3-4 Implementation Plan

3-4-1 Implementation Method

The project for the improvement of medical equipment at Osmania General Hospital has to be implemented according to the systems and policies of Japanese grant-aid. The implementation has to be undertaken by a Japanese consultant, which makes a contract with Osmania General Hospital signed after the conclusion of the exchange of note between the governments of India and Japan. The scope of works by the consultant contains the whole necessary procedures including the examination and selection of equipment, the supervision of a consequent process of shipment, transportation and installation, and the commissioning for hand-over to the hospital so that the equipment supplied may be operated on "turn-key."

It is deemed that the location of the project hospital which is at the centre of Hyderabad city with well-developed communication and transportation services would be advantageous for the realization of the project effect that is the improvement and strengthening of health care services in India.

Since most of the medical equipment to be supplied in this project are not available in India, they will be procured from Japan in principle.

A equipment plan should be made with full consideration of the availability and quality of after-sales services, maintenance services, and repair works for the equipment as well as the supply of necessary spare parts. The period of maintenance contract is estimated based on an expectation that it would take about 6 months for the government of Andhra Pradesh to arrange necessary budget for operating the equipment after the completion of handing-over with running test and operational instruction. Kinds and amount of the necessary spare parts will be estimated for each item with consideration of the frequency of use and the environmental conditions of the equipment). In addition, the manufacturers of the equipment will be obliged to provide the services of running test and operational instruction for necessary equipment. On top of this, an inspection will be made before the shipment of equipment at a port of Japan so that any unnecessary troubles and problems would be avoided.

Simple equipment, in principle, are installed by workers available in India, while some equipment, which require special skills for the installation, should be handled by special technicians from the Japanese manufacturers.

Prior to the implementation, the following points must be examined in detail by the Japanese side and the hospital and other personnel relevant to the project, concerning to the procedures of the supply of equipment, the completion of infrastructures to be done prior to the installation, the installation and running test, and technical cooperation.

(1) An attention must be drawn to the procedures of supplying and unpacking equipment since India is geographically located in tropical zone. In addition, measurers should be taken for the security until the equipment are installed and handed over after the unpacking. Therefore the timing and process of supply and installation must be adequately discussed in advance.
(2) The implementation schedule should include some allowance to provide adequate technical transfer to the operators of the equipment including medical officers and doctors of the hospital of India in terms of the running test and operational adjustment since there are diverse kinds of medical equipment to be supplied. The content of the operational instruction should be studied.
(3) As for some equipment, an attention must be given to the preventive security for accidents which may occur during the installation and the operation.
(4) Electricity, water supply, cleanliness and contamination, and security must be assured in prior to the use of the equipment. In this regard constructors in charge of the buildings and facilities and the supplier of the equipment should discuss to avoid unnecessary troubles.
(5) The consultant shall give appropriate instructions to the supplier on the whole procedures of implementation, and make sure the reporting from the supplier.

According to the following policy, job split should be considered for the smooth implementation.

(1) On Executing Agency

The Executing Agency of the project is Osmania General Hospital under the control of the Ministry of Health and Family Welfare. The chief executing director of the project is the superintendent of the hospital. In relation to the implementation of the project, the hospital should appoint personnel in charge of the project, and render cooperation at the time of unpacking, installation, and running test by providing relevant staffs from the maintenance department of the hospital. In this regard the following points should be made convenient by the hospital.

i) The confirmation of schedule for technical transfer.

ii) The appointment of personnel to attend for the running test and the instruction of operation and trouble shooting.
iii) The establishment of recipient conditions in terms of personnel affairs, such as the selection of staffs for electricity and water supply.

(2) On Consultant

After the conclusion of Exchange of Note between two government, a consultant agreement is to be made on detail design and supervisory services between Osmania General Hospital of India and a Japanese consulting firm. The agreement is effective subject to the verification of Japanese government.

According to this contract, the consultant render the following services.

i) Detail Design: Provision of detail-designed specification and other relevant technical materials
ii) Tendering: Selection of a supplier of the equipment, and assisting services on supplier contract
iii) Procurement: Supervisory services on procurement, installation and operating instruction of the equipment

(3) On Procurement of the Equipment

The procurement of the equipment is carried out by a supplier which is selected through tendering process, and signed the supplier contract with
the government of India. The contract will be effective subject to the verification of the Japanese government, and according to this contract the supplier will procure and transport the necessary equipment and give technical instruction on operation and maintenance of the equipment. Furthermore, even after the hand-over of the equipment, the supplier ensure the supply of spare parts during the guarantee period and assist the Indian side in the smooth maintenance of the equipment.

Remarks

As Osmania General Hospital does not employ proper staffs to handle the maintenance of buildings, electricity, and water supply, but has one temporal technician sent from the Bureau of Public Works to maintain buildings and water supply of the main and the new wards respectively. One technician is sent to be in charge of the maintenance of electricity. Each of the technicians supervises four to five inspectors, who undertake their works under the control of the director of the hospital and the person in charge of the administration department. In this regard the following points need to be considered.

1) They do not use the drawings but simple sketches for the works of water supply and electric wiring. It is not difficult to imagine that the precise cost estimation is impossible for such works. The actual amount of payment is calculated by inspectors after the completion of construction. This situation leads to the difficulty of making a budget plan.
2) Since the equipment plan has not been decided for the new ward, the construction has been suspended in the second phase after the completion of the first phase. The work would resume as soon as the detailed specification for the equipment to be supplied are decided. Therefore, it should be noted that the project does not included the construction of the second phase.
3) There are two independent distribution systems of electricity for the main and the new wards respectively. The supply of 440v, 3P is transformed down to 230v at the sub-distribution station. The result of the examination of the fluctuation rate of voltage shows that the voltage goes up to 226.9V at maximum and down to 220.1v at minimum. The average is 223.3V. It follows from this result that some equipment need AVR.
4) The examination of the quality of water sampled from the public service and the well in the project shows that there is not much difference with the quality of water available in Tokyo. However, some equipment need the pre-treatment of water, which should be done according to the standard specification for the water of Tokyo.

Supervision Plan

The purpose of supervision is to ensure the project to be implemented smoothly according to the designed plan by rendering supervisory services of guiding, assisting and coordinating to make sure supplier's works to be done in conformity with the supplier's contract. The works include the following services.

1) Services on supplier contract
   Selection of a supplier through tendering, Formulation of a draft of supply contract, Examination of contract price, Witnessing of signing a contract
2) Examination and Approval of the specification and catalogues of medical equipment submitted by a supplier for the tender.
3) Confirmation and approval of equipment
   Inspection and approval of documents to be submitted with medical equipment to be supplied
4) Supervision of shipment and inland transportation

5) Instruction and supervision on installation and constructing works done by the Executing Agency.

6) Reporting of the progress of the project

   The progress and the updated situation of the project should be reported to the Executing Agency.

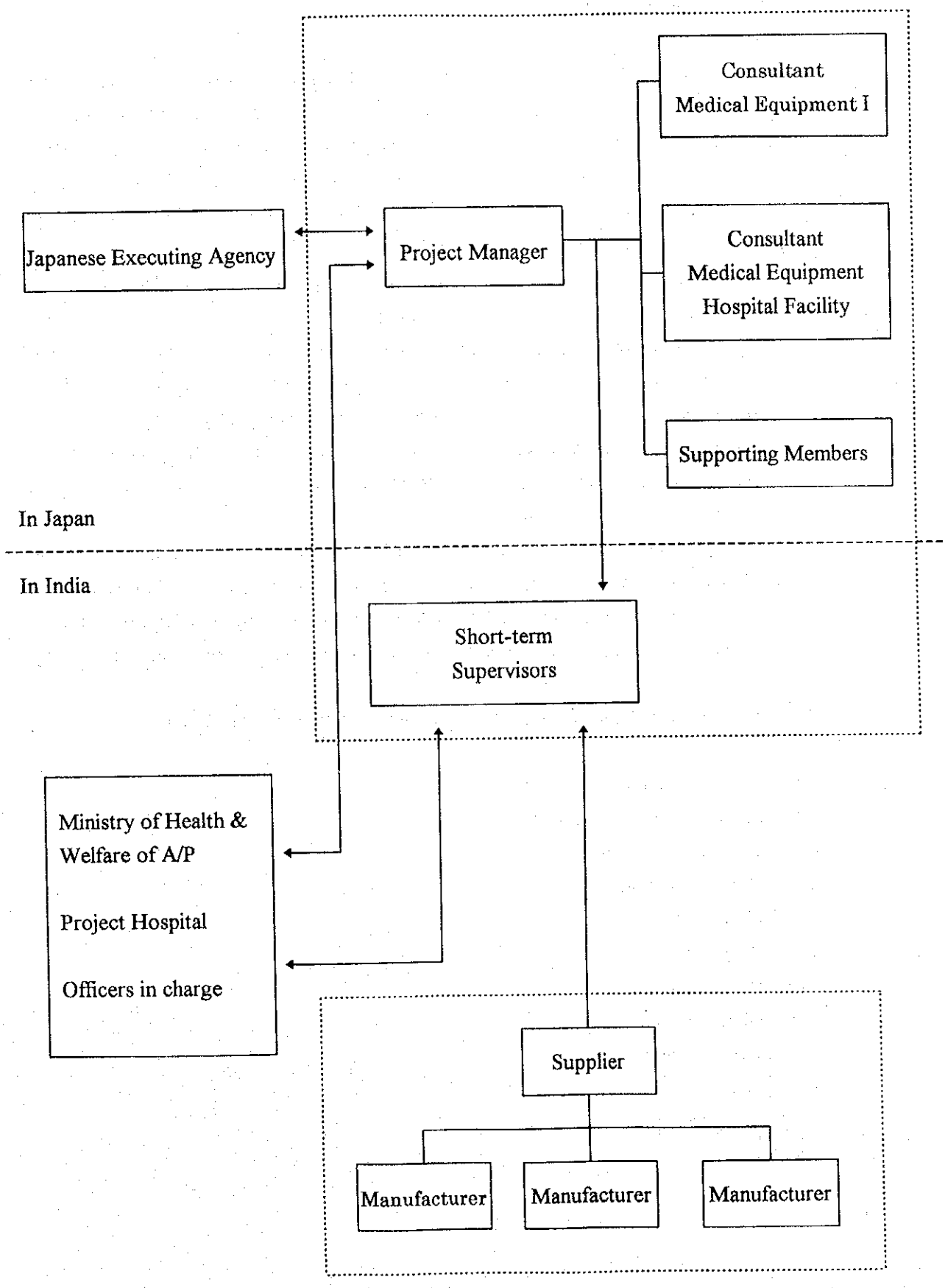
7) Inspection

   Assist the Executing Agency in the inspection of documents and the hand-over of equipment to ensure the quality and specification of equipment to be supplied at the time of shipment and installation.

   In addition to this, reporting should be also made to Japanese government on the progress of the project, the procedure of payment, and the details of the hand-over of equipment.

Supervising system is shown as per attached.

Supervising System



3-4-2 Procurement Plan

Most of the medical equipment and materials in India are imported. Therefore it is necessary to ensure the availability and accessibility of the procurement of necessary consumables and technical services, such as repair and operational instruction in the hospital. For this purpose high priority is given to the equipment for which local agents are available with the provision of consumable and repair services, and the manufacture can render the trouble-shooting services at least.

1) A special attention is drawn to the equipment of X-ray, medical electronics, and clinical laboratory among other medical equipment supplied.
2) It may be followed from the above condition that some equipment may be imported from the third countries for which the maintenance services are more easily available and accessible, even taking into consideration of the specification and the price of equipment. In this regard some of X-ray diagnostic apparatus, general X-ray apparatus, medical electronics, and laboratory apparatus may be considered to be imported from the third countries.

   The procurement of local products should be given priority on conditions that the quality and the date of delivery are in conformity with the given conditions, and the maintenance services are easy to be available (for example, personal computers to be supplied with application software and operational instruction, which are easily available).

The equipment which may be imported from the third countries are listed below.

<u>Imported from the third countries</u>
Ultrasound diagnostic apparatus
X-ray diagnostic apparatus
General X-ray apparatus
Medical electronics
Laboratory apparatus
<u>Procured in India</u>
Personal computer
Photocopy machine
Paging system
<u>Imported from Japan</u>
All other equipment

3) A maintenance contract should be signed between the manufacturer and the hospital so that the availability of spare parts that are difficult to be procured by the hospital should be ensured through the manufacture.
4) The date of delivery should be 56 or 57 days including 45 days for transportation by ship, 7 days for custom clearance, 3 to 4 days for inland transportation with some allowance.
5) Selection of a supplier and the type of contract
   A supplier for the procurement of equipment should be a Japanese firm selected through an open tendering. The award will be given to a supplier who offers the lowest price within the given budget, as far as the services designated in the tender document and specification would be secured, and the neutrality of the tendering would be maintained. The contract should be lump-sum as designated in the tendering.
6) Transportation
   The equipment is transported inland while in Japan, and by ship from a Japanese port to the port of Madras in India. The transportation from the port to the project site should be of inland. Some of fine equipment need a special packing for water-proof. Furthermore a care is also given to the conditions of storage of the equipment until they are completely installed. The transportation of the equipment procured in the third countries should also follow this conditions applied for ones from Japan.

3-4-3 Implementation Schedule

Implementation states are summarized as follows. Personnel in charge of the project implementation of the Indian side, consultant employed and the supplier etc. are required to undertake their works including the required assistance from the Government of India.

(1) Exchange of Notes by the Government concerned
(2) Banking Arrangement
   Banking arrangement between the representative of the Indian implementation authority and authorized foreign exchange bank in India in relation with the payment of the Project Cost.
(3) Consultant Service Agreement: Agreement between the Osmania General Hospital and the Japanese consultant recommended by Government of Japan.

(4) Verification:

Verification made by the Japanese Government on the same Agreement.

(5) Authorization to Pay:

Authorization to pay for the payment of the Project cost for the provision of the consulting services.

(6) Detailed Design

Detailed designing including Tender documents by the consultant; Approval on the documents by Osmania General Hospital; Preparation of Tender and execution of the tendering for the supply of the project equipment; Tender evaluation; Conclusion of the Supply Contract between Osmania General Hospital and the Supplier for the procurement of the Equipment.

(7) Verification

Verification made by the Japanese Government on the same Contract.

(8) Authorization to Pay

Authorization to pay for the payment of the Project cost for the procurement of the Equipment.

(9) Manufacturing/Layout

Preparation and approval of the Equipment specifications and services necessary for the project Equipment.

(10) Pre-shipment Inspection:

Consultant, on behalf of Osmania General Hospital undertakes an inspection for the Equipment before shipment to the project site.

(11) Supervision

Consultant carries out supervision of the procurement procedures made by the Supplier which includes commissioning of the Equipment at the project site.

(12) Monitoring

Consultant control the Supplier's performance until the successful completion of the Project.

(13) Final Delivery and Initial Operation

Consultant manage the commissioning works of the Supplier during the installation and initial operation to confirm the technical conformance of the Equipment and issue Inspection certificate.

Implementation states are summarized as follows. Personnel in charge of the project implementation of the Indian side, consultant employed and the supplier etc. are required to undertake their works including the required assistance from the Government of India.

(1) Exchange of Notes by the Government concerned

(2) Banking Arrangement :Banking arrangement between the representative of the Indian implementation authority and authorized foreign exchange bank in India in relation with the payment of the Project Cost.

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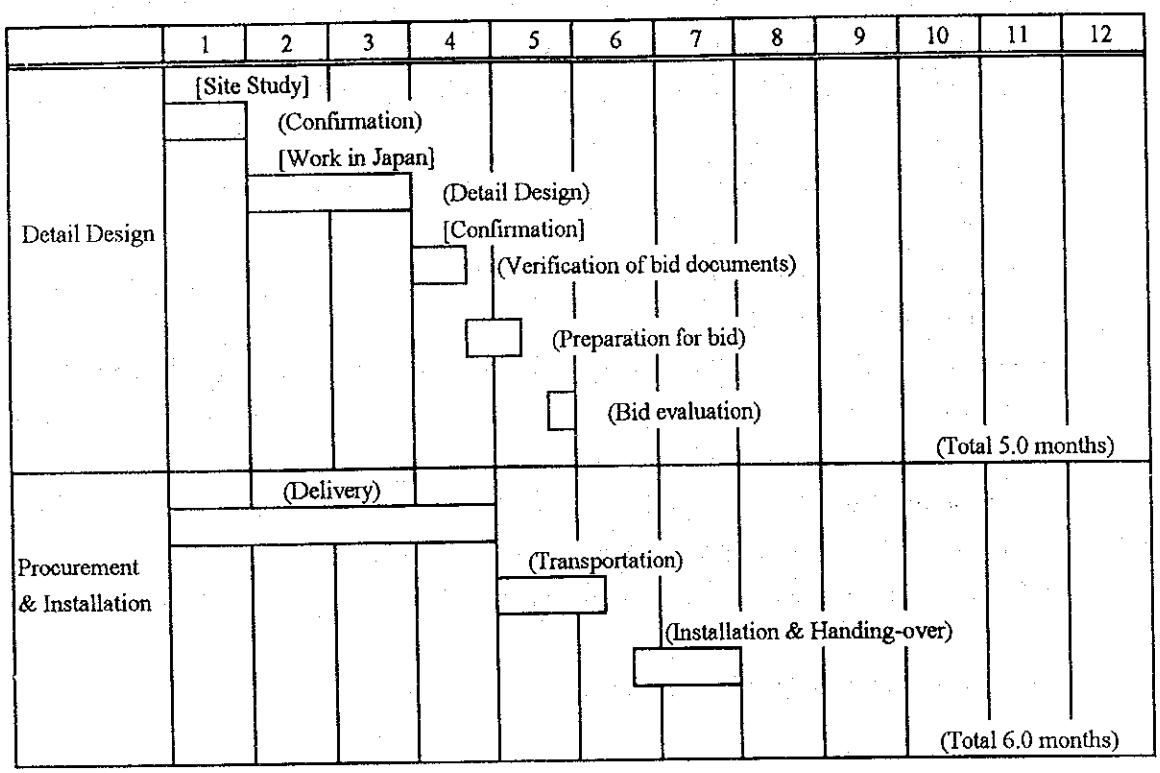
(6) Detailed Design: Detailed designing including Tender documents by the consultant; Approval on the documents by Osmania General Hospital; Preparation of Tender and execution of the tendering for the supply of the project equipment; Tender evaluation; Conclusion of the Supply Contract between Osmania General Hospital and the Supplier for the procurement of the Equipment.

(7) Verification: Verification made by the Japanese Government on the same Contract.

The implementation schedule of each activities is shown as attached.

Implementation Schedule

Schedule of each activity is shown below.



3-4-4 Scope of Work

The cost disbursed from the Indian side to execute the Project will be estimated as follows.

I. Costs of the renovation of;

(1) Inside wall/floor reforming Rp. 937,500

- Renovation of CSSD
- Construction of protection wall, partition, floor of Radiology department
- Installation of Operating lights
- Renovation of laundry section
- Construction of partition of Microbiology department

(2) Piping works of electricity/water supply Rp. 625,000

- Works for electricity (installation of distribution panels and outlets)
- Works for water supply and drainage system

Remarks:

Currency exchange conditions on Nov.1994/Time

¥98.45/US$

¥3.2/Rp.

CHAPTER 4

PROJECT EVALUATION AND CONCLUSION

CHAPTER 4

PROJECT EVALUATION AND CONCLUSION

Chapter 4 Project Evaluation and Conclusion

4-1 Effects of the Project

This project is designed to improve and strengthen the medical services of the hospital as far as the equipment to be supplied in this project are used properly.
Some expected effects of this project are summarized below.

Present status and problems	Measures taken in the project	Effects of the project
1. The hospital is a top referral hospital in the state of A/P and a teaching hospital of the medical schools to provide clinical training for postgraduates. The buildings, which are more than 70 years old, are deteriorating and the existing equipment become already old-fashioned.	The measures to be taken are the improvement of general medical equipment used for common diseases, and the straightening of diagnosis and treatment.	a. to improve the quality of diagnosis and treatment which have not been sufficiently provided. b. to improve the average hospital stay of inpatients. c. to enable the provision of medical services to meet the required standard.
2. The hospital can hardly realize the required medical services to meet the requirement in the region.	The measures are taken to improve the accessibility of public health services for the people who can not make avail of the medical services of the private hospitals	To provide medical services for the patients who have been transferred to a private hospital or a charged public hospital. This is particularly beneficial for the poors.
3. The hospital does not provide adequate educational services, which are imperative for the strengthening of medical manpower (i.e. teaching modern medical skills).	The measure to be taken is to provide medical equipment of the same kind with ones which have been used in the hospital for teaching and training purposes of necessary medical manpower of the region.	The following number of medical personnel would be the beneficiaries of the project. Nurse 220 Medical student 216 Postgraduate 162 Special trainee 14
4. The hospital has problems on sterilization and cleaning.	The measure to be taken is to supply the equipment useful for sterilization, cleaning and treatment of medical disposals to	The sanitary environment in the hospital is going to be improved, and then the possibility of the in-hospital infection would decrease.

	be preventive for the in-hospital infection.	The laundry capacity would increase up to about 300Kg per day.

4-2 Feasibility Study

This project is the supply of medical equipment to the top referral hospital of the state of Andhra Pradesh.

The objective of the project is to provide the 80% of the poors in the state with inexpensive but a certain standard of medical services, which has at least the same quality with private hospitals which charge the fee. The objectives specified both by short and long-term programmes of India are to provide modern and effective medical services, to make the use of the potential medical manpower by the improvement of medical equipment, and to upgrade the quality of nurse and medical technicians (e.g. X-ray technicians, laboratory technicians, clinical mechanics, etc.) to attaining the overall improvement of health care services of the state. The historical background of the hospital makes us to expect that it will obtain strong and continuous support from the government of Andhra Pradesh in future. It can follow from all of this that the extension of a Japanese grant-aid for this project is feasible.

The following conditions or consequences of this project support the feasibility of this project.

1) More than 80% of population of the region are expected to enjoy the benefits of this project.
2) There would be an interactive effect with the World Bank programmes which are carried out for the strengthening of secondary health care services, resulting in "the improvement of civil" life of the region, which is one of the objective of H.H.C.P. (Human Health Care Programme).
3) The continuous financial support to the hospital from the Ministry of Health and Family Welfare of Andhra Pradesh must be guaranteed to maintain the quality of administration and management of the hospital.
4) Some of the equipment included in the project are particularly helpful for the improvement of sanitary conditions inside and outside the hospital.

5) In relation to other aid projects conducted by Japanese government, such as the supply of X-ray CT to MNJ Cancer Center, a careful consideration is given not to cause any redundancy and overlaps.

4-3 Recommendation

It follows from the above that this project will contribute to attain the Basic Human Needs of local people, step by step medical equipment renovation plan from essential equipment such as Sterilization Apparatus and Microscope to tertiary care equipment such as MRI, X-ray CT Scanner as future target.
The following points are recommended to optimize the effect of this project.

1) In general the hospital administration of Osmania General Hospital is not adequately systematized as such each department of the hospital keeps autonomy in terms of the provision of the educational services to Osmania Medical College. In fact there is a special staff under the director who is assigned to handle the administration of the hospital as a whole. However the actual hospital administration is managed by the residential medical officer at each department (there are 6 officer for departments and 1 for general) of electricity, mechanics, telephone operator, storage, laundry and CSSD respectively. Meanwhile the administration of nursing services is controlled at each specialty department, and not controlled by the hospital as a whole. This situation entails the low status of nurses in the hospital, which subsequently leads to their low technical skills. In addition a particular attention should be drawn to the problems of sanitation as well as the mal-management of storage section, which should be given remedial actions immediately.

2) The medical record section collects and manages all medical records coming from all departments despite a lack of sufficient manpower. The categorization system adopted in the medical record section follows the standard of WHO. Medical records can be issued out from the section for the purpose of research by medical doctors. However that any results of such research have been rarely returned to the medical record section results in the difficulty of updating of the records. In fact we could not obtain adequate basic data (e.g. current disease pattern observed at each department) for our study and selection of appropriate medical equipment; for example, details of operations made in the hospital are confidential and only the figures of the number of operation classified in major, minor and intermediate were

given). Therefore we recommend that a system should be established to make use of medical records for the betterment of hospital administration.

3) There are some problems observed in relation to the facilities of the hospital as follows.

   1. The garbage and medical wastes disposed in the hospital is not systematically treated. Necessary measures should be taken, such as the establishment of a segregated disposal system for medical wastes, the systematic treatment of ordinary garbage discharged from inpatient wards, and the establishment of a drainage system at laundry system at laundry section.

   2. Sanitation facilities of the operating theatres must be improved. The hospital side explained that there are no cases of in-hospital infection. Practices of washing and cleaning presently done at the operating theatres when people go in and out seemed not adequate. Japanese team advised the hospital some necessary action to take urgently.

   3. Cleaning is incomplete in some sections in the hospital. It may be true the more people clean the hospital the more people are likely to keep its cleanness. Since no additional cost is necessary for the improvement of this cleaning standard, an immediate practice is expected.

4) The improvement of budgetary arrangement for a incremental recurrent cost is a salient matter for the hospital to secure the financial management. Though the three-tiered charging system is proposed for the most recommended system for the tertiary health care, it is unexpected that the hospital would charge the fee to the poor patients. This entails a pessimistic perspective that the hospital might soon or later face financial crisis. Sound budget allocation therefore, should be reconfirmed to ensure the financial sustainability by state government of Andhra Pradesh.

5) The establishment of a maintenance system is an urgent issue. With full consideration of this, we may include the equipment in the Project. However, since this leads to the additional increase of the project budget, the Indian side should make clear picture of the finance plan.

[APPENDICES]

[APPENDICES]

1. MEMBER LIST OF SURVEY TEAM

1-1 Basic Design Study Team

Mr. Seiki TATENO, M.D., Ph.D.	Leader Chief, Section of Tropical Medicine, Expert Service Division, Bureau of International Cooperation, International Medical Center of Japan, Ministry of Health and Welfare, Government of Japan
Mr. Kiyoto KUROKAWA	Project Coordinator First Basic Design Study Div., Grant Aid Study & Design Dept., JICA
Mr. Kyoichi IZAWA	Project Manager President of DAIICHI HEALTH CARE FACILITY CONSULTANTS, INC.
Mr. Tokio ODA	Facilities Planner Architect of DAIICHI HEALTH CARE FACILITY CONSULTANTS, INC.
Mr. Koichi MURAO	Equipment Planner DAIICHI HEALTH CARE FACILITY CONSULTANTS, INC.

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
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45th Floor, Shinjuku Mitsui Building,
1, 2-Chome, Nishi-Shinjuku, Tokyo 163, Japan
Phone: (3) 3346-5347

1-2 Draft Report Explanation Team

Mr. Seiki TATENO, M.D., Ph.D.	Leader Expert Service Division, Bureau of International Cooperation, International Medical Center of Japan, Ministry of Health and Welfare, Government of Japan
Mr. Kiyoto KUROKAWA	Project Coordinator First Basic Design Study Div., Grant Aid Study & Design Dept., JICA
Mr. Kyoichi IZAWA	Project Manager President of DAIICHI HEALTH CARE FACILITY CONSULTANTS, INC.
Mr. Koichi MURAO	Equipment Planner DAIICHI HEALTH CARE FACILITY CONSULTANTS, INC.

2. SURVEY SCHEDULE Ⅰ (Basic Design Study)

Date	Itinerary	Purpose
Oct. 1 (Sat)	Arrive to Bangkok	
2 (Sun)	Arrive to New Delhi	
3 (Mon)	Embassy of Japan	Courtesy call and meeting
	JICA Office, MOH	Discussion on schedule
	Arrive to Hyderabad	
4 (Tue)	Department of Health & Family Welfare (A/P)	Courtesy call and meeting
	Other relevant institutes	Explanation of Inception Report
		Discussion on schedule
5 (Wed)	Department of Health & Family Welfare (A/P)	Discussion on the project
	Other relevant facilities	
		Visit the site
6 (Thu)	Department of Health & Family Welfare (A/P)	Discussion on the project
	Osmania General Hospital (OGH)	
		Visit the site
7 (Fri)	OGH	Discussion on the project
		Visit the site
8 (Sat)	OGH	Discussion on the project
	Other relevant facilities	Visit the site
9 (Sun)	Internal meeting	
10 (Mon)	Department of Health & Family Welfare (A/P)	Discussion on the project
	OGH	
11 (Tue)	(Gov. officers & P. M.)	
	Move to New Delhi	Report to JICA, Embassy of Japan
	(Other members) OGH	Discussion on the project
12 (Wed)	(Gov. officers & P.M.) MOH	Sign on the minutes
	(Gov. officers) Move to Bangkok	
	(Other members) OGH	Discussion on the project
13 (Thu)	(Gov. officers) Move to Narita	
	(P.M.) Move to Hyderabad	
	(Other members) OGH	Discussion on the project
14 (Fri)	OGH	Discussion on the project
15 (Sat)	OGH	Discussion on the project
16 (Sun)	Move to New Delhi	
17 (Mon)	Local suppliers and agents	Survey on the local suppliers and agents of medical equipment
18 (Tue)	MOH	Report of study
19 (Wed)	Local suppliers and agents	Survey on the local suppliers and agents of medical equipment
20 (Thu)	JICA	Report of study
	Embassy of Japan	
21 (Fri)	Arrive to Narita	

SURVERY SCHEDULE II (Draft Report Explanation)

Date	Itinerary	Purpose
Dec.7(Wed)	Departure from Narita Arrive to New Delhi	
8(Thu)	Embassy of Japan JICA Office, MOH Arrive to Hyderabad(Evening)	Courtesy call and meeting Discussion on schedule
9(Fri)	Department of Health & Family Welfare (A/P) Osmania General Hospital (OGH) relevant institutes	Courtesy call and meeting Explanation of Draft Report Discussion on the project
10(Sat)	Department of Health & Family Welfare (A/P)	Discussion on the project
11(Sun)	Internal meeting	(Discussion on the project)
12(Mon)	Department of Health & Family Walfare (A/P) OGH	Discussion on the project
13(Tue)	Move to New Delhi	
14(Wed)	Report to JICA	Discussion on the project
15(Thu)	MOF	Sign on the Minutes
16(Fri)	Embassy of Japan	Report on the project
17(Sat)	Move to Narita via Bangkok	

3.MEMBER LIST OF PARTY CONCERNED IN THE RECIPIENT COUNTRY

Embassy of Japan

T. Okabe	Councilor, Embassy of Japan
M. Hirose	First Secretary, Embassy of Japan

JICA

M. Sasago	Resident Representative, JICA India Office
M. Nomura	Deputy Resident Representative, JICA India Office
T. Sakai	Deputy Resident Representative, JICA India Office

GOVERNMENT OF INDIA

Ministry of Finance

Mrs. Rama Murali	Joint Secretary, Dept. of Economic Affair
Mr. D.N.N. Raju	Deputy Secretary, Dept. of Economic Affair

Ministry of Health & Family Welfare

Mr. Ashok Mehta	Under Secretary, Dept. of Health
Mrs. Namita Pradhan	Director, Dept. of International Health

State Government of Andhra Pradesh

Mr. Kotla Vijaya Bhaskara Reddy	Honourable Chief Minister

Ministry of Health & Family Welfare

Mr. K. Rosaiah	Honourable Minister
Mr. B.V. Rama Rao	Spl. Chief Secretary, Dept. of Health, Medical and Family Welfare
Ms. K. Sujatha Rao	Secretary, Dept. of Health, Medical and Family Welfare
Mr. K.L. Narayanan	Deputy Secretary, Dept. of Health, Medical and Family Welfare
Dr. Nandaraj Singh	Director, Health Service
Dr. C.M. Habibullah	Director, Medical Education

Osmania General Hospital

Dr. D. Satyanarayana	Superintendent, Professor & Head of the Dept. of Endocrinology
Dr. Sudhir R. Naik	Professor & Head of the Dept. of Cardiology
Dr. T.E. Anandavalli	Professor & Head of the Dept. of Neurology
Dr. Jayapel Reddy	Professor & Head of the Dept. of Cardiothoracic
Dr. P. Kantha Reddy	Professor & Head of the Dept. of Neurosurgery
Dr. A.V.S. Reddy	Professor & Head of the Dept. Genito-Urology
Dr. N.R.S. Iyengar	Professor & Head of the Dept. of Anaesthesiology
Dr. C.S.K. Bhagavanulu	Professor & Head of the Dept. of Radiology
Dr. T.S.S. Laxmi	Professor & Head of the Dept. of Dermatology
Dr. R. Vidyasagar	Head of the Dept. of Gastroenterology
Dr. Nandan Singh	Professor & Head of the Dept. of Microbiology
Dr. Farhatunnissa	Professor & Head of the Dept. of Biochemistry
Dr. Gajanand Rao	Assistant Professor of the Dept. of Pathology
Dr. K.M. Lakashman Rao	Professor & Head of the Dept. of Surgery
Dr. A. Prakasham	Professor & Head of the Dept. of Medicine
Dr. Venkata Raghava Reddy	Professor & Head of the Dept. of Plastic Surgery
Dr. Paul Richmond Peters	Chief Blood Bank Officer

Related Medical Institutions

MNJ Institute of Oncology

Dr. J. Mandapal	Professor of the Dept. of Radiology

Nizam's Institute of Medical Science

Dr. I. Sattapralada rao	Director

4. MINUTES OF DISCUSSION

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY
ON
THE PROJECT FOR THE IMPROVEMENT OF MEDICAL EQUIPMENT
AT OSMANIA GENERAL HOSPITAL IN INDIA

In response to a request of the Government of India, the Government of Japan has decided to conduct a Basic Design Study on the Project for THE IMPROVEMENT OF MEDICAL EQUIPMENT AT OSMANIA GENERAL HOSPITAL IN INDIA (hereinafter reffered to as "the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA). JICA sent to India a study team, headed by Dr. Seiki TATENO, Bureau of International Cooperation International Medical Center of JAPAN, Ministry of Health and Welfare, from October 6 to October 21, 1994.

The Team held discussions with the officials concerned of the Government of India and conducted field surveys at the study area.

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

Delhi October 13, 1994

Dr. Seiki TATENO
Leader
Basic Design Study Team
JICA

Dr. C. Surya Prakasara
Incharge Director of Medical Education
Government of
Andhra Pradesh

Dr. D. Satyanarayana
Superintendent
OSMANIA GENERAL HOSPITAL

Mr. K. L. Narayana
Deputy Secretary
Health, Medical & Family Welfare, Dept.
Government of
Andhra Pradesh

Mr. Ashok Mehta
Under Secretary
Dept. of Health
Ministry of Health
& Family Welfare
Government of India

Mr. D. N. N. Raju
Deputy Secretary
Department of
Economic Affairs
Ministry of Finance
Govt. of INDIA

ATTACHMENT

1. Objectives of the Project

The objective of the Project is to improve the essential function at OSMANIA GENERAL HOSPITAL through provision of essential equipment.

2. Project sites

OSMANIA GENERAL HOSPITAL in Andhra Pradesh

3. Executing Agency

Health,Medical & Family Welfare Dept.,Goverment of Andhra Pradesh is responsible for the administration and execution of the Project.

4. Items requested by the Government of India

After the discussions with the Basic Design Study Team, the following items were finally requested by the Indian side.

Provision of the equipment described in Annex I
(Note: A=1st priority B=2nd priority C=3rd priority)
However,the final components of the Project will be decided after further studies.

5. Comments by the Japanese side on the items in 4 above

The equipment to be given high priority in the Project is;

1) the equipment to be utilized for treatment of the common deseases.
2) the equipment to be replaced with the existing equipment which is already deteriorated.
3) the essencial equipment for primary health care identified by the World Bank,WHO,UNICEF etc.

While,the equipment to be given low priority in 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 enviromental control,
7) the equipment only utilized with exclusive reagent kit available from the specific manufacture,and
8) the equipment with financial/marketing difficulties on the procurement of consumable and spare parts etc.

6. Japan's Grant Aid Program

(1) The Govenrment of India & the Government of Andhra Pradesh have understood the system of Japanese Grant Aid explained by the team.
(2) The Govenrment of India & the Government of Andhra Pradesh will take necessary measures described in ANNEX II, for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

7. Schedule of the study

(1) The consultants will proceed to further studies in India until October 21st, 1994.
(2) JICA will prepare the draft report and dispatch a mission in order to finalize the contents of the report around December 1994.
(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 April, 1995.

8. The relationship between Japanese Project and World Bank Project.

(1) Indian side will coordinate the above relation and make no overlappings and conflicts between these two donors.
(2) In case the World Bank prepare the basic equipment, Japanese Project should be suspended until the concreate plan be provided.
(3) The Government of Andhra Pradesh confirmed that the World Bank Project does not extend any assistance to Osmania General Hospital.

9. Financial problem.

(1) Japanse side stressed the importance of tackling the financial plan of the hospital and requested to make clear picture of the hospital including operation and maintenance cost of the sophisticated equipment, which was presented by the Study Team, until 30, Oct. 1994.
(2) The hospital shall work out the mechanizum for recovery of charges of costs involving mordern sophisticated investigation and treatment.

10. Avoid duplication of the equipment.

To avoid duplication, the hospital will submit the list of existing equipment and plan of new equipment which will be purchased by themselves and other donors until 20, Oct. 1994.

11. Reply to the questionnaire.

Indian side will submit the reply to the questionnaire until the end of Octorber 1994 to the office of JICA in India, New Delhi.

12. Priority of the grant aid.

The fund of the grant aid is come from the contribution of the tax payer. The first priority of the fund should be given to the suffering poor patient.
The Government of Andhra Pradesh responded that Osmania General Hospital is catering to the needs of poor patient.
The Study Team did understand the needs for the latest sophisticated equipment. However, it is not suitable as grant aid because of less cost effectiveness and less urgency.

ANNEX-I

NO	DESCRIPTION	Q'TY	PRIORITY
100	RADIOLOGY DEPARTMENT		
101	MRI	1	C
102	X-RAY CT SCANNER, WHOLE BODY	1	B
103	MAMMOGRAPHIC X-RAY SYSTEM	0	B
104	X-RAY PHOTGRAPHIC SYSTEM W/TV, D.S.A	1	A
105	X-RAY SYSTEM	2	C
107	MOBILE X-RAY SYSTEM	0	A
108	COLLOR DOPPLER USG	1	A
109	ULTRA SONOGRAPHY	0	A
110	PROCESSING TANK	1	A
111	AUTO FILM DEVELOPER	1	A
112	FILM DUPLICATOR	1	A
113	ANGIOGRAPHY UNIT WITH D.S.A.	1	C
200	ENDOSCOPY		
201	TV VIDEO ENDOSCOPY SET	1	A
202	ENDOSONOGRAPHY	1	C
203	UPPER GI FIBERSCOPE, TV TYPE (INFANT)	1	A
204	UPPER GI FIBERSCOPE, TV TYPE (ADULT)	2	A
205	UPPER GI FIBERSCOPE, NORMAL (ADULT)	1	A
206	DUODENO FIBERSCOPE, TV TYPE	2	A
207	COLONO FIBERSCOPE, TV TYPE	2	A
208	SIGMOID FIBERSCOPE, NORMAL	1	A
209	LIGHT SOURCE	1	A
211	ENDOSCOPIC ILLUMINATER	0	A
212	ENDOSCOPIC/PROCTOSCOPIC TABLE	0	A
213	FIBERSCOPE CLEANING MACHINE	1	A
214	ENDOSCOPIC TROLLEY	0	A
215	ENDOSCOPIC HANGER	0	C
216	ENDOSCOPIC CABINET	0	C
217	SUCTION PUMP	0	C
218	S.G. DIALATORS SET	2	A
219	PNEUMATIC DIALATORS SET	9	A
220	OESOPHAGEAL MANOMETRY	2	A
300	CLINICAL LABORATORY		
301	AUTOANALYZER	1	A
302	BLOOD GAS ANALYSER, FULLAUTOMATIC	1	A
303	ELECTROLYTE ANALYSER	2	A
304	SPECTROPHOTOMETER, DOUBLE BEAM	1	A
305	ELECTROPHORESIS / SCANNER	1	A
306	REFRIGERATED CENTRIFUGE	1	A
307	SPECTROPHOTOMETER, SINGLE	2	A
308	ELECTRICAL BALANCE	2	A
309	PH METER	1	A
310	DEEP FREEZER (-20C)	1	A
311	SEMI AUTOANALYZER	2	A
312	CHLORIDE METER	2	A
313	ICE CUBE MACHINE	1	A
314	PERSONAL COMPUTER / PRINTER	2	A

NO	DESCRIPTION	Q'TY	PRIORITY
400	MICROBIOLOGY		
401	ANALYTICAL BALANCE	1	A
402	U.V. LAMPS	5	A
403	LAMINAR FLOW	1	A
404	BIONUCLAR MICROSCOPE	5	A
405	MONOCULAR MICROSCOPE	5	C
406	FLOURESCENT MICROSCOPE	1	A
407	ELISA READER	1	A
408	THIN LAYER CHROMATOGRAPHY	1	C
409	IMMUNOELECTREOPHORESIS	1	A
410	ANAEROBIC STATION / GAS CYLINDER	1	A
411	DEEP FREEZER (-80)	1	A
412	DEEP FREEZER (-20)	1	A
413	REFRIGERATORS	4	A
414	WATER BATH WITH SHAKER	1	A
415	VERTEX MIXER	1	A
416	FREEZ DRYER	1	A
417	MICRO PIPETTES SET	1	A
418	SONICATOR	1	B
419	INCUBATOR	1	A
420	VERTICAL AUTOCLAVE	2	A
421	HOT AIR STERILIZER	2	A
422	CO2 INCUBATOR	1	B
423	CENTRIFUGE, TABLE TOP	4	A
424	STEREO MICRO SCOPE	1	A
425	LOW TEMPERATURE INCUBATOR	1	B
426	PH METER	2	A
427	ULTRASONIC CLEANER	1	A
428	PCR	1	C
429	GAMMA COUNTER	1	C
430	LIQUID NITROGEN CYLINDER	1	B
500	PATHOLOGY		
501	FLUORESCENT MICROSCOPE	1	A
502	TISSUE PROCESSOR	2	A
503	AUTOMATIC STAINER	1	A
504	MICROTOME SEMIAUTOMATIC / SHARPNER	2	A
505	CRYOSTAT	2	A
506	BLOOD CELL COUNTER	1	A
507	COAGULOMETER	1	A
508	LEUCOCYTE COUNTER	0	A
509	CYTOSPIN	1	C
510	BINOCULAR MICROSCOPE	21	A
511	TEACHING MICROSCOPE FOR 5 PERSONS	0	A
512	TRINOCULAR MICROSCOPE / CAMERA	0	A
513	TV MICROSCOPE	0	B
514	PERSONAL COMPUTER / PRINTER	1	A
515	ELECTRON MICROSCOPE SET	1	C
516	DEEP FREEZER (-80)	1	A
517	REFRIGERATOR	3	A
518	TABLE TOP CENTRIFUGE	8	A
519	HEMATOCRIT CENTRIFUGE	1	A
520	HIGH SPEED CENTRIFUGE	1	A
521	SPECTROPHOTOMETER (DOUBLE BEAM)	1	A
522	ELECTROPHORESIS WITH DENSITOMETER	2	B
523	H.L.A. LAB	1	B
524	PLATLET AGGREGOMETER	1	B
525	ELECTRONIC BALANCE	1	A

NO	DESCRIPTION	Q'TY	PRIORITY
526	REFRIGERATOR CENTRIFUGE	1	A
527	DOUBLE DISTILLATION PLANT	1	A
528	FLOW CYTOMETER	1	C

NO	DESCRIPTION	Q'TY	PRIORITY
600	BLOOD BANK		
601	CENTRIFUGE	2	A
602	CENTRIFUGE REFRIGERATOR	1	A
603	CENTRIFUGE HEAVY DUTY	1	A
604	INCUBATOR	1	A
605	REFRIGERATOR 120PCS	2	A
606	REFRIGERATOR MEDIUM	2	A
607	MICROSCOPOE BINOCULAR	1	A
608	B.P. APPARATUS	2	A
609	BLOOD SCALE	4	A
610	MICRO PIPPETTE	2	A
611	B.P. APPARATUS BED SIDE	2	A
613	DEEP FRREZER -70°C	1	A
614	GENERATOR MINI	1	A
615	PLATELET AGITATOR	1	A
616	DOUBLE DISTILLATION PLANT	1	A
617	LAMINA FLOW	1	B
618	PERSONAL COMPUTER / PRINTER	1	A
619	PPP & PRP COLLECTION	1	C
700	ANESTHESIOLOGY (OPERATION THEATER)		
701	VENTILATOR(ADULT)	6	A
702	VENTILATOR(INFANT)	2	A
703	PULSE OXIMETERS	6	A
704	MULTI-CHANNEL TEMPERATUIRE MONITOR	6	A
705	CO2 MONITOR	6	A
706	BLOOD GAS ANALYSER, 3P	1	A
707	TEMPERATURE CONTROL BLANKET	6	A
708	INTRA-AORTIC BALOOM PUMP	1	C
709	C-ARM FOR GUIDED LONG TERM NERVE BLOCK FOR	1	A
710	PULMONARY FUNCTION MONITOR	1	A
711	ANESTHESIA APPARATUS / VENTILATOR	29	A
712	C-ARM X-RAY UNIT /MOBILE	1	A
713	OPERATING TABLE, UNIVERSAL	29	A
714	OPERATING LIGHT / MOBILE	29	A
715	DIATHERMY (ELECTRO SURGICAL UNIT)	6	A
716	DEFBRILATOR	7	A
717	REFRIGELATOR	7	A
718	PATIENT MONITOR	29	A
719	STRETCHER	10	A
720	SURGICAL SCRUB STATION, 2	6	B
800	CSSD		
801	STEAM STERILIZER (LARGE)	2	A
802	STEAM STERILIZER (SMALL)	1	A
803	ULTRASONIC CLEANER	1	A
804	TUBE DRYER	1	A
805	STERILIZER PACK SEALER	1	B
806	INSTRUMENT CABINET	6	A

807	SHELVES	6	A
808	CARRING CART	6	A
809	EOG STERILIZER	1	A
810	EO GAS AERATOR	1	A

NO	DESCRIPTION	Q'TY	PRIORITY
900	EMERGENCY		
901	OPERATING TABLE / STRETCHER	2	A
902	MINOR OPERATING LIGHT /FIXED STAND	2	A
903	ANESTHESIA APPARATUS WITHOUT VENTILATOR	2	A
904	BEDSIDE MONITOR / 4 CH	2	A
905	DEFEBRILATOR	2	A
906	VENTILATOR	2	A
907	EMERGENCY CART	2	A
908	MOBILE X RAY MACHINE	1	A
1000	CARDIOLOGY		
1001	BED CARDIAC I.C.U	24	A
1002	CENTRAL MONITORS	3	B
1003	TELEMETRY MONITOR SET	3	B
1004	CATH.LAB	1	C
1005	CATH. ABLATOR SET	1	C
1006	I.A.B.P.	2	C
1007	VENTILATORS	6	A
1008	2-D ECHO	2	C
1009	INTRA VASCULAR ULTRA SOUND	1	C
1010	CORONARY ANGIOSCOPE	1	C
1011	BIOPTOMES FOR MYOCARDIAL BIOPSY	2	C
1012	NUCLEAR CARDIOLOGY	1	C
1013	HOLTER MONITORING SYSTEM	2	B
1014	AMBULATORY B.P. MONITOR, NON INVASIVE	4	A
1015	BLOOD GAS ANALYSER, 3P	2	A
1016	EOG STERILIZER	1	C
1017	PATIENT TROLLEYS	25	A
1018	COMPUTER /COLOR XEROX	4	C
1019	C-ARM BEDSIDE IMAGE INTENSIFIER	2	B
1020	ACTIVATED CLOTING TIME UNIT	2	A
1021	AUTOANALYSER /CHEMISTRY	1	C
1022	LIQUID/GAS CHROMATOGRAPHY	1	A
1023	MOBILE CORONARY CARE	2	C
1024	PAGING SYSTEM FOR MEDICAL PERSONNEL	25	C
1025	ECG, 6-CH	1	A
1026	ECG/PCG/PULSE RECORDER	1	A
1027	LONG TERM ECG RECORDER/ANALYZER	1	C
1028	STRESS TEST SYSTEM	1	A
1029	TREADMILL	1	A

NO	DESCRIPTION	Q'TY	PRIORITY
1100	CARDIO & THORACIC SURGERY		
1101	CARDIAC MONITOR	10	A
1102	DEFRIBRILLATOR	10	A
1103	MECHANICAL VENTILATOR	6	A
1104	HEART LUNG MACHINE	2	B
1105	BLOOD AUTO TRANSFUSION PUMP	2	A
1106	DEEP FREEZER	2	A
1107	FINE VASCULAR INSTRUMENTS SET	4	A
1108	4 CHANNEL MONITOR	4	A
1109	BLOOD GAS ANALYZER	2	C
1110	OPERATING TABLE	4	A
1111	OPERATING ROOM CELING LIGHTS	4	A
1112	SUCTION	6	A
1113	DIATHERMY MACHINE	4	A
1114	BRONCOSCOPE SET / LIGHT SOURCE	2	A
1115	OESOPHAGOSCOPE SET	2	A
1116	SPIROMETER	1	A
1200	ORTHOPEDIC		
1201	ORTHOPEDIC OPERATION TABLE	3	A
1202	SPINAL STABILISATION INSTRUMENTATION SET	1	A
1203	SCOLIOSIS CORRECTION INSTRUMENTATION SET	1	A
1204	PNEUMATIC POWER DRILL	3	A
1205	TOTAL KNEE REPLACEMENT INSTRUMENTATION SET	1	A
1206	HYPERBARIC OXGEN THERAPY TENT	1	B
1207	OPERATING MICROSCOPE	1	A
1208	FRAGMENT FIXATION SETS MINI	1	A
1209	FRAGMENT FIXATION SETS MAXI	1	A
1210	ILLIZAROV EXTERNAL FIXATOR SYSTEMS	20	A
1211	ELECTRIC BONE STIMULATOR	3	A
1212	FREEZER	2	A
1213	REFRIGERATOR	1	A
1214	EXTRACTION BED SET (MADE IN INDIA)	10	C
1215	PHOTOCOPIER	1	C
1216	ARTHROSCOPE WITH SURGERY INSTRUMENTATION	1	A
1217	OZONE THERAPY UNIT	1	B
1218	BIO FEED BACK INSTRUMENT	1	B
1219	TRANSCUTANEOUS NERVE STIMULATOR	3	A
1220	SHORT WAVE DIATHERMY SET	3	A
1221	ULTRTASONIC AND LOW FREQUENCY COMBINATION	3	A
1222	TRACTION UNIT	6	A
1223	ULTRA VIOLET THERAPY UNIT	3	A
1224	MUSCLE AND NERVE STIMULATOR	4	A
1225	HIGH FREQUENCY THERAPY UNIT	4	A
1226	ULTRA SOUND THERAPY UNIT	4	A
1227	ELECTRIC BODY VIBRATORS	2	A
1228	HYDROTHERAPY TANKS	2	A
1229	WHIRL PHOOL BATH	1	A
1230	MOTORIZED WHEEL CHAIR	20	C
1231	REFRIGERATOR	2	A
1232	ANKLE ROTATING FRA-SEA MACHINE	3	A
1233	HYDRO COLLATOR UNIT	1	A
1234	QUADRICEPS EXERCISE TABLE	5	A
1235	STATIC BICYCLE EXERCISER	2	A
1236	OPERATING RETRACTOR LIGHT	1	A

NO	DESCRIPTION	Q'TY	PRIORITY
1300	MEDICINE		
1301	COLORIMETER (SPECTROPHOTOMETER)	1	C
1302	SPECTOMETER	1	C
1303	ANALYTICAL BALANCE	1	A
1304	CENTRIFUGE	2	A
1305	BINOCULAR MICROSCOPE	8	A
1306	WBC CELL COUNTER	2	C
1307	HEMOGLOBINOMETER	2	A
1308	AUTOANALYSER	2	C
1309	FLAME PHOTOMETER	2	C
1310	B.P. APPARATUS	10	A
1311	ECHOGRAPHY, PORTABLE	1	A
1312	PULSE OXYMETER	1	A
1313	DEFIBRILLATOR	2	A
1314	VENTILATOR	6	A
1315	CENTRAL CARDIAC MONITOR FOR 8 BEDS	1	B
1316	COLOUR DOPPLER	1	C
1317	4 CHANNEL BEDSIDE MONITOR	25	B
1318	COMPUTARIZED PULMONARY FUNCTION TEST	2	C
1319	NEBULIZER, NORMAL TYPE	24	A
1320	PORTABLE X-RAY MOBILE	2	C
1321	INFUSION PUMPS	24	A
1322	BLOOD GAS ANALYSER	2	C
1400	ENDOCRINOLOGY		
1401	BETA COUNTER	1	C
1402	DEEP FREEZER	2	A
1403	REFRIGERATED CENTRIFUGE	2	A
1404	SEMI AUTO ANALYZER	1	B
1405	LABORATORY CENTRIFUGE	2	A
1406	SINGLE PAN BALANCE	1	A
1407	PHOTOELECTRIC COLORIMETER	1	A
1408	PH METER	1	A
1409	AUTO PIPETTER	4	A
1410	VERTEX MIXTURE	5	A
1411	MAGNETIC STIRRER	2	A
1412	MULTI WELL AUTO GAMMA COUNTER	1	C
1413	ELISA READER	1	A
1414	PERSONAL COMPUTER / PRINTER	1	A
1415	INFUSION PUMP	2	A
1416	DOUBLE DISTILATION PLANT	1	A
1500	NEPHROLOGY		
1501	HAEMODIALYSIS MACHINES	2	A
1502	BLOOD GAS ANALYSER	1	C
1503	AUTO ANALYSER - SEMI	1	A
1504	PHASE CONTRAST MICROSCOPE W/CAMERA	1	A
1505	ELECTROLYTE ANALYSER	1	B
1506	BINOCULAR MICROSCOPE	2	A
1507	PH METER	1	A
1508	NEEDLE BIOPSY SET	1	A
1600	NEUROLOGY		
1601	EEG MACHINE, 2 CH	1	B
1602	EMG / EVOLVED POLENLET, 8 CH	1	B
1603	AUBULATORY EEG	1	A
1604	EEG TELEMETRY	1	A

NO	DESCRIPTION	Q'TY	PRIORITY
1700	NEUROSURGERY		
1701	OPERATING MICROSCOPE	2	A
1702	LASER CO2 & NdYAG	1	A
1703	C.U.S.A	1	A
1704	OPERATING LOUPES	4	A
1705	RADIO FREQUENCY LESION MAKER	1	B
1800	UROLOGY		
1801	CYSTOSCOPE, FLEXIBLE SET	1	A
1802	PAEDIATRIC CYSTOSCOPE, RESECTOSCOPE SET	1	A
1803	LASER LITHOTRIPTOR	1	B
1804	URODYNAMICS, COMPUTERISED	1	B
1805	UROLOGY OPERATING TABLE	1	A
1900	PLASTIC SURGERY		
1901	OPERATING MICROSCOPE FOR PLASTIC SURGERY	1	A
1902	INSTRUMENTS FOR MICROSURGERY	1	A
1903	ELECTRIC DIATHERMY	2	C
1904	OPERATION THEATRE LIGHTS - LUX	1	B
1905	TISSUE EXPANDERS SET	1	A
1906	LIPOSUCTION UNIT	1	A
1907	INTERNAL FIXATION SYSTEM FOR M.F. SURGERY	2	A
1908	DOPPLER UNIT FOR MAPPING	1	A
1909	RIPPLE BEDS & AIR FLUIDISHED BEDS	10	A
1910	SKIN GRAFTS MESHER	1	A
1911	NASENDOSCOPE	1	A
1912	INFRA-RED LAMP	1	A
2000	GENERAL SURGERY		
2001	OPERATING TABLES, UNIVERSAL	6	C
2002	OPERATION THEATER LIGHTS, CEILING	6	C
2003	DIATHERMY	6	C
2004	TV VIDEO ENDOSOPY	3	C
2005	KENTO LIFT RETRACTOR FOR LIVER SURGERY	3	A
2006	SILICON RUBBER CLAMPS FOR HEPATIC SURGERY	3	A
2007	ULTRASOUND FOR SURGERY	2	A
2008	TV SYSTEM FOR OPERATION THEATER / VIDEO	2	A
2009	CYSTO-URETHEROSCOPIC EQUIPMENT	1	C
2010	PORTABLE ULTRASOUND MACHINE	1	A
2100	DERMATOLOGY		
2101	FLUORESCENT MICRSCOPY	1	C
2102	BINOCULAR MICROSCOPE	1	A
2103	BINOCULAR MICROSCOPE / DARK FIELD	1	A
2104	WOODSLAMP	1	A
2105	DIATHERMY FOR DERMATOLOGY	2	A
2106	IONTOPHORESIS APPARATUS (MADE IN INDIA)	1	A
2107	DERMABRADARS	1	A
2108	ULTRAVIOLET CHAMBERS UVA & UVB LAMPS	1	A
2109	CARBONDIOXIDE LASER NdYAG	1	B

NO	DESCRIPTION	Q'TY	PRIORITY
2200	ADMINISTRATION		
2201	AMBULANCE CAR / FULL EQUIPED	2	A
2202	PERSONAL COMPUTER / PRINTER	1	A
2203	COPIER	1	A
2204	FAX MACHINE	1	A
2205	PAGING SYSTEM (FOR HOSPITAL)	1	B
2206	AUTOMATIC WASHER WITH EXTRACTOR	1	A
2207	HOT AIR DRYER (LAUNDRY)	1	A

ANNEX-II

Necessary measures to be taken by the Government of India & the Government of Andhra Pradesh in case Japan's Grant Aid is executed.

1. To provide the land for temporary site office, warehouse and stock yard during the implementation period

2. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the Project at port of disembarkation

3. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contract such facilities as may be necessary for their entry in India and stay therein for the performance of their work.

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

5. To bear all the expenses other than those to be borne by the Grant

6. To bear commissions to the Japanese foreign exchange bank for the banking services based on Banking arrangement.

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY
ON
THE PROJECT FOR THE IMPROVEMENT OF MEDICAL EQUIPMENT
AT OSMANIA GENERAL HOSPITAL IN INDIA
(CONSULTATION ON DRAFT REPORT)

In October 1994, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study on the Project for THE IMPROVEMENT OF MEDICAL EQUIPMENT AT OSMANIA GENERAL HOSPITAL IN INDIA (hereinafter referred to as "the Project"), and through discussions, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

In order to explain and consult the Indian side on components of the draft report, JICA send to India a study team, headed by Dr. Shigeki ASAHI Bureau of International Cooperation, International Medical Center of JAPAN, Ministry of Health and Welfare, from December 7 to December 17, 1994.

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

New Delhi December 15, 1994

朝日茂樹	D. Satyanarayana	for A. Prakasham
Dr. Shigeki ASAHI Leader Basic Design Study Team JICA	Dr. D. Satyanarayana Director of Medical Education Government of Andhra Pradesh	Dr. A. Prakasham Superintendent OSMANIA GENERAL HOSPITAL

		15/12/94
Mr. K. L. Narayana Deputy Secretary Health, Medical & Family Welfare, Dept. Government of Andhra Pradesh	Mr. Ashok Mehta Under Secretary Dept. of Health Ministry of Health & Family Welfare Government of India	Mr. D. N. Narasimha Raju Deputy Secretary Ministry of Finance Department of Economic Affairs Government of India

ATTACHMENT

1. Components of draft report.
The Government of India has agreed and accepted in principal the components of the draft report proposed by the Team.
And main items discussed by both sides are described in ANNEX-I and the Team has understood the needs,which are described in the revised equipment list in ANNEX-II.,and recommend it to the Government of Japan.

2. Japan's Grant Aid Program
(1)The Government of India & the Government of Andhra Pradesh have understood the system of Japanese Grant Aid as explained by the team. (See ANNEX-III)
(2)The Government of India & the Government of Andhra Pradesh will take necessary measures described in ANNEX-III, for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

3. Schedule of the study
JICA will complete the final report and send it to the Government of India by March, 1995.

4. Monitoring
Health,Medical & Family Welfare, Dept.Government of Andhra Pradesh and the OSMANIA General Hospital have the responsibility of monitoring progress of all phases of the Project such as allocation of funds and utilization of equipment purchase,distribution ,quality control , maintenance and utilization of equipment,manpower development,training based upon the indicators given in ANNEX-IV and reporting it to the Embassy of Japan and JICA India Office annually
through Ministry of Finance, the Department of Economic Affairs,

5. Other relevant issues.
1) Health,Medical & Family Welfare, Dept.Government of Andhra Pradesh will allocate the necessary budget(including counter part funds)and personnel for the Project.
2) Health,Medical & Family Welfare, Dept.Government of Andhra Pradesh will get various internal clearances and also from the Government of India,as applicable,including expenditure /financial clearances.

ANNEX-I

Main item discussed by the Team and Indian side (The Government of India , the Government of Andhra Pradesh and the OSMANIA General Hospital)is as follows.

1. The proper utilization of equipmet.

The Study Team requested the proper and efficient utilization of equipmet.
The equipment should be used commonly , mutually and should be centrally managed by the Hospital.

The OSMANIA General Hospital will arrange and be responsible for the proper and efficient utilization of the equipment, and modernize the management of the Hospital.

2. Comment for the main requested equipment.

X-ray CT scanner,MRI

The OSMANIA General Hospital has requested CT and MRI because of the needs for immediate , detailed and fine diagnosis.
The Team explained that the renovation of the OSMANIA General Hospital should be done step by step manner.
First of all, the needs of essential equipment should be emphasized in the Hospital.
The Study Team has arranged the modernized essential equipment according to the Minitues of Discussions on Octorber 13,1994 Annex-I, which has agreed priority of the provision of the equipment.

Second,the maintaining and operating of sophisticated equipment requires annual and concrete financial support of a substantial nature. Maintaining a patient in a hospital has also become quite expensive because of innovations in diagnostic and therapeutic techniques.
So,the Team has stressed the importance of tackling the financial plan of the Hospital and requested to make clear picture of the hospital including operation and maintenance cost of the sophisticated equipment ,which was presented by the Study Team at the previous study. (See Minitues of Discussions on Octorber 13,1994 Attachment,Item No.9)
But, the Team has not yet received the clear financial plan of the Hospital.
In view of the high costs involved ,there is an immence need for proper and scientific planning of hospital facilities as well as for the proper utilization of hospital resources. That is why the Team requested the step by step renovation.
The hospital has also agreed to work out the mechanism for recovery of charges of costs involving modern sophisticated investigation and treatment. So,these kinds of equipment , which require huge ,concrete and clear financial planned operation and maintenance cost with specified by annual basis , should be considered after the modernization of the Hospital.
The Government of Andhra Pradesh may consider certain measures to reduce the number of accidents deaths.
For example,making it compulsory for two wheeles riders to wear the helmets can substantially bring down the number of death of accident victims.

ANNEX II

EQUIPMENT LIST

NO	DESCRIPTION	Q'TY
100	RADIOLOGY DEPARTMENT	
108	COLOR DOPPLER USG	1
109	ULTRA SONOGRAPHY	1
110	PROCESSING TANK	1
112	FILM DUPLICATOR	1
200	ENDOSCOPY	
201	TV VIDEO ENDOSCOPY SET	1
203	UPPER GI FIBERSCOPE, TV TYPE (INFANT)	1
204	UPPER GI FIBERSCOPE, TV TYPE (ADULT)	2
205	UPPER GI FIBERSCOPE, NORMAL (ADULT)	1
206	DUODENO FIBERSCOPE, TV TYPE	1
207	COLONO FIBERSCOPE, TV TYPE	1
208	SIGMOID FIBERSCOPE, NORMAL	1
209	LIGHT SOURCE	1
211	ENDOSCOPIC FILM VIEWER	1
212	ENDOSCOPIC/PROCTOSCOPIC TABLE	1
213	FIBERSCOPE CLEANING MACHINE	1
214	ENDOSCOPIC TROLLEY	2
218	S.G. DILATORS SET	2
219	PNEUMATIC DILATORS SET	1
220	ESOPHAGEAL MANOMETER	1
	CLINICAL LABORATORY	
300	BIOCHEMICITY	
301	AUTOANALYZER	1
302	BLOOD GAS ANALYZER, AUTOMATIC	2
303	ELECTROLYTE ANALYZER	2
304	SPECTROPHOTOMETER, DOUBLE BEAM	1
305	ELECTROPHORESIS / SCANNER	1
306	REFRIGERATED CENTRIFUGE (20,000RPM)	1
307	SPECTROPHOTOMETER, SINGLE	2
308	ELECTRICAL BALANCE	2
309	pH METER	2
310	FREEZER (-20°C)	1
311	SEMI AUTOANALYZER	1
312	CHLORIDE METER	1
313	ICE CUBE MACHINE (70KG/DAY)	1
314	PERSONAL COMPUTER / PRINTER	2
400	MICROBIOLOGY	
401	ANALYTICAL BALANCE	1
402	UV. LAMPS	5
403	LAMINAR FLOW (100CM WIDE)	1
404	BINOCULAR MICROSCOPE FOR CLINICAL TEST	10
406	FLUORESCENT MICROSCOPE W/PHOTO ATTACH.	1
407	ELISA READER	1
409	IMMUNOELECTREOPHORESIS	1
410	ANAEROBIC STATION / GAS CYLINDER	1

EQUIPMENT LIST

NO	DESCRIPTION	Q'TY
412	FREEZER (-20°C)	1
413	REFRIGERATORS (CAP 200L)	4
414	WATER BATH WITH SHAKER	2
415	VERTEX MIXER	1
416	FREEZE DRYER	1
417	MICRO PIPETTES SET	1
419	INCUBATOR (60CM WIDE)	2
420	VERTICAL AUTOCLAVE	2
421	HOT AIR STERILIZER (60CM WIDE)	2
423	CENTRIFUGE, TABLE TOP (4,000RPM)	3
424	STEREO MICRO SCOPE	1
426	pH METER	1
427	ULTRASONIC CLEANER (TABLE TYPE)	1
500	PATHOLOGY	
501	FLUORESCENT MICROSCOPE	1
502	TISSUE PROCESSOR	1
503	AUTOMATIC STAINER	1
504	MICROTOME SEMIAUTOMATIC / SHARPENER	1
505	CRYOSTAT	1
506	BLOOD CELL COUNTER	2
508	LEUKOCYTE COUNTER	1
510	BINOCULAR MICROSCOPE FOR STUDENT	20
511	TEACHING MICROSCOPE FOR 5 PERSONS	1
512	TRINOCULAR MICROSCOPE / CAMERA	1
514	PERSONAL COMPUTER / PRINTER	1
516	DEEP FREEZER (-80°C)	1
517	REFRIGERATOR (CAP 200L)	3
518	TABLE TOP CENTRIFUGE (4,000RPM)	3
519	HEMATOCRIT CENTRIFUGE	1
520	HIGH SPEED CENTRIFUGE (12,000RPM)	1
525	ELECTRONIC BALANCE	1
526	REFRIGERATED CENTRIFUGE (20,000RPM)	1
527	DOUBLE DISTILLATION PLANT	1
600	BLOOD BANK	
601	TABLE TOP CENTRIFUGE (4,000RPM)	1
602	REFRIGERATED CENTRIFUGE (20,000RPM)	1
603	CENTRIFUGE HEAVY DUTY (5,000RPM)	1
604	INCUBATOR (60CM WIDE)	1
605	REFRIGERATOR (CAP 450G BLOOD PACK 120PACKS)	2
606	REFRIGERATOR MEDIUM (CAP 250L)	2
607	MICROSCOPE BINOCULAR	1
608	B.P. APPARATUS	2
609	BLOOD SCALE (4KG/10G SENSITIVE)	4
610	MICRO PIPETTE	2
611	B.P. APPARATUS BED SIDE	2
613	DEEP FREEZER (-70°C)	1
614	GENERATOR MINI (15KW)	1

EQUIPMENT LIST

NO	DESCRIPTION	Q'TY
615	PLATELET AGITATOR	1
616	DOUBLE DISTILLATION PLANT	1
617	LAMINA FLOW BENCH	1
618	PERSONAL COMPUTER / PRINTER	1
700	ANESTHESIOLOGY (OPERATION THEATER)	
701	VENTILATOR(ADULT)	2
703	PULSE OXIMETERS	3
704	MULTI-CHANNEL TEMPERATURE MONITOR	6
705	CO2 MONITOR	3
706	BLOOD GAS ANALYZER	1
707	TEMPERATURE CONTROL BLANKET (BLANKET, 3 SIZES)	4
710	PULMONARY FUNCTION MONITOR	1
711	ANESTHESIA APPARATUS / VENTILATOR	6
712	C-ARM X-RAY UNIT MOBILE	1
713	OPERATING TABLE, UNIVERSAL TYPE	6
714	OPERATING LIGHT / MOBILE	6
715	DIATHERMY (ELECTRO SURGICAL UNIT)	6
716	DEFIBRILLATOR	3
717	REFRIGERATOR (CAP 250L)	7
718	PATIENT MONITOR (4CH TYPE)	6
719	STRETCHER	10
720	SURGICAL SCRUB STATION (3 UNIT ASSEMBLY)	6
800	CSSD	
801	STEAM STERILIZER (LARGE) 27CM DIA. DRUM 12PCS	2
802	STEAM STERILIZER (SMALL) 27CM DIA. DRUM 6PCS	1
803	ULTRASONIC CLEANER	1
804	TUBE DRYER	1
805	STERILIZER PACK SEALER	1
806	INSTRUMENT CABINET	6
807	SHELVES	6
808	CARRYING CART	6
809	EOG STERILIZER	1
810	EO GAS AERATOR	1
900	EMERGENCY	
901	OPERATING TABLE / STRETCHER	2
902	MINOR OPERATING LIGHT /FIXED STAND	2
903	ANESTHESIA APPARATUS WITHOUT VENTILATOR	2
904	BEDSIDE MONITOR /2 CH	2
905	DEFIBRILLATOR	2
906	VENTILATOR	2
907	EMERGENCY CART	2
908	MOBILE X RAY MACHINE	1
1000	CARDIOLOGY	
1001	BEDSIDE MONITOR CARDIAC FOR I.C.U (ASSEMBLY)	1
1007	VENTILATORS	2

EQUIPMENT LIST

NO	DESCRIPTION	Q'TY
1008	2-D ECHO	1
1013	HOLTER ECG SYSTEM (2 ECG RECORDER)	1
1014	AMBULATORY B.P. MONITOR, NON INVASIVE	2
1015	BLOOD GAS ANALYZER, 3P	1
1017	PATIENT TROLLEYS	3
1020	ACTIVATED CLOTING TIME UNIT	1
1025	ECG, 6-CH	1
1028	STRESS TEST SYSTEM	1
1029	TREADMILL	1
1100	CARDIO & THORACIC SURGERY	
1101	CARDIAC MONITOR FOR OPERATION THEATRE TYPE	1
1105	BLOOD AUTO TRANSFUSION PUMP	2
1106	FREEZER (-20°C)	1
1107	FINE VASCULAR INSTRUMENTS SET	2
1108	4 CHANNEL MONITOR	2
1110	OPERATING TABLE (UNIVERSAL TYPE)	4
1111	OPERATING ROOM CEILING LIGHTS 9 BULB TYPE	4
1112	SUCTION FOR OPERATION THEATRE TYPE	6
1113	DIATHERMY MACHINE (ELECTRIC SURGICAL UNIT)	2
1114	BRONCHOSCOPE SET / LIGHT SOURCE	1
1116	SPIROMETER	1
1200	ORTHOPEDIC	
1201	ORTHOPEDIC OPERATION TABLE	1
1202	SPINAL STABILIZATION INSTRUMENTATION SET	1
1203	SCOLIOSIS CORRECTION INSTRUMENTATION SET	1
1204	PNEUMATIC POWER DRILL	2
1205	TOTAL KNEE REPLACEMENT INSTRUMENTATION SET	1
1208	FRAGMENT FIXATION SETS MINI	1
1209	FRAGMENT FIXATION SETS MAXI	1
1210	ILLIZAROV EXTERNAL FIXTURE SYSTEMS	3
1212	FREEZER (-20°C)	1
1213	REFRIGERATOR FOR ORTHOPEDIC	1
1216	ARTHROSCOPE WITH SURGERY INSTRUMENTATION	1
1219	TRANSCUTANEOUS NERVE STIMULATOR	1
1221	ULTRASONIC AND LOW FREQUENCY COMBINATION THERAPY	2
1222	TRACTION UNIT	2
1223	ULTRA VIOLET THERAPY UNIT	1
1224	MUSCLE AND NERVE STIMULATOR	1
1225	HIGH FREQUENCY THERAPY UNIT	1
1226	ULTRA SOUND THERAPY UNIT	1
1227	ELECTRIC BODY VIBRATORS	1
1231	REFRIGERATOR FOR REHABILITATION	1
1236	OPERATING RETRACTOR LIGHT	1
1300	MEDICINE	
1303	ANALYTICAL BALANCE (CAP 200MG)	1
1304	CENTRIFUGE (4,000RPM)	1

EQUIPMENT LIST

NO	DESCRIPTION	Q'TY
1305	BINOCULAR MICROSCOPE	2
1307	HEMOGLOBINOMETER	1
1310	B.P. APPARATUS (TABLE TOP TYPE)	10
1311	ECHOGRAPHY, PORTABLE	1
1312	PULSE OXYMETER	1
1313	DEFIBRILLATOR	1
1314	VENTILATOR	2
1319	NEBULIZER, NORMAL TYPE	5
1321	INFUSION PUMPS	3
1400	ENDOCRINOLOGY	
1402	FREEZER (-20°C)	1
1403	REFRIGERATED CENTRIFUGE (20,000RPM)	1
1405	LABORATORY CENTRIFUGE (4,000RPM) TABLE TOP TYPE	1
1406	SINGLE PAN BALANCE (CAP 200G)	1
1407	PHOTOELECTRIC COLORIMETER	1
1408	pH METER	1
1409	AUTO PIPETTE	4
1410	VERTEX MIXTURE	5
1411	MAGNETIC STIRRER	2
1413	ELISA READER	1
1414	PERSONAL COMPUTER / PRINTER	1
1415	INFUSION PUMP	2
1416	DOUBLE DISTILLATION PLANT	1
1500	NEPHROLOGY	
1501	HAEMODIALYSIS MACHINES (FOR SINGLE PATIENT)	2
1504	PHASE CONTRAST MICROSCOPE W/CAMERA	1
1506	BINOCULAR MICROSCOPE	2
1507	pH METER	1
1508	NEEDLE BIOPSY SET	1
1600	NEUROLOGY	
1601	EEG MACHINE (18CH TYPE)	1
1603	EMG MACHINE	1
1700	NEUROSURGERY	
1701	OPERATING MICROSCOPE	1
1703	C.U.S.A	1
1704	OPERATING LOUPES	2
1800	UROLOGY	
1801	CYSTOSCOPE, FLEXIBLE SET	1
1802	PEDIATRIC CYSTOSCOPE, RESECTOSCOPE SET	1
1803	LASER LITHOTRIPTOR OUTPUT 60W(Nd YAG 10.6)	1
1805	UROLOGY OPERATING TABLE	1
1900	PLASTIC SURGERY	
1901	OPERATING MICROSCOPE FOR PLASTIC SURGERY	1

EQUIPMENT LIST

NO	DESCRIPTION	Q'TY
1902	INSTRUMENTS FOR MICROSURGERY	1
1905	TISSUE EXPANDERS SET	1
1906	LIPOSUCTION UNIT	1
1907	INTERNAL FIXATION SYSTEM FOR M.F. SURGERY	2
1908	DOPPLER UNIT FOR MAPPING	1
1909	RIPPLE BEDS & AIR FLUIDISHED BEDS	2
1910	SKIN GRAFTS MESHER	1
1911	NASENDOSCOPE W/LIGHT SOURCE	1
1912	INFRA-RED LAMP STAND TYPE	1
2000	GENERAL SURGERY	
2005	KENTO LIFT RETRACTOR FOR LIVER SURGERY	2
2006	SILICON RUBBER CLAMPS FOR HEPATIC SURGERY	2
2007	ULTRASOUND INTRAOPERATIVE FOR SURGERY	1
2008	TV SYSTEM FOR OPERATION THEATER / VIDEO	1
2010	PORTABLE ULTRASOUND MACHINE	1
2100	DERMATOLOGY	
2102	BINOCULAR MICROSCOPE	1
2103	BINOCULAR MICROSCOPE / DARK FIELD	1
2104	WOODSLAMP	1
2105	DIATHERMY FOR DERMATOLOGY	2
2106	IONTOPHORESIS APPARATUS (MADE IN INDIA)	1
2107	DERMABRADARS	1
2108	ULTRAVIOLET CHAMBERS UVA & UVB LAMPS	1
2200	ADMINISTRATION	
2201	AMBULANCE CAR / STANDARD EQUIPPED	2
2202	PERSONAL COMPUTER / PRINTER	1
2203	COPIER	1
2204	FAX MACHINE	1
2206	AUTOMATIC WASHER WITH EXTRACTOR	1
2207	HOT AIR DRYER (LAUNDRY) /HEAT SOURCE	1
2208	INCINERATOR	1
2209	ELECTRIC TYPEWRITER	1

ANNEX-III

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 Affirs) 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

recipient country necessary for the Project's implimentation.

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) Estimatation 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 implimentation 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.

(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.
Hoever 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 betweeen 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 "Japanse 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 veified 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.

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 therin for the performance of their work.

(7) "Proper Use"

The recipient country is required to maintain amd 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.

ANNEX-IV

Monitoring of the Project.

It is proposed that Monitoring and Evaluation be in-built 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 and Government of Andhra Pradesh . Major components of the project to be monitored will be:

1. INPUTS
   1) Funds allocated,released,utilized

   2) Infrastructual development.

   3) Equipment.

2. Monitoring
   A system to check the supplies in terms of quality / quantity / specifications will be established in the Health , Medical & Family Welfare Dept., Government of Andhra Pradesh .

   1) Time gap in supply and installation.

   2) Training of the manpower handling the equipment.
      Category of staff training.
      Duration of training.
      Place of trainning.
      Satisfaction of trained people.
        Knowledge.
        Skills how to use the equipment.
        Theoretical lectures or On the Job training ?
        Job aids available ?
        Is the Log book being maintained ?
        ·responsible person for the Log book.

   3) Maintenance contracts.
      Break down notice and the action.
      Interval between break down and repairs.
      Number of investigation done during the last 1 year.
      Charged money for the investigation and repairs.

   4) Manpower development.
      New jobs created for each section.
      Employed new staff.
      Pre-service training,In service training.
      New training for existing staff.

   5) Training
      Funds allocated.
      Trained person by category.
      Arrangement for the absence/leave of technical staff.

   6) Financial data
      Expenditure and revenue,donation etc.

MEASURE OF

(Example)

EFFICIENCY	EFFECTIVENESS	IMPACT
·Base line data		
	- duration of stay - outcome of admision - admision - cost of treatment - case fatality	-fatality -Health services utilization
	- No.of referred cases - Improved attendance in OPD	
·Staffing ·Staff presence		
·Availability of drugs		
·Basic knowledge ·Skills		
·Imm.coverage.		
·Supervision ·Regularity of staff /Board meeting		
·Availability of transport.		
·Job aids available.		
·Regular continuous supportive services. -Water supply. -Electricity -Oxygen supply		
-Voluntary blood donation.		

5. DETAILS OF THE COST DISBURSED FROM INDIAN SIDE

1. Renovation of CSSD

Removal of the low walls	6x2x1x1=12m3	x 1,000 Rp.	=	12,000 Rp.
Renovation of the low walls	4 walls	x 2,000 Rp.	=	8,000 Rp.
Truck Crane for removing autoclaves	4	x 1,600 Rp/day	=	6,400 Rp.
Senior Mechanical Engineers	8	x 53 Rp.	=	424 Rp.
Maison	16	x 40 Rp.	=	640 Rp.
Civil Engineers	16	x 40 Rp.	=	488 Rp.
Truck Crane for renovating floor	4	x 2,000 Rp.	=	8,000 Rp.
Truck for transferring autoclaves	2	x15,000 Rp.	=	30,000 Rp.
		Sub-Total		65,952 Rp.
With the cost for the temporary work		Sub-Total x 1.5	=	98,900 Rp.

2. Construction of Protection Walls, Partitions, Floors of Radiology department

Mable Finish	14.6x7.3/106.6m2	x 1,000 Rp.	= 106,000 Rp.
Partition	6.0x4x3.3=79.2m2	x 500 Rp.	= 39,600 Rp.
Protection Panel	6.0x4.2.6=62.4m2	x 1,560 Rp.	= 97,340 Rp.
Painting Half-side	6.0x4x3.3=79.2m2	x 400 Rp.	= 31,680 Rp.
Radiation Protective Window	1	x78,100 Rp.	= 78,100 Rp.
		Sub-Total	= 400,124 Rp.
With the cost for the temporary work		Sub-Total x 1.5	= 600,100 Rp.

3. Installation of Operating lights

	1 set	31,200	43,200 Rp.

4. Renovation of laundry section

Evacation and Backfilling	6.0x6.0x1.2	x 300 Rp.	=	12,960 Rp.
Ballast	2.1x2.1x0.1	x 250 Rp.	=	110 Rp.
Concrete	2.0x2.0x1.0	x 4,680 Rp.	=	18,720 Rp.
Removal of the existing equipment				
Truck Crane	1	x 1,600 Rp.	=	1,600 Rp.
Maison	4	x 4 Rp.	=	160 Rp.
Partition and Wire Blind	7.0x4x1.8=50.4m2	x 1,000 Rp.	=	50,400 Rp.
		Sub-Total		86,430 Rp.
With the cost for the temporary work		Sub-Total x 1.5	=	129,600 Rp.

5. Construction of partition of Microbiology department

Partition	4.0x3.0x2.6=31.2m2 x	500 Rp.	= 15,600 Rp.
Painting Half-side	4.0x3.0x2.6x2=62.4m2 x	400 Rp.	= 24,960 Rp.
A set of hardware for Radiation Protective Door		3,300 Rp.	= 3,300 Rp.
		Sub-Total	43,860 Rp.
With the cost for the temporary work		Sub-Total x 1.5	= 65,700 Rp.

6. Works for electricity (installation of distribution panels and outlets)

Installation of distribution panel	10 x	5,000 Rp.	= 50,000 Rp.
Wiring to distribution panel	10 x	10,000 Rp.	= 100,000 Rp.
Wiring from distribution panel	20 x	1,500 Rp.	= 30,000 Rp.
Installation of receptacle outlets	20 x	1,500 Rp.	= 30,000 Rp.
		Sub-Total	210,000 Rp.
With the cost for the temporary work		Sub-Total x 1.5	= 315,000 Rp.

Total of building works 937,500 Rp.

6. Works for water supply and drainage system

30m supply pipe	4 x	14,000 Rp.	= 56,000 Rp.
15m waste pipe	4 x	14,000 Rp.	= 56,000 Rp.
		Sub-Total	112,000 Rp.
With the cost for the temporary work		Sub-Total x 1.5	= 168,000 Rp.
Deconnecting from the existing equipment			24,800 Rp.
Connecting to the equipment			70,000 Rp.
		Sub-Total	94,800 Rp.
With the cost for the temporary work		Sub-Total x 1.5	= 142,000 Rp.

Total of facility works 625,000 Rp.