

CHAPTER 4 PROJECT EVALUATION AND RECOMMENDATION

Chapter 4 Project Evaluation and Recommendation

4-1 Project Effect

The subject facility of this Project is the general hospital having three functions to provide tertiary medical services, to conduct clinical education and training to medical employees, and to conduct clinical researches. As for the present state of the JUH, judging from the state of income and expenditure (mainly ordinary expenditure) mentioned in the previous section, the technical level of the medical employees, and the main statistics of the JUH of 1966 to be explained below, the operating and maintenance system can be considered to have been established.

Average ratio of occupied beds:	74% (Less than 80% is optimal.)
Average days patients stay at the JUH:	4.8 days (In Japan, 30 days, and in the U.S.A., 5 days.)
Mortality in the JUH:	1.39% (Less than 3.5% is optimal. In Japan, 6%.)

However, the medical fields of Jordan have the following problems at present.

- 1) To the increased demands for the health and medical services caused by increased population, provision of public medical services cannot catch up because of insufficient budget.
- 2) Because the cooperation among public medical organizations is insufficient, the referral system is not functioning sufficiently.
- 3) Since the referral system is not functioning sufficiently, the operating ratio of beds at public medical facilities is low.
- 4) With the change of disease structure, the number of days the patients are hospitalized has increased, causing the medical expenses for one patient to increase, which lead to increase the monetary burden of the government and public medical facilities.
- 5) Keeping the ordinary expenditure (personnel expenses and general expenses) is the best what they can do and the capital expenditure (purchasing expenses of equipment or facility rehabilitation cost) cannot be appropriated, causing the medical services to reduce.

In addition, in the field of clinical education, numbers of the medical employees per 10,000 people are 16.5 doctors, 3.8 dentists, 5.7 pharmacists, and 6.2 nurses. However according to the statistics of the Ministry of Health from 1992 to 1996, the number of graduating medical employees changed as follows: graduates from nursing schools, almost same during that period; radiology engineers lowered by 18%; graduating anesthesiological engineers and physiotherapists were both zero since 1994. Thus the lack of medical employees is anticipated in the future.

Under these circumstances, the JUH, the implementation agency of this Project, is very important being positioned as the top referral facility of medical services of Jordan and the top of clinical education as the only educational hospital under faculty of medicine. Although the JUH has close relationship with the Faculty of Medicine in Jordan University under the direct governance of the Ministry of Higher Education and the Ministry of Health of Jordan, the ratio of income of JUH from the hospital itself is approximately 40% among the medical profit of the JUH. Thus the JUH is independent from the financial standpoint.

However, as mentioned at the beginning of this chapter as the medical problems of Jordan, the fact that the budget cannot be appropriated for capital expenditure is same for the JUH. For the last several years, the JUH could not replace or supplement medical equipment or purchase new equipment. In the budget for the next fiscal year starting from January 1998, a subsidy of total of approximately 4 million JD (approximately 700 million yen) is approved by the Ministry of Health and the Ministry of Finance as the operating expenses of the JUH (excluding the ones for procurement of equipment and rehabilitation of facility). And the annual budget necessary for maintaining the equipment at the JUH is approximately 1.8 million JD (approximately 170 million yen), which is the total expenses for the consumables, laboratory consumables, radiology consumables, and drugs included in the items of pharmaceutical and material expenses of fiscal year 1996, plus the maintenance contract cost and the replacement parts appropriated as the general expenses. After the equipment is procured by this Project, the increased amount of expenses at the JUH in a year of 147,000 JD (approximately 24 million yen) accounts for about 14% of the entire maintenance costs. However when the equipment is replaced, reduction of about 3% of the maintenance costs can be expected from the maintenance contract which the JUH concludes with the agents of the equipment at present. In addition, because the maintenance costs including the purchasing expenses of the parts of ninety-four items including CT scanners which had frequent

troubles and needed fairly large amount of maintenance costs can be reduced, the expenses the JUH must pay are expected to increase only by several percent of the entire amount. Thus this amount is determined to be sufficiently handled by the JUH. Therefore, there is no problem in maintaining the present operating conditions and the increase of the operating and maintenance costs of the equipment can be sufficiently handled.

Procurement of equipment in this Project includes replacement of decrepit equipment in the field of clinical education, supplement of the equipment insufficient in number, and purchasing of new equipment the necessity and the validity of which can be verified within the scope not exceeding the medical technological level of the JUH. In addition, because most of the doctors have studied in Europe or America and had the experiences of using many of the equipment to be procured, the equipment to be procured is considered sufficiently handled by the present staffs of each department or section. Therefore, this Project would not increase the burden to the facility in terms of staffs, and is determined to have no problem for being operated under the present system.

If this Project is implemented, the following beneficial effects can be expected with the replacement or supplement of decrepit equipment and the procurement of some items. Thus the implementation of this Project is determined valid.

(1) Improvement of medical functions

When this Project is implemented, replacement of decrepit equipment and procurement of equipment with the number matching to the number of patients will result in the improvement of medical functions of the JUH, which will lead to the increase of the number of patients visiting the JUH and the strengthening of the medical functions to the increased outpatients and the total number of inpatient of approximately 20,000 a year. In addition, procurement of the equipment for the new medical services at the cardiac surgery department, cardiac central unit (CCU), and the treatment room of burn unit is expected to enlarge the range of medical services to the entire nation of Jordan.

(2) Improvement of functions as the clinical training institution

In relation to the previous section, strengthening of the medical functions will increase the number of cases to be treated as well as the chances of clinical education. Thus the education and re-education of medical employees, which is another function of the JUH, will be strengthened. In addition, since the medical employees having been

trained at the JUH are involved in medical services at various medical facilities throughout Jordan, improvement of the medical technologies of medical employees of entire Jordan can be expected.

In the actual situation, total of 30,000 people consisting of approximately 25,000 medical employees and 5,400 students of twenty-eight schools for medical employees including medical students (statistics of 1996) will benefit from this Project. Thus this Project is considered to have sufficient effects for the improvement of the technological level of Jordan.

(3) Reduction of costs and increase of profits

This Project has a main objective to replace and supplement the decrepit equipment. When this Project is implemented, the equipment having frequent troubles that need a large amount of maintenance costs will be replaced, which will contribute to the reduction of the maintenance costs of the equipment of the JUH as well as improvement of the functions and diagnostic ability of the entire JUH, and the increase of the number of cases undergoing medical treatments. Thus the increase of self-income can be expected.

4-2 Recommendation

The following points must be noted for the prompt implementation and achievement of the objectives of this Project through smooth and effective operations of the equipment to be procured at the JUH after implementation.

1) Measures to increase the capital expenditure

Because the main function of JUH is to provide tertiary medical services, the JUH plays the role of top level referral facility by accepting the transferred grave patients from other medical facilities under the control of the Ministry of Health in accordance with the acceptance agreement of the patients with the Ministry of Health of Jordan. However, with the recent economical depression, the capital expenditure to assets has not increased. As a result, facilities could not be rehabilitated and there are much decrepit equipment. Replacement of equipment by this Project can be much expected to strengthen the functions of JUH under the above mentioned background. However, unless some kind of measures are taken at the stage when the depreciation period of the equipment to be procured by this Project expires in seven to nine years, the same kind of trouble may occur. Therefore, it is necessary to consider some measures for the purpose

of increasing the capital expenditure so that they can replace the equipment with self-effort.

As the actual situation, extension of consultation hours, addition of private rooms, revision of the wage structure of doctors from fixed rate to piece work system, improvement of consumables, drugs, and accounting system, which can be expected to have effects in reducing the medical costs can be considered as the measures to increase capital expenditures in addition to the start to strengthen each medical department and new medical services in the Hospital Strengthening Plan formulated by the JUH in 1997,

2) Continuation of the maintenance agreement

The JUH has concluded the maintenance agreements with the local agencies of the manufacturers of expensive equipment such as CT scanner or X-ray equipment which cannot be maintained by the engineers of the JUH including the procurement of replacement parts. The expenses for these agreements are paid from the ordinary expenses of the JUH and sufficient budget has been appropriated. Thus, with regard to the maintenance of the equipment to be procured in this Project, conclusion of the maintenance agreement is desired after the completion of defect inspection period.

3) Securing of monitoring of the use state of the procured equipment

The results of this Project will be monitored by requesting the responsible person of the JUH to submit regular reports to the Japanese government so that the effects of implementing this Project by the grant aid of Japan can be objectively understood.

As the actual situation, by comparing each index before implementing this Project (June 1998) and that immediately after implementation (expected to be in June 1999), the target values will be established and the succeeding effects after implementation of this Project can be observed. After this Project is implemented, the results of each of the indices shown below must be continuously reported from the JUH to the government of Japan twice a year.

-1 The following indices of each department and section included in this Project

Number of patients, number of the patients transferred from other facilities to the JUH, number of hospital beds, ratio of the occupied beds, average number of days the patients stayed in the hospital, and the mortality

-2 The following indices of cardiac surgery department to be established as a new

service and the treatment room of burn unit the partial services of which will be improved/strengthened

Number of cases of surgery, survival rate after surgery, number of the patients transferred from other facility to the JUH, and comparison of the number of cases undergoing surgeries at Jordan Hospital, private hospitals, and Army Hospital

-3 Number of patients, number of the cases of surgery, and number of outpatients at the ophthalmologic department

-4 Infant mortality and mortality of pregnant women as the indices of the entire JUH

4) Medical level on the international standard

The international standard of this Project follows the technology and the treatment methods already established in the advanced countries. By considering the level of the JUH, the standard of local nucleus hospitals of Japan is assumed as the equivalent of international level. However, the effects of technical recovery will not appear immediately after the introduction of equipment, but affected by the technical ability and the leadership of instructors. The JUH plans to employ specialists of cardiology from the Army Hospital in addition to this Project. In the same manner, employment or prompt training of staffs for paramedical departments is considered necessary.

APPENDICES

1. Member List of the Survey Team

1) Basic Design Study (October 3 - November 1, 1997)

- | | | |
|---------------------------|---------------------------------|---|
| 1. Mr. Kenji Matsumoto | Team Leader | Dupty Director
Coordination and Appraisal Division
Grant Aid Project Study Department
Japan International Cooperation Agency
(JICA) |
| 2. Dr. Akihiro Yomo | Technical Advisor | Department of International Affairs and
Tropical Medicine
Tokyo Women's Medical College |
| 3. Mr. Kazuhiro Abe | Project Manager | International Techno Center Co., Ltd. |
| 4. Mr. Naoki Mimuro | Medical Engineer | International Techno Center Co., Ltd. |
| 5. Mr. Sigetaka Tojo | Facility Engineer | International Techno Center Co., Ltd. |
| 6. Mr. Shuichi Suzuki | Cost and Procurement
Planner | International Techno Center Co., Ltd. |
| 7. Mr. Yoshitugu Ishikawa | Translator | International Techno Center Co., Ltd. |

2) Explanation of Draft Final Report (January 12 - January 25, 1998)

- | | | |
|---------------------------|-------------------|---|
| 1. Mr. Katsunori Miyakawa | Team Leader | Grant Aid Division
Economic Cooperation Bureau
Ministry of Foreign Affairs |
| 2. Dr. Akihiro Yomo | Technical Advisor | Department of International Affairs and
Tropical Medicine
Tokyo Women's Medical College |
| 3. Kazuhiro Abe | Project Manager | International Techno Center Co., Ltd. |
| 4. Naoki Mimuro | Medical Engineer | International Techno Center Co., Ltd. |

2. Survey Schedule

(1) Basic Design Study (October 3 - November 1, 1997)

NO.	DATE	SCHEDULE
1	OCT 3 (FRI)	12 : 15 Lv. Tokyo (AF275) 17 : 20 Ar. Paris
2	OCT 4 (SAT)	13 : 30 Lv. Paris (AF8172) 19 : 15 Ar. Amman
3	OCT 5 (SUN)	09 : 00 Meeting at JICA Office 10 : 00 Meeting at Ministry of Planning, Jordan
4	OCT 6 (MON)	11 : 00 Meeting at Embassy of Japan 12 : 00 Meeting at Jordan University Hospital (JUH)
5	OCT 7 (TUE)	08 : 30 Survey of JUH 08 : 30 PCM Work Shop at JUH 17 : 00 Team Meeting
6	OCT 8 (WED)	09 : 00 Meeting at JUH
7	OCT 9 (THU)	09 : 00 Meeting at JUH 10 : 00 Survey of Al-Bashir Hospital 12 : 00 Meeting at JUH
8	OCT 10 (FRI)	10 : 00 Team Meeting 14 : 00 Survey of Medical Equipment
9	OCT 11 (SAT)	09 : 00 Meeting and Survey of JUH
10	OCT 12 (SUN)	09 : 00 Meeting and Survey of JUH
11	OCT 13 (MON)	09 : 00 Meeting and Survey of JUH 12 : 00 Signing of Minutes of Discussion 14 : 45 Report the results to JICA Office 15 : 00 Report the results to Embassy of Japan
12	OCT 14 (TUE)	09 : 00 Meeting and Survey of JUH 13 : 05 Lv. Amman (Mr. Matsumoto, Dr. Yomo) (RJ111) 17 : 25 Ar. London
13	OCT 15 (WED)	09 : 00 Meeting and Survey of JUH 13 : 05 Lv. London (Mr. Matsumoto, Dr. Yomo) (JL402)
14	OCT 16 (THU)	09 : 00 Meeting and Survey of JUH 15 : 20 Ar. Tokyo
15	OCT 17 (FRI)	12 : 00 Lv. Tokyo (Mr. Ishikawa) (AF275) 17 : 20 Ar. Paris
16	OCT 18 (SAT)	10 : 00 Team Meeting
17	OCT 19 (SUN)	12 : 30 Lv. Paris (Mr. Ishikawa) (RJ116) 17 : 05 Ar. Amman
18	OCT 20 (MON)	09 : 00 Meeting at JUH 09 : 00 Meeting and Survey of JUH 12 : 10 Lv. Amman (Mr. Tojo) (AF8175)

NO.	DATE	SCHEDULE
19	OCT 21 (TUE)	09 : 00 PCM Work Shop (Maintenance) at JUH 13 : 00 Meeting at JUH 05 : 55 Ar. Paris
20	OCT 22 (WED)	13 : 30 Lv. Paris (Mr. Tojo) (AF276) 09 : 00 Survey of Jordan Hospital 10 : 00 Meeting at Ministry of Planning 08 : 15 Ar. Tokyo
21	OCT 23 (THU)	09 : 00 Survey of Jordan Hospital 11 : 30 Meeting at Ministry of Health 12 : 10 Lv. Amman (Mr. Ishikawa) (RJ115) 17 : 15 Av. Paris
22	OCT 24 (FRI)	10 : 00 Team Meeting 13 : 30 Lv. Paris (Mr. Ishikawa) (AF276)
23	OCT 25 (SAT)	09 : 00 Survey of Jordan Hospital 14 : 30 Summary Meeting at JUH 08 : 15 Ar. Tokyo
24	OCT 26 (SUN)	09 : 00 Meeting and Survey of JUH
25	OCT 27 (MON)	09 : 00 Meeting and Survey of JUH
26	OCT 28 (TUE)	09 : 00 Meeting and Survey of JUH
27	OCT 29 (WED)	09 : 00 Final Meeting at JUH 14 : 30 Report the results to Embassy of Japan 15 : 30 Report the results to JICA Office
28	OCT 30 (THU)	16 : 00 Lv. Amman (Mr. Abe, Mimuro, Suzuki) (RJ115) 21 : 15 Ar. Paris
29	OCT 31 (FRI)	13 : 30 Lv. Paris (AF276)
30	NOV 1 (SAT)	09 : 15 Ar. Tokyo

(2) Explanation of Draft Final Report (January 12 - January 25, 1998)

NO.	DATE	SCHEDULE
1	JAN 12 (MON)	12 : 30 Lv. Tokyo (JL411) 17 : 00 Ar. Amsterdam
2	JAN 13 (TUE)	17 : 45 Lv. Amsterdam 23 : 35 Ar. Amman
3	JAN 14 (WED)	09 : 00 Meeting at JICA Office 10 : 00 Meeting at JUH 12 : 00 Meeting at Embassy of Japan 13 : 00 Meeting at JUH
4	JAN 15 (THU)	09 : 00 Meeting at JUH 13 : 00 Meeting at Ministry of Planning, Jordan
5	JAN 16 (FRI)	11 : 00 Meeting at JUH and Team Meeting
6	JAN 17 (SAT)	09 : 00 Meeting at JUH
7	JAN 18 (SUN)	10 : 00 Meeting at JUH
8	JAN 19 (MON)	08 : 30 Meeting at JUH 09 : 00 Meeting at JUH 17 : 00 Dinner Party
9	JAN 20 (TUE)	09 : 00 Signing of Minutes of Discussion 10 : 00 Report the results to JICA Office 12 : 00 Report the results to Embassy of Japan
10	JAN 21 (WED)	09 : 00 Meeting at JUH 08 : 25 Lv. Amman (Mr. Miyakawa, Dr. Yomo) (BA6706) 12 : 05 Ar. London 19 : 00 Lv. London (JL402)
11	JAN 22 (THU)	15 : 40 Ar. Tokyo 09 : 00 Meeting at JUH 14 : 00 Report the results to JICA Office
12	JAN 23 (FRI)	08 : 25 Lv. Amman (Mr. Abe, Mimuro) (RJ261)
13	JAN 24 (SAT)	19 : 30 Ar. Amsterdam (JL412)
14	JAN 25 (SUN)	15 : 05 Ar. Tokyo

3. List of Party Concerned in the Recipient Country

1) Basic Design Study (October 3 - November 1, 1997)

○Ministry of Planning

MR.SALEM O.GHAWI (Assistant Secretary General, International Cooperation)

DR.NAEL T. AL-HAJAJ PH.D (Dupty Director)

○Jordan University Hospital

Prof. Mahmoud M.Abu-Khalaf (Director General of JUH / Dean of Faculty of Medicine)

Mr. Nizar Qaryouti (General Director Assistant)

Prof. Abdullah A. Issa (Chairman of Gynaccology and Obstetrics ,Chief of Gynacologic Department / Professor)

Prof. M. El-Khatecis (Chairman of Clinical Laboratory)

Prof. Mujalli Mhailan (Chief of Staff)

Prof. M. Jamal (Chairman of ENT)

Prof. Izdiad Badran (Chief of Anaesthesia and ICU)

Prof. Ahmad S. Sroujeh (Chairman of Surgical Dept. / General and Endocrine Surgery)

Prof. B. Ammari (Chairman of Urologic Surgery)

Prof. Izdiad Badran (Chief of Anaesthesia and ICU)

Prof. Ahmad S. Sroujeh (Chairman of Surgical Dept. / General and Endocrine Surgery)

Prof. Mustafa M. Shennak (Chairman of Internal Medicine / Chief of Gastroenterology and Liver Unit)

Prof. Akram Shannak (Chairman of Orthopedics and Spine)

Dr. Ghassan A. Jayyousi (Chairman of Ophthalmology)

Dr. Ma Jed S. Bata (Gynecologist / Associated Professor)

Dr. Eyas Al-Mousa (Chief of Cardiology / Director of JUH,Cardiorogist / Assistant Professor)

Dr. Saifedin Qutieshat (Cheif of Neuclear Dept. / Neucear Doctor)

Dr. Samir Jabaiti (Chief of Plastic and Burn Unit)

Dr. Khader Abdul-Baqi (Chief of Audiology Section of ENT Dept.)

Dr. Yusef Sarhan (Chief of Rehabilitation Medicine)

Dr. Azmy Al-Hadidy	(Chief of Radiology)
Dr. Eman Badran	(Consultant Neonatologist / Paediatric Dept.)
Dr. Ahmed Al-Zaghal	(Consultant Paediatric Cardiologist / Paediatric Dept.)
Eng. Jehad Taha	(Chief of Biomedical Engineer)
Eng. Molid Al-Zciti	(Assistant Director of JUH)
	Eng. Jehade Mustafa Taha (Engineer of Biomedical Engineering Section)
Eng. Azzam Shalabi	(Chief of Maintenance / Engineer)
Eng. Abdul-Salam Jaber	(Biomedical Engineering Department/Engineer)
Eng. Jehad Mustafa Taha	(Biomedical Engineering Department/Engineer)
Eng. Khader Ama	(Electrical Engineer)
Mr.Ahmad Abuwaddeh	(Refregaration/Technician)
Mr.Saleh Abukadejeh	(Refregaration/Technician)
Mr. Moh'd Yusef	(Mechanical Technician)
Mr. Fayez Abu-Jado	(Boiler Mechanic Technician)
Mr. Diab Mahmoud	(Biomedical Technician)
Mr.Ahmad Sadul-Salam Jaber	(Biomedical Technician)
Mr. Abed-El-Shrif	(Pipe Welder)
Mr. Abul-Fata Elasaf	(Electrical Technician)
Mr. Moh'd Samur	(Mechanical Technician)
Mrs. Fayzeh Abdo Nassif	(Chief of Laboratory / Labo-technician)
Mr. Ahmad Abu Aqlah	(Pathology Supervisor / Labo-technician)
Mr. Khaled Halabi	(Blood Bank Supervisor / Labo-technician)
Mrs. Jamileh Alzubi	(Microbiology Supervisor / Labo-technician)
Mrs. Manel Sedqi	(Endocrine Supervisor / Labo-technician)
Miss Mchetap Fedda	(Serology Supervisor / Labo-technician)
Mr. Khaled Halabi	(Blood Bank Supervisor / Labo-technician)
Mr. Mahamud Lafi	(Biochemistry Supervisor / Labo-technician)
Miss Fatima Khalyleh	(Hematorogy Supervisor / Labo-technician)
Mr. Abdullah Al Zubi	(Out-patient Department Supervisor / Labo-technician)

Mr. Husni Al-Toiane	(Chief of Hospital Administration)
Mr. Abdul Salam Jaber	(Engineer of Biomedical Engineering Section)
Mr. Maliwonil Halawil	(Chief of CSSD Dept.)
Mr. Hami Abluma	(Engineer of General Engineering Section)
Mr. Tarfiq Sebbah	(Technician of Nuclear Dept.)
Ms. Al-Ham-Mazahra	(Resident Nurse of Operation Theater)
Mr. Fayez. M. Madain	(Accounting Financial Manager)

○Al-Bashir Hospital

Dr. Mahmoud Awad	(General Director, Albashir Hospital)
Dr. Etedal Al-Zaben	(Chief of Laboratory Department)
Dr. Abdel Aziz Amro	(Head of Anaesthesiology Department)
Mr. Ibrahim Mustafa Younis	(Technician of C.T Room)
Mr. Ali Abed Ai-Rhman	(Public Relation Department)
Mr. Mohamad Agel	(Chief of Maintenance Department)

○Ministry of Health

Dr. Awamla	(Director of Planning)
Dr. Sameh El-Sharo	(Director of General Services, Transport and Maintenance)
Dr. Taissir Fardous Ph.D	(Director of Planning and Projects Management)

○Jordan Hospital

Dr. Abdalla Bashir	(Consultant Surgeon)
Dr. Adel Jamil Al-Ali	(Hospital Administrator)

○Embassy of Japan

Mr. Muneyuki Kimura	Ambassador
Mr. Tomoaki Abe	Second Secretary
Mr. Katsunori Kondo	Second Secretary

OJICA Jordan Office

Mr. Kiiirou Hisano

Dupty Director

Ms. Yukie Ohno

Officer

Mr. Hani H. Alkurdi

Program Officer

(2) Explanation of Draft Final Report (January 12 - January 25, 1998)

○Jordan University Hospital

Prof. Mahmoud M.Abu-Khalaf	(Director General of JUH / Dean of Faculty of Medicine)
Mr. Nizar Qaryouti	(General Director Assistant)
Prof. Abdollah A. Issa	(Chairman of Gynaecology and Obstetrics ,Chief of Gynecologic Department / Professor)
Prof. M. El-Khatceis	(Chairman of Clinical Laboratory)
Prof. M. Jamal	(Chairman of ENT)
Prof. Izdiad Badran	(Chief of Anaesthesia and ICU)
Prof. Ahmad S. Sroujeh	(Chairman of Surgical Dept. / General and Endocrine Surgery)
Prof. B. Ammari	(Chairman of Urologic Surgery)
Prof. Izdiad Badran	(Chief of Anaesthesia and ICU)
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Prof. Akram Shannak	(Chairman of Orthopedics and Spine)
Dr. Ghassan A. Jayyousi	(Chairman of Ophthalmology)
Dr. Ma Jed S. Bata	(Gynecologist / Associated Professor)
Dr. Eyas Al-Mousa	(Chief of Cardiology / Director of JUH,Cardiorogist / Assistant Professor)

○Embassy of Japan

Mr. Tomoaki Abe Second Secretary

○JICA Jordan Office

Mr. Yoshio Yabe Director
Mr. Ysutaka Nakagawa Senoir Volunteer Program Coordinator
Mr. Hani H. Alkurdi Program Officer

4. Minutes of Discussion
Basic Design Study

MINUTES OF DISCUSSIONS
ON
BASIC DESIGN STUDY
ON
THE PROJECT FOR IMPROVEMENT OF MEDICAL EQUIPMENT FOR
JORDAN UNIVERSITY HOSPITAL
IN
THE HASHEMITE KINGDOM OF JORDAN

In response to a request from the Government of The Hashemite Kingdom of Jordan, the Government of Japan decided to conduct a basic design study on the Project for Improvement of Medical Equipment for Jordan University Hospital (hereinafter referred to as "the Project"), and entrusted the study to Japan International Cooperation Agency (JICA).

JICA dispatched to Jordan a study team which is headed by Mr. Kenji MATSUMOTO, Deputy Director, Coordination and Appraisal Division, Grant Aid Project Study Department, and which is scheduled to stay in the country from October 4 to October 30, 1997.

The team has had a series of discussions with relevant officials of the Government of Jordan and conducted site survey.

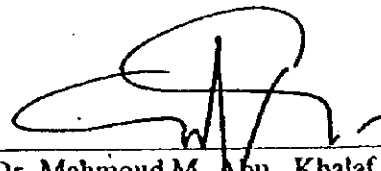
In the course of discussions and site survey the team and Jordan side have confirmed basic issues described in attached sheets.

The team will proceed to further works and prepare the Basic Design Study Report.

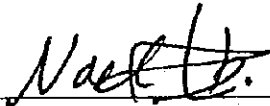
Amman, October 13, 1997



Mr. Kenji MATSUMOTO
Leader
Basic Design Study Team
Japan International Cooperation Agency



Dr. Mahmoud M. Abu - Khalaf
Dean Faculty of Medicine
Director General
Jordan University Hospital



Dr. Nael T. Al-Hajaj Ph.D
Deputy Director
Bilateral Cooperation Dept.
Ministry of Planning

ATTACHMENT

1. Objective

The objective of the Project is to improve and strengthen the medical services and teaching activities in Jordan University Hospital through provision of essential equipment to the hospital.

2. Project site

Jordan University Hospital

3. Responsible and Executing Agencies

Jordan University Hospital is responsible for the administration and execution of the Project.

4. Items requested by the Government of Jordan

- 1) After the discussions with the Basic Design Study Team, items described in ANNEX-I were finally requested by the Government of Jordan for the consideration by the Government of Japan to be provided under the Grant Aid. However, items to be included in the Project will be decided after further study.
- 2) The Government of Jordan assigned in Annex-I their own Priorities on the equipment.
Note: A=1st Priority B=2nd Priority C=3rd Priority
- 3) The Government of Jordan agreed that the Japanese side will analyze the requested items based on the criteria referred in ANNEX-II

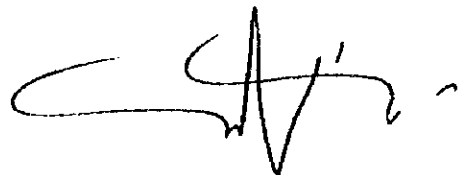
5. Japan's Grant Aid System

- 1) The Government of Jordan has understood the system of Japan's Grant Aid explained by the team.(See ANNEX-III)
- 2) The Government of Jordan will take necessary measures, described in Annex-IV for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan.

6. Schedule of the study

- 1) The team will proceed to further study in Jordan until October 30, 1997.
- 2) JICA will prepare a draft of the basic design and dispatch a mission to Jordan in order to explain its contents in January 1998.

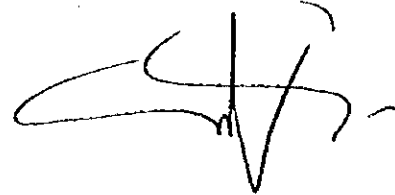
NA



7. Other relevant issues in connection with the Grant Aid when it is extended

- 1) The team requested the Jordan side to secure the completion of the necessary renovation work of Jordan University Hospital until the middle of Jan. 1998, and to submit the monthly report for the renovation work done by the Jordan side to JICA Jordan Office from November 1997 until January 1998.

- 2) In case of the delay of the renovation work, both Jordan side and Japan side will reconsider the list of equipment at the stage of the explanation of draft final report which will be held in January 1998.

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NA

Equipment List

ANNEX I

1 / 9

Room	Requested Dep.	Items	Qty	Priority
ICU - Surgical	Anesthesiology	Bed Electric	8	A
ICU - Surgical	Anesthesiology	Calorimetic Machine	1	A
ICU - Surgical	Anesthesiology	CPAP System	2	A
ICU - Surgical	Anesthesiology	Defibrillator	2	A
ICU - Surgical	Anesthesiology	Doppler Blood flow meter	2	A
ICU - Surgical	Anesthesiology	Infusion Pump	16	A
ICU - Surgical	Anesthesiology	Infusion Warmer	8	A
ICU - Surgical	Anesthesiology	Mattress Heat	4	A
ICU - Surgical	Anesthesiology	Moniter Bedside	8	A
ICU - Surgical	Anesthesiology	Moniter Cardiac Output IV / NIV	1	A
ICU - Surgical	Anesthesiology	Pulse Oximeter	4	A
ICU - Surgical	Anesthesiology	Syringe Pump	20	A
ICU - Surgical	Anesthesiology	Ventilator Adult	8	A
ICU - Surgical	Anesthesiology	Weighing Scale	2	A
ICU - Surgical	Anesthesiology	Ambu bag	2	A
ICU - Surgical	Anesthesiology	Blood Gas Analyzer	1	A
ICU - Surgical	Anesthesiology	Bronchoscope Fiber	1	A
ICU - Surgical	Anesthesiology	ECG 3 Channel	2	A
ICU - Surgical	Anesthesiology	Ice Machine	1	A
ICU - Surgical	Anesthesiology	Laryngoscope	5	A
ICU - Surgical	Anesthesiology	Pacemaker Transmembranous	2	A
ICU - Surgical	Anesthesiology	Spot Light	4	A
ICU - Surgical	Anesthesiology	Suction pump Portable	2	A
ICU - Surgical	Anesthesiology	Trolley	3	A
Operation Theater	Anesthesiology	Apnea Alarm	7	A
Operation Theater	Anesthesiology	Blood Salvage Machine Cell Saver	2	A
Operation Theater	Anesthesiology	Blood Warmer Electric	7	A
Operation Theater	Anesthesiology	Monitor ECG/Pulse Oxi.	7	A
Operation Theater	Anesthesiology	Nerve Stimulator with Syringe pump	5	A
Operation Theater	Anesthesiology	Relaxograph	7	A
Operation Theater	Anesthesiology	Gas analyzer Resiratry	1	A
Operation Theater	Anesthesiology	Intubating Stylet	5	A
Operation Theater	Anesthesiology	Laryngoscope Fiber	1	A
Operation Theater	Anesthesiology	Stethoscope Esophageal	7	A
Operation Theater	Anesthesiology	Nerve Stimulator	5	B
Operation Theater	Anesthesiology	Tourniquet Double cuff	2	B
Operation Theater	Anesthesiology	Vaporizer Desflurane	7	B
Operation Theater	Anesthesiology	Vaporizer Sevoflurane	7	B
Operation Theater	Anesthesiology	Anesthesia Machine with ventilator, Adult / pediatric	5	C


NA 

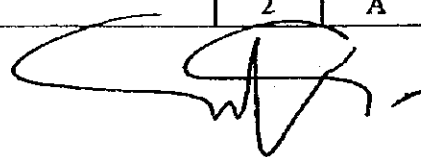


Equipment List

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Room	Requested Dep.	Items	Qty	Priority
Operation Theater	Anesthesiology	Monitor Auditory evoked potential	1	D
Operation Theater	Anesthesiology	Scavenging System 7rooms	1	D
B-Operation Theater	Burn Unit	Anesthesia Machine	1	A
B-Operation Theater	Burn Unit	Hand Washing Unit,U/V 2Pn	1	A
B-Operation Theater	Burn Unit	Monitor ECG	1	A
B-Operation Theater	Burn Unit	Ventilator Adult	1	A
B-Operation Theater	Burn Unit	Dermatome Electric	2	A
B-Operation Theater	Burn Unit	Diathermy machine Bipolar	1	A
B-Operation Theater	Burn Unit	Meshes, Skin Graft	2	A
B-Operation Theater	Burn Unit	Mattress Heat	1	B
B-Operation Theater	Burn Unit	Blood Warmer	1	C
B-Ward	Burn Unit	Monitor Bedside	8	A/4 B/4
B-Ward	Burn Unit	Bed	8	A
B-Ward	Burn Unit	Bed, Pressure sore/ mattress	2	A
B-Ward	Burn Unit	Doppler Pocket	1	A
B-Ward	Burn Unit	Monitor Central	1	A
B-Ward	Burn Unit	Pulse Oximeter	4	A
B-Ward	Burn Unit	Ventilator Adult	2	A
B-Ward	Burn Unit	ECG 3 Channel	1	B
B-Ward	Burn Unit	Lamp, Heat	40	B
B-Ward	Burn Unit	Trolley Dressing	4	B
B-Ward	Burn Unit	Bed Head Unit	8	C
Hydrotherapy	Burn Unit	Scale Electronics	1	A
Hydrotherapy	Burn Unit	Therapy Tank with Massage	1	A
Hydrotherapy	Burn Unit	Trolley Lift bath	1	A
Hydrotherapy	Burn Unit	Showering System	3	A
Hydrotherapy	Burn Unit	Lifter Hygiene	1	B
Operation Theater	Cardiac Surgery	Defibrillator	2	A
Operation Theater	Cardiac Surgery	Heart lung machine 4 pump	1	A
Operation Theater	Cardiac Surgery	Infusion Pump	3	A
Operation Theater	Cardiac Surgery	Mattress Heat / Cool, Adult / Child	2	A
Operation Theater	Cardiac Surgery	Pacemaker	2	A
Operation Theater	Cardiac Surgery	Syringe Pump	4	A
Operation Theater	Cardiac Surgery	Head Light	2	A
CCU	Cardiology	Bed Electric	8	A
CCU	Cardiology	Defibrillator	2	A

NA 



Equipment List

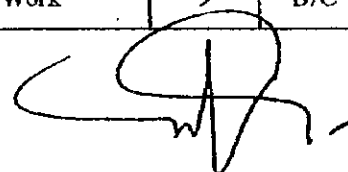
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Room	Requested Dep.	Items	Qty	Priority	
CCU	Cardiology	Infusion Pump	12	A	
CCU	Cardiology	Monitor	Cardiac Protobe	2	A
CCU	Cardiology	Monitor	Bedside	8	A
CCU	Cardiology	Monitor	Central	1	A
CCU	Cardiology	Monitor	EKG	2	A
CCU	Cardiology	Pulse Oximeter		2	A
CCU	Cardiology	Ultrasound Machine	Cardiac / Portable	1	A
CCU	Cardiology	Ventilator	Adult	4	A
Recovery	Cardiology	Bed	Electric	6	A
Recovery	Cardiology	Defibrillator		2	A
Recovery	Cardiology	Infusion Pump		9	A
Recovery	Cardiology	Monitor	Bedside	6	A
Recovery	Cardiology	Monitor	EKG	1	A
Recovery	Cardiology	Pulse Oximeter		2	A
Recovery	Cardiology	Ventilator	Adult	3	A
CSSD	CSSD	Steam Sterilizer	+ Boiler	2	A
CSSD	CSSD	Ethylene Oxide Sterilizer		1	A
CSSD	CSSD	Nipple Sterilizer Machine		1	B
Audiology Unit	ENT	Calibration Instruments Set	for Audiometer		A
Audiology Unit	ENT	Evoked Potential Machine	Acoustic		A
Audiology Unit	ENT	Hearing Aid Laboratory			A
Audiology Unit	ENT	Otoacoustic Emission Recording Set			A
Audiology Unit	ENT	Anesthesia Machine	with Trolley	1	B
Audiology Unit	ENT	Audiometer	Pediatric		B
Audiology Unit	ENT	Vestibular System Testing Unit		1	B
ENT Examination	ENT	Examination Unit	for ENT	3	A
ENT Examination	ENT	Head Light	for Fiber Optic	7	A
ENT OPD	ENT	Fiber-optic Scope	for Laryngeal, Adult	2	A
ENT OPD	ENT	Fiber-optic Scope	for Laryngeal, Pediatrics	1	A
ENT OPD	ENT	Fiber-optic Scope	for Nasopharyngeal	1	A
ENT OPD	ENT	Light Source		2	A
Operation Theater	ENT	Endoscopic Sinus Surgery Set		2	A
Temporal Bone Lab.	ENT	Burrs	All size, sets	30	B/C
Temporal Bone Lab.	ENT	Cabinet	Instrument	2	B/C
Temporal Bone Lab.	ENT	Drill Handles	Straight and Angle, each	20	B/C
Temporal Bone Lab.	ENT	Drills	for Ear Work	9	B/C

NA

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Equipment List

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Room	Requested Dep.	Items		Qty	Priority
Temporal Bone Lab.	ENT	Operating Microscope	Tungsten Light	9	B/C
Temporal Bone Lab.	ENT	Operating Stools		9	B/C
Temporal Bone Lab.	ENT	Suction pump	Portable	9	B/C
Temporal Bone Lab.	ENT	Suction Tube	Metal	30	B/C
Operation Theater	Gastroenterology	Endosonography System		1	A
Operation Theater	General	Electrosurgical Unit		6	A
Operation Theater	General	Operating Light	With Satellite	5	A
Operation Theater	General	Operating table	General 1 / Cardiac 1 / Othopediatric 1	3	A
Operation Theater	General	Suction pump	surgical / Portable 2 Bottle	6	A
Operation Theater	General	Bowel Stand	35cm	2	A
Operation Theater	General	Fumigator	Operation Room	1	A
Operation Theater	General	Hand Washing Unit	8 Person	2	A
Operation Theater	General	Instrument Table	Transverse Over Head	1	A
Operation Theater	General	Kick Bucket	3Caster	3	A
Operation Theater	General	Mayo Instrument Stand		1	A
Operation Theater	General	Solution Warmer Machine		1	A
Operation Theater	General	Swivel Chair		4	A
Operation Theater	General	Trolley	Transport	1	A
Operation Theater	General	Autoclave		1	A
ICU-Medical	Internal Medicine	Bed	Electric	8	A
ICU-Medical	Internal Medicine	Defibrillator		2	A
ICU-Medical	Internal Medicine	Infusion Pump		8	A
ICU-Medical	Internal Medicine	Monitor	Bedside	8	A
ICU-Medical	Internal Medicine	Monitor	Central	1	A
ICU-Medical	Internal Medicine	Monitor	EKG	2	A
ICU-Medical	Internal Medicine	Monitor	EKG / Portable	1	A
ICU-Medical	Internal Medicine	Pulse Oximeter		1	A
Clinical Lab.	Laboratory	Centrifuge	Bench-Top	6	A
Clinical Lab.	Laboratory	Centrifuge	Micro	2	A
Clinical Lab.	Laboratory	Centrifuge, Refrigerated	Bench-Top	4	A
Clinical Lab.	Laboratory	Centrifuge, Refrigerated	Free Stand	2	A
Clinical Lab.	Laboratory	Coagulometer		2	A
Clinical Lab.	Laboratory	Gamma Counter		1	A
Electron Microscope	Laboratory	Electron Microscope	Transmitted	1	A
Electron Microscope	Laboratory	Knife Making Machine		1	A
Electron Microscope	Laboratory	Ultra-Microtome		1	A


NA

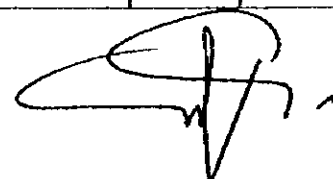
Equipment List

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Room	Requested Dep.	Items	Qty	Priority
Inborn Errors of Metabolism	Laboratory	Atomic Absorption Spectrophotometer	1	B
Inborn Errors of Metabolism	Laboratory	Electrophoresis System Capillary	1	B
Inborn Errors of Metabolism	Laboratory	Gas Chromatography MS System	1	B
Inborn Errors of Metabolism	Laboratory	HPLC	1	B
Molecular Biology	Laboratory	Chromosome Image Analyzer	1	C
Molecular Biology	Laboratory	Dry Heat Block	3	C
Molecular Biology	Laboratory	Electrophoresis System DNA	1	C
Molecular Biology	Laboratory	Gel Documentation System	1	C
Molecular Biology	Laboratory	Lamina Flow	2	C
Molecular Biology	Laboratory	Luminescence System	1	C
Molecular Biology	Laboratory	Photography Equipment	1	C
Molecular Biology	Laboratory	Seuquencer DNA	1	C
Molecular Biology	Laboratory	Thermal Cycler	2	C
Tissue Culture	Laboratory	Cell Harvester	1	C
Tissue Culture	Laboratory	CO2 Incubator	2	C
Tissue Culture	Laboratory	Freezer	2	C
Tissue Culture	Laboratory	Lamina Flow	1	C
Tissue Culture	Laboratory	Safety Cabinet	1	C
Operation Theater	Neurosurgery	Ultrasound Machine Intraoperative	1	A
Emergency Room	Nursing	Defibrillator with Trolley	2	A
Emergency Room	Nursing	Trolley Emergency	10	A
Emergency Room	Nursing	ECG 3 Channel	2	A
Emergency Room	Nursing	Doppler	1	B
Emergency Room	Nursing	Infusion Pump	2	B
Ward-Medical (5/6)	Nursing	Defibrillator with Trolley	2	A
Ward-Medical (5/6)	Nursing	ECG 3 Channel	2	A
Ward-Medical (5/6)	Nursing	Doppler	1	B
Ward-Medical (5/6)	Nursing	Infusion Pump	6	B
Ward-Medical (5/6)	Nursing	Suction pump	3	B
Ward-OB/GYN	Nursing	Defibrillator with Trolley	2	A
Ward-OB/GYN	Nursing	ECG 3 Channel	1	A
Ward-OB/GYN	Nursing	Infusion Pump	2	B

NA 



Equipment List

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Room	Requested Dep.	Items	Qty	Priority
Ward-Pediatric(8/7)	Nursing	Defibrillator with Trolley	2	A
Ward-Pediatric(8/7)	Nursing	EKG 3 Channel	2	A
Ward-Pediatric(8/7)	Nursing	Suction pump	2	A
Ward-Pediatric(8/7)	Nursing	Doppler	1	B
Ward-Pediatric(8/7)	Nursing	Infusion Pump	6	B
Ward-Surgical(4/3/2)	Nursing	Defibrillator with Trolley	2	A
Ward-Surgical(4/3/2)	Nursing	EKG 3 Channel	3	A
Ward-Surgical(4/3/2)	Nursing	Doppler	1	B
Ward-Surgical(4/3/2)	Nursing	Infusion Pump	8	B
Ward-Surgical(4/3/2)	Nursing	Suction pump	4	B
Wards	Nursing	Bed 2 each Floor	14	B
Delivery Room	OB/GYN	Monitor, Fetal Intrapartum, Connected to Nursing and Doctor Station	8	A
Delivery Room	OB/GYN	Operating Light Ceiling	4	A
Delivery Room	OB/GYN	Ultrasound Machine Doppler, Linear and Convex	1	A
Infertility Lab.	OB/GYN	Autoclave	1	A
Infertility Lab.	OB/GYN	Balance Analytical	1	A
Infertility Lab.	OB/GYN	Camera and Video to Dissection Microscope	1	A
Infertility Lab.	OB/GYN	Centrifuge Bench-Top	1	A
Infertility Lab.	OB/GYN	CO2 Analyzer	1	A
Infertility Lab.	OB/GYN	CO2 Incubator Bench-Top	1	A
Infertility Lab.	OB/GYN	CO2 Incubator Regular Size	1	A
Infertility Lab.	OB/GYN	Containers for Straws	1	A
Infertility Lab.	OB/GYN	Dish Washer	1	A
Infertility Lab.	OB/GYN	Dry Oven	1	A
Infertility Lab.	OB/GYN	Filtering Unit	1	A
Infertility Lab.	OB/GYN	Freezer with Computer and Recorder	1	A
Infertility Lab.	OB/GYN	Lamina Flow Vertical Type	1	A
Infertility Lab.	OB/GYN	Magnetic Stirrer	1	A
Infertility Lab.	OB/GYN	Microforge	1	A
Infertility Lab.	OB/GYN	Micromanipulation Equipment	1	A
Infertility Lab.	OB/GYN	Microscope Dissection, Stereo Zoom	1	A
Infertility Lab.	OB/GYN	Microscope Inverted	1	A
Infertility Lab.	OB/GYN	Microscope	1	A

NA B

Equipment List

Room	Requested Dep.	Items	Qty	Priority
Infertility Lab.	OB/GYN	Mixer Vortex	1	A
Infertility Lab.	OB/GYN	Monitor to Dissection Microscope	1	A
Infertility Lab.	OB/GYN	Osmometer	1	A
Infertility Lab.	OB/GYN	pH Meter	1	A
Infertility Lab.	OB/GYN	Sperm Counting Chambers	1	A
Infertility Lab.	OB/GYN	Store Cans Cryo	1	A
Infertility Lab.	OB/GYN	Table with Sinks, S.S.	1	A
Infertility Lab.	OB/GYN	Tank for LN2	1	A
Infertility Lab.	OB/GYN	Thermos Container	1	A
Infertility Lab.	OB/GYN	Tube Racks Cryo	1	A
Infertility Lab.	OB/GYN	Ultrasonic Cleaner	1	A
Infertility Lab.	OB/GYN	Video Recorder	1	A
Infertility Lab.	OB/GYN	Water Bath 56C	1	A
Infertility Lab.	OB/GYN	Water Purification System	1	A
OB/GYN OR	OB/GYN	Aspiration Unit	1	A
OB/GYN OR	OB/GYN	Examination Couch	1	A
OB/GYN OR	OB/GYN	Examination Lamp	1	A
OB/GYN OR	OB/GYN	Monitor to Ultrasound	1	A
OB/GYN OR	OB/GYN	Table Rolling with Warming	1	A
OB/GYN OR	OB/GYN	Tabourets adjustable heights	1	A
OB/GYN OR	OB/GYN	Ultrasound Machine Vaginal Probe	1	A
OB/GYN OR	OB/GYN	Video Equipment to Ultrasound	1	A
Operation Theater	Ophthalmology	Laser System Argon		A
Operation Theater	Ophthalmology	Surgical Instruments for Ophthalmology		A
Operation Theater	Ophthalmology	Surgical Microscope with Video		A
Operation Theater	Ophthalmology	Vitrectomy Machine	1	A
Operation Theater	Ophthalmology	Keratome Excimer Laser		B
Operation Theater	Ophthalmology	Keratome Lasik		B
Ophthal. OPD	Ophthalmology	Electro Oculogram (EOG)		A
Ophthal. OPD	Ophthalmology	Electroretinogram(ERG)		A
Ophthal. OPD	Ophthalmology	Evoked Potential Machine(VER) for Visual	1	A
Ophthal. OPD	Ophthalmology	Examination Unit for Ophthalmology		A
Ophthal. OPD	Ophthalmology	Refractometer Automatic		A
Ophthal. OPD	Ophthalmology	Microscope Specular		B
Ophthal. OPD	Ophthalmology	Perimeter Automatic		B
Ophthalmology	Ophthalmology	Binocular Indirect Ophthalmomicroscope(BIOM)		B
Ophthalmology	Ophthalmology	Multiport Illumination System(MIS)		B
Ophthalmology	Ophthalmology	Stereoscopic Diagonal Inverter(SDI)		B

NA B

Equipment List

Room	Requested Dep.	Items	Qty	Priority
Operation Theater	Orthopedics	Control Dubuasse Horizon System for Spinal Surgery	1	A
Operation Theater	Orthopedics	Electrosurgical Unit	1	A
Operation Theater	Orthopedics	Evoked Potential Machine for Intra Operative	1	A
Operation Theater	Orthopedics	Micro-Endoscopic System	1	A
Operation Theater	Orthopedics	Pneumatic Drills- Saw- Ostoctome System	1	A
Operation Theater	Orthopedics	Laser System for Spinal Surgery	1	A
Orthopedic-OPD	Orthopedics	Ultrasonography System for Pediatric Orthopedics	1	A
Orthopedic-OPD	Orthopedics	Bone Bank System	1	A
Orthopedic-OPD	Orthopedics	Bone Densitometry	1	A
Orthopedic-OPD	Orthopedics	Image-Guided Surgery System	1	A
PICU	Pediatrics	Bed Electric	8	A
PICU	Pediatrics	Blood Gas Analyzer	1	A
PICU	Pediatrics	Defibrillator	1	A
PICU	Pediatrics	ECG 3 Channel	1	A
PICU	Pediatrics	Fiber-optic Light	1	A
PICU	Pediatrics	Incubator / Transport for Neonatal	1	A
PICU	Pediatrics	Incubator / Transport for Neonatal	2	A
PICU	Pediatrics	Infusion Pump	12	A
PICU	Pediatrics	Monitor Cardio resp.	8	A
PICU	Pediatrics	Pulse Oximeter	4	A
PICU	Pediatrics	Ventilator Adult	2	A
PICU	Pediatrics	Ventilator Child	2	A
PICU	Pediatrics	Ventilator Transport, Child	1	A
PICU	Pediatrics	Ultrasound Machine Pediatric	1	A
PICU	Pediatrics	Refrigerator with Freezer	1	B
PICU	Pediatrics	Resuscitation Bag Self inflation	8	B
PICU	Pediatrics	Trolley Resuscitation	2	B
Hydrotherapy	Physiotherapy	Balancer and Patient Carrier	1	A
Hydrotherapy	Physiotherapy	Butterfly Bath	1	A
Hydrotherapy	Physiotherapy	Combination Bath	1	A
Hydrotherapy	Physiotherapy	Massage Bath	1	A
Hydrotherapy	Physiotherapy	Four Compartment Bath	1	B
Hydrotherapy	Physiotherapy	Jet Sprayer Mobile	1	B
Hydrotherapy	Physiotherapy	Dry Hydrotherapy Machine Aqua	1	C
Physiotherapy	Physiotherapy	Air Splints for Amputee	5	A
Physiotherapy	Physiotherapy	Exercise Table Complete	1	A
Physiotherapy	Physiotherapy	Isokinetic Back Machine	1	A
Physiotherapy	Physiotherapy	Isokinetic Machine for Extremities	1	A
Physiotherapy	Physiotherapy	Treadmill Existing Gait Analysis System	1	A

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Equipment List

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Room	Requested Dep.	Items		Qty	Priority
Physiotherapy	Physiotherapy	Treadmill	Platform and EMG	1	A
Physiotherapy	Physiotherapy	Upper Limb Trainer		2	A
Physiotherapy	Physiotherapy	Work-Set Station	Computerized	1	A
Physiotherapy	Physiotherapy	Parallel Bars Training Equipment	for Full	1	B
Physiotherapy	Physiotherapy	Pulley System		1	B
Physiotherapy	Physiotherapy	Quadriceps Bench		1	B
Physiotherapy	Physiotherapy	Ergometers		2	C
Physiotherapy	Physiotherapy	Fitness Program		1	C
Echography	Radiology	Ultrasound Machine	Color doppler	1	A
Nuclear Medicine	Radiology	Gamma camera	S.P.E.C.T	1	A
X-ray	Radiology	Angiography		1	A
X-ray	Radiology	CT-scanner	Fluoroscopy	1	A
X-ray	Radiology	X-ray machine,Fluoroscopy	Digital	1	A
X-ray	Radiology	X-ray machine general	general	1	A
X-ray	Radiology	X-ray machine,IVP	Intra-venous pyelogram	1	A
X-ray	Radiology	X-ray machine,Mammogram	with biopsy gun	1	A
X-ray	Radiology	X-ray,Mobile	Mobile	7	A
X-ray	Radiology	Film Developer	Daylight	2	A
X-ray	Radiology	Film Developer	Darkroom	3	B
Operation Theater	Thoracic Surgery	Video Bronchoscope Set		1	A
Operation Theater	Thoracic Surgery	Video Thoracoscopy Set		1	A
Urology-OPD	Urology	Uro-dynamic	Video type	1	A
Urology-OPD	Urology	Endoscopic set	Urologic	1	A
Urology-OPD	Urology	Ultrasound Machine	Urologic	1	B

NA

ANNEX II

CRITERIA FOR EQUIPMENT SELECTION

Policy of Basic Design Team

- Replacing or supplementing of the equipment for the clinical education and training which is necessary for Jordan University Hospital
- Determining the items and quantities attaching importance to appropriateness in medical technique, maintenance, budgetary plan and others
- Designing the project so that it meets the scheme of Japan's Grant

Priority Set Up in Selection of Equipment

1. Replacement of Equipment

Replacement of equipment, which is used in daily clinical education and training activities but aged and in poor condition

ex.) over 10years old equipment,
disordered equipment,
frequently repaired equipment,

2. Supplement of Equipment

Supplementing the equipment of which the necessity can be justified by the expansion of the clinical education and training activities.

3. Newly-Introduced Equipment

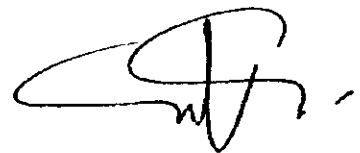
Introducing the equipment, which is essential in the clinical education and training activities.

The following conditions should be practically satisfied.

demand of the clinical education and training activities,
technical level,
personnel,
budgetary plan of maintenance, etc.

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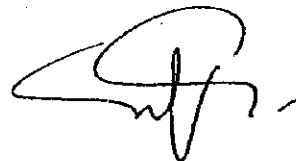
Examples of Equipment to be Selected

- Equipment for the clinical education and training activities
- Equipment which is appropriate for technical level of Jordan University Hospital
- Equipment for which Jordan University Hospital has appropriate budgetary plans for maintenance

Examples of Equipment to be Excluded from the Project

- Equipment newly developed, and its reliability, effectiveness and maintenance cost have not been clearly determined
- Equipment of which maintenance cost is so big that the sustainability would be obstructed
- Equipment of which consumables, spare parts and maintenance services of manufacturer can not be provided in Jordan
- Consumables
- Equipment for departments or room of which renovation plans of Jordan side can not be clearly and practically presented in the basic study phase
- Equipment which violate the regulation or law of medical disposable and radiographic control
- Duplication or overlapped equipment (Already existing equipment and so on)

NA



ANNEX III

JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

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

- Application (Request made by a recipient country)
- Study (Preliminary Study / Basic Design Study conducted by JICA)
- Appraisal & Approval (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
- Determination of Implementation (Exchange of Notes between the both Governments)
- Implementation (Implementation of the Project)

(2) Firstly, an application or a request for a project made by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grant Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study) , using a Japanese consulting firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

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

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by the both Governments.

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

NA

2. Contents of the Study

(1) Contents of the Study

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

- a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,
- c) to confirm items agreed on by the both parties concerning a basic concept of the project,
- d) to prepare a basic design of the project,
- e) to estimate cost involved in the project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

(2) Selecting (a) Consulting Firm(s)

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

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

(3) Status of a Preliminary Study in the Grant Aid Program

A Preliminary Study is conducted during the second step of a project formulation & preparation as mentioned above.

NA

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.

Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation or such.

(2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

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

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

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

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

NA

(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into 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 tax payers.

(6) Undertakings required to the Government of the recipient country

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

- a) to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- c) to secure buildings prior to the installation work in case the Project is providing equipment,
- d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- f) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(7) Proper Use

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

NA

(8) Re-export

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

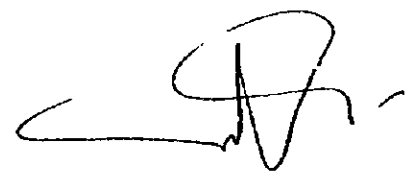
(9) Banking Arrangement (B/A)

(a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in 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 Government of the recipient country or its designated authority under the contracts verified.

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

NA

3



ANNEX IV

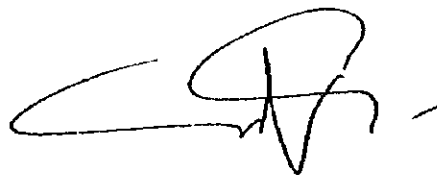
NECESSARY MEASURES TO BE TAKEN BY THE JORDANIAN SIDE

The following measures shall be taken by the Government of the Hashemite Kingdom of Jordan on condition that the Grant Aid by the Government of Japan is extended to the Project.

1. To provide data and information necessary for the Project ;
2. To secure, clear, level and reclaim the site for the Project prior to the Project implementation ;
3. To provide proper access roads to the Project site ;
4. To undertake incidental outdoor works, such as gardening, fencing, exterior lighting, and other incidental facilities in and around the Project site, if necessary ;
5. To construct and / or install road, drainage and utilities such as electricity, water supply, telephone system etc. to the Project site ;
6. To bear two kinds of commissions to the Japanese Foreign Exchange Bank for its banking services based upon the Banking Arrangement, namely
 - the advising commission of the 'Authorization to Pay' and
 - the payment commission ;
7. To ensure prompt unloading, tax exemption, and the customs clearance at the port of disembarkation in Jordan and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant;
8. To exempt Japanese engaged in the Project from customs duties, internal taxes and fiscal levies which may be imposed with respect to the supply of the products and services under the verified contract ;
9. To accord Japanese whose services may be required in connection with the supply of products and services under the verified contract such facilities as may be necessary for their entry into Jordan and stay therein for the performance of their work ;
10. To provide necessary permissions, licenses, and other authorization for implementing the Project, if necessary ;
11. To assign an appropriate budget and training and administrative staff for proper and effective operation and maintenance of the facilities and equipment provided under the Grant ; and
12. To bear all the expenses other than those to be borne by the Japan's Grant Aid within the scope of the Project.

NA

3



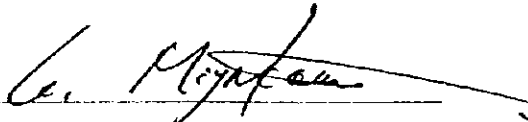
MINUTES OF DISCUSSIONS
ON
BASIC DESIGN STUDY
ON
THE PROJECT FOR IMPROVEMENT OF MEDICAL EQUIPMENT
FOR JORDAN UNIVERSITY HOSPITAL
IN
HASHEMITE KINGDOM OF JORDAN
(CONSULTATION ON DRAFT REPORT)

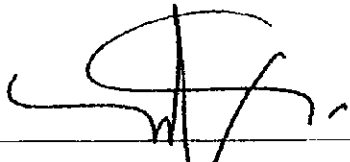
In October 1997, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study team on the Project for Improvement of Medical Equipment for Jordan University Hospital (hereinafter referred to as "the Project"), and through discussions, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

In order to explain and to consult the Jordan side on the components of the draft report, JICA sent to Jordan a study team, which is headed by Mr. Katsutoshi Miyakawa, Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs, and is scheduled to stay in the country from January 13 to January 23, 1998.

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

Anman, January 20, 1998


Mr. Katsutoshi MIYAKAWA
Leader
Draft Basic Design Explanation Team
Japan International Cooperation Agency


Dr. Mahmoud M. Abu-Khalaf
Dean Faculty of Medicine
Director General
Jordan University Hospital


Dr. Neal T. Al-Hajaj Ph.D
Deputy Director
Bilateral Cooperation Department
Ministry of Planning

ATTACHMENT

1. Components of draft report

The Government of Hashemite Kingdom of Jordan and Jordan University Hospital have in principal agreed and accepted the components of the draft report proposed by the Team.

2. Items requested by the Government of Hashemite Kingdom of Jordan and Jordan University Hospital

The procurement of the equipments described in ANNEX-II is finally requested by the Government of Hashemite Kingdom of Jordan and Jordan University Hospital for the consideration by the Government of Japan to be provided under the Grant Aid.

The requested items shall be re-examined and referred to on finalizing the Basic Design Study Report.

3. Presentation of the final report

JICA will make the final report in accordance with the confirmed items, and send it to the Government of Hashemite Kingdom of Jordan around March, 1998.

4. Japan's Grant Aid System

1) The Government of Hashemite Kingdom of Jordan and Jordan University Hospital has understood the system of Japan's Grant Aid explained by the team. (See ANNEX-III)

2) The Government of Hashemite Kingdom of Jordan and Jordan University Hospital will take necessary measures, described in ANNEX-IV for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

5. Monitoring

Jordan University Hospital has the responsibility in monitoring progress of the Project based upon the indicators given in ANNEX-V and reporting it to JICA Jordan Office annually through Ministry of Planning.

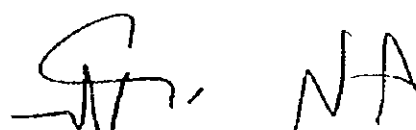
6. Other Relevant Issues

On condition that Japan's Grant Aid is extended to the Project;

1) The Government of Hashemite Kingdom of Jordan and Jordan University Hospital recognized the necessity of renovation work of Jordan University Hospital for the Project, submitted the document described in ANNEX-I to verify the renovation work shall be completed by the end of May, 1998. And Jordan side will submit the monthly report concerning the progress of facility preparation to JICA Jordan Office from Jan. 1998 to the time of completion of the renovation work.

6
SM NA

2) The Government of Hashemite Kingdom of Jordan and Jordan University Hospital will allocate the necessary budget and personnel for the Project for securing sustainable and proper operation and maintenance of the equipment included in the Project.



Jordan University Hospital



مستشفى الجامعة الأردنية

Ref. : 18/1/1998

Date : 18/1/1998

الرقم : 18/1/1998

التاريخ : 18/1/1998

MR. KATSUTOSHI MIYAKAWA
LEADER
DRAFT BASIC DESIGN EXPLANATION TEAM
JAPAN INTERNATIONAL COOPERATION AGENCY

Dear Mr. MIYAKAWA ,,

It is our great pleasure to inform you that the progress of facility renovation in Jordan University Hospital . In Oct. 1997 we informed that the facility renovation where would be installed the medical equipment done by Japanese Grant Aid would be completed by Jan. 1998 . As the periodical progress report in Jan. 1998 at present , the following facility renovation already completed .

- PICU
- Intermediate ICU

However because of the following reasons , the completion of remaining facility renovation will be completed by the end of May , 1998 .

- 1) Operating Room for Cardiac Surgery .
- 2) CCU
- 3) Post Cardiac Surgery Recovery Room
- 4) Burn Unit

The tender specification were completed together with the new design for the units. The building committee of the University Of Jordan approved the changes. The Central tendering Committee approved the tender specifications . All documented have been finalized for releasing the tender . The procedure of submitting the bids , then studing them and

...../2

Handwritten signatures and initials, including "NA".

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Jordan University Hospital



مستشفى الجامعة الأردنية

Ref:

الرقم:

Date:

التاريخ:

- 2 -

the winning bidder , then carrying the construction work will begin and will take 70-90 days .

You are kindly request to understand the present situation .

Sincerely Yours ,,,

Dr. Mahmud M. Abu-Khalaf

Dean Faculty of Medicine

Director General

Jordan University Hospital

/FJ

Requested Dep.	Room	Items	Qty	
Anesthesiology	ICU - Surgical	Bed	3-Crank Gatch	8
Anesthesiology	ICU - Surgical	Monitor	Bedside, with Invasive BP	4
Anesthesiology	ICU - Surgical	Monitor	Bedside	3
Anesthesiology	ICU - Surgical	ECG	3 Channel	1
Anesthesiology	ICU - Surgical	Syringe Pump		15
Anesthesiology	ICU - Surgical	Defibrillator	with Trolley and Inner Paddle	1
Anesthesiology	ICU - Surgical	Doppler	Portable	2
Anesthesiology	ICU - Surgical	Infusion Pump		6
Anesthesiology	ICU - Surgical	Mattress	Heat, Adult / Child	2
Anesthesiology	ICU - Surgical	Ventilator	Adult	3
Anesthesiology	ICU - Surgical	Cardiac Output Machine	Thermodilution Type	1
Anesthesiology	ICU - Surgical	Blood Gas Analyzer		1
Anesthesiology	ICU - Surgical	Suction pump	Portable	2
Anesthesiology	Operation Theater	Blood Warmer	Dry Type	7
Anesthesiology	Operation Theater	Laryngoscope	Fiber-optic	1
Anesthesiology	Operation Theater	Tourniquet	Double cuff	2
Anesthesiology	Operation Theater	Monitor	Bedside, with Invasive BP	4
Anesthesiology	Operation Theater	Anesthesia Machine	with Ventilator, Adult / Pediatric	3
Anesthesiology	Operation Theater	Nerve Stimulator	with Syringe	5
Burn Unit	B-Operation Theater	Anesthesia Machine	with Ventilator, Adult / Pediatric	1
Burn Unit	B-Operation Theater	Hand Washing Unit		1
Burn Unit	B-Operation Theater	Monitor	Bedside	1
Burn Unit	B-Operation Theater	Diathermy Machine	Bipolar	1
Burn Unit	B-Operation Theater	Dermatome	Electric	1
Burn Unit	B-Operation Theater	Meshes, Skin Graft		1
Burn Unit	B-Operation Theater	Mattress	Heat, Adult / Child	1
Burn Unit	B-Ward	Bed	3 Crank Gatch	8
Burn Unit	B-Ward	Doppler	Portable	1
Burn Unit	B-Ward	ECG	3 Channel	1
Burn Unit	B-Ward	Ventilator	Adult / Pediatric	2

NA

Requested Dep.	Room	Items	Qty
Burn Unit	B-Ward	Mattress, Pressure Sore	2
Burn Unit	B-Ward	Monitor Bedside	4
Burn Unit	Hydrotherapy	Therapy Tank	1
Burn Unit	Hydrotherapy	Showering System	1
Burn Unit	Hydrotherapy	Trolley Lift Bath	1
Cardiac Surgery	Operation Theater	Heart Lung Machine 4 Pumps	1
Cardiac Surgery	Operation Theater	Defibrillator with Trolley and Inner Paddle	1
Cardiac Surgery	Operation Theater	Infusion Pump	3
Cardiac Surgery	Operation Theater	Mattress Heat, Adult / Child	1
Cardiac Surgery	Operation Theater	Pacemaker Transmembranous	2
Cardiac Surgery	Operation Theater	Syringe Pump	4
Cardiac Surgery	Operation Theater	Head Light Fiber Optic	2
Cardiac Surgery	CCU Recovery	Bed 3-Crank Gatch	6
Cardiac Surgery	CCU Recovery	Defibrillator with Trolley	2
Cardiac Surgery	CCU Recovery	Infusion Pump	9
Cardiac Surgery	CCU Recovery	Monitor Bedside, with Invasive BP	6
Cardiac Surgery	CCU Recovery	ECG 3 Channel	1
Cardiology	CCU	Defibrillator with Trolley	2
Cardiology	CCU	Monitor Bedside, with Invasive BP	8
Cardiology	CCU	Monitor Central	1
Cardiology	CCU	ECG 3 Channel	2
Cardiology	CCU	Infusion Pump	11
Cardiology	CCU	Bed 3-Crank Gatch	8
Cardiology	CCU	Monitor Portable, Battery Type, with SpO2	1
Cardiology	CCU	Ultrasound Machine Cardiac, Portable	1
Cardiology	CCU	Ventilator Adult	3
CSSD	CSSD	Steam Sterilizer	2
ENT	Audiology Unit	Evoked Potential Machine Acoustic	1
ENT	Audiology Unit	Audiometer Pediatric	1
ENT	ENT Examination	Examination Unit for ENT with Headlight	3





Requested Dep.	Room	Items		Qty
ENT	ENT Examination	Headlight	Fiber-optic	4
ENT	ENT OPD	Fiber-optic Scope	Laryngeal, Treatment	1
ENT	ENT OPD	Fiber-optic Scope	Laryngeal, Adult / Child	1
ENT	Operation Theater	Endoscopic Sinus Surgery Set		1
General Surgery	Operation Theater	Operating Table	General 1, Cardiac 1, Orthopedic 1	3
General Surgery	Operation Theater	Suction Pump	Surgical, 2 Bottles	4
General Surgery	Operation Theater	Autoclave	Bench-Top	3
General Surgery	Operation Theater	Fumigator		2
General Surgery	Operation Theater	Solution Warmer		3
General Surgery	Operation Theater	Stretcher Trolley		4
General Surgery	Operation Theater	Electrosurgical Unit	Bipolar	3
General Surgery	Operation Theater	Operating Light	with Satellite Light	2
Internal Medicine	IMCU	Bed	3-Crank Gatch	8
Internal Medicine	IMCU	Defibrillator	with Trolley	1
Internal Medicine	IMCU	ECG	3 Channel	1
Internal Medicine	IMCU	Infusion Pump		8
Internal Medicine	IMCU	Monitor	Bedside	4
Internal Medicine	IMCU	Monitor	Central	1
Internal Medicine	IMCU	Pulse Oxymeter		1
Laboratory	Clinical Lab.	Centrifuge, Refrigerated	Free Stand Type, for Blood Bank	2
Laboratory	Clinical Lab.	Coagulometer		2
Laboratory	Clinical Lab.	Gamma Counter		1
Neurosurgery	Operation Theater	Ultrasound Machine	for Intraoperative Use	1
Nursing	Emergency Room	Defibrillator	with Trolley	1
Nursing	Emergency Room	Stretcher Trolley		10
Nursing	Emergency Room	ECG	3 Channel	1
Nursing	Emergency Room	Doppler	Portable	1
Nursing	Ward-Medical (5/6)	Defibrillator	with Trolley	2
Nursing	Ward-Medical (5/6)	ECG	3 Channel	1
Nursing	Ward-Medical (5/6)	Doppler	Portable	1

SR NA

Requested Dep.	Room	Items	Qty	
Nursing	Ward-Medical (5/6)	Infusion Pump	6	
Nursing	Ward-Medical (5/6)	Suction Pump	Portable	2
Nursing	Ward-OB/GYN	Defibrillator	with Trolley	1
Nursing	Ward-OB/GYN	ECG	3 Channel	1
Nursing	Ward-OB/GYN	Infusion Pump		2
Nursing	Ward-Pediatric(8/7)	Defibrillator	with Trolley	1
Nursing	Ward-Pediatric(8/7)	ECG	3 Channel	2
Nursing	Ward-Pediatric(8/7)	Suction Pump	Portable	1
Nursing	Ward-Pediatric(8/7)	Doppler	Portable	1
Nursing	Ward-Pediatric(8/7)	Infusion Pump		6
Nursing	Ward-Surgical(4/3/2)	Defibrillator	with Trolley	1
Nursing	Ward-Surgical(4/3/2)	ECG	3 Channel	2
Nursing	Ward-Surgical(4/3/2)	Doppler	Portable	1
Nursing	Ward-Surgical(4/3/2)	Infusion Pump		6
Nursing	Wards	Bed	3-Crank Type	14
OB/GYN	Delivery Room	Monitor System, Fetal	Connected to Nurse Station	1
OB/GYN	Delivery Room	Operating Light	with Satellite Light	4
OB/GYN	Infertility Lab.	Ultrasound Machine	with Vaginal Probe	1
OB/GYN	Infertility Lab.	Autoclave	Bench-Top	1
OB/GYN	Infertility Lab.	Camera and Video	Connected to Inverted Microscope	1
OB/GYN	Infertility Lab.	Centrifuge	Bench-Top	1
OB/GYN	Infertility Lab.	CO ₂ Incubator		1
OB/GYN	Infertility Lab.	Dry Oven		1
OB/GYN	Infertility Lab.	Microscope	Inverted	1
OB/GYN	Infertility Lab.	pH Meter		1
OB/GYN	Infertility Lab.	Sperm Counting Chamber		1
OB/GYN	Infertility Lab.	Water Bath	56°C	1
OB/GYN	Infertility Lab.	Examination Lamp		1
OB/GYN	Infertility Lab.	Table, Examination	for OB / GYN	1
Ophthalmology	Operation Theater	Surgical Instruments	for Ophthalmology	1





Requested Dep.	Room	Items	Qty
Ophthalmology	Operation Theater	Surgical Microscope with Video	1
Ophthalmology	Operation Theater	Vitrectomy Machine	1
Ophthalmology	Operation Theater	Laser System Argon	1
Ophthalmology	Ophthal. OPD	Examination Unit for Ophthalmology	2
Ophthalmology	Ophthal. OPD	Refractometer Automatic	1
Ophthalmology	Ophthal. OPD	Microscope Specular	1
Ophthalmology	Ophthal. OPD	Perimeter Automatic	1
Ophthalmology	Ophthalmology	Binocular Indirect Ophthalmomicroscope BIOM	1
Ophthalmology	Ophthalmology	Stereoscopic Diagonal Inverter SDI	1
Orthopedics	Operation Theater	Micro-Endoscopic System	1
Orthopedics	Operation Theater	Pneumatic Osteotome System with Drills and Saws	1
Orthopedics	Operation Theater	Evoked Potential Machine for Intraoperative Use	1
Orthopedics	Operation Theater	Laser System for Spinal Surgery, Yag	1
Pediatrics	PICU	Bed 3-Crank Gatch	8
Pediatrics	PICU	Defibrillator with Trolley	1
Pediatrics	PICU	ECG 3 Channel	1
Pediatrics	PICU	Incubator, Transport for Neonates	1
Pediatrics	PICU	Infusion Pump	8
Pediatrics	PICU	Monitor Bedside	4
Pediatrics	PICU	Pulse Oxymeter	4
Pediatrics	PICU	Ventilator Adult	1
Pediatrics	PICU	Ventilator Infant	2
Pediatrics	PICU	Ventilator, Transport Child	1
Pediatrics	PICU	Infant Warmer for Resuscitation	2
Physiotherapy	Hydrotherapy	Butterfly Bath	1
Physiotherapy	Hydrotherapy	Massage Bath	1
Physiotherapy	Hydrotherapy	Jet Sprayer Mobile	1
Physiotherapy	Physiotherapy	Parallel Bars Adjustable	1
Physiotherapy	Physiotherapy	Quadriceps Bench	1
Physiotherapy	Physiotherapy	Cooler Unit with Cold Packs	1

NA

ANNEX III

JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

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

- Application (Request made by a recipient country)
- Study (Preliminary Study / Basic Design Study conducted by JICA)
- Appraisal & Approval (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
- Determination of Implementation (Exchange of Notes between the both Governments)
- Implementation (Implementation of the Project)

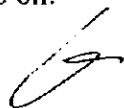
(2) Firstly, an application or a request for a project made by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grant Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study) , using a Japanese consulting firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

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

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by the both Governments.

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



2. Contents of the Study

(1) Contents of the Study

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

- a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,
- c) to confirm items agreed on by the both parties concerning a basic concept of the project,
- d) to prepare a basic design of the project,
- e) to estimate cost involved in the project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

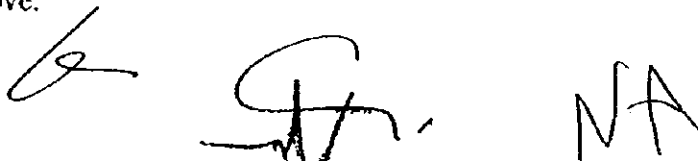
(2) Selecting (a) Consulting Firm(s)

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

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

(3) Status of a Preliminary Study in the Grant Aid Program

A Preliminary Study is conducted during the second step of a project formulation & preparation as mentioned above.

The image shows three handwritten signatures or initials in black ink. The first is a stylized signature on the left, the second is a signature in the middle, and the third consists of the letters 'NA' on the right.

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.

Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country, under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation or such.

(2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

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

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

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

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



(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into 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 tax payers.


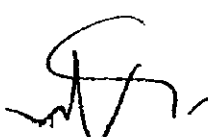
(6) Undertakings required to the Government of the recipient country

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

- a) to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- c) to secure buildings prior to the installation work in case the Project is providing equipment,
- d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- f) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(7) Proper Use

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

  NA


(8) Re-export

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

(9) Banking Arrangement (B/A)

(a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in 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 Government of the recipient country or its designated authority under the contracts verified.

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



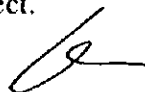
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ANNEX IV

NECESSARY MEASURES TO BE TAKEN BY THE JORDANIAN SIDE

The following measures shall be taken by the Government of Hashemite Kingdom of Jordan and Jordan University Hospital on condition that the Grant Aid by the Government of Japan is extended to the Project.

1. To provide data and information necessary for the Project ;
2. To secure, clear, level and reclaim the site for the Project prior to the Project implementation ;
3. To provide proper access roads to the Project site ;
4. To undertake incidental outdoor works, such as gardening, fencing, exterior lighting, and other incidental facilities in and around the Project site, if necessary ;
5. To construct and / or install road, drainage and utilities such as electricity, water supply, telephone system etc. to the Project site ;
6. To bear two kinds of commissions to the Japanese Foreign Exchange Bank for its banking services based upon the Banking Arrangement, namely
 - the advising commission of the 'Authorization to Pay' and
 - the payment commission ;
7. To ensure prompt unloading, tax exemption, and the customs clearance at the port of disembarkation in Jordan and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant;
8. To exempt Japanese engaged in the Project from customs duties, internal taxes and fiscal levies which may be imposed with respect to the supply of the products and services under the verified contract ;
9. To accord Japanese whose services may be required in connection with the supply of products and services under the verified contract such facilities as may be necessary for their entry into Jordan and stay therein for the performance of their work ;
10. To provide necessary permissions, licenses, and other authorization for implementing the Project, if necessary ;
11. To assign an appropriate budget and training and administrative staff for proper and effective operation and maintenance of the facilities and equipment provided under the Grant ; and
12. To bear all the expenses other than those to be borne by the Japan's Grant Aid within the scope of the Project.



ANNEX V

Monitoring and Reporting of the Project

The following indicators should be reported to JICA Jordan Office biannually through Ministry of Planning by Jordan University Hospital.

MONITORING FORM FOR JICA (Jan-Jun / Jul-Dec, 199_ /200_)

Ward	No. of Admission	No. of Referred Cases	No. of Beds	Bed Occupancy Rate	Average Length of Stay	Net Death Rate
Medicine						
Medical ICU						
CCU						
Pediatrics						
PICU						
Premature Unit						
General Surgery						
Surgical ICU						
Recovery CCU						
Burn Unit						
Total ward						
Procedures	No. of Event	Referred cases	No. of Alive Discharge	No. of Event at		
				Royal M.C.	Jordan HSP.	
Cardiac Cath.						
PTCR/PTCA						
Open Heart S.						
(By-pass)						
(Valve replace)						
(CHD)						
S. at Burn Unit						
	Total No.	(Op Theater)	(OPD)			
Laser Operation for Ophthalmol.						
Investigations	Surgical	Other ICU	Intra-Op			
ABG						
Infertility Lab.						
Indications	JUH	Jordan				
Infant Mortality						
Maternal Mort.						
Fatality by AMI						

SAH. NA

JICA