facilities
Mr. IR Soediman	Director Directorate for Health Facilities
Dr. H. Abdul Radjak	Chief, Sub Directorate for Emergency and Evacuation Services
Dr. Bagus Mulyadi	Chief, Sub Directorate for Teaching Hospitals Medical Care
Mr. Saryana B.S.C.	Chief, Financial Division Directorate General for Meidcal Care
Dr. Nurul Ainy Sidik	Directorate for P.S. Umdik.

SEKAB

Mr. Moersrlin Parindyri	Bureau of Foreign Technical Cooperation
Mr. D. Burhanudin	Chief, Sub Section for Colombo Plan

Provincial Government of Bali

Prof. Ida Bagus Oka M.D.	Governer

RSCM Emergency Medical Care Center

Dr. Hermansjur Kartowisastro	Director Emergency Department
Dr. Husni Azis Natawiyan	Vice Head Emergency Department

RSUP Sanglah

Dr. I Gusti Agung Gde Oka M.P.H.	Director
Drg. Made Rudita	Vice Director
Dr. Ketut Suanda	Health Service
Dr. Nyoman Sukerena	Emergency Department
Drs. Ketut Nadra	Programming and Reporting

Embassy of Japan

Mr. Toshiro Nakagaki	Second Secretary

JICA Indonesia Office

Mr. Yasuo Kitano	Resident Representative
Mr. Mikiharu Sato	Deputy Resident Representative
Mr. Toru Taguchi	Assistant Resident Representative