

CHAPTER 3 IMPLEMENTATION PLAN

CHAPTER 3 IMPLEMENTATION PLAN

3-1 Implementation Plan

3-1-1 Implementation Concept

(1) Project Implementation Policy

This project is to be implemented with the grant aid cooperation of the Government of Japan, subject to the Government of Japan's approval at a Cabinet meeting and the conclusion of an Exchange of Notes between the governments of the two countries.

The contents of the Project is as shown below.

Construction Work

- Construction of Laundry Building and Incinerator Building
- Construction of Kalyanpuri Urban Health Centre
- Installation of deep tube well in Palam Primary Health Centre

Equipment Supply & Installation Work

- Supply & installation of medical equipment for Central Building & Workshop/substation Building of KSCH
- Supply & installation of equipment for Laundry Building and Incinerator Building
- Supply & installation of medical equipment for Kalyanpuri Urban Health Centre
- Supply & installation of medical equipment for Palam and Najafgarh Primary Health Centre

At the time of Basic Design Study, it was planned that all works mentioned above were to be implemented together as phase 2. Since the schedule for

At the time of Basic Design Study, it was planned that all works mentioned above were to be implemented together as phase 2. Since the schedule for Phase 1 delayed much due to the delay of procedures of Indian side such as getting EFC approval, obtaining building permit etc., phase 2 will be implemented with dividing it into two portions. A part which is able to implement at present as phase-2A, others as phase-2B.

Necessary undertaking by Indian side to commence the works are as follows.

- Construction of Laundry Building

Demolish the existing building in the site and obtain the building permit.

- Construction of Incinerator Building

Clear the obstacles (include cutting of trees) in the site and obtain the building permit.

- Construction of Kalyanpuri Urban Health Centre

Demolish the existing building in the site and obtain the building permit.

1) Present condition of aforementioned undertakings by Indian side

1. Laundry Building

The building permit has already been obtained. As for the demolishing of existing building, it is under the procedure and will be likely to complete by end of March, 1998.

2. Incinerator Building

The building permit has already been obtained. As for the clearance of obstacles 3 to 4 months will be necessary to obtain the authority for cutting trees.

3. Kalyanpuri Urban Health Centre

It is under the procedure for obtaining the building permit. Minimum 3 months will be necessary to obtain said permit. As for the demolishing of existing building, 2 to 3 months will be required.

2) Project implementation

Considering the present condition of necessary undertakings by Indian side to commence the project, the project will be divided into two phases, phase 2A and Phase 2B. The contents of each phase is shown as in the table below.

Table 3-15 Scope of Work by Phases (indicate completed in phase 1)

Phase 1	Construction	■ Kalawati Saran Children's Hospital Construction of Central Bldg. & Workshop/Substation Bldg.
	Supply & Installation of Equipment	■ Kalawati Saran Children's Hospital Equipment for Radiology, Dept., Operation Theatre, Central Supply & Sterilization Dept.
Phase 2A	Construction	■ Kalawati Saran Children's Hospital Construction of Laundry Bldg. ■ Palam Primary Health Centre Installation of deep tube well
	Supply & Installation of Equipment	■ Kalawati Saran Children's Hospital Equipment for Central Bldg., Workshop/Substation Bldg., Laundry Bldg. ■ Equipment for Palam Primary Health Centre ■ Equipment for Najafgarh Primary Health Centre
Phase 2B	Construction	■ Kalawati Saran Children's Hospital Construction of Incinerator Bldg. ■ Construction of Kalyanpuri Urban Health Centre
	Supply & Installation of Equipment	■ Equipment for Incinerator Bldg. ■ Equipment for Kalyanpuri Urban Health Centre

There are only a few items of equipment which require construction work. Judging from the details, it is appropriate to place separate orders for the construction work and the equipment procurement & installation work. Authorized Japanese construction contractor and trading company in charge of construction, equipment procurement and installation shall be selected through competitive bidding.

(2) The Indian Side's Project Implementing System

As stated above, the Project is to be implemented within the framework of the Government of Japan's grant aid, subject to the Government of Japan's approval at a Cabinet meeting and an Exchange of Notes between the governments of the two countries. Lady Hardinge Medical College, which is the Indian organization in charge of implementing the project, shall do so as a party to the consultant agreement, construction contract and equipment procurement and installation contract. It shall also execute the Indian side's Project work.

(3) Consultant

Upon conclusion of the above-mentioned Exchange of Notes, Lady Hardinge Medical College shall conclude a Consultant Agreement for Project design and supervision with the Japanese consultant firm involved in the basic design study for the Project and shall have the said agreement verified by the Government of Japan. It is important that the Consultant Agreement be concluded promptly following conclusion of the Exchange of Notes for smooth efficient implementation of the Project. After conclusion of the Consultant Agreement, the Consultant shall prepare detailed design drawings and specifications based on the contents of this basic design study report and due consultation with Lady Hardinge Medical College. When they are approved by the Medical College, the Consultant shall carry out activities to assist bidding and construction supervision work.

(4) Contractor

The contractor shall be selected from among qualified Japanese contractors through competitive bidding. Lady Hardinge Medical College shall conclude the Construction Contract, in principle, with the lowest bidder and have the Construction Contract verified by the Government of Japan. The Japanese

contractor needs to make good use of local contractors in procuring locally available materials and recruiting local construction workers.

There will be no need to dispatch Japanese experts except for installation, test running and adjustment of special equipment.

3-1-2 Implementation Condition

(1) Local Construction Situation

1) Local Consultant

Around Delhi, there are architects who have created excellent published work and building consultancies. Most of them are small-scale organizations led by individual architects. Depending on the scale of the project, these organizations hire structural engineers, electrical engineers, mechanical engineers, etc. to form a group necessary for proceeding with design work. By contrast, since the detail design of the Project will be implemented under the framework of a grant aid from the Government of Japan, it must be completed in a limited period of time. Furthermore, as the Project is a medical institution, close coordination in Japan is necessary between the building design side and the equipment side. Thus, it is difficult to commission Indian consultants to participate in Project detail design.

2) Local Contractors

Indian construction companies are rated on a CPWD (Central Public Works Department) ranking list and are given the ceiling project amount they can tender according to their rating. Regarding grade 1, there are more than 300 registered firms all over the country which have no ceiling on the project amount, but few of them run using modern management. While supervisors in these firms are familiar to construction design and quality,

a future challenge lies in improving productivity, speed of construction, construction mechanization, etc. However, as the construction work in India must be executed by registered firms, Japanese corporations are required to make subcontract with local contractors to execute the project.

3) Building Materials

India restricts the import of building materials which are locally made. Therefore, in principle, Indian-made building materials must be procured. There is no problem with the quality of Indian-made building materials for general use. It is possible to procure necessary building materials for construction work under the Project in India except for some materials such as special fittings for X-ray rooms, shield materials for EEG rooms, etc. However, some of those local materials cannot be delivered promptly, so it is important to work out a proper procurement schedule that accommodates the supply situation.

4) Procedure for Applying for Building Permits

India has a formal system for building permits application. Therefore, Lady Hardinge Medical College, the Indian organization to take charge of implementing the Project, has to file an application for a conceptual building permit with the Delhi Urban Arts Commission based on the contents of this basic design study report. It will take about a month to obtain such a building permit. After obtaining the building permit from the Commission, the Medical College has to file application for a final building permit with the Municipal Corporation of Delhi (MCD). In applying for such building permits, the Japanese consultant shall prepare all necessary drawings and specifications and submit them to the Medical College, which in turn shall commission a local registered consultant

to follow the procedure for applying for building permits. It will usually take 3 months to obtain a final building permit. Therefore, the building permit application work and the bidding will be implemented concurrently to shorten the construction period.

5) Points to Note in Carrying Out the Construction Work

In carrying out the construction work under the Project, it is necessary to pay careful attention to the following points in light of the present conditions of the project site and the local construction situation.

1. It is necessary that the following works be completed by the Indian side before Project construction work starts.

- Removal of the existing obstacles and trees in the project site.
- Installation of the service wire, lead-in wire, service pipe and telephone line for construction up to the site.

2. In implementing the work for which the Japanese side is responsible, careful attention should be paid to the following points.

- In working out the schedule for the procurement of locally available building materials, due consideration should be given to the possibility that it may be long before building materials ordered are delivered.
- It is necessary to coordinate construction work and equipment procurement and installation work sufficiently during the construction period.

3-1-3 Scope of Works

This project is to be implemented by the governments of the two countries within the framework of the Government of Japan's grant aid. The scope of Project work by the governments of the two countries is as described below.

(1) Work and Activities to be Carried Out by the Japanese Side

1. Facilities

- Construction of buildings described in this study report (i.e., Laundry Building, Incinerator Building of Kalawati Saran Children's Hospital)
- Construction of the Kalyanpuri Urban Health Centre
- Electricity, air conditioning and plumbing work related to the above-mentioned construction work
- Work to install a tube well on the premises of Palam Primary Health Centre

2. Equipment

- Procurement of equipment described in this study report
- Installation of the above-mentioned items of equipment

3. Utility Work

- Power receiving equipment/substation and low-tension power supply equipment
- Water supply and drainage facilities
- Telephone exchange

4. Construction of Outdoor Structures

- Gate and fence for the Kalyanpuri Urban Health Centre

5. Related Activities

- Packing and shipping of equipment and materials to be imported into India, payment of property insurance premiums, loading and unloading, inland transportation

(2) Work and Activities to be Carried Out by the Indian Side

1. Preparation of the Project Site for the Construction Work

- Clearance of obstacles and ground leveling
- Access road for construction work

2. Preparation Work

- Provision of the land for temporary office, workshop and material and
- Demolition of existing, workshop in KSCH and Kalyanpuri Urban Health Centre

3. Utility Work

- Installation of the electric power services wire up to the site
- Installation of the telephone lead-in wire up to the MDF connection point
- Relocation of the existing power line in the proposed construction site

4. Construction inside and outside of the project site

5. Installation of Furniture and Fixtures

- Furniture and fixtures other than those to be provided by the Japanese side

6. Related Activities

- Bank arrangement and payment of expenses
- Customs clearance of equipment and materials imported into India, and payment of all customs taxes imposed under the Project
- Prompt action relating to customs clearance and inland transportation
- Exemption from taxation or payment of taxes (sales tax, customs duties, other internal taxes, charges) for work and activities carried out by the Japanese side
- Convenience for the Japanese who enter and stay in India to offer services under contract
- Necessary formalities and payments for applications such as building permits, etc.
- Payment of maintenance and management costs necessary for proper effective operation of the facilities and equipment procured under the project
- Payment of other necessary costs beyond the scope of the Government of Japan's grant aid

3-1-4 Construction Supervision

In accordance with the Government of Japan's grant aid system, the Japanese consultant shall conclude a Consultant Agreement with the Indian organization responsible for implementing the Project and shall conduct detailed design work and the construction supervision work under the Agreement. The objectives of the construction supervision work are to ensure that construction is carried out in accordance with the drawings and specifications and to maintain the high quality of construction by giving guidance and coordinating different jobs impartially throughout construction. The construction supervision work consists of the following tasks.

(1) Cooperation in Bidding and Contracting

The Japanese consultant shall prepare documents required to conduct competitive bidding for selection of Japanese organizations to take charge of construction and equipment procurement and installation under the Project, conduct competitive bidding, including publicly inviting bids, accept and screen bidding applications, distribute bidding documents, accept bids and evaluate results of competitive bidding, and give advice concerning conclusion of the construction contract between the Indian organization responsible for the implementation of the Project and the Japanese contractor.

(2) Guidance, Advice and Coordination for the Contractor

The Japanese consultant shall examine the schedule, execution plan, building machine/material procurement plan, medical equipment procurement and installation plan and give guidance, advice and coordination service to the contractor.

(3) Examination and Approval of the Working Drawing and the Manufacturing Drawing

The Japanese consultant shall examine and approve working drawings, the manufacturing drawings and other documents submitted by the contractor, giving relevant guidance and advice to the contractor.

(4) Confirmation and Approval of the Building Machines/Materials and the Medical Equipment

The Japanese consultant shall approve building machines/materials and medical equipment to be procured under the Project after confirming that it conforms to contracted standards.

(5) Factory Inspection

If necessary, the Japanese consultant shall be present at factory inspections of building parts and medical equipment to confirm quality and performance.

(6) Reporting on the Progress of the Construction Work

The Japanese consultant shall have a clear grasp of the stages of work execution and building site, and shall report the work's progress to the organizations concerned in the two countries.

(7) Completion Inspection and Test Running

The Japanese consultant shall conduct final inspection of the facilities and test run the medical equipment to ensure that they conform with contracted standards, and shall report on completion of the inspection to the Indian organization in charge of Project implementation.

(8) Training in Operation of the Equipment

In the case of some equipment to be procured under the Project, it is necessary that operators have basic knowledge of operation and maintenance/management. For this reason, it is necessary to train the Indian engineers in charge of operation and maintenance/management about installation, repairs during installation, adjustment and trial running. The Japanese consultant shall give guidance about such training programmes.

In carrying out the tasks described in 2) through 8) above, the Japanese consultant shall dispatch one of its engineers to India for the period of the Project. The Japanese consultant shall also dispatch the required number of engineers to the building site at certain stages of the Project to offer

inspection, guidance and coordination, and at the same time shall appoint an engineer stationed in Japan responsible for keeping in contact with the building site and giving technical support for the Project. In addition, the Japanese consultant shall report on progress of the Project, payment procedures and completion and delivery of facilities and equipment procured under the Project.

3-1-5 Material/Equipment Procurement Plan

(1) Material/Equipment Procurement Policy

In procuring materials and equipment for the Project, careful attention should be given to the following points.

- **Local Procurement**

To facilitate repairs, maintenance and management of the completed facilities, building equipment and materials should be procured locally as much as possible. In this case, purchase orders should be issued after confirming the actual supply situation to ensure that construction work is not adversely affected by delivery delays. Medical equipment sufficient in terms of quality and quantity should be procured locally.

- **Imported materials**

Materials whose locally produced equivalents are of poor quality or in short supply will be imported from Japan.

(2) Procurement of Medical Equipment

Medical equipment which is difficult to procure locally will be imported from Japan. In this case, the contractor will need to keep in close contact with the executing agency of the Indian side to facilitate formal import procedures. In the case of medical equipment requiring special

procurement of expendable supplies, supplies should be procured from the manufacturer having a local agency with distribution and maintenance networks. Equipment of sufficiently high quality and which should be procured locally in light of spare parts and expendable supplies should be procured locally.

Some equipment likely to be damaged by impact, humidity and high temperature should receive special care in packing and transporting. They should be packaged in a manner suitable for transport in a tropical region.

3-1-6 Implementation Schedule

After the Exchange of Notes between the Governments of Japan and India, the schedule will be divided into three stages, the detail design stage, the bidding stage, and the construction work stage.

(1) Detail Design

After the conclusion of the consultant agreement with the Indian organization responsible for implementing of the Project, the Japanese consultant shall begin detailed design work subject to verification of the agreement by the Government of Japan. In this stage, detail design drawings and specifications and bidding documents are prepared on the basis of this basic design report, the Japanese consultant discusses details of Project facilities and equipment to be procured with the Indian side, and obtains the Indian side's approval for these drawings, specifications and documents. This stage takes about two and a half months to complete.

(2) Bidding

A Japanese contractor and a Japanese trading company in charge of construction work and equipment procurement and installation work shall be selected through competitive bidding. A public announcement shall

invite bids, acceptance and screening of bidding applications, distribution of bidding documents, acceptance of bids, evaluation of the results of the bidding, appointment of the contractor and conclusion of the contracts. This stage takes about two and a half months to complete.

(3) Construction Work and Equipment Procurement & Installation Work

After the conclusion of the construction and equipment procurement and installation contracts, the work shall commence subject to the verification of the contract by the Government of Japan. Considering the scale and details of facilities to be constructed under the Project, the local construction situation and the possibility of rainy season construction delays, it was concluded that it would take about 18 months in total, 8 months for phase 2A and 10 months for phase 2B, to complete both construction and equipment procurement and installation, given that unforeseen events would not occur during the Project period.

The implementation schedule is set up as shown below in accordance with the Japan's Grant Aid system.

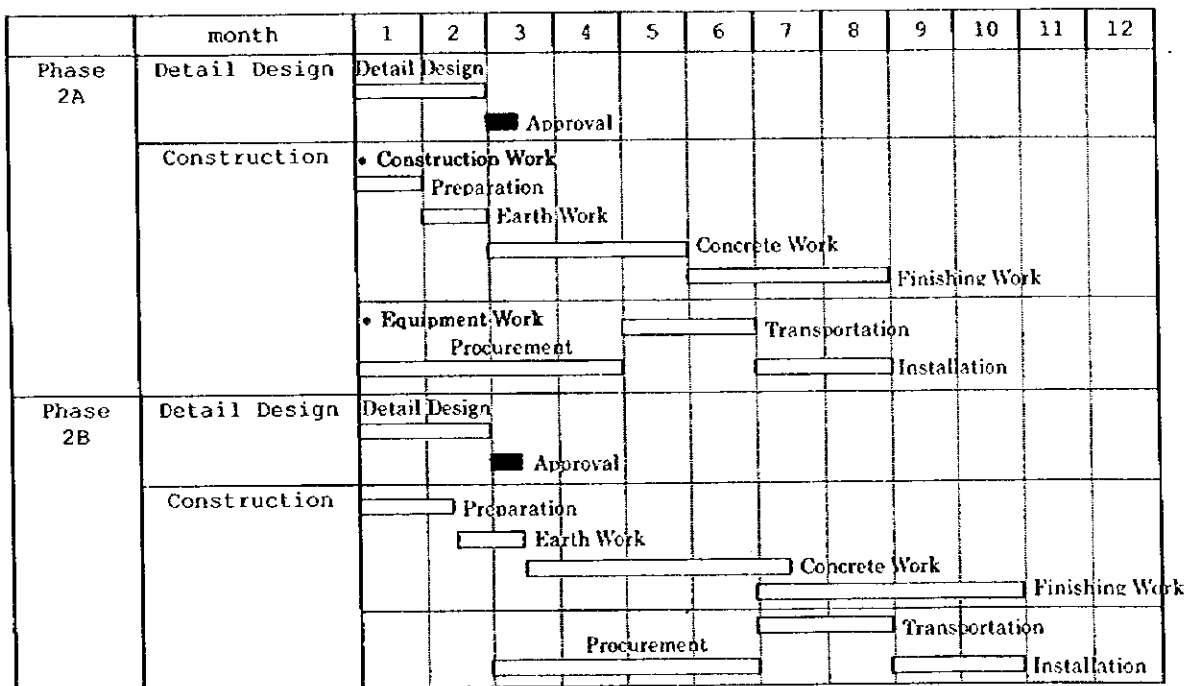


Fig. 3-1 Project Implementation Schedule

3-1-7 Obligations of Recipient Country

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

1. To provide the Japanese side with the data and information necessary for the implementation of the Project.
2. To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities.
3. To secure the land necessary for the execution of the Project and provide enough space for construction of such items as temporary site office, warehouse and storage yard for equipment and materials during the implementation period.
4. To demolish or remove and relocate any existing utilities, facilities that may interfere the works and area of the Project.
5. To clear and level the site prior to the commencement of the Project.
6. To provide electric power (11kV, 100kVA), telephone (6 lines) and water supply for construction of work prior to the commencement of the Project.
7. To undertake incidental external works such as gardening, fencing, and making gates within and around the sites.
8. To bear advising commissions of the Authorization to Pay (A/P) and payment commission to the Japanese foreign exchange bank for the banking services based on the Banking Arrangement (B/A).
9. To assist prompt unloading by ensuring customs duties exemption and customs clearance of the equipment and materials for the Project at the port of disembarkation.

10. To accord Japanese nationals, whose services may be required in connection with the supply of the products and the services under the verified contracts, such facilities as may be necessary for their entry into India and stay therein for the performance of their work.
11. To exempt Japanese nationals involved in the Project from customs duties, internal taxes including sales tax and other fiscal levies which may be imposed in India with respect to the supply of the products and the services under the verified contracts.
12. To bear all the expenses other than those to be borne by the grant, necessary in connection with the implementation of the Project.

3-2 Operation and Maintenance Plan

(1) Facility Maintenance

In designing the planned facilities, the scope of air conditioning should be limited and natural lighting and ventilation should be considered as much as possible so that the maintenance cost under the Project may not hamper implementation of the Project. Daily inspection of the facilities and building equipment, maintenance of building equipment in accordance with the instruction manuals and repairs will be conducted by the maintenance staff members from the Central Public Works Department (CPWD) stationed at the Maintenance Department of Lady Hardinge Medical College.

(2) Medical Equipment Maintenance

The medical equipment maintenance and management system are as shown in the following table.

Table 3-2 Maintenance & Management System on Medical Equipment

Maintenance and Management Operations		Maintenance and Management System	
Maintenance and management of medical equipment	Daily inspection	Precision management	To be conducted mainly by doctors and laboratory technicians in charge.
		Inspection of equipment cleaning and lubrication, replacement of expendable supplies, adjustment	To be conducted by equipment operation
	Repairs	In-house repairs	To be conducted at the workshop.
		Repairs by manufacturers	Suppliers are requested to do repairs.
		Annual maintenance contract	Under such maintenance contract, the equipment is to be inspected and adjusted every 1 to 4 months.

At present, such items of simple equipment such as suction unit and operating tables are repaired at the workshop. The equipment maintenance and management system is to be worked out and implemented by the workshop, but no bio-medical engineers are stationed at the workshop (applications for this post are being invited). Those items of equipment which require repairs by manufacturers' engineers are taken care of by suppliers. Expendable supplies for these items are also provided through these suppliers.

Some items of equipment require annual maintenance contracts to use them and maintain them in satisfactory condition. Some existing equipment use such annual maintenance contracts.

Table 3-3 annual Maintenance Contracts for Existing Items of Equipment

Equipment	Q'ty	Contractor	Terms and conditions of contract
1. Portable incubator	7	Rustagi Surgical	Inspected and adjusted every month.
2. Pulse oximeter	6	Rustagi Surgical	Inspected and adjusted every month.
3. Autoanalyzer	1	J. Mitra & Sons	Inspected and adjusted every 4 months.
4. Blood corpuscle counter	1	J. Mitra & Sons	Inspected and adjusted every 4 months.
5. X-ray equipment	2	Wripto GE Pvt. Ltd.	Inspected and adjusted every 4 months.
6. Electromyograph	1	Cardiotrace Pvt. Ltd.	Inspected and adjusted every 4 months.
7. Artificial respiratory machine	4	Rustagi Surgical	Inspected and adjusted every month.
8. Artificial respiratory machine	3	Medicare	Inspected and adjusted every month.
9. Artificial respiratory machine	1	Usha Dragger	Inspected and adjusted every 4 months.
10. Open-type treatment device	6	Rustagi Surgical	Inspected and adjusted every month.
11. Blood gas analyzer	2	Kopran Ltd.	Inspected and adjusted every 4 months.
12. Blood gas analyzer	1	AVL Pvt. Ltd.	Inspected and adjusted every 4 months.
13. Oxygen producing equipment	6	Elder	Inspected and adjusted every 4 months.
14. Oxygen analyzer	2	IOL	Inspected and adjusted every 4 months.
15. Water softener	1	Indian, Nat steel works	Inspected and adjusted every 4 months.
16. Ultrasonic diagnosis equipment	1	Rustagi Surgical	Inspected and adjusted every 4 months.
17. Ultrasonic diagnosis equipment	1	Cardiotrace Pvt. Ltd.	Inspected and adjusted every month.

The following table shows those items of equipment to be procured under the Project for which it is desirable to conclude similar annual maintenance contracts.

Table 3-4 Items of Equipment to Be Procured under the Project for which It is Desirable to Conclude Annual Maintenance Contracts

Equipment	Q'ty	Terms and conditions of contract
1. X-ray equipment for use in diagnosis (with 2 bulbs and a TV)	1	To be inspected and adjusted every 4 months
2. Movable X-ray equipment	2	To be inspected and adjusted every 4 months
3. Collared doppler ultrasonic diagnosis equipment	1	To be inspected and adjusted every 4 months
4. Automatic blood corpuscle counter	1	To be inspected and adjusted every 4 months
5. Artificial respiratory machine	6	To be inspected and adjusted every 4 months
6. Anesthetization equipment	3	To be inspected and adjusted every 4 months
7. Higher-pressure sterilizer	3	To be inspected and adjusted every 4 months
8. Ultrasonic cleaning machine	1	To be inspected and adjusted every 4 months
9. Ethylene oxide sterilizer	1	To be inspected and adjusted every 4 months
10. Dialyzes	2	To be inspected and adjusted every 4 months
11. Ultrasonic diagnosis equipment for dental use	1	To be inspected and adjusted every 4 months
12. Argon laser equipment	1	To be inspected and adjusted every 4 months
13. Washing machine	3	To be inspected and adjusted every 4 months
14. Dewaterer	2	To be inspected and adjusted every 4 months
15. Dryer	3	To be inspected and adjusted every 4 months

(3) Tentative Calculation of the Operation Cost

The operation cost of Kalawati Saran Children's Hospital is divided broadly into personnel expenses, office expenses, facility maintenance and management expenses and equipment maintenance and management expenses. Since the Project aims to expand the hospital's existing facilities, not at increasing staff after procurement of the planned facilities and equipment, only the facility maintenance and management expenses and the equipment maintenance and management expenses are tentatively calculated for implementation of the Project.

1) Facility Maintenance and Management Expenses

① Electricity Expenses

○ Estimated power consumption

Calculating conditions:

- The times for operation of lighting fixtures, sanitary equipment, air conditioners and medical equipment is calculated on the assumption that the planned facilities will be used 293 days a year (actual working days in 1993) and that the net working rate will be 0.2, which is a standard rate for medical facilities.

Table 3-5 Electric Power Consumption

Item	Equipment load	Power consumption
General Lighting	125 kW	$125 \text{ kW} \times 24.0 \text{ h/day} \times 293 \text{ day/year} \times 0.2 = 1,75,500 \text{ kWh/year}$
	240 kW	$240 \text{ kW} \times 24.0 \text{ h/day} \times 192 \text{ day/year} \times 0.2 = 2,21,200 \text{ kWh/year}$
	680 kW	$680 \text{ kW} \times 8.0 \text{ h/day} \times 192 \text{ day/year} \times 0.2 = 2,08,900 \text{ kWh/year}$
Medical Equipment	800 kW	$400 \text{ kW} \times 24.0 \text{ h/day} \times 293 \text{ day/year} \times 0.2 = 5,62,600 \text{ kWh/year}$
		$400 \text{ kW} \times 8.0 \text{ h/day} \times 293 \text{ day/year} \times 0.2 = 1,87,500 \text{ kWh/year}$
Other	65 kW	$65 \text{ kW} \times 8.0 \text{ h/day} \times 293 \text{ day/year} \times 0.2 = 30,500 \text{ kWh/year}$
Total		13,86,500 kWh/year

○ Calculation of charges

- Basic rate : $1,000 \text{ kVA} \times 60 \text{ Rs/kVA} \cdot \text{month} \times 12 \text{ month/year}$
 $= 7,20,000 \text{ Rs/year}$

- Electricity charges: $13,86,500 \text{ kWh} \times 1.7 \text{ Rs/kWh}$
 $= 23,57,000 \text{ Rs/year}$

Total 30,77,000Rs/year ①

② Telephone charges

Local calls: 100 calls/day (less than 3 minutes each call)
100 calls×26days/months×12months/year×1.1Rs
= 34,320 Rs/year

Long-distance calls:

20 calls/day (less than 3 minutes each call)
20 calls×26days/months×12months/year×180seconds
×0.8Rs/sec.= 4,49,280 Rs/year

Total 4,84,000 Rs..... ②

Total facility maintenance and management cost (①+②)

30,77,000Rs/year+4,84,000 Rs/year=35,61,000Rs/year

2) Medical Equipment Maintenance and Management Cost

Cost of annual maintenance contracts: 3,853,000Rs/year ①

Cost of expendable supplies: 5,212,000Rs/year ②

Cost of spare parts: 3,719,000Rs/year ③

Total equipment maintenance and management cost (①+②+③)

3,853,000Rs/year+5,212,000Rs/year+3,719,000Rs/year=12,784,000Rs/year

Grand Total 16,345,000Rs/year

Above total expense 16,345,000 Rs/year is about 0.1% of the budget for Dept. of Health, Ministry of Health & Family Welfare and considered that this increase can well cope with their budget.

CHAPTER 4 PROJECT EVALUATION AND RECOMMENDATIONS

CHAPTER 4 PROJECT EVALUATION AND RECOMMENDATIONS

4-1 Expected Effects of the Project

(1) Expected Positive Effects of the Project

It is expected that when this project is implemented and when the facilities and equipment procured under the Project are operated and maintained properly by the Indian side, the following benefits will be reaped.

1) Kalawati Saran Children's Hospital

Because the number of the examination rooms for Outpatients Paediatric Internal Medicine will increase from 4 to 8, it will become possible to increase the average examination time per patient to 7.5 minutes. If the average examination time per patient is increased to 7.5 minutes, the hospital's ability to examine outpatients will increase by 8 percent. An outpatient examination room for the exclusive use of Orthopedics, as well as an outpatient examination room for the exclusive use of Paediatric E.N.T., which has been looked after by LHMC will be provided. The number of Operation theatres will increase from 1 to 3 (major and minor operation theatres). Replacement of the equipment of Radiology and Laboratory will make it possible to conduct more accurate radiography and Clinical inspection. The annual number of X-ray examinations and laboratory tests in 1993 was 28,200 and 256,300 respectively. These capabilities will increase by maximum 1.5 times. Construction of the central building will make it possible to remodel the hospital's existing facilities into wards. As a result, it will become easier for the Indian side to increase the number of beds by 150.

2) Kalyanpuri Urban Health Centre

The health centre will be able to examine and treat 37,500 outpatients will be annually, increased by 7 percent. Provision of a treatment room will

make it possible to treat more than 600 cases of external injury a year. Improvement of laboratory equipment will make it possible to conduct up to 5,860 malaria, blood and urine examinations a year. The tube well will be able to supply 4,000f of water a day.

3) Najafgarh Primary Health Centre

Supply of required items of equip-ment will enhance the health centre's basic medical care capabilities. Thus far the health center has been referring about 8,000 cases, including delivery and external injuries to upper hospital, 60 percent of this number will become treatable at the health centre.

4) Palam Primary Health Centre

Treatment capabilities for basic medical care and minor external injuries will be enhanced. Presently, about 2,000 cases of basic inspection including inspection for malaria, using microscopes had been performed. This number will increase up to over 2,500 cases, and accurate treatment will be enhanced. The tube well will be able to supply 2,000f of water a day.

(2) Verification of the Apporiateness of the Project

In light of the results of the verification of the following factors, it is judged appropriate to implement this project.

1) Beneficiaries of this project

Kalawati Saran Children's Hospital services a total of 200,000 children per year. The three health centres Kalyanpuri, Najafgarh and Palam service a combined total population of 160,000. Most of these residents are economically unable to undergo medical examination and treatment at private medical institutions which charge medical fees. In addition, the National Capital Territory of Delhi is faced with the serious problem of a sharply

increasing population. During the 1981-91 decade, Delhi's population increased by 47.0 percent. And it is expected that the population will keep increasing. Therefore, beneficiaries of this project are poor general public people, so that appropriateness of implementing this project with Japan's grant aid cooperation is judged high.

2) Implementing system of the Indian side

After implementation of the Project, the Indian side plans to renovate the existing facilities to increase the number of beds in its wards by 150, raising the total number of beds to 500 with their own budget. This indicates positive attitude of the Indian side to this project. The Project is designed to implement staffing within the limits of the hospital's sanctioned posts. In addition the staffing plan under the Project was worked out on the assumption that a total of 27 professors/assistant professors will be dispatched from the Medical College. Therefore, the contents of the project is concluded to be appropriate size for the Indian side to maintain, operate and organize for themselves without difficulty.

3) Positioning of the Project in the Government Plan

The Government of India positions the improvement of health care indispensable for the long-term growth of the country. It is therefore appropriate to implement the Project, which aims at improvement of primary care for children, under the Government of Japan's grant aid cooperation.

4-2 Recommendations

The Project is designed to meet community residents' basic human needs while producing significant results as mentioned earlier. Therefore, to implement the Project is of great significance. To attain Project objective, however, it is necessary that the Indian side make proper budgetary appropriations and maintain and manage properly the physical facilities procured under the Project. For this reason, it is recommended that a Project monitoring and evaluation programme be implemented by Indian side so that the Indian side may always get the idea how it makes progress.

Given below is the outline of questionnaire on Project monitoring/ evaluation indicators. These indicators will be finalized by Coordination Committee of Monitoring and Evaluation established in Lady Hardinge Medical College.

Objective and expected results of the project	Monitoring/evaluation indicators and items	Survey period
<p>(Overall objective)</p> <ul style="list-style-type: none"> • To promote the health of Karawati Saran Children's Hospital's patients and community residents to benefit from facilities related to the project 	<p>An epidemiological study is made in relevant areas to investigate changes in the health indicators before and after the implementation of the project.</p> <ol style="list-style-type: none"> 1. Death rate <ul style="list-style-type: none"> • Perinatal mortality rate • Infant mortality rate • Death rate for the 1-5 age group 2. Causes of death and incidence (no. of deaths and incidence) <ul style="list-style-type: none"> • Diarrhea • Tetanus • Respiratory disorder • Other 3. Immunization Coverage <ul style="list-style-type: none"> • Fully immunized rate for infants aged 1 year and under • Measles immunization rate for infants aged 9 months to 12 months 4. Disease rate for infants require immunization <ul style="list-style-type: none"> • Measles • Polio • Tetanus 5. Infants' health condition <ul style="list-style-type: none"> • Ratio of underdeveloped infants aged 5 and under (%) • Ratio of neonates weighing 2,500kg and under (%) 	<ul style="list-style-type: none"> • Before the implementation of the project • 5 years after the implementation of the project

Objective and expected results of the project	Monitoring/evaluation indicators and items	Survey period
<p>(Objective of the project)</p> <ul style="list-style-type: none"> To improve the quality of medical services offered at Karawati Saran Children's Hospital and other related medical facilities 	<p>To investigate changes attributable to changes in medical services in the following items before and after the implementation of the project.</p> <ol style="list-style-type: none"> Inpatients <ul style="list-style-type: none"> No. of inpatients (by department) Average length of hospitalization (no. of days) Condition to leave hospital <ul style="list-style-type: none"> No. of recoveries, no. of referrals to other hospitals, no. of deaths. No. of referrals from other hospitals Patient satisfaction <ul style="list-style-type: none"> Medical examination and treatment by doctors (A · B · C) Care by nurses (A · B · C) Cleanliness (A · B · C) Outpatients <ul style="list-style-type: none"> No. of outpatients No. of referrals to other hospitals Patient's average waiting time No. of referrals from other hospitals Places of residence No. of referrals from other hospitals Patient satisfaction <ul style="list-style-type: none"> Medical examination and treatment by doctors (A · B · C) Care by nurses (A · B · C) Cleanliness (A · B · C) Surgical cases <ul style="list-style-type: none"> No. of operations Kinds of operations Results of operations Deaths within 1 month of operation No. of complications Kinds of complication <ul style="list-style-type: none"> Postoperative pneumonia, Postoperative (wound dehiscence) Postoperative hepatitis, Defective suture of digestive tracts, Postoperative ileus, Atelectasis, Other 	<ul style="list-style-type: none"> Before the completion of the project Yearly review of monthly data after the completion of the project Data
<p>(Expected results of the project)</p> <ul style="list-style-type: none"> Improvement in efficiency of operations at Karawati Saran Children's Hospital and other related medical facilities 	<p>Regarding the improvement in efficiency in operations, the following investigations will be made.</p> <ol style="list-style-type: none"> Working environment <ul style="list-style-type: none"> No. of posts and rate of filled vacancies Absentee rate (no. of absences) No. of revisions of work rules and contents of work rules Frequency of regular workplace meetings <ul style="list-style-type: none"> The fixed number No. of persons present Worker satisfaction 	<ul style="list-style-type: none"> Before the completion of the project Yearly review of monthly data after the completion of the project Monthly review of data at end of month

Objective and expected results of the project	Monitoring/evaluation indicators and items	Survey period
	<p>2. Medical activity</p> <ul style="list-style-type: none"> • Operating standards • Frequency of case discussion meetings <ul style="list-style-type: none"> No. of persons present Kinds of cases • Case histories <ul style="list-style-type: none"> Monthly no. of case histories Frequency of doctors' review of case histories <p>3. Examination department</p> <ul style="list-style-type: none"> • No. of specimen tests • Average time required to complete a specimen test • Method of quality control (supply/consumption of reagents and expendable supplies) <ul style="list-style-type: none"> FIFO system Storage of brown biochemical vials at dark places • No. of pathological anatomies • Supplies of test reagents <ul style="list-style-type: none"> Kinds of test reagents in short supply ime required to procure them <p>4. Drug Department</p> <ul style="list-style-type: none"> • Supplies of drugs <ul style="list-style-type: none"> Frequency of short supply of drugs by type Time required to procure such drugs <p>5. Research results</p> <ul style="list-style-type: none"> • No. of presentations made at academic meeting • No. of lecture meetings held • No. of papers published <p>6. In-service training results</p> <ul style="list-style-type: none"> • Types of training • No. of trainees by type of training • Training period <p>7. Administration Department</p> <ul style="list-style-type: none"> • Revenue/expenditure manager (personnel expenses, office expenses, equipment maintenance/management expenses, facility maintenance/management expenses, etc.) • Frequency of regular managers' meetings <p>8. ICU Department</p> <ul style="list-style-type: none"> • No. of patients • Average length of stay in ICU (no. of days) • No. of complications • Condition of leave hospital No. of recoveries, no. of referrals to other hospitals, no. of deaths <p>9. Neonate Department</p> <ul style="list-style-type: none"> • Temperature check • Water balance measurement • Pediatrician's presence in the delivery room • Patients' Condition of leave hospital (by weight and type of disease) • Tests (blood sugar, bilirubin, hematocrit) <p>10. Central Supply Room</p> <ul style="list-style-type: none"> • No. of Supply handled 	

Objective and expected results of the project	Monitoring/evaluation indicators and items	Survey period
	11. Workshop <ul style="list-style-type: none"> • No. of repairs of equipment • Kinds of repaired equipment • Repaired parts • Average time required to complete repairs • Supplies of repair parts <ul style="list-style-type: none"> Kinds of parts in short supply Time required to procure such parts 12. Washing Department <ul style="list-style-type: none"> • Average washing workload (by type of laundry) <ul style="list-style-type: none"> Bed sheets, pillowcases, surgical gowns, working clothes • Average time required to complete washing work (from reception to delivery) 13. PHC Centre <ul style="list-style-type: none"> • No. of patients by ward • No. of patients immunized <ul style="list-style-type: none"> Measles, tetanus, polio, other • No. of medical examinations made of pregnant women • No. of medical service seminars held • No. of persons present at such seminars • No. of patients referred to higher level hospitals • No. of specimen tests conducted • No. of specimen test requests made to higher level hospitals 14. Equipment <ul style="list-style-type: none"> • Working rate of equipment. 	

- As to item 14, "Equipment", fill out following format for equipment which are marked with (※) in the Table 2-19 Equipment List.

Format for Equipment Net Working Rate

No.	Equipment	Annual Net Working Rate	No. of break-downs	Remarks			Cost of expendable supplies
				In-house repairs	Repairs by manufacturer	Repair cost	

- Evaluation Period

When the Government of Japan finally decides to implement this Project, the

first baseline investigation will be made during the construction period in order to grasp the present conditions of the hospital. After the completion of the construction and the equipment procurement and installation work under Japan's grant aid, such a survey will be made annually. Data on the evaluation indicators marked with *, however, should be sorted out at the end of the month.

ANNEX

1. MEMBERS OF THE BASIC DESIGN STUDY TEAM

(1) Basic Design Study (November 27~December 31, 1994))

Dr. Katsuhiko YOSHITAKE	Team Leader	Sr. Consultant Pediatrician Bureau of International Cooperation International Medical Center of Japan Ministry of Health and Family Welfare
Mr. Kiyoto KUROKAWA	Cordinator	First Basic Design Study Division Grant Aid Study & Design Department Japan International Cooperation Agency
Mr. Shotaro HAYASHIYA	Project Manager of the Consultant Facilities Planning I	Yamashita Sekkei Inc.
Mr. Minoru TANAKA	Facilities Planning II	Yamashita Sekkei Inc.
Mr. Kazuhiko KON	Sanitary Facilities Planning	Yamashita Sekkei Inc.
Mr. Norito NAITO	Equipment Planning	Yamashita Sekkei Inc.

(2) Explanation of Draft Report (April 2~April 11, 1995)

Dr. Katsuhiko YOSHITAKE	Team Leader	Sr. Consultant Pediatrician Bureau of International Cooperation International Medical Center of Japan Ministry of Health and Family Welfare
Dr. Kunihiko HIRABAYASHI	Technical Advisor	Sr. Consultant Cardiologist Bureau of International Cooperation International Medical Center of Japan Ministry of Health and Family Welfare
Mr. Mutsuharu NAKAJIMA	Grand Aid	Grant Aid Division Economic Cooperation Bureau Ministry of Foreign Affairs
Ms. Junko INAMI	Cordinator	First Basic Design Study Division Grant Aid Study & Design Department Japan International Cooperation Agency
Mr. Shotaro HAYASHIYA	Project Manager of the Consultant Facilities Planning I	Yamashita Sekkei Inc.
Mr. Minoru TANAKA	Facilities Planning II	Yamashita Sekkei Inc.
Mr. Norito NAITO	Equipment Planning	Yamashita Sekkei Inc.

2. SURVEY SCHEDULE

(1) Basic Design Study (November 27~December 31, 1994)

No.	Date	Schedule
1	Nov. 27 (Sun)	Lv. Tokyo (AI301) (Messrs. Yoshitake, Kurokawa, Hayashiya, Tanaka, Kon, Naito)
2	28 (Mon)	Meeting at JICA India office Courtesy call on the Embassy of Japan Courtesy call on Ministry of Finance and Ministry of Health & Family Welfare
3	29 (Tue)	Meeting at Lady Hardinge Medical College (LHMC) • Explanation of Inception Report and Questionnaire Survey of existing Kalawati Saran Children's Hospital (KSCH) Survey of the project site
4	30 (Wed)	Survey of Palam Primary Health Centre and Najafgarh Primary Health Centre Discussions with LHMC
5	Dec. 1 (Thu)	Survey of Kalyanpuri Urban Health Centre Discussions with LHMC and KSCH Survey of existing KSCH
6	2 (Fri)	Discussions with LHMC
7	3 (Sat)	Discussions with LHMC on Minutes of Discussions
8	4 (Sun)	Draft up the Minutes of Discussions
9	5 (Mon)	Discussions with LHMC
10	6 (Tue)	Discussions with LHMC and Ministry of Health & Family Welfare
11	7 (Wed)	Discussion with LHMC Signing of Minutes of Discussions at Ministry of Finance Report to the Embassy of Japan
12	8 (Thu)	Lv. Delhi (TG316) (Messrs. Yoshitake, Kurokawa) Discussions with LHMC maintenance section (CPWD) Soil investigation of the site Survey on local medical equipment supplier
13	9 (Fri)	Analysis of the collected information Discussions with KSCH (Facilities & Equipment)
14	10 (Sat)	Analysis of the collected information Survey on local market (Construction & Equipment)
15	11 (Sun)	Meeting within the team
16	12 (Mon)	Discussions with LHMC and KSCH Attendance to project site survey

No.	Date	Schedule
17	13 (Tue)	Discussions with LHMC and KSCH Visit Shiram Institute of Industrial Research (water quality test) Survey on local medical equipment supplier
18	14 (Wed)	Applied the water quality test to Shiram Institute Discussions with LHMC Survey on local medical equipment supplier
19	15 (Thu)	Attendance to site boring test Discussions with LHMC and KSCH
20	16 (Fri)	Discussions with LHMC and KSCH
21	17 (Sat)	Survey on local construction market Survey on local medical equipment supplier
22	18 (Sun)	Survey on KSCH related facilities
23	19 (Mon)	Soil investigation on Kalyanpuri site Discussions with KSCH
24	20 (Tue)	Survey on local construction site (IGNOU) Survey on local medical equipment supplier
25	21 (Wed)	Lv. Delhi (AI302) (Mr. Kon) Collect information from Directorate of Health Service Visit Ministry of Environment & Forest Survey on local medical equipment supplier
26	22 (Thu)	Visit Central Pollution Control Board Discussions with KSCH Visit Jangpura Health Centre
27	23 (Fri)	Survey on hospitals within the city Discussions with local architect Survey on local medical equipment supplier
28	24 (Sat)	Discussions with LHMC maintenance section (CPWD) Analysis of the collected information
29	25 (Sun)	Analysis of the collected information
30	26 (Mon)	Survey on similar facilities within the city Discussions with LHMC maintenance section (CPWD) Collection of information from local consultant Survey on local medical equipment supplier
31	27 (Tue)	Interim discussions on soil investigation and site survey Discussions with local consultant
32	28 (Wed)	Received water quality test result Survey on local medical equipment supplier Report survey result to JICA and Embassy

日順	月日(曜日)	内 容
33	29 (Thu)	Discussions with local consultant Collection of Questionnaire
34	30 (Fri)	Report the completion of survey to LHMC and KSCH
35	31 (Sat)	Lv. Delhi (TG915) (Messrs. Hayashiya, Tanaka, Naito) Av. Tokyo

(2) Explanation of Draft Report (April 2~April 11, 1995)

No.	Date	Schedule
1	Apr. 2 (Sun)	Lv. Tokyo (TG315) (Messrs. Yoshitake, Hirabayashi, Nakajima, Ar. Delhi Inami) (AI301) (Messrs. Hayashiya, Naito, Tanaka)
2	3 (Mon)	Meeting at JICA India Office, Embassy of Japan Courtesy call on Ministry of Finance and Ministry of Health & Family Welfare Meeting at Lady Hardinge Medical College (LHMC)
3	4 (Tue)	Survey on Kalyanpuri Urban Health Centre and Palam Primary Health Centre Discussions with LHMC on Draft Report
4	5 (Wed)	Discussions with LHMC on Draft Report
5	6 (Thu)	Meeting with Ministry of Finance and Ministry of Health & Family Welfare Courtesy call and discussions with DGHS
6	7 (Fri)	Signing of Minutes of Discussions Report to JICA and Embassy of Japan
7	8 (Sat)	Lv. Delhi (TG915) (Messrs. Yoshitake, Hirabayashi, Nakajima, Inami) Supplementary survey on site for Laundry and Incinerator Building
8	9 (Sun)	Supplementary survey on site for Workshop/Substation Building
9	10 (Mon)	Visit Central Ground Water Board Report survey result to JICA India office
10	11 (Tue)	Lv. Delhi (TG316) (Messrs. Hayashiya, Naito, Tanaka) Ar. Tokyo

3. MEMBER LIST OF CONCERNING PARTY IN INDIA

1. Ministry of Finance

Mr. D. N. Narasimha Raju	Deputy Secretary
Mr. D. S. Grewal	Under Secretary
Mr. Mool Chand	Section Officer

2. Ministry of Health & Family Welfare

SH. M. S. Dayal	Secretary
SH. I. Chaudhuri	Additional Secretary
Mrs. Namita Pradhan	Director, International Health
Mrs. Sunila Basant	Joint Secretary
Mrs. A. P. Ahluwalia	Joint Secretary & Finance Advisor
Mr. Ashok Mehta	Under Secretary
Dr. A. K. Mukherjee	Director General of Health Services
Prof. P. Rajaram	Deputy Director General, DGHS
Dr. Dey	Director, Directorate of Health Service
Dr. R. K. Verma	Add. Director, Directorate of Health Service
Dr. Moneer Alam	National Consultant, Bureau of Planning
Mr. S. B. Kalkar	Chief Architect, DGHS

3. Lady Hardinge Medical College / Kalawati Saran Children's Hospital

Prof. Chandrama Anand	Principal & Medical Superintendent
Prof. S. M. Gulati	Add. Medical Superintendent
Dr. A. K. Sarkar	Add. Medical Superintendent
Dr. S. Malik	Add. Medical Superintendent
Dr. P. K. Bhattacharya	Add. Medical Superintendent
Dr. P. L. Anand	Add. Medical Superintendent
Dr. S. C. Chawla	Director Prof. & Head, Prev. & Soc. Med.
Dr. Bul Bul Sood	Prof. Prev. & Soc. Med.
Dr. S. K. Pradhan	Prof. Prev. & Soc. Med.
Dr. T. R. Sachdev	Prof. Prev. & Soc. Med.
Dr. P. Panag	Prof. Prev. & Soc. Med.
Dr. S. K. Rasanio	Asst. Prof. Prev. & Soc. Med.
Dr. A. K. sharma	Asst. Prof. Prev. & Soc. Med.
Dr. R. K. Varwa	Lecturer, Prev. & Soc. Med.
Dr. K. Vua	Jr. Resident, Prev. & Soc. Med.
Dr. K. B. Logani	Director Prof. & Head, Pathology
Dr. L. K. Sood	Prof. & Head, Orthopedic
Dr. D. P. Garg	Consultant, Radiology
Dr. A. S. Bais	Director Prof. & Head, ENT
Dr. P. D. Souza	Prof. Head, Ophthalmology
Dr. G. K. Sharma	Prof. & Head, Forensic Medicine
Dr. B. Ahuja	Head of Dept., Physical Med. & Rehabili.

Dr. Sudershan Kumari
Dr. M. Sharma
Dr. Ajay Kumar

Prof. & Head, Paediatric
Director Prof., Anaesthesiology
Associate Prof., Paediatric Surgery

4. Central Public Works Department

Mr. H. R. Garg
Mr. H. O. Agarwal
Mr. R. K. Singh
Mr. J. D. Sharma
Mr. R. Singh
Mr. B. Swarup
Mr. R. N. Malhotra
Mr. Y. P. Gogia

Executive Engineer, Civil
Asst. Engineer, Civil
Asst. Engineer, Civil
Asst. Engineer, Civil
Executive Engineer, Electric
Asst. Engineer, Air-conditioning
Asst. Engineer, Electric
Asst. Engineer, Electric

5. Kalyanpuri Urban Health Center

Dr. Khrist Roy

Senior Resident, Medical Officer

6. Ministry of Environment & Forests

Mr. T. George Joseph
Dr. S. P. Chakrabarti

Joint Secretary
Member Secretary, Central Pollution Control
Board

7. Shriram Institute for Industry Research

Mr. K. K. Juneja

Deputy Director

8. Embassy of Japan in India

Mr. Okabe
Mr. Michio Hirose
Mr. Fukushima

Councilor
First Secretary
First Secretary

9. JICA India Office

Mr. Minoru Sasago
Mrs. Nana Hosoi

Resident Representative
Assistant Resident Representative

4. MINUTES OF DISCUSSIONS

(1) Basic Design Study

MINUTES OF DISCUSSIONS
ON
THE BASIC DESIGN STUDY ON THE PROJECT FOR
THE IMPROVEMENT OF KALAWATI SARAN CHILDREN'S HOSPITAL
IN
INDIA

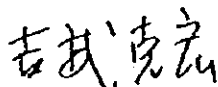
Based on the results of preliminary Study, the Japan International Cooperation Agency (JICA) has decided to conduct a Basic Design Study on The Project for The Improvement of KALAWATI SARAN CHILDREN'S HOSPITAL (hereinafter referred to as "the Study")

JICA has sent to India a Study Team headed by Dr. Katsuhiko YOSHITAKE Sr. Consultant Pediatrician Chief, MCH Section Sr. Coordinator, Expert Service Division, Bureau of International Cooperation, International Medical Center of Japan, Ministry of Health and Welfare, from November 27 to December 31, 1994.

The Team had a series of discussions with the officials concerned of India and conducted a field survey at the study area.

As a result of discussions and field survey, both sides have confirmed the concept of the Project described in the attached sheets. The Team will proceed to further works and prepare the Basic Design Study report.

New Delhi, December 7, 1994



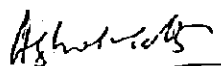
Dr. Katsuhiko YOSHITAKE
Leader
Basic Design Study Team
JICA



Mr. D.N. Narasimha RAJU
Deputy Secretary
Ministry of Finance
Department of Economic Affairs



Prof. Chandrama ANAND
Principal
Lady Hardinge Medical College



Mr. Ashok MEHTA
Under Secretary
Ministry of Health & Family
Welfare

ATTACHMENT

1. Definition

1) Project

"Project" is defined as the inputs from Japanese side under Japan's grant aid.

2) Programme

"Programme" is defined as the entire scheme for the target which is formulated and to be operated by Indian side.

3) Primary Medical Service

"Primary medical service" is defined as the medical service for common diseases at the first stage as well as preventive medical service.

4) Secondary Medical Service

"Secondary medical service" is defined as the medical service for common diseases which requires technique and equipment and to some extent skills in a institution.

2. Background of the Request

The Government of India, in its 8th National Development Plan, formulated the programme towards the reduction of infant mortality and morbidity due to the common infectious and contagious diseases in India and requested the Government of Japan to implement the Project.

3. Concept of the Programme

Overall Goal, Purpose, Outputs and Activities of the Programme were summarized and confirmed in the Programme Design Matrix on the Minutes of Discussions between Japanese and Indian side on July 15, 1994.

4. Objectives of the Project

The Project contributes the reinforcement of primary and secondary medical service at the Kalawati Saran Children's Hospital (hereinafter referred to as "K.S.C.H.") of Lady Hardinge Medical College (hereinafter referred to as "L.H.M.C.")

5. Project Sites

The Project sites are located in L.H.M.C. and related Primary Health Centers (Palam, Najafgarh and Kalyanpuri).

(Note: The equipment and facilities for these centers will be supervised and maintained by L.H.M.C.)

6. Responsible Ministry and Executing Agency

Responsible Ministry: Ministry of Health and Family Welfare

Executing Agency: Lady Hardinge Medical College

10
211

Asst. Secy.

Chawal

K. G.

7. Items requested by the Indian side
After discussions with The Basic Design Study Team , items described in Annex I were finally requested by the Indian side.
However, the final component will be decided after further studies.

8. Comments by the Japanese side on the items in 7. above

1) The Japanese side will analyze the requested items on Annex I -1) based on the following criteria :

- a) Department which needs rationalization.
- b) Department which requires healthy space for installation of equipment.
- c) Department which needs reinforcement for primary or secondary medical service.

2) The Japanese side will analyze the requested items on Annex I -2) based on the following criteria :

a. The equipment to be included in the project is;

- 1) the equipment to be utilized for treatment of the common diseases.
- 2) the equipment to replace the existing equipment which is already deteriorated.
- 3) the essential equipment for primary health care identified by the World Bank, WHO, UNICEF etc.

b. While, the equipment to be excluded from the Project is;

- 1) the equipment not required for health care services such as diagnosis treatment and prevention.
- 2) the simple equipment/furniture available locally.
- 3) the most advanced equipment to be utilized for research activities.
- 4) the equipment with some difficulties on installation / infrastructure conditions,
- 5) The expensive equipment less utilized because of small number of testing/less number of patients,
- 6) the equipment hazardous to environmental control,
- 7) the equipment only utilized with exclusive reagent kit available from the specific manufacturee, and
- 8) the equipment with financial/marketing difficulties on the procurement of consumable and spare parts etc.

VP
3/12

Ashtak

K. G.

Chand

9. Japan's Grant Aid system

- 1) The Indian side understands the outline of the system of Japan's Grant Aid as explained by the team.
- 2) The Indian side will take necessary measures, as described in Annex II for the smooth implementation of the Project on the condition that the Grant Aid by the Government of Japan is extended to the Government of India.

10. Monitoring the achievement of the Programme

- 1) Ministry of Health and Family Welfare and L.H.M.C. have the responsibility of monitoring progress of all phases of the Project like funds allocated utilized, infrastructural development, equipment purchase, distribution, quality control, maintenance, manpower development, training etc. based on the indicators given in Annex III and reporting it to the Embassy of Japan and JICA India Office annually through Department of Economic Affairs, Ministry of Finance, after the completion of the Project.
- 2) L.H.M.C. will make inventory list on the equipment included in the Project. After the completion of the Project, L.H.M.C. will submit annual report on the condition of the Project through Ministry of Health and Family Welfare to the Embassy of Japan & JICA India Office.

11. Schedule of the Study

- 1) The consultants will continue to make further studies in India until December 31st, 1994.
- 2) JICA will prepare the draft report and dispatch a mission in order to finalize the contents of the report around April 1995
- 3) In case the contents of the report is accepted in principle by the Indian side, JICA will complete the final report and send it to the Government of India by June, 1995.

12. Other relevant issues

- 1) L.H.M.C. will complete and submit the detailed action plan of the Programme and the reply of the Questionnaire until December 20, 1994.
- 2) The Ministry of Health and Family Welfare will allocate the necessary budget (including counter part funds) and personnel for the Project.
- 3) The Ministry of Health and Family Welfare will get various internal clearance of the Government of India, as applicable, including expenditure / financial clearance.

V
7/11

Handwritten signature

K. J.

Chaud

ANNEX-1-1)

1) Expansion or reinforcement of following functions

a) O. P. D.

- Reception (6 Cubicle)	1
- Examination & Treatment Rm	16
- Physical Medicine & Rehabilitation Rm	2
- Occupation Therapy Rm	1
- General Paediatric Rm	6
- Surgical Rm	2
- Orthopaedic Rm	2
- Dressing Rm	1
- Plaster Rm	1
- Eye OPD	1
- ENT OPD (with Soundproof Rm)	1
- Skin OPD	1
- Central Injection Rm	1
- Deputy Nurse Supt. Rm	1
- Assit. Nurse Supt. Rm	1
- Pharmacy/Dispensary	1
- Store (General & Medicine)	2
- Specimen Collection Rm	1
- Strecher Rm	1

b) Radiology

- Reception	1
- X-Ray Rm	4
- Dark Rm	1
- Radiographer's Rm	1
- Ultrasound Rm	1
- Waiting Rm for Ultrasound Rm	1
- Radiologist Rm	2
- Technician's Rm	1

c) Laboratory

- Chemical Biochemistry Lab.	1
- Auto Analyser Rm	1
- Store for Biochemistry	1
- Common Lab. for Bacteriology & Parasitology	1
- Office Rm for Common Lab.	4

K. G.

10/11/11

Asst. Secy

Chand
(11)

- Technician's Rm for Common Lab. ,	2
- Store for Common Lab.	2
- Common Lab. for Hematology Lab. & Histopathology Lab.	1
- Immuno Hematology Lab.	1
- Office Rm	1
- ECG Rm	1
- ENG Rm	1
- EEG Rm	1
- Officer's Rm	1
- Doctor's Rm	1
- Store	1
d) Operation Theater	
- Reception	1
- Waiting Rm	1
- Operation Theater (1 Large, 2 Small)	3
- Changing Rm	2
- Scrubbing Rm	1
- Surgical ICU	1
- Recovery Rm	1
- Doctor's Rm	1
- OT Nurse' Rm	1
- Pre & Post Operation Rm (12 Bed)	1
- Store	1
- Central Supply & Sterilisation Rm	1
e) Emergency & ICU	
- Reception	1
- Treatment Rm	1
- Examination Rm	1
- Nurse Station	1
- Doctor's Rm	2
- Police Post Rm	1
f) ICU	
- Treatment Rm	1
- Examination Rm	1
- Nurse Station	1
- Isolation Rm	1
- Medical ICU (Glass Partition, 15 Bdx2)	2
- Laboratory	1

K. G.

V2
2/12

Asst. Insp. Col. S.
Chaud (12)

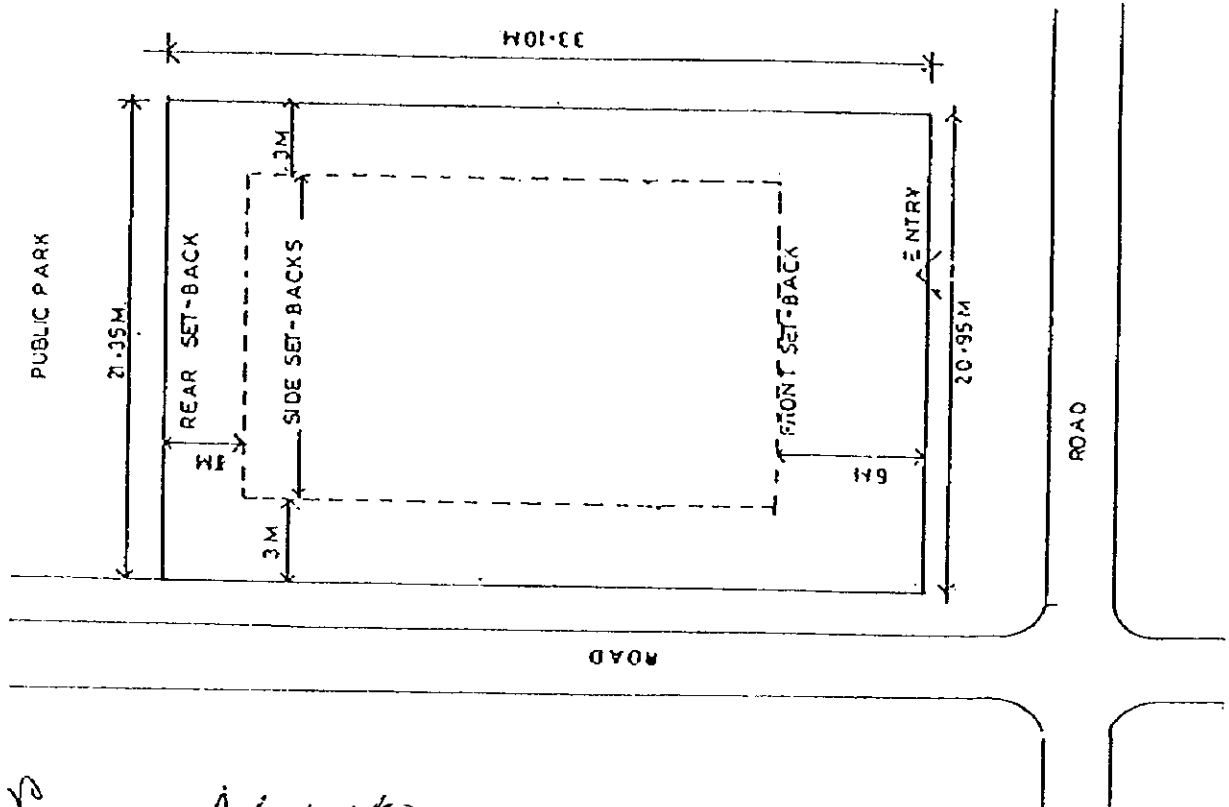
- Doctor's Rm	2
- Store	1
g) Preventive & Social Medicine	
- Reception & Resistration Hall	1
- Immunization Rm	1
- Nutrition Councelling & Growth Monitoring	1
- Child Guidance Clinic (Large & Small)	2
- High Risk Clinic with soundproof Rm	1
- Malaria Clinic	1
- Family Welfare	1
- Medical Social Services	2
- Doctor's Rm	1
- Store	
h) DTTU	
- Doctor's Rm	1
- Treatment Rm	1
- Children' sitting Rm	1
- Health Education Rm	1
i) Others	
- Telephone Exchane Rm	1
- Laundry	
- Electric Power Substation	
- Manifold Rm Augmentation	
- Lift	2
j) Kalyanpuri Urban Health Center	
- Consultation Rm	4
- Medical Social Worker's Rm	1
- Health Education(Seminar Rm for 25-30)	1
- Minor OT	1
- Observation Rm	1
- Laboratory	1
- Injection Rm	1
- Dressing Rm	1
- Pharmacy/Dispensary	1
- Store (General & Medicine)	1
- Guard Rm	1
k) Rehabilitation of Palam PHC (Deep Tube Well)	
- Water supply up to newly provided high tank	

K.Y.

D
3/11

Ashwini

Chand



PLANNING DATA AND NORMS

- LAND AREA 700.07 Sq. M.
- PERMISSIBLE GROUND COVERGE 33 1/3% OF PLOT AREA
- PERMISSIBLE F. A. R. 100
- PERMISSIBLE TOTAL COVERED ON ALL FLOORS 700.07 Sq. M.
- WIDTH OF STAIR-CASE 1.25M.
TREAD WIDTH 0.3M
RISER 0.15M.
- LACK OF DRAINAGE SYSTEM SO SEPTIC TANK
- LACK OF SUFFICIENT WATER SUPPLY
SO BOREWELL WATER SUPPLY REQUIREMENT

KALYANPURI URBAN HEALTH CENTER
D E L H I

2/11/20

Agkhat...

K. G.

Chand
(14)

ANNEX i-2) Requested Equipment List

DESCRIPTION	Q'TY	PRIORITY
1. RADIOLOGY		
1. X-RAY TV MONITOR, COMPATIBLE DOUBLE TUBE	1	1
2. COLOR DOPPLER ULTRASOUND SCANNER	1	1
3. DIAGNOSTIC X-RAY	1	3
4. MOBILE X-RAY UNIT	6	4
5. SERIAL FILM CHANGER	2	3
6. CONTRAST MEDIA PRESSURE INJECTOR	2	3
7. DARK ROOM EQUIPMENT	2	1
8. X-RAY PROTECTION WEARS	5	1
9. WEAR HANGER	5	4
10. X-RAY FILM CABINET	3	4
11. INSTRUMENT CABINET	3	4
12. PORTABLE ULTRASONIC DIAGNOSTIC APPARATUS	1	1
13. FILM VIEWER	5	4
2. OUTPATIENT		
1. EXAMINATING TABLE	8	3
2. EXAMINATING UNIT	8	3
3. STETHOSCOPE FOR DOCTOR	20	3
4. STETHOSCOPE FOR NURSE	20	3
5. HEMOGLOBIN METER	10	3
6. CLINICAL THERMOMETER	50	4
7. ULTRASONIC NEBULIZER	8	1(4)
8. SUCTION UNIT	8	1(4)
9. EXAMINING LIGHT	4	1
10. ELECTRO CARDIOGRAPH	4	1
11. DIAGNOSTIC SET	8	2
12. DOCTOR DESK	8	2
13. DOCTOR CHAIR	8	2
14. PATIENT CHAIR	8	2
15. FILM ILLUMINATOR, TWO HANGING TYPE	4	3
16. WEIGHING SCALE	4	3
17. HEIGHT MEASURING SCALE	4	3
18. EXAMINING INSTRUMENTS SET	12	1
19. SPHYGMOMANOMETER	4	3
20. MEDICINE CABINET	4	3
21. INSTRUMENT CABINET	4	3
22. DRESSING CART WITH DRAWERS	10	2
23. INSTRUMENT CART WITH 3 TRAYS	4	2
24. CRYOSURGICAL UNIT	2	2

Handwritten initials/signature

Checked *Agil. 1-1-15*
 (15)

DESCRIPTION	Q'TY	PRIORITY
25. DIGESTIVE SYSTEM ULTRASOUND SCANNER	2	1
26. CHAIR FOR PATIENTS	8	3
27. EXAMINING BED	8	3
28. CLOTH BASKET	4	3
29. X-RAY FILM VIEWER	4	3
30. WASH BASIN STAND	8	3
31. TREATMENT BED	4	1
32. INJECTION STAND	8	2
33. INSTRUMENT TROLLEY	4	2
34. MEDICAL REFRIGERATOR	8	2
35. EXAMINATION BED	12	2
36. SPHYGMOMANOMETER	8	3
37. STETHOSCOPE	8	4
38. HIGHT/HEIGHING SCALE	4	4
39. KICK BUCKET	8	4
40. ELECTRO MYOGRAPH	1	1
3. ISOLATED ROOM		
1. INFANT INCUBATOR	12	1(6)
2. INFANT WARMER	12	1(6)
3. AUTOMATIC RESUSCITATOR	4	1
4. AUTOMATIC INFUSION PUMP	12	1(6)
5. IRRIGATING STAND, TWIN HANGER	8	2
6. INFANT BASSINET WITH MOBILE STAND	8	2
7. ULTRASONIC NEBULIZER	4	1
8. NEONATAL MONITOR	4	1
9. INFANT VENTILATOR	2	1
10. INSTRUMENT CART	4	2
11. INSTRUMENT CABINET	4	2
12. PHOTOTHERAPY UNIT	4	2
4. OPERATION ROOM		
1. OPERATING TABLE	4	1
2. SUCTION UNIT	8	1(4)
3. AUTOMATIC INFUSION PUMP	4	1
4. OPERATING LIGHT	4	1
5. ANESTHESIA MAC. WITH MONITORING SYS. & VENTILATOR	4	1
6. AUTOMATIC RESUSCITATOR	4	1(2)
7. DEFIBRILLATOR	4	1(2)
8. FILM ILLUMINATOR, TWO HUNGING	4	2
9. MULTI CHANNEL PATIENT MONITOR	4	1(2)

21

K.A.J.

Amend As per 10/10/11
(16)

DESCRIPTION	QTY	PRIORITY
10. FIBER OPTIC LARYNGOSCOPES	8	1(4)
11. NON-INVASIVE B.P. MONITOR	4	1(2)
12. ELECTRO CAUTERY	4	1
13. TABLE TOP STERILISER ELECTRIC	2	1
14. TABLE TOP E.O.G. STERILISER	1	1
15. PORTABLE LIGHTS	8	1(4)
16. EMERGENCY POWER UNIT	4	1
17. IRRIGATING STAND	8	2
18. INSTRUMENT TRAY TABLE	8	1(4)
19. INSTRUMENT CART WITH 3 TRAYS	8	1(4)
20. INSTRUMENT CABINET	4	1(2)
21. OPERATING INSTRUMENT SET	4	1
22. PATIENT WARMING SYSTEM	4	1(2)
23. OXYGEN TENT	4	1
24. ULTRASONIC NEBULISER	4	1
25. OXYGEN ANALYSER	4	1
26. SLIDING STRETCHER	4	1
27. RECOVERY STRETCHER	4	1
5. NEWBORN BABY ROOM		
1. BABY BASSINET WITH MOBILE STAND	4	1
2. INFANT EXAMINING/DRESSING TABLE	4	1
3. DIGITAL BABY SCALE	2	1
4. ULTRASONIC NEBULIZER	4	1
5. SUCTION UNIT, DIAPHRAGM TYPE	4	1
6. INFANT RESUSCITATOR	4	1
7. NURSING BOTTLE WARMER	4	3
6. PREMATURE BABY ROOM		
1. INFANT INCUBATOR	8	1(4)
2. INTENSIVE CARE INCUBATOR	4	1(2)
3. PHOTOTHERAPY UNIT	4	1(2)
4. APNEA ALARM	4	1(2)
5. AUTOMATIC INFUSION PUMP	4	1
6. NEONATAL MONITOR	4	1(2)
7. OXYGEN ANALYZER	4	1(2)
8. INFANT RESUSCITATOR	2	1
9. INFANT CARE CENTER	4	1
10. SYRINGE INFUSION PUMP	4	2
11. INFANT VENTILATOR	4	1(2)

12/2/14

C. J. J.

Chand

Ag. in 10/11
 (17)

DESCRIPTION	Q'TY	PRIORITY
12. TRANSCUTANEOUS PO2/PCO2 MONITOR	2	1
13. SUCTION UNIT, DIAPHRAGM TYPE	4	1
14. BILIRUBIN ANALYZER	1	2
15. HEMATOCRIT CENTRIFUGE	1	1
16. ULTRASONIC NEBULIZER	2	1
17. INSTRUMENT CART	4	2
18. INSTRUMENT CART WITH 3 TRAYS	4	2
19. PORTABLE INFANT INCUBATOR	4	1(2)
20. OXYGEN TENT	4	1
21. OXYGEN HEAD BOX	4	1
7. WARD		
1. PATIENT BED	150	2
2. BEDSIDE CABINET	150	2
3. OVERBED TABLE	150	4
4. DOPPLER FETUS DETECTOR	4	1
5. OXYGEN TENT	10	1(6)
6. AUTOMATIC INFUSION PUMP	8	1(4)
7. SUCTION UNIT	12	1(6)
8. OXYGEN ANALYZER	8	1(4)
9. ULTRASONIC NEBULIZER	8	1(4)
10. SILICONE RESUSCITATOR	12	1(6)
11. OXYGEN INHALATION SET	6	2
12. FILM ILLUMINATOR	4	4
13. STRETCHER TROLLEY	4	1
14. HI-LO STRETCHER TROLLEY	4	1
15. DIAGNOSTIC SET	4	2
16. CHART FILM CART	4	2
17. INSTRUMENT CABINET	4	2
18. INSTRUMENT CART WITH 3 TRAYS	4	2
19. EXAMINING LIGHT	4	1
20. DRESSING CART WITH DRAWERS	4	1
21. MEDICINE CABINET	4	2
22. LAUNDRY BAG WITH CART	8	4
23. IRRIGATING STAND, TWIN HANGER	20	4
24. VACUUM CLEANERS	4	1
8. FEEDING, BATH AND MILK KITCHEN ROOM		
1. BREAST PUMP	4	1
2. NURSING BOTTLE STERILIZER	2	1

10
2/11

K. J.

Chand Asst. Secy.

DESCRIPTION	Q'TY	PRIORITY
3. NURSING BOTTLE WARMER	1	1
4. INFANT WARMER	2	1
5. DIGITAL BABY SCALE	2	1
6. INFANT LENGTH SCALE	2	2
7. INFANT STRETCHER	2	2
8. REFRIGERATOR	2	2
9. DRESSING CART	2	2
10. INFANT EXAMINATION DRESSING TABLE	2	1
9. CENTRAL OXYGEN SUPPLY		
1. AUGMENTATION TO EXISTING MANIFOLD AND PIPELINE FOR O2, NO2, AND SUCTION	1	1
10. EMERGENCY SERVICES		
1. PAGING SYSTEM	2	1
2. INCINERATOR (SMALL TO MEDIUM SIZE)	4	1(2)
11. TRANSPORT		
1. AMBULANCE WITH RESUSCITATIVE MEASURES 4WHEELER (DIESEL)	4	1
2. MINI BUS (15 SEATER)	2	1
3. 4 WHEELER (JEEP)/ PICKUP	1	1
12. AUTOPSY ROOM		
1. AUTOPSY TABLE WITH SHOWER	2	1
2. SHADOWLESS LIGHT, 5000 LUX	2	1
3. MORGUE REFRIGERATOR, TWO BODIES	2	1
4. PHOTOGRAPHIC UNIT WITH CAMERA	2	1
5. AUTOPSY INSTRUMENT SET	2	1
13. CENTRAL LABORATORIES		
A. CHEMICAL BIOCHEMISTRY		
1. BLOOD CELL COUNTER H	4	1
2. REERACTOMETER	1	1
3. BINOCULAR MICROSCOPE	2	1
4. PRECISION INVERTED MICROSCOPE	2	1
5. INCUBATOR, 150L	1	1
6. DRYING OVEN, 150L	1	1
7. VERTICAL STERILIZER, 50L	1	1
8. WATER BATH	2	1
9. MEDICAL REFRIGERATOR, 500L	2	2

K.S.P.

Chaud

Ashwari

DESCRIPTION	Q'TY	PRIORITY
10. BLOOD BANK REFRIGERATOR, 480L	2	2
11. FREEZER, -45 DEG. C	1	1
12. STIRRER, DIA. 120m/m	1	1
13. MIXER FOR TEST TUBE	2	2
14. PH METER	2	3
15. TABLE TOP CENTRIFUGE	1	1
16. HEMATOCRIT CENTRIFUGE	1	1
17. REFRIGERATED CENTRIFUGE	1	1
18. ELECTRONIC BALANCE, 200g	1	2
19. DISTILLING APPARATUS, 5L/h	1	2
20. LABORATORY INSTRUMENT SET	2	2
21. SPECTRO PHOTOMETER	1	1
22. CELLULOSE ACETATE ELECTROPHORESIS APP.	1	1
23. IMMUNO AND AGAR ELECTROPHORESIS APPARATUS	1	1
24. ISOELECTRIC FOCUSING DISK GEL ELECTROPHORESIS APPARATUS	1	1
25. PH METER	2	1
26. THIN-LAYER CHROMATOGRAPHIC APPRATUS	1	4
27. HANDY URINE S.G. REFRACTOMETER	1	4
28. HANDY SERUM PROTEIN REFRACTOMETER	1	4
29. GLASSWARE FOR CLINICAL CHEMISTRY	1	1
30. SMALL ITEMS FOR CLINICAL CHEMISTRY	1	1
B. BACTERIOLOGY SECTION		
1. INCUBATOR	2	1
2. REFRIGERATOR	2	1
3. CO2 INCUBATOR	2	1
4. BOILING STERILIZER	2	1
5. MICROSCOPE	4	1
6. COLONY COUNTER	8	2
7. TABLE TOP CENTRIFUGE	2	1
C. PARASITOLOGY		
1. BINOCULAR MICROSCOPE	4	1
2. CENTRIFUGE	2	1
3. STAINING JAR	4	1
4. STAINING JAR STAND	4	1
5. STAINING BASKET	4	2
6. GLASSWARE FOR STAINING PREPARATION	8	2

10
2/11

Handwritten signature

Chaudhary

DESCRIPTION	Q' TY	PRIORITY
D. HEMATOLOGY SECTION		
1. HANDY TALLY COUNTER	4	1
2. MICROSCOPE	4	1
3. ELECTROPHORESIS APPARATUS	1	1
4. SPECTROPHOTOMETER	1	1
5. CENTRIFUGE	2	1
6. WATER DISTILLER	2	1
7. HOT AIR STERILIZER	1	1
8. AUTOCLAVE	2	1
9. SHAKER	2	1
10. COAGULOMETER	2	2
11. BLOOD GLUCOSE METER	4	2
12. STANDARD HEMOMETER	4	2
13. BLOOD SPREADDER	4	2
14. BLOOD SEDIMENTATOR	4	2
15. BILIRUBIN CORORIMETER	2	1
16. AUTOLET	1	2
17. COLONY COUNTER	4	1
18. DESICCATOR	2	1
19. LABORATORY SMALL INSTRUMENTS	2	1
20. GLASSWARE SET	4	1
21. PH METER	4	1
22. WATER BATH	4	3
23. BLOOD CULUCOSE METER	4	2
24. ULTRASONIC CLEANER	4	1
25. DONOR BED	2	2
26. BLOOD BANK REFRIGERATOR	4	1
27. INSTRUMENT CABINET	2	3
28. AUTO CELL COUNTER	2	1
29. HEMATOCRIT CENTRIFUGE	2	1
30. INSTRUMENT CABINET	4	2
31. ELISA SYSTEM	4	2
E. HISTROPATHOLOGY SECTION		
1. MICROSCOPE	8	1
2. SMALL ROTARY MICROTOM	2	1
3. SMALL SLIDING MICROTOM	2	1
4. FREEZING MICROTOM	2	1
5. PARAFFIN BATH	4	1
6. PARAFFIN SPREADING APPARATUS	12	1

10
21.4

[Handwritten signature]

Chand *Ashok*
(21)

DESCRIPTION	Q'TY	PRIORITY
7. PARAFFIN VACUUM DRYING APPARATUS	12	1
8. PARAFFIN BURYING FRAMES	24	1
9. PARAFFIN BURYING DISHES	24	1
10. PARAFFIN PAN	4	1
11. PARAFFIN CUTTING AND SMOOTHING IRON	12	1
12. PARAFFIN MOULDS	24	1
13. PARAFFIN BURYING CUTTER	2	1
14. BURYING BASKET	2	2
15. HISTOFUME HOOD	2	2
16. DETECTION STAND	4	2
17. BLOCK ADJUSTING BOXES	4	3
18. SPECIMEN BOXES	48	2
19. CARD FILING BOXES	48	2
20. TISSUE INFILTRATOR	12	2
21. HISTOLOGICAL DISSECTING APPARATUS	12	2
22. HOMOGENIZER	24	2
23. STAINING JAR	48	2
24. SLIDE BASKET	48	2
25. STAINING JAR HOLDER	48	2
26. VDRL SET	4	2
27. SERUM REACTION SLIDE	24	2
28. SERUM PIPETTES	48	2
29. TEST TUBE STAND	48	2
30. VIEW BOX	4	4
31. INCUBATOR	4	2
32. WATER BATH	4	2
33. MAGNETIC STIRRER	4	2
34. MINI MIXER	4	2
35. ELECTRONIC BALANCE	2	2
36. TIMER	12	1
37. SPECIMEN MODEL SET	24	2
38. HEMACYTOMETER	24	2
39. PIPETTE WASHER	24	2
40. PIPETTE WASH AND DRYER	12	2
41. BLOOD PIPETTE SHAKER	12	2
42. TEST TUBE HOLDER	24	2
F. IMMUNO HEMATOLOGY SECTION		
1. IMMUNO ELECTROPHORESIS APPARATUS	1	1
2. CENTRIFUGE	2	1
3. INCUBATOR	2	1
4. WATER BATH	2	2
5. MICROSCOPE	1	1
6. VDRL SET	3	3
7. FLOURESCENT MISCROSCOPE	1	1
8. PIPETTE WASHER	1	1

10
21
-Eg-

Chaud
Agh-st-101
(22)

DESCRIPTION	Q'TY	PRIORITY
G. COMMON USE		
1. SPECTROPHOTOMETER	1	1
2. FLAME PHOTOMETER	1	1
3. REFRIGERATOR	6	2
4. FREEZER DEEP	2	2
5. AUTOCLAVE	2	1
6. WATER DISTILLER	12	1
7. MEDICAL WASTE STERILIZER	2	3
14. I.C.U.		
1. PEDIATRIC VENTILATORS (NEONATAL)	2	1
2. VENTILATORS FOR OLDER CHILDREN	4	1
3. INCUBATORS	8	1(4)
4. BED SIDE MULTICHANNEL MONITORS	8	1(4)
5. OPEN CARE SYSTEM	4	1(2)
15. KIDNEY		
1. HEMODIALYSIS SYSTEM (FOR EMERGENCY)	4	1(4)
16. PHYSIOTHERAPY & REHABILITATION		
1. MICROWAVE THERAPY UNIT	1	1
2. ULTRASOUND THERAPY UNIT	1	1
3. AIR MASSAGER	1	1
4. WHIRL POOL BATH	1	1
5. TRACTION UNIT	2	2
6. MICROWAVE THERAPY APPARATUS	1	2
7. LOW FREQUENCY SIMULATOR	1	2
8. INFRARED RAY LAMP	2	2
9. ULTRAVIOLET LAMP	2	2
10. PARAFFIN BATH	1	2
11. SHOULDER WHEEL	1	2
12. WRIST ROLL MACHINE	1	2
13. BICYCLE EXERCISER	1	2
14. ROWING MACHINE	1	2
15. WALL STALL BARS	1	2

10
11

K. G.

Chand

Asst. Dir.

DESCRIPTION	Q'TY	PRIORITY
16. WHEEL CHAIR	2	2
17. WALKER	2	2
18. PARALLEL BARS	2	2
19. EXERCISE STAIRS	2	2
20. DUMBELL SET	2	2
17. CENTRAL SUPPLY AND STERILIZATION		
1. HIGH PRESSURE STERILIZER	2	1
2. ULTRASONIC EQUIPMENT CLEANER	2	1
3. DRYER/STERILIZER	2	1
4. WASHER/DRYER FOR SURGICAL GLOVES	2	1
5. POWDER SPRAYER FOR SURGICAL GLOVES	4	1
6. ROOM PARTITION SYSTEM (FOR LINEN)	2	2
7. TRANSFER CART	4	1
8. STORAGE CABINET	4	1
9. DRESSING JAR	2	1
10. SINK UNIT	2	1
11. DRYING CABINET	6	1
12. TUBE WASHER	4	1
13. TUBE DRYING CABINET	4	1
18. ORAL HEALTH (DENTAL)		
1. ODONTOLOGICAL TREATMENTS UNIT WITH COMPRESSOR	4	1
2. ODONTOLOGICAL APPARATUS SET WITH CABINET	4	1
3. APPARATUS SET FOR DENTAL TECHNICIAN'S ROOM	4	1
4. HIGH SPEED STERILIZER (AUTOCLAVE)	2	1
5. OODONTOLOGICAL X-RAY SYSTEM WITH DEVELOPER	1	1
6. PORTABLE DENTAL UNIT FOR COMMUNITY DENTISTRY	1	1
7. GLASS BEAD STERILISERS	1	2
8. AMALGAMATORS	1	2
9. SUCTION MACHINES	4	2
10. DENTAL INSTRUMENT CABINET	2	2
11. DARKROOM EQUIPMENT SET	1	2
12. ULTRASONIC SCALER	4	2
13. PULP TESTER	1	2
14. DIAGNOSTIC KITS	1	2
15. INSTRUMENT SET FOR DENTISTRY	2	2
16. STRAIGHT ELEVATOR SET	2	2
17. CRYERS ELEVATOR SET	2	2
18. ROOT ELEVATOR SET	2	2

10
2/11
vj.

Chand Ashwin LT
(24)

DESCRIPTION	QTY	PRIORITY
19. UPPER MOLAR FORCEPS	1set	1
20. UPPER PRE-MOLAR FORCEPS	1set	1
21. UPPER ANTERIOR FORCEPS	1set	1
22. UPPER ROOT FORCEPS	1set	1
23. LOWER MOLAR FORCEPS	1set	1
24. LOWER ANTERIOR FORCEPS	1set	1
25. HAND SCALER	1	1
26. PLASTIC INSTRUMENTS FOR RESTORATIVE TREATMENT	1	1
27. ENDODONTIC PLASTIC INSTRUMENTS	1	1
28. ENDODONTIC REAMER	1	1
29. MINOR ORAL SURGERY INSTRUMENTS	1set	1
19. PEDIATRIC ORTHOPAEDICS		
1. PEDIATRIC ORTHO. TABLE	1	1
2. SURGICAL APPARATUS SET FOR ORTHO. SURGERY	1	1
3. BONE FRACTURE ORTHO. APPARATUS	1	1
4. KNSCHER INTERMEDULLARY NAIL APPARATUS SET	12	2
5. ORTHOPEDIC LARGE FRAGMENT PLATE & SCREW SET SMALL FRAGMENT PLATE AND SCREW SET	12	2
6. STEEL WIRE TRACTION INSTRUMENT SET	12	2
7. ARTHOROSCOPE APPARATUS SET - FOR SHOULDER/KNEE - FOR SMALL JOINTS - WRIST	1	2
8. ELECTRIC DRILL SET	1	2
9. ELECTRIC SURGICAL SAW	2	1
10. SPINAL SURGERY SET	4	1
11. NERVE STIMULATOR SYSTEM	2	1
12. BED FOR PARAPLEGIA STRYKER TYPE	4	1
13. AUTO TRANSFUSION MACHINE/FILTERS	2	2
14. COAGULATOR	2	2
15. ELECTRIC BONE DRILL SET	2	2
16. AIR PRESSURE SURGICAL OPERATION SET	4	1
17. WIRE TRACTION INSTRUMENT SET	4	1
18. HAND DRILL	2	1
19. FIXATION NAIL SET	4	1
20. BONE PLATE SET (SMALL MINI FRAGMENT)	4	1
21. BONE SCREW SET (SMALL MINI FRAGMENT)	4	1
22. BONE FRACTURE SET	4	1
23. FINGER BONE INSTRUMENT SET	4	2
24. ORTHOPEDIC OPERATING TABLE	1	2
25. PLASTER TABLE	1	1
26. GYPSUM CUTTER	1	1

Handwritten signature and initials

Handwritten signature: Chand

Handwritten signature: Agla...

DESCRIPTION	Q'TY	PRIORITY
27. PNEUMATIC TOURNIQUETS WITH PRESSURE MONITOR (FULLY AUTOMATIC)	2	1
28. C-ARM T.V. SYSTEM	1	2
29. ELECTRIC DERMATOME WITH BLADES	2	2
20. OTORHINOLARYNGOLOGY DEPT. (E.N.T.)		
1. OTORHINOLARYNGOLOGY TREATMENT TABLE	1	1
2. MOBILE OPERATING LAMP	1	1
3. OPTICAL FIBER LIGHT SOURCE, FOR ENT	2	1
4. SURGICAL MICROSCOPE FOR ENT, PERS, DISCUS. TYPE	1	1
5. ENDOSCOPIC SURGICAL APPARATUS FOR ENT	1	1
6. MICROSURGERY APPARATUS FOR EAR & THROAT	1	1
7. PEDIATORIC HEARING TESTER	1	2
8. OTORHINOLARYNGOLOGICAL TREATMENT UNIT WITH COMPRESSOR	1	2
9. INSTRUMENT SET FOR OTORHINOLARYNGOLOGY	2	2
10. AUDIOMETER	1	2
11. OTORHINOLARYNGOSCOPE	1	2
12. LARYNGEAL FIBERSCOPE	1	2
13. EARDRUM FIBERSCOPE	1	2
14. FIBERSCOPE LIGHT SOURCE	1	1
15. HEAD MIRROR	6	1
16. INSTRUMENT SET FOR ORL	1	1
17. INSTRUMENT CABINET	2	2
18. CRYOSURGERY UNIT	1	2
19. ENDOSCOPIC SINUS SURGERY UNIT WITH COLD LIGHT SYSTEM WITH VIDEO MONITOR & CTV	1	2
20. RHINOMANOMETER	1	2
21. ELECTRO COCHLEOGRAPHY	1	2
22. STERILIZER (HOT AIR)	1	2
23. DEEP FREEZER FOR STORAGE OF GRAFT MATERIALS	1	3
21. OPHTHALMOLOGY		
1. CRYOSURGERY UNIT	1	1
2. SLIT LAMP WITH CAMERA	1	1
3. PROJECTION PERIMETER	1	2
4. OPHTHALMOMETER OF JAVAL	1	2
5. SYNOPTOSCOPE	1	1
6. DIATHERMY UNIT FULL SYSTEM	2	1
7. AUTOREFRACTOMETER	1	1
8. CO-ORDINATOR	1	2
9. CATARACT SET MICROSURGERY	12	1

Handwritten initials and marks:
 20
 21
 22
 23

Handwritten signatures:
 Anand Ashwini
 (26)

DESCRIPTION	Q'TY	PRIORITY
10. GLAUCOMA SURGERY SET	2	1
11. RETINAL DETACHMENT SURGERY SET	2	1
12. IRIS HOOK AND LENS MANIPULATOR	2	1
13. KERATOPLASTY SET	2	1
14. INTRA OCULAR LENS FORCEPS	2	1
15. FORCEPS CORNEAL SUTURING	2	1
16. SCISSOR IRIS	12	1
17. SCISSOR CORNEAL VANNAS	12	1
18. INSTRUMENT SET FOR OPHTHALMOLOGY	1	1
19. ASPIRATION IRRIGATION UNIT SIMCOE	2	1
20. INDIRECT OPHTHALMOSCOPE	2	1
21. OPHTHALMOSCOPE	2	2
22. THREE MIRROR UNIVERSAL CONTACT LENS	12	1
23. TONOMETER	2	1
24. FUNDUS CAMERA	1	1
25. OPHTHALMOMETER	1	1
26. SYNOPTOSCOPE	1	1
27. SLIT LAMP	1	1
28. PERIMETER	1	1
29. RETINOSCOPE	1	1
30. OPHTHALMIC INSTRUMENT FOR CRYOSURGERY	1	1
31. TRIAL LENS SET	1	2
32. TEST TYPE OBJECT CHART ILLUMINATING UNIT	1	3
33. INSTRUMENT STERILIZER	1	2
34. INSTRUMENT CABINET	2	4
35. REFRACTING UNIT (COMPLETE) WITH MOTORISED CHAIR	1	2
36. PEDIATRIC TRIAL FRAMES	1	3
37. FOCIMETER OR VERTEXMETER	1	3
38. AUTOTONOGRAPHY INSTRUMENT	1	2
39. ECHO-SCAN (ULTRASONOGRAPHY A & B SCAN)	1	1
40. HAND HELD FUNDUS CAMERA ALONG WITH ACCESSORIES	1	2
41. OPHTHALMIC YAG LASER	1	1
42. ARGON LASER PHOTOCOAGULATOR WITH INDIRECT OPHTHALMOSCOPE DELIVERY & ENDOLASER	1	1
43. OPERATING MICROSCOPE WITH CO-OBSERVER TUBE WITH FOOTSWITCH OPERATION AND X-Y TRANSLATOR AND RECEIVING DEVICE AND CLOSED CIRCUIT COLOURED TELEVISION FACILITY	1	1
44. VITREOUS-INFUSION, SUCTION CUTTER FOR VITRECTOMY, TENSECTOMY	2	1
45. STREAK RETINOSCOPE	2	1
46. PERKIN'S HAND HELD TONOMETER	2	2
47. COMPUTER WITH FACILITY FOR IMAGENET FOR ANALYSING FLUORESCENT ANGIOGRAPHY PICTURES	1	2

10
211

K. G.

Chand Agasth

DESCRIPTION	Q'TY	PRIORITY
48. ULTRASONOGRAPHIC CLEANER FOR MICROSURGICAL INSTRUMENTS	1	1
49. SINGLE MIRROR CONTACT LENS	1	1
50. PANFUNDOSCOPIC LENS	1	1
51. INDIRECT LENS	1	1
52. ABRAMS LENS	1	1
53. PHACOEMULSIFIER	1	1
22. DEPARTMENT OF MAINTENANCE - CENTRAL WORKSHOP		
A. SECTION OF IRONWORKS		
1. WELDING MACHINE FOR THEIR SHEETS	1	1
2. ARC WELDING MACHINE	1	1
3. SPOT WELDING MACHINE	1	1
4. DRILLING MACHINE	1	1
5. BENCH GRINDER	1	1
6. DRILL	1	1
7. PORTABLE CUTTER	2	1
8. DISC GRINDER	1	2
9. PIPE THREADING TOOL SET	2	2
10. PIPE BIAS (1/8 2") WITH STAND	2	3
11. PIPE CUTTER	2	2
12. GAS WELDING/CUTTING SET	1	2
13. CORD REEL	1	3
14. INSTRUMENT SHELF	1	3
15. IRON WORK TOOLS	2	3
16. TOOL CABINET	2	3
B. SECTION OF WOODEN WORKS		
1. PLANER-JOINTER	2	1
2. TABLE SAW	1	1
3. POWER PLANER	1	2
4. MORTISER	1	2
5. ROUTER	1	2
6. ZIG SAW	1	2
7. CURCULAR SAW	1	1
8. FINISHING SANDER	2	1
9. CORD REEL	1	2
10. INSTRUMENT SHELF	2	2
11. TOOL CABINET	2	2
12. GROOVE CUTTER	1	2
13. ANGLE CLAMP SET	1	2
14. HAND CLAMP SET	1	2
15. PLANER SET	1	2

W
1/16
Ry

Chaud Abhrajit

DESCRIPTION	Q'TY	PRIORITY
C. ELECTRIC SECTION		
1. MOTCP ROTOR BALANCE CONTROLLER	1	1
2. VARNISH DRYER (CABINET TYPE)	1	1
3. AUTOMATIC WINDING MACHINE	1	1
4. PHASE TESTER	1	2
5. MULTI TESTER	1	2
6. CLUMP TESTER	1	2
7. PHASE DETECTOR	1	2
8. MEG-OHM TESTER	1	2
9. SOLDERING IRON	1	2
10. CRAMPING PLYER	1	3
11. PIPE SCREW CUTTER	1	3
12. PIPE BIAS (1/8 2") WITH STAND	1	3
13. PIPE CUTTER	1	3
14. PORTABLE CUTTER	2	2
15. WIRE STRIPPER	2	3
16. CORD REEL	1	3
17. INSTRUMENT SHELF	2	3
18. TOOL CABINET	2	3
19. ELECTRIC WORK TOOL SET	2	3
D. SECTION OF ELECTRONIC WORK		
1. OSCILLOSCOPE 50-100 MHZ	1	1
2. LCR METER	1	1
3. DC POWER SUPPLY	2	2
4. DIGITAL MULTIMETER	1	1
5. MEG-OHM TESTER	1	2
6. SLIDE RESISTOR	1	3
7. THYRISTOR VOLTAGE REGULATOR	2	2
8. PORTABLE AC CURRENT METER	1	2
9. PORTABLE AC VOLTAGE METER	1	2
10. PORTABLE DC CURRENT METER	1	2
11. PORTABLE DC VOLTAGE METER	1	2
12. TRANSISTER TESTER	1	3
13. TEMPERATURE METER	2	3
14. CIRCUIT TESTER	1	3
15. TOOL SET	1	3
16. INSTRUMENT SHELF	2	3
17. BIOMEDICAL ENGINEERING EQUIPMENT	1	1

10
7/11

K. V. J. /

Chand Aghastya

DESCRIPTION	Q'TY	PRIORITY
E. PAINTING		
1. COMPRESSOR FOR PAINTING	2	1
2. SPRAYER FOR PAINTING	2	1
3. BRASS SET	1	2
4. SCRAPERS	1	2
5. VACUUM CLEANER	2	1
6. SMALL ITEMS FOR PAINTING WORKS	1	3
23. PAEDIATRIC DERMATOLOGY		
1. CRYOTHERAPY	1	1
2. DERMATOLOGICAL LASER FOR VASCULAR NAEVI	1	1
3. UVR THERAPY UNIT	1	1
4. WOOD'S LAMP	1	3
5. MICROSCOPE WITH PHOTOGRAPHY ATTACHMENT	1	1
6. SKIN BIOPSY PUNCHES (3mm, 4mm, 5mm)	1x3	2
7. AUTOMATIC SLIDE PROJECTOR	1	1
8. OVERHEAD PROJECTOR	1	1
9. MAGNIFYING LENSES	2	1
10. EXAMINATION BED	2	2
11. BIOPSY TRAYS	2	3
24. LAUNDRY		
1. WASHING MACHINE	4	1
2. DRYING TUMBLER	4	1
3. ROLL PRESS MACHINE	2	1
4. PRESS MACHINE	2	1
25. ENDOSCOPY		
1. PANENDOSCOPE	1	2
2. BRONCHOSCOPE	1	1
3. ESOPHAGOSCOPE	1	1
4. DUGDENOSCOPE	1	1
5. CCLONOSCOPE	1	1
6. LAPAROSCOPE	1	1
7. ARTHROSCOPE	1	1
8. ENDOSCOPIC LIGHT SUPPLY	2	1
26. MEDICAL RECORD SECTION		
1. COMPUTER	4	1
2. REVOLVING LADDER	2	2
3. ELECTRONIC STAPLER	2	2

10
2/11
F. J. J.

Chand Agasthali

DESCRIPTION	Q'TY	PRIORITY
4. ELECTROSTAT MACHINE	2	2
5. SHELF SEPARATOR	2	3
6. PATIENT RECORD SHELF	4	3
27. PREVENTIVE AND SOCIAL MEDICINE DEPARTMENT		
1. PERSONAL COMPUTER SYSTEMS	1	1
* C.P.U.s (80486 INTEL OR EQUIVALENT)		
* C.R.T.s (COLOUR SVGA)		
* PRINTERS a) HEAVY DUTY DOT MATRIX b) LASER JET		
2. U.P.S.	1	1
3. DATA STORAGE CABINET	1	1
4. COMPUTER SOFTWARE	1	1
WORD PROCESSOR		
STATISTICAL ANALYSIS PACKAGE		
GRAPHICS PACKAGE		
SCAN SOFTWARE		
5. PHOTOCOPY MACHINE	1	1
6. COMPUTER DESK & CHAIR	1	1
7. FLOPPIES	40	1
8. COMPUTER PAPERS	100	1
9. PHOTOSTAT PAPERS	100	1
10. DISK STORAGE CABINET	10	1
11. PRINTER RIBBONS	40	1
12. HARD DISK DRIVES	1	1
13. CARTRIDGE TAPE DRIVE	20	1
14. CARTRIDGE TAPES AND SOFTWARE FOR BACKUP	50	1
15. NET WORKING & RELEVANT OPERATING SYSTEM	1	1
16. MODEM (HIGH SPEED WITH CORRECTION SOFTWARE)	1	2
17. PORTABLE GENERATOR	2	1
18. SLIDE PROJECTORS	2	1
19. OVERHEAD PROJECTORS	2	1
20. PORTABLE VIDEO MONITOR	2	1
21. PORTABLE PA SYSTEM	2	1
22. VIDEO CAMERA SYSTEM	1	1
23. CAMERA WITH ZOOM LENS	2	1

W
7/12
Mtg.

Checked
Agreed with
(31)

DESCRIPTION	Q'TY	PRIORITY
28. PRIMARY HEALTH CENTERS		
A. EQUIPMENT		
1. STERILIZER TABLE MODEL	4	1
2. LABORATORY SMALL EQUIPMENT	4	2
3. SUCTION APPARATUS - NEONATAL (FOOT OPERATED)	4	1
4. OXYGEN CYLINDER WITH 2 REGULATORS WITH KEY STAND AND TUBING	4	1
5. PORTABLE RESUSCITATION SET	4	1
6. PORTABLE OXYGEN CONCENTRATOR	4	1
7. INCINERATOR	3	1
8. MINOR SURGICAL KIT	9	1
9. EXAMINATION TABLE	8	1
B. ADDITIONAL OBSTETRIC/PAEDIATRIC EQUIPMENTS		
1. OBSTETRIC TABLE	4	1
2. BLOWER	4	1
3. MINI LAP.KIT (TUBECTOMY KIT)	4	1
4. MCH KIT	4	1
5. NEONATAL CARE KIT	4	1
6. FAMILY WELFARE KIT	4	1
7. EPISIOTOMY SCISSORS	4	1
8. NEEDLE HOLDER	4	1
9. DISSECTING FORCEPS TOOTH	4	1
10. DISSECTING FORCEPS NONTTOOTH	4	1
11. OBSTETRIC FORCEPS WRICHEY'S OUTLET	4	1
12. E.B. CURRETTE	4	1
13. SKIN RETRACTOR	4	1
14. DETACHABLE SCALPEL BLADE HANDLE	4	1
15. CAUTERY MACHINE	4	1
16. TOWEL CLIPS	4	1
C. HIGH RISK PREGNANCIES KIT		
1. OBSTETRIC TABLE	8	1
2. ARTERY FORCEPS (CURVED AND STRAIGHT)	48	2
3. SPONGE HOLDING FORCEPS	12	1
4. DISSECTING FORCEPS (TOOTH AND NON-TOOTH)	14	1
5. UTERINE SOUND	4set	1
6. SCALPEL BLADE HANDLE	2	1
7. UMBILICAL CLAMP	2	1
8. MOSQUITO FORCEPS (STRAIGHT AND CURVED)	48	1
9. DOYEN'S RETRACTOR	8	1

Handwritten initials and scribbles.

Handwritten signatures: "Ghand" and "Ag...".

DESCRIPTION	Q'TY	PRIORITY
10. KOCHER'S FORCEPS (STRAIGHT AND CURVED)	20	1
11. MATERNITY CRADLE	12	4
12. STERILIZER (SMALL) TABLE MODEL	1	1
13. STERILIZER (MEDIUM)	1	1
14. OBSTETRIC FORCEPS (SIMPSON'S AND WRIGLEY'S)	4	1
15. ABDOMINAL RETRACTOR	4	1
16. SHADOWLESS LAMP (PEDESTAL)	6	1
17. INSTRUMENT TROLLEY	4	2
18. WEIGHING MACHINE (NEWBORN)	4	1
19. PORTABLE RESUSCITATION SET	4	1
20. METAL CATHETER	1	1
21. CERVICAL PUNCH BIOPSY	12	1
22. EB CURRETTE	4	1
23. CAUTERY MACHINE	2	2
24. RUBBIN'S CANNULA	12	2
25. GREEN ARMYTAGE CLAMP	4	2
26. SUCTION APPARATUS (HIGH VACUUM)	4	2
29. ADMINISTRATION - HOSPITAL		
1. PERSONAL COMPUTER WITH LASER PRINTER AND MONITOR	2	1
2. PHOTOSTAT EQUIPMENT	4	1(2)
3. PUBLIC ADDRESS SYSTEM	3	1
4. AIR*CONDITIONER FOR ABOVE SOFTWARE	2	1
5. FILING RACKS	8	1
6. AUTOMATIC STENCIL MACHINE	2	1
7. CALCULATOR MACHINE	4	1
8. STAPLAR MACHINE BIG SIZE	4	1
9. WEIGHING MACHINE FOR DESPATCH OF MAIL	2	1
10. TYPEWRITER BILINGUAL (ENGLISH & HINDI)	4	12
11. VACUUM CLEANER	2	1
30. PHOTOGRAPHIC SECTION (COMMON)		
1. CAMERA WITH ZOOM LENS AND ACCESSORIES FOR TAKING PHOTOGRAPHS OF CHARTS, DIAGRAMS, SPECIMENS	3	1

Handwritten signature/initials

Chand *Ashwini*
(33)

Japan's Grant Aid

1. Japan's Grant Aid Procedures

The Japan's Grant Aid Program is executed through the following procedures.

- (1) 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 Cabinet.)
- Implementation (The Notes exchanged between the Government of Japan and the recipient country.)

(2) At the First step, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid.

If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

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

At the third step, 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.

At the fourth step, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

2. Basic Design Study

(1) Content of the study

The aim of the Basic Design Study (hereinafter referred to as "the Study") conducted by JICA on a requested project (hereinafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Japanese Government. The contents of the Study are as follows:

- 1) Confirmation of the background, objectives, and benefits of the requested Project and also institutional capacity of agencies concerned of the

Handwritten initials

Handwritten signature

Handwritten signature
(34)

- recipient country necessary for the Project's implementation.
- 2) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid scheme from a technical, social and economic point of view.
 - 3) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
 - 4) Preparation of a basic design of the Project
 - 5) Estimation of costs 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.

The Government of Japan requests the Government of recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organization of the recipient country through the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out 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 the recipient country to also work on Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also 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 facilities, equipment and services (engineering services and transportation of the products, etc) for economic and social development of the country under principals in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

[Handwritten mark]

*W
2/10*

A. H. ...

Chandel

(2) Exchange of Note (E/N)

The Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objective of the project, Period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

(3) "The period of the Grant" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as Exchange of Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and financial payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the grant aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

(4) The Grant is used properly and exclusively for the purchase of products. Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

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

However the prime contractors, namely, consulting, contracting 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 in Japanese yen with Japanese nationals.

Those contracts shall be verified by the Government of Japan. The "verification" is deemed necessary to secure accountability to Japanese taxpayers.

(6) Undertaking required of the Government of recipient country.

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

- 1) To secure land necessary for the sites of the Project and clear, level and reclaim the land prior to commencement of the construction.
- 2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the site.
- 3) To secure buildings prior to the procurement in case the installation of the equipment.

[Handwritten mark]
D
2/10

[Handwritten signature]

[Handwritten signature]

- 4) 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.
- 5) 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.
- 6) 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 facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(8) " Re-Export "

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

(9) Banking Arrangement (B/A)

- 1) The government of the recipient country or its designated authority should open an account in the name of Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank") The Government of Japan will execute the Grant Aid by making payments in Japanese Yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the verified contracts.
- 2) The payment 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.

*D
2/11/2*

Agha...

K. G.

Chaud

MONITORING AND EVALUATION OF THE PROJECT

It is proposed that Monitoring and Evaluation be inbuilt in the project right at the planning stage. Initially the focus will be to monitor the progress of the project in terms of inputs from the Government of Japan and Government of India. Major components of the project to be monitored will be :

		<u>INPUTS</u>	
		<u>Government of Japan</u>	<u>Government of India</u>
1)	Funds allocated		According to time frame
	Funds released		
	Funds utilized		For the purpose funds allocated
2)	Infrastructural	Building	* Time frame
	development e.g.	Operation	* Quality
		Theatres	
		Labs.	
	Year Wise	1995-96	1996-97 --- 98-99 99-2000
3)	Equipment		
	* Funds allocated	(date)	Amount
	* Equipment Supplied	"	"
		Purchased	" "
	* Method of quality control		

Is there a system to check the supplies in terms of quality/quantity/specifications.

- * Time gap in supply and installation.
- * Training of the manpower handling equipment

Category of staff training

Duration of training

Place of training

Are the people trained - satisfied with training in relation to

- knowledge
- skills how to use the equipment
- have they developed confidence to use the equipment
- Was this training only theoretical by lectures and demonstration slides etc. or it was on the job?

- Is the trainee confident to use the items independently.
- Are the job cards available.
- Is the log book being maintained ?
- Who is responsible for maintaining log book - how often it is to be checked by technical staff.
- Is there a maintenance contract for a particular equipment ?
- Is the telephone number and address available to all the staff members using it
- When was the last breakdown noticed.
- What was the action taken ?
- What was the interval between breakdown and repairs.
- What is the number of investigations done during the last one year
- Is this investigation facility available to all the patients ?
- Any money charged for investigations ?
- Has the equipment been lying idle for want of - Staff, - accessories
If yes : what action is taken.

4) Manpower development

- Are any new jobs created for section.
- Has the staff been employed.
- Is there any plan for pre-service - Inservice training.
- In case the existing staff is handling the equipment - has this person given sufficient training to handle the equipment/carry out procedures.

5) Training

- Funds allocated
- What is the proportion to total budget allocation for training.
- Funds utilised for training out of the total allocation for the previous year.
- How many persons are trained category wise to handle a particular equipment ?
- What is the arrangement during the absence/leave of technical staff
- to carry out the procedure/handle equipment.

K. J. J.

*VP
2/11*

*Ash...
_____*

*Chand
(39)*

MEASURE OF

EFFICIENCY

- Baseline data
1994-95 97-98
- Physical Infrastructure
- Staffing
- Staff presence
- Availability of drugs
- Supervision
- Basic knowledge
Skills
- Imm. coverage
- Regularity of staff
Meetings
- Availability of transport
- Job Aids available
- Regular continuous
Supportive services
 - Water supply
 - Electricity
 - Oxygen supply
 - Voluntary Blood
donation
 - Regularity of staff/
Board meetings

EFFECTIVENESS

- duration of stay
- outcome of admission
- case fatality
LAMA
- admissions
- No. referred cases
- Improved attendance.
in OPD
- Improved patient
satisfaction
- Improved attendance in
follow up clinics.

IMPACT

- Cost of treatment
- Case fatality
- Complications
- Health services
utilization
 - CHPC
 - ANC
- Arrange change in
utilization rates.

7/10 *Adjustments*

K. G.

Grand

(2) Explanation of Draft Report

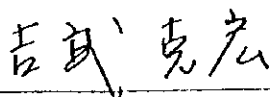
MINUTES OF DISCUSSIONS
ON
THE BASIC DESIGN STUDY ON THE PROJECT FOR
THE IMPROVEMENT OF KALAWATI SARAN CHILDREN'S HOSPITAL
IN
INDIA
(CONSULTATION ON THE DRAFT REPORT)

In November and December 1994, the Japan International Cooperation Agency (JICA) dispatched Basic Design Study Team on the Project for the Improvement of Kalawati Saran Children's Hospital (hereinafter referred to as "the Project") and through discussions, field surveys, and technical examination of the results in Japan, JICA has prepared the draft report of the study.

In order to explain and to consult with the concerned of the Government of India on the components of the draft report, JICA sent to India a study team (hereinafter referred to as "the Team"), which is headed by Dr. Katsuhiko YOSHITAKE, Sr. Consultant Pediatrician, Chief, MCH Section, Sr. Coordinator, Expert Service Division, Bureau of International Cooperation, International Medical Centre of Japan, Ministry of Health & Welfare, and is scheduled to study in the country from 2nd to 11th April 1995.

As a result of discussions, both parties confirmed the main items described on the attached sheets.

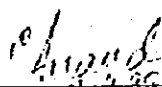
Delhi, 7th April, 1995



Dr. Katsuhiko YOSHITAKE
Leader
Basic Design Study
Draft Report Explanation Team
Japan International Cooperation Agency
(JICA)



Mr. D. N. Narasimha RAJU
Deputy Secretary
Ministry of Finance
Department of Economic Affairs



Director Prof. Chandrama ANAND
Principal and Medical Superintendent
Lady Hardinge Medical College
(L.H.M.C.)



Mrs. Namita Pradhan
Director
International Health Deptt. of Health
Ministry of Health & Family Welfare

ATTACHMENT

1. COMPONENTS OF THE DRAFT REPORT

The Indian side has agreed and accepted in principle the components of the draft report including the tentative schedule of implementation which were proposed by the Team.

2. JAPAN'S GRANT AID SYSTEM

2-1 The Indian side has understood Japan's grant aid system explained by the Team.

2-2 The Indian side will take necessary measures described in ANNEX I and the draft report for the smooth implementation of the Project in case Japan's grant aid is extended.

3. TENTATIVE SCHEDULE OF IMPLEMENTATION OF THE PROJECT

3-1 According to the tentative schedule of implementation proposed by the Team, to which the Indian side has agreed, the Project will be divided into two phases. Therefore, two separate Exchange of Notes (E/N) will be necessary to be signed between the two countries for each phase of the Project in case Japan's grant aid is extended.

3-2 The Indian side will take necessary measures in order to get the approval for implementation of the Project from Expenditure/Finance Committee (EFC) and to allocate enough budget for the counterpart fund for the Project, prior to the commencement of each phase of the Project without any delay based on the tentative schedule of implementation.

3-3 The Indian side has stated that they will get the approval of second phase of the Project from EFC immediately after getting that of first phase.

4. FURTHER SCHEDULE OF THE BASIC DESIGN STUDY

4-1 The Team will continue the supplemental studies up to 11th April.

4-2 JICA will make the final report in accordance with the confirmed items, and send it to the Government of India around June, 1995.

5. MONITORING & EVALUATION

5-1 Ministry of Health & Family Welfare and L.H.M.C. have the responsibility to conduct monitoring and evaluation periodically. A coordination committee will be constituted by Principal and Medical Superintendent (PMS) of L. H. M. C. as described

Approved
1.3.95

10
7/9

(42)

in ANNEX II. This will have two advantage:

(a) An up date information of the yearly performance will be readily available to be passed on to both the Government of India and the Government of Japan to show the results of the Project inputs.

(b) It will also help the implementing agency in day to day monitoring of various activities.

5-2 The coordination committee will work out the details for monitoring indicators for each unit. A baseline survey will be carried out before the completion of the Project in order to see the progress over a time period. The committee will have a few sub-committees who will be assigned the task of monitoring and evaluation of certain defined units. The committee will meet once in a quarter to monitor the progress of various activities.

5-3 The committee will finalize Questionnaire on Monitoring/Evaluation Indicators which was proposed in the draft report, and submit to the Embassy of Japan and the JICA Office through Ministry of Health & Family Welfare and Department of Economic Affairs around May, 1995.

5-4 The committee will submit annual report to the Embassy of Japan and the JICA Office in the first quarter of the subsequent year through Ministry of Health & Family Welfare and Department of Economic Affairs.

6. OTHER RELEVANT ISSUES

6-1 Ministry of Health & Family Welfare will allocate proper amount of budget and to assign personnel in order to maintain as well as to use properly and effectively the physical facilities and equipment procured under the Project.

6-2 The Indian side has stated that they will submit official request for the project type technical cooperation, especially annual implementation of staff training in Japan and experts dispatch from Japan, in order to execute the Project most effectively and to help assess the Project.

K.H.

YD
2/19
Chand.
11.11.35

N. S. S. S.

ANNEX I
NECESSARY MEASURES TO BE TAKEN BY THE GOVERNMENT OF INDIA IN CASE JAPAN'S GRANT AID IS EXTENDED:

1. To provide the Japanese side with the data and information necessary for the implementation of the Project.
2. To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities.
3. To secure the land necessary for the execution of the Project and provide enough space for construction of such items as temporary site office, warehouse and storage yard for equipment and materials during the implementation period.
4. To demolish or remove and relocate any existing utilities, facilities that may interfere the works and area of the Project.
5. To clear and level the site prior to the commencement of the Project.
6. To provide electric power (11kV, 100kVA), telephone (6lines) and water supply for construction of work prior to the commencement of the Project.
7. To undertake incidental external works such as gardening, fencing, and making gates within and around the sites.
8. To bear advising commissions of the Authorization to Pay (A/P) and payment commission to the Japanese foreign exchange bank for the banking services based on the Banking Arrangement (B/A).
9. To assist prompt unloading by ensuring customs duties exemption and customs clearance of the equipment and materials for the Project at the port of disembarkation.
10. To accord Japanese nationals, whose services may be required in connection with the supply of the products and the services under the verified contracts, such facilities as may be necessary for their entry into India and stay therein for the performance of their work.
11. To exempt Japanese nationals involved in the Project from customs duties, internal taxes including sales tax and other fiscal levies which may be imposed in India with respect to the supply of the products and the services under the verified contracts.
12. To bear all the expenses other than those to be borne by the grant, necessary in connection with the implementation of the Project.

K.H.

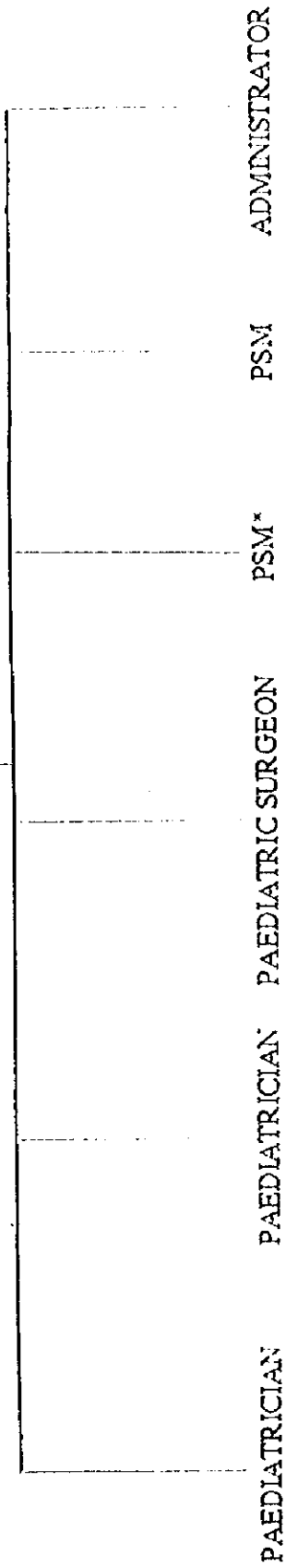
3/19

3/19

K.H.

ANNEX II
 ORGANIZATION OF COORDINATION COMMITTEE OF MONITORING AND EVALUATION

CHAIRMAN
 PRINCIPAL/VICE PRINCIPAL



* PSM: Preventive Social Medicine

K.Y.

*Chairman of
1-11-85*

*1/11
2/11*

1-11-85

5. COST ESTIMATION BORNE BY THE RECIPIENT COUNTRY

Phase 2A

1. Before construction

- Installation of temporary power supply (400V-10kVA) 10,000Rs.
 - Installation of telephone line for construction (1 line) 9,500Rs.
- sub total 19,500Rs. ①

2. During construction

- Installation of permanent power supply(400V-300kVA) 72,000Rs.
 - Sales tax for locally procured materials/equipment 6,200,000Rs.
 - Custom duties for imported materials/equipment 288,000Rs.
- sub total 6,560,000Rs. ②
- Total ① +② 6,579,500Rs.

Phase 2B

1. Before construction

- Demolition of existing building 100,000Rs.
 - Installation of temporary power supply (400V-20kVA) 20,000Rs.
 - Installation of telephone line for construction (1 line) 9,500Rs.
- Sub total 129,500Rs. ③

2. During construction

- Installation of permanent power supply (400V-20kVA) 48,000Rs.
 - Installation of telephone line to the newly installed MDF (1 line) 15,000Rs.
- sub total 63,000Rs. ④
- Total ③+④ 192,500Rs.

Other than items listed above, following expenses shall also be borne by the Indian side as required for the domestic procedures and the procedure of the grant aid cooperation system.

- Formalities of obtaining the building permit.
- Commission for Banking Arrangement (B/A) and Authorization to Pay (A/P)
- Counterpart Fund for the project.

6. SOIL INVESTIGATION RESULT

(1) Kalawati Saran Children's Hospital Site

SOIL PROFILE		Kalawati Saran Hospi- tal at LHM Campus.		B. H. No. 2		Table No. 2a.									
		Co-ordinates	Termination Depth 20.00m	Water Table 6.10m	Job No. 94216-A										
N-Value	Depth (Meters)	Sample No.	SOIL DESCRIPTION	Grain Size Analysis			Limits			Triaxial Test					
				Gravel%	Sand%	Silt%	Clay%	Liquid%	Plastic%	Natural Density gm/cc	Moisture Content%	Confining Pressure Kg/cm ²	C Kg/cm ²	Angle of Internal Friction	
5	0.50	DS1	FILL: Loose light brown sandy silt brick bats and boulders (3.0m)	0	22	68	10								
	1.00	SPT1		8	40	44	8	27.5	19.5						
10	2.25	DS2	Loose light brown sandy silt with gravel, low plastic (5.6m)	2	31	54	13	30.0	20.5						
	3.00	SPT2		11	18	54	17	34.0	23.5	1.83	18.7	1.2, 3 (UUT)	0.70		12°
9	4.50	SPT3	Stiff brown clayey silt with traces of, gravel, medium plastic (MI)												
	4.95	SPT4		2	12	61	25	39.5	27.7	1.90	20.3	1.2, 3 (UUT)	0.75		10°
14	5.25	UDS2	Medium dense light brown sandy silt with traces of gravel, low plastic (ML)												
	5.55	SPT5		2											
15	6.00	SPT6													
	6.45	SPT7													
20	7.50	SPT8													
	7.95	SPT9													
14	8.25	UDS3													
	8.55	SPT10													
14	9.00	SPT11													
	9.45	SPT12													
20	9.50	DS2													
	9.75	SPT13													
20	10.50	SPT14													
	10.95	SPT15													

SOIL PROFILE		Project: Kalawati Saran Hospi- Tal at LHM Campus.		B.H. No. 2b (Contd.)		Table No. 2b								
		Co-ordinates		Termination Depth 20.00m		Water Table 6.10		Job No. 94216-A						
N-Value	Depth (Meters)	Sample No.	SOIL DESCRIPTION	Grain Size Analysis					Triaxial Test					
				Gravel%	Sand%	Silt%	Clay%	Liquid% Plastic%	Natural Density g/mcc	Moisture Content%	Confining Pressure Kg/cm ²	Angle of Internal Friction C		
	11.25	UDS4	- with traces of gravel, 10.0 to 11.6m.	3	29	55	13	31.8	22.0	1.95	21.7	1,2,3 (UUT)	0.65	13°
	11.55	SPT8		0	21	65	14	33.0	23.0					
22	12.00	SPT9		0	30	60	10	29.2	20.3					
	12.45			0	27	56	17	33.4	23.6	2.01	22.5	1,2,3 (UUT)	0.7	13°
	13.50	DS3												
	13.70													
	14.25	UDS5		3	29	55	13	30.8	21.2					
21	14.55	SPT10		0	38	52	10	27.4	19.0					
	15.00													
24	15.45	SPT11		2	30	54	14	31.3	21.6					
	16.50	DS4												
	16.95													
	17.25	DS4												
	17.50													
21	18.00	SPT12	- with traces of gravel, below 18.0m											
	18.45													
24	19.55	SPT13												
	20.00		(20.0m)											
				UUT			Unconsolidation	Undrained					Triaxial	Shear Test.

(2) Kalyanpuri Urban Health Centre Site

N-Value		Depth (Meters)	Sample No.	SOIL DESCRIPTION	Grain Size Analysis					Limits			Table No. 2					
					Gravel %	Sand %	Silt %	Clay %	Liquid %	Plastic %	Natural Density g/mcc	Moisture Content %	Confining Pressure Kg/cm ²	C Kg/cm ²	Angle of Internal Friction	Table No. 2	Job No. 94216-B	Water Table 3.50m
		0.10	DS1	10cm thick PCC Pavement (0.1m)														
		0.40		FILL: Loose light brown sandy silt mixed with clay, gravels & brick bats (0.4m)														
		0.50	DS2	Loose light brown sandy silt with traces of gravel, low plastic (ML) (0.4m)					31.2	22.1								
		1.00																
		1.50	SPT1	Firm brown clayey silt, medium plastic (MI) (1.5m)	0	6	54	40	43.2	29.7								
		1.95																
		2.25	UDS1		0	5	58	37	41.4	28.4								
		2.55																
		3.00	SPT2		0				40.0	27.5								
		3.45																
		4.50	SPT3	Medium dense light brown fine sand with mica particles (SP-SM) (3.5m)	0	92	8	0										
		4.95																
		5.25	UDS2		0	93	7	0										
		5.55																
		6.00	SPT4	Medium dense light brown fine sand with mica particles (SP) (5.6m)	0													
		6.45																
		7.50	SPT5		0	95	5	0										
		7.95																
		8.50	DS3		0													
		9.55																
		10.00	SPT6		0	96	4	0										

JICA