

3-1-5 Procurement Plan

(1) Construction Materials

1) Procurement Guidelines

The materials procured must be easy to clean and maintain in a sanitary condition, and must also be sturdy enough to meet the needs of a building used for this purpose. To obtain materials that meet these requirements, the following guidelines will be applied.

a. Local procurement

As much as possible of the materials and equipment will be procured in Pakistan so that after the project has been completed, the MCH Centre will be able to repair, operate, and maintain the building without difficulty. The contractor is to check the quality of all material and the amount the local suppliers can provide to prevent disruptions of the construction schedule.

An imported product that can be obtained easily in the domestic market (a product that can always be obtained in Pakistan without the need to order it from overseas) will be treated as a local product and its use will be subject to guidelines for local products.

b. Overseas procurement

If a particular material can not be sourced in Pakistan, or if local suppliers can not provide sufficient supplies of a material at the needed quality, the contractor must import it either from Japan or from a third country. When the contractor plans to import material, it must discuss the importing procedure and customs clearance with PIMS (SCMCHP) to make arrangements to complete procedures smoothly.

If a comparison of the local purchase price with the cost of purchase in Japan or a third country plus the cost of packaging and shipping reveals that it is far cheaper to import the product from Japan or a third country, the contractor will source it overseas.

c. Transport plans

Materials and equipment imported from Japan will be transported by sea to Karachi, Pakistan and then by truck inland to the project site in Islamabad. The packing used will be such that it can withstand transport to tropical regions, because the functions of the material or equipment could be harmed if any part of it is exposed to shock, high humidity, or high temperatures.

2) Procurement

The following Figure/Table presents a categorization of the building and construction materials by procurement source based on the above guidelines, i.e., into local procurement (Local), third-country procurement (3rd), and procurement from Japan (Jpn).

Figure/Table 3-5 Procurement Plan (1)

Work category	Material	Local	3rd	Jpn	Remarks
Reinforced concrete construction	Portland Cement	○			
	Fine aggregate (sand)	○			
	Coarse aggregate (gravel, and rubble)	○			
	Deformed bars	○			
	Forms	○			
Masonry work	Concrete blocks	○			
	Bricks	○			
Waterproofing	Asphalt waterproofing			○	To achieve high performance
Plastering	Terrazo	○			
Tiling	Ceramic tile	○			
	Porcelain tile	○			
Woodwork	Wood	○			
	Glued laminated wood	○			
	Plywood	○			
Metalwork	Light steel frame substrata		○		No local product
	Expansion joint			○	- ditto -
	Ornamental metal, Handle	○			
	Roof drains	○			
	Curtain rail for patient bed room			○	No local product
Plastering	Cement mortar	○			
	Plaster	○			
Wood fittings	Hinged doors	○			
	Wood door frame	○			
	Metal hardware		○		To achieve high performance
Metal fittings	Aluminum windows		○		To achieve high performance

Procurement Plan (2)

Work category	Material	Local	3rd	Jpn	Remarks
Metal door	Steel doors		○		To achieve high performance
	Door for X-ray room			○	
Glasswork	Normal flat glass	○			No local product
	Glass blocks		○		
Paint	Interior paint	○	○		3rd countries' paint used where durability required
	Exterior paint	○	○		
Interior work	Gypsum board	○			No local product
	Rock wool sound-absorbent panels	○			
	Rock wool	○			
	Flexible board	○			
	X-ray sealed board			○	
Furniture	Chairs and tables	○			
	Lockers	○			
Miscellaneous	Sinks, Exam. table	○		○	Japanese product used where durability required
External work	Paving material	○			
Electrical work	Electrical, wiring equipment	○	○		Special fixtures for operation theatres, etc., to be Japanese or 3rd countries Special fixtures to be 3rd countries No local product No local product To achieve high performance - ditto - - ditto -
	Lighting fixtures		○	○	
	Switch Boards	○	○		
	Generators		○		
	Electric wire and cable	○			
	PABX		○		
	Nurse call			○	
	Public Address			○	
Fire alarm			○		
Mechanical work	Chiller			○	No local product
	Pump			○	To achieve high performance

Procurement Plan (3)

Work category	Material	Local	3rd	Jpn	Remarks
Mechanical Work	Boiler		<input type="radio"/>		No local product
	Air conditioners	<input type="radio"/>			
	Blowers an exhaust fans	<input type="radio"/>		<input type="radio"/>	Depend on spec.
	Outlets and inlets	<input type="radio"/>			
	Ceiling fan	<input type="radio"/>			
	Sanitary fixtures	<input type="radio"/>		<input type="radio"/>	Depend on spec.
	Water treatment equipment			<input type="radio"/>	No local product
	Duct material			<input type="radio"/>	To achieve high performance
	Piping			<input type="radio"/>	- ditto -
	Insulation material	<input type="radio"/>		<input type="radio"/>	Depend on spec.
	Automatic controllers			<input type="radio"/>	To achieve high performance
	Kitchen equipment	<input type="radio"/>		<input type="radio"/>	Depend on spec
	Laundry equipment	<input type="radio"/>			
	Deep well work	<input type="radio"/>			
	Medical gas			<input type="radio"/>	No local product
Waste water treatment tank			<input type="radio"/>	- ditto -	

(2) Medical Equipment

a. Local Procurement

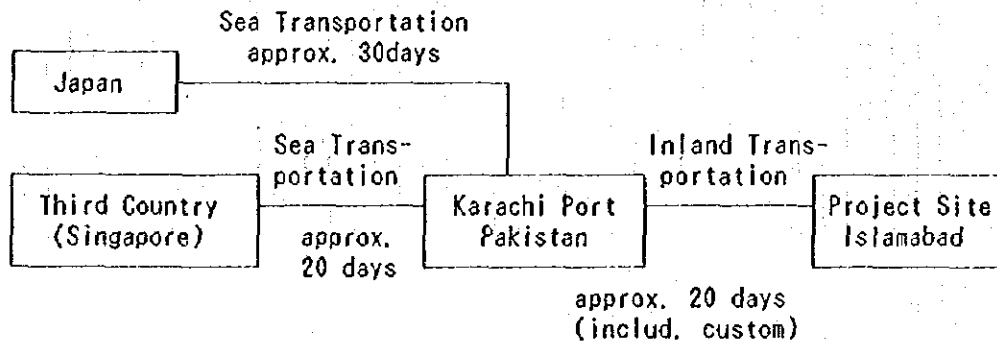
Those equipment locally procurable include pieces of training equipment (e.g., overhead projectors, slide projector screens, television sets, copying machines, and computers) and appliances and furnishings for medical examination and training. These pieces of equipment are used widely in Pakistan, and there is an established system of maintenance by local agents.

b. Import Procurement

In Pakistan, its is comparatively easy to procure medical equipment of Japanese make, and there is an established maintenance system. Products of those manufacturers who have local offices or local agents shall be procured, as a general rule, for easy maintenance after purchase.

In procuring products of third countries, consideration needs to be paid not only to their prices but also to easiness of procurement in Pakistan (including the procurement of spare parts and expendable supplies), as well as to the degree of popularity of them in Pakistan.

Figure/Table 3-6 Necessary days for Transportation



3-1-6 Implementation schedule

(1) Phasing

In accordance with the scale and construction period etc., it is desirable that the Project will be implemented in 2 phases as follows.

Figure/Table 3-7 Phasing Plan

	Phase I	Phase II
Construction of Building	<p><u>Main Building</u> 1st Floor: General ward (85 beds), Paying bed (35 beds), High-risk patient bed (5 beds), etc.</p> <p>Ground Floor: General ward, Delivery room, Operation theatre (4 rooms), CSSD, Emergency Dept., Administrative Office</p> <p>Basement Floor: X-ray room, Examination room, etc.</p>	<p><u>OPD Building</u> 1st Floor: Bed room for trainee (for 30 people), Seminar room, Library, Lecture Hall (for 150 people) etc.</p> <p>Ground Floor: Consultation room, Family planning room, Pharmacy, Waiting hall, etc.</p> <p><u>Midway House</u> Bed room (for 50 people, Toilet, etc.</p>
	Floor Area: Main Building 7,086m ²	OPD Building 3,327m ² , Midway House 183m ²
Procurement of Medical Equipment	<ul style="list-style-type: none"> Basic Medical Equipment for the Main Building 	<ul style="list-style-type: none"> Basic Medical Equipment for the OPD Building Basic Medical Equipment for selected DHQ, and Educational Medical Equipment for Public Health Nursing School in Punjab Prov., NWFP

(2) The Implementation schedule following conclusion of the Exchange of Notes (N/E) of the Project is illustrated in the next page. It is divided into 3 stages: detailed design stage, tender stage, construction work stage.

1) Detailed design stage

PIMS (SCMCHP) and a Japanese consultant company concluded an agreement on the detailed design and supervisory services for this project. The verification of the agreement was received from the Japanese government. At a later date, the consultants will prepare documents on the detailed design in accordance with the results of the Basic Design Study Report. Following discussions with PIMS (SCMCHP) a tender documents will be prepared, and approval from SCMCHP will be obtained.

The estimated terms necessary for detailed design stage are 3 months for Phase I and 2.5 months for Phase II.

2) Tender stage

The estimated terms necessary for tender stage are 2 months for both Phase I and II.

3) Construction work stage (construction work by the contractor, and supervision by the consultant)

After the construction contract is finalized, verification is obtained from the Japanese government, and then construction work can begin. Consultants carry out construction supervision. The estimated terms necessary for construction work stage are 12 months for Phase I and 9 months for Phase II.

Figure/Table 3-8 Implementation Schedule

		1	2	3	4	5	6	7	8	9	10	11	12	
Phase I	Detailed Design	Field Survey		Confirmation										
		Work in Japan												
	(Total 3 months)													
	Construction & Procurement	Preparation			Building Equipment & Interior Work									
				Foundation Work										
						Main Work							Exterior Work	
			[Equipment]			Manufacture & Procurement								
										Transportation				
												Installation & Adjustment		
		(Total 12 months)												
	Phase II	Detailed Design	Field Survey		Confirmation									
Work in Japan														
(Total 2.5 months)														
Construction & Procurement		Preparation			Building Equipment & Interior Work									
				Foundation Work										
					Main Work					Exterior Work				
			[Equipment]			Manufacture & Procurement								
									Transportation					
											Installation & Adjustment			
		(Total 9 months)												

3-1-7 Obligations of Recipient Country

Important matters which the Pakistani side should take responsibility in are as follows.

- 1) Exemption of all taxes related to this project
- 2) Apply and obtain all necessary permission such as building permission etc.
- 3) Taking responsibility of service charges in issuing B/A and A/p
- 4) Guarantee prompt inloading of materials and equipment at port, tax exemptions, customs procedures, and securing prompt domestic transportation
- 5) In accordance with the verified contract, to provide accommodations for Japanese persons who are staying in Pakistan to carry out delivery of equipment and materials and to carry out business, and to provide all the necessary conveniences upon entering Pakistani
- 6) In accordance with the verified contract, to provide tax exemptions for Japanese persons who carry out delivery of equipment and materials as their daily business, and to provide all the necessary conveniences upon entering Pakistan.
- 7) Take the necessary budgetary measures through grants in order to carry out effective operation, maintenance and management of equipment furnished and facilities built
- 8) Take responsibility for expenses required, through grants, for things other than supplies

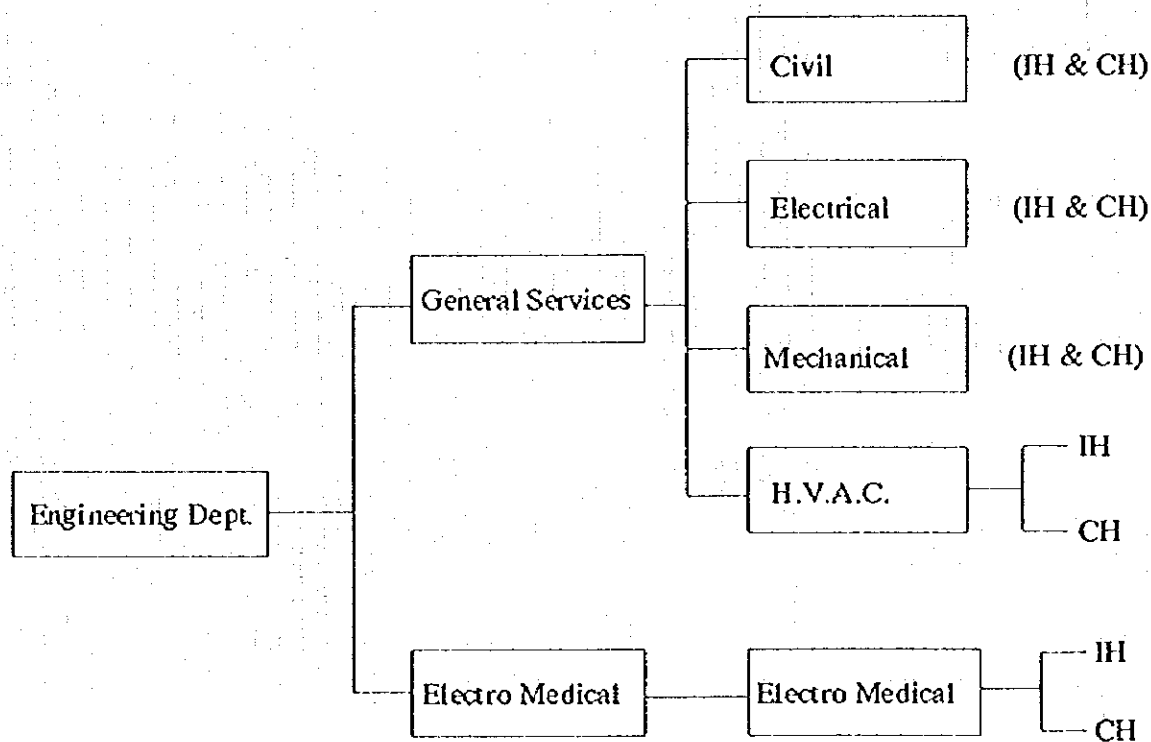
3-2 Operation and Maintenance Plan

(1) Operation and Maintenance Plan

PIMS has the Engineering Division organized under the Joint Executive Director of Islamabad Hospital. The Division comprises the General Services Department and the Medical Equipment Services Department. The General Services Department consists of the Sections of Civil Engineering (including construction), Electrical Engineering, Mechanical Engineering, and Air Conditioning. The Sections of Civil Engineering, Electrical Engineering, and Mechanical Engineering are in charge of the operation and maintenance of the whole of PIMS, including the Children Hospital and Islamabad Hospital. The Air Conditioning Section and the Medical Equipment Section assign personnel respectively in the Children Hospital and Islamabad Hospital.

Operation and Maintenance of the MCH Centre are conducted by this Engineering Division. The organization of the division is shown below.

Figure/Table 3-9 Organization for Engineering Div. in PIMS



IH: Islamabad Hospital, etc.
CH: Children Hospital

Responsibilities and personnel structures are divided, according to a number of special fields, shown as follows, with a total of more than 300 people being involved.

Figure/Table 3-10 Function and Number of Personnel

Name of Group		Function	No.
General Services Section	Civil Group	Painting Plumber Mason etc.	42
	Electrical Group	Illumination Emergency Power etc. Telephone Exchange etc.	66
	Mechanical Group	Medical Gases CSSD Boilers etc.	58
	H.V.A.C. Group	Central A/C Plant AHU Control Packaged Unit etc.	79
Electro Medical Section		Pathology CT Scan CCU etc.	58
Total Number of Personnels			303

(2) Operation and Maintenance Plan for Medical Equipment

1) Operation and Management System

a. Present Conditions

The Engineering Division of PIMS is in charge of the maintenance and management of the medical equipment in Islamabad Hospital and Children Hospital, as a general rule. Of the personnel of the medical equipment section, 58 staff members are assigned to Islamabad Hospital and Children Hospital. Repairs of these equipment which the present staff cannot deal with are conducted by engineers sent to Islamabad Hospital from private companies on a full-time basis.

b. System after Completion of the MCH Centre

It is possible for the present staff of medical equipment section of PIMS to take charge of the maintenance and management of equipment after completion of the MCH Centre, in view of their technical competence. As many of those of equipment whose installation is planned in the MCH Centre are especially of comparatively simple structure, it is basically possible for the present staff to conduct maintenance and management of them, after receiving training as follows at the time of installation, regarding maintenance techniques.

- How to conduct everyday maintenance and management (cleaning, adjustment, etc.)
- How to operate, maintain and adjust equipment (simple troubleshooting, etc.)
- How to manage and keep expendable supplies and spare parts
- How to manage and keep manuals

It is recommended that medical equipment section makes regular inspections and prepare an inspection record for the equipment, in order to be prepared for equipment trouble and procure spare parts systematically.

2) Supply System for Spare Parts and Expendable Items

Regarding spare parts and expendable items for the procured equipment, it is necessary to request the suppliers to establish a system under which spare parts and expendable items can be smoothly procured for pay for at least seven years (the life of ordinary equipment) after installation. It is necessary to check regularly the stock of those spare parts which are frequently needed and expendable items, and to establish a system within PIMS under which measures can be taken, including budgetary measures, for the systematic procurement of them. This is important for avoiding impediments to the operation of equipment.

(3) Maintenance Costs

Figure/Table 3-11 Maintenance costs during the first, second, and subsequent years Unit: Rs.

	First Year	Second and later years	After 3 years
① Electricity	3,548,800	3,548,800	3,548,800
② Telephone	655,500	655,500	655,500
③ Water	0	0	0
④ Gas	920,700	920,700	920,700
⑤ Medical Gas	119,700	119,700	119,700
⑥ Generator Fuel	27,500	27,500	27,500
⑦ Building Maintenance Cost	0	0	1,000,000
⑧ Equipment Maintenance Cost	0	870,400	1,868,700
Sub Total	5,272,200	6,142,600	7,140,900
⑨ Depreciation of Equipment	4,062,200	4,062,200	4,062,200
Total	9,334,400	10,204,800	11,203,100

① Electrical costs 3,548,880Rs/yr

According to the supply regulations of WAPDA, MCH Centre will be billed for its electricity as described below.

The contract capacity for MCH Centre is estimated at around 600 Kw, on the basis of calculation based on the scale of facilities and the details of equipment. The average power consumption, which is supposed to be about 60% of the contract capacity, becomes about 360 Kw.

The following formulae are used to compute the electric charges.

Basic charge: $180 \text{ Rs/kw. month} \times 600\text{kw} \times 12\text{months} = 1,296,000 \text{ Rs/yr}$

Usage charge: $2.98 \text{ Rs/kwh} \times 360\text{kw} \times 7\text{hrs} \times 25 \text{ days} \times 12 \text{ months} = 2,252,880 \text{ Rs/yr}$

Therefore, annual costs will be 3,548,880 Rs/yr.

② Telephone..... 655,500Rs/yr

The frequency of telephone call is assumed as follows.

Domestic: 3 minutes/call
30 calls/day

International: 5 minutes/call
1 call/day

The following formulae are used to compute the telephone charges.

Domestic: $22 \text{ Rs/min.} \times 3 \text{ min} \times 30 \text{ calls/day} \times 25 \text{ days} \times 12 \text{ months} = 594,000 \text{ Rs/yr}$

International: $41 \text{ Rs/min} \times 5 \text{ min} \times 1 \text{ call/day} \times 25 \text{ days} \times 12\text{months} = 61,500 \text{ Rs/yr}$

Therefore annual telephone charges will be 655,500 Rs/yr.

- ③ Water supply costs 0 Rs/yr

Well water is used in the facilities, as a general rule, and the use of city water is planned for backing up well water. The water rate is, therefore, not taken into consideration, as a general rule.

- ④ Gas costs 950,400 Rs/yr

In the facilities, gas is used for the boiler, in the kitchen, and for pathological examination. The boiler is used also for heating and cooling, hot water supply for the laundry, and sterilization of instruments.

For Boiler	332,000m ³ /yr
Kitchen, pantry	8,200m ³ /yr
Medical Exam.	800m ³ /yr
	<hr/>
	341,000m ³ /yr

Therefore annual gas charges will be:

$$2.7 \text{ Rs/m}^3 \times 341,000 \text{ m}^3/\text{yr} = 920,700 \text{ Rs/yr.}$$

- ⑤ Medical gas expenses 119,720/yr

Medical gases used in MCH Centre include oxygen and nitrous oxide, which are consumed in operation theatre, delivery rooms and wards. Medical gas consumption is tentatively calculated on the assumption that there are 14 deliveries in a day, among which four or five are high-risk deliveries including those by Caesarean section.

Daly consumption will be 20m³/day for O₂ and 1m³/day for N₂O.

Annual consumption:

$$\text{O}_2: 20 \text{ m}^3/\text{day} \times 365 \text{ days} = 7,300 \text{ m}^3/\text{yr}$$

$$\text{N}_2\text{O}: 1 \text{ m}^3/\text{day} \times 365 \text{ days} = 365 \text{ m}^3/\text{yr}$$

Based on this estimate, the annual charges will be:

$$\text{O}_2: 14 \text{ Rs/m}^3 \times 7,300 \text{ m}^3/\text{yr} = 102,200 \text{ Rs/yr}$$

$$\text{N}_2\text{O}: 48 \text{ Rs/m}^3 \times 365 \text{ m}^3/\text{yr} = 17,520 \text{ Rs/yr}$$

Therefore annual medical gas charges will be 119,720Rs/yr.

- ⑥ Generator fuel costs 27,528 Rs/yr

Diesel fuel will be purchased to power the emergency generator.

It is assumed that the power will fail once a month for about four hours each time.

Diesel fuel costs 7.17Rs/ℓ

The annual cost is computed as follows.

$$\text{Amount of fuel consumed per month} \quad 80 \text{ ℓ/h} \times 4 \text{ h} \times 1 \text{ time/month} = 320 \text{ ℓ/month}$$

$$\text{Fuel costs} \quad 7.17 \text{ Rs/ℓ} \times 360 \text{ ℓ/month} = 2,294 \text{ Rs/month}$$

Therefore, Annual fuel costs will be:

$$2,294 \text{ Rs/month} \times 12 \text{ months} = 27,528 \text{ Rs/yr}$$

⑦ Building maintenance costs..... 1,000,000 Rs/yr

In the MCH Centre, maintenance free materials are used as much as possible for exterior and interior finishing, for the purpose of facilitating the maintenance and management of the building. Exterior finishing is done with brick tiles and resin spraying, whose maintenance needs cleaning only. Interior finish materials are stones or locally produced terrazzo for the floor, and tiles or painting for the wall, whose maintenance needs cleaning only. Maintenance expenses are therefore estimated 100 Rs/m²/year for repairs of interior and exterior finish, electric equipment, plumbing installations and all conditioners, and for the purchase of spare parts.

The annual maintenance and management cost results in:

$$100 \text{ Rs/m}^2/\text{year} \times 10,000 \text{ m}^2 = 1,000,000 \text{ Rs/year}$$

This cost, however, shall become necessary three years after completion of the facilities, which are newly constructed.

⑧ Equipment maintenance costs..... 1,868,757Rs/yr

The costs incurred maintaining medical equipment are categorized as the cost of consumables such as X-ray film, chemical reagents for testing equipment, gel and recording paper for use with ultrasound diagnostic equipment, and the cost of maintaining the equipment; and replacement parts used to repair malfunctioning equipment and the cost of inspections and repair work. The estimate of the expenses does not include the depreciation of the equipment.

When the machinery is delivered, it will be accompanied by enough consumable supplies to operate the machinery for approximately one year and a two year supply of replacement parts. Afterwards, it will be necessary to supply the following budget to cover the cost of the maintenance of the following equipment and supplies.

A. The expenses of reagent and consumable goods.....870,476 Rs/yr

1. Films for X-ray units included generate and mobile	400 pcs x @	¥32	=	¥126,000
2. Spectrophotometer (reagent)	20 pcs x @	¥6,480	=	¥129,600
3. Electrolyte Analyzer (reagent)	32 pcs x @	¥8,000	=	¥256,000
4. Blood Gas Analyzer (reagent)	32 pcs x @	¥8,000	=	¥256,000
5. Linear Sca (3 sets) (jelly)	92 kgs x @	¥2,800	=	¥252,000
(recording chart)	60 pcs x @	¥2,100	=	¥126,000
6. Cardiotocography (CTG) monitor (9 sets) (jelly)	216 pcs x @	¥720	=	¥155,520
(recording chart)	216 pcs x @	¥1,440	=	¥311,040
7. Electrocardiograph (2 sets) (recording chart)	100 pcs x @	¥1,200	=	¥120,000
(cream)	48 pcs x @	¥300	=	¥14,400
8. Anesthesia Apparatus (4 sets) (soda)	8 kgs x @	¥1,100	=	¥8,800
9. Patient Monitor with recorder (4sets)	6000 pcs x @	¥104	=	¥624,000
(electrode)				
(recording chart)	400 rolls x @	¥320	=	¥128,000
10. High pressure steam sterilizer (2 sets)	4 pcs x @	¥19,000	=	¥76,000
(door gasket)				
(recording chart)	12 rolls x @	¥3,250	=	¥39,000
(ink)	12 rolls x @	¥540	=	¥6,480

Total from 1 to 10

¥2,628,840

(870,479 Rs/yr)

Starting from the 3rd year after completion, the following maintenance cost will incur.

B. The expenses of spare parts.....998,278 Rs/yr

1. X-ray units included general and mobile	¥878,000
2. Spectrophotometer	¥37,000
3. Electrolyte Analyzer	¥224,000
4. Blood Gas Analyzer	¥269,600
5. Linear Scan (3 sets)	¥681,000
6. Cardiotocography (CTG) monitor (9 sets)	¥366,500
7. Electrocardiograph (2 sets)	¥60,000
8. Anesthesia Apparatus (4 sets)	¥11,000
9. Patient Monitor with recorder (4 sets)	¥153,600
10. High pressure steam sterilizer (2 sets)	¥334,000

Total from 1 to 10

¥3,014,800

(998,278Rs/yr)

Therefore, A + B = 1,868,757 Rs/yr

⑨ Depreciation for Medical Equipment4,062,200Rs/yr

	<u>Depreciation year</u>	
1. General Radiography System	(6)	¥1,200,000
2. Mobile X-ray Unit	(4)	¥985,000
3. Spectrophotometer	(6)	¥147,000
4. Electrolyte Analyzer	(6)	¥410,000
5. Blood Gas Analyzer	(4)	¥758,000
6. Linear Scan (3 sets)	(6)	¥1,515,000
7. Cardiotocography (CTG) monitor	(6)	¥2,070,000
8. Anesthesia Apparatus (4 sets)	(5)	¥1,136,000
9. Patient Monitor with recorder	(6)	¥967,000
10. High pressure steam sterilizer	(4)	¥3,060,000
Total from 1 to 10		¥12,268,000
		(4,062,200 Rs/yr)

(4) Financial Plan

The necessary expenses for operation and maintenance are shown in the preceding section. As the MCH Centre is a new establishment within PIMS, these expenses are considered a net increase.

In addition to these expenses, the operation of MCH Centre needs personnel expenses, training expenses, expenses for medical supplies, and expenses for office work. According to PIMS's tentative personnel plan, about 15% of the necessary personnel is covered by the transfer of present members of the staff (Obstetric Department of Islamabad Hospital) On the basis of this, personnel expenses amount to 22.8 million rupees/year (18 million for new personnels). Training expenses are estimated at around 3,175 thousand rupees/year. Expenses for medical supplies, office supplies, and others are calculated at certain ratios to the personnel expenses, with the budget (ratio) for the Children Hospital being the reference. These can be shown in the following Figure/Table.

Figure/Table 3-12 Expected Operation and Maintenance Costs

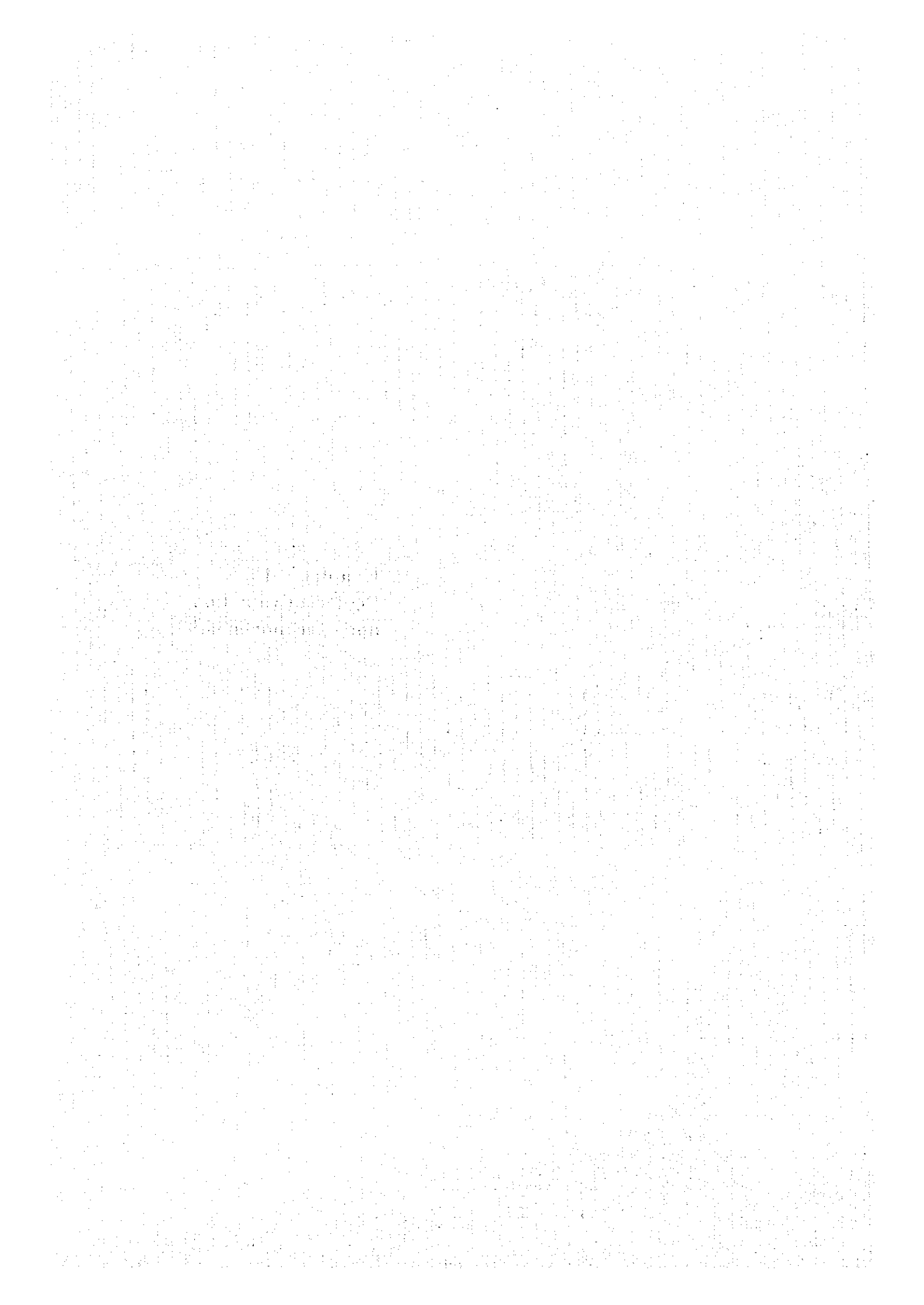
Items	New Expenses	Present Expenses
Personnel	18,000	4,800
Medical Supplies	3,600	-
Energy	5,272	-
Office Supplies	150	-
Maintenance	2,868	-
Training	3,175	-
Others	1,440	-
Sub Total	34,505 thousand Rps.	4,800
Depreciation of Med. Equipment	4,062	-
Total	38,567 thousand Rps.	4,800 thousand Rps.

PIMS plans to introduce the cost-sharing system in the MCH Centre, in order to ensure a certain amount of income and cover training expenses. PIMS, being approved as an independent organization, is allowed to use its income at discretion (income generation). According to tentative calculation by PIMS, an annual income of about 54 million rupees can be generated in the MCH Centre. This amount of income is sufficient to cover the operating cost of the Centre. Breakdown: income from deliveries and surgical operations accounts for about 65%, and income from inpatient beds accounts for 20%.

The present income generation of PIMS accounts for about 10% of the total budget. PIMS plans to generate 25% of the forecasted income in the initial year, with a gradual

increase of 25% year after year, and ensure 100% of the forecasted income from the fourth year onward. PIMS can procure funds and human resources independently, and the Ministry of Health has committed to cover any insufficiencies from its budget.

Chapter 4
Project Evaluation
and Recommendation



4-1 Project Effect

The implementation of the Project, together with the project-type technical cooperation planned in the near future, can produce the following specific effects concerning maternal and child health in the Islamic Republic of Pakistan.

(1) Scope of the Project

The Project concerns the construction of facilities on PIMS premises, with the purpose of training the medical workers in the field of maternal and child health services effectively. As not only PIMS and ICT but also Punjab Province and NWFP are included in the targets of the project, maternal and child health can be improved in rural regions. The population of the target areas accounts for about 70% (89,000,000) of the total population of Pakistan.

(2) Practical Education and Training

It becomes possible to re-educate and re-train medical workers (approximately 500 workers/year) including doctors, nurses and LHV in the obstetrical field, in the MCH Centre.

(3) Spread of Training Effect

Targets of training in the MCH Centre are those who are to become leading medical workers of the target regions. It is possible for these leading medical workers who have completed training in the MCH Centre, after returning to their respective jobs in regional primary and secondary medical institutions, to instruct other medical workers in the regional areas. Thus training effect reaches the forefront of medical services.

(4) Improvement of Motherhood Protection in Rural Regions

Obstetrical technologies acquired in the MCH Centre can contribute to the protection of motherhood through TBA, etc., in Punjab Province and NWFP, which are the targets of the project and where little attention has been paid to the importance of basic health and sanitation. This contributes to the "correction of gaps between cities and rural regions" (which concerns also safe motherhood) stated in the national plan.

(5) Activation of Referral System

The MCH Centre not only provides education and training for medical workers for medical workers but also plays a leading role in transferring knowledge and information to workers in primary and secondary medical institutions in rural regions. The utilization of this flow of human resources and information activates the referral system, promoting the transfer of patients from primary and secondary medical institutions to tertiary medical institutions such as the MCH Centre.

(6) Funds and Human Resources

The Government of Pakistan has entrusted PIMS with the operation and maintenance of the facilities, together with the ensuring of funds and human resources for the Project's implementation. PIMS, being a subordinate agency of the Ministry of Health, works as an independent organization, which is allowed to get income and use it as operation funds. In the Project, the introduction of the cost-sharing system makes it possible to ensure a certain amount of profit from paying beds. Regarding human resources, it is planned that some of the staff members of PIMS are transferred to the MCH Centre. PIMS can procure funds and human resources independently, and the Ministry of Health has committed to cover any insufficiencies from its budget.

4-2 Recommendation

As stated earlier, the project is expected to produce many beneficial effects. It is expected to meet the basic human needs of the people of Pakistan. It was concluded, therefore, that it is appropriate to implement the project under the Government of Japan's grant aid cooperation. The followings are recommended so that the project may be implemented smoothly and effectively.

1) Quick Going Through the Agreement and Approval Formalities During Project Implementation

Since the project is going to be implemented under the Japan's grant aid cooperation, there are time limitations to its implementation. For this reason, the Government of Pakistan needs to quickly follow the procedures for the signing of the Exchange of Notes, the signing of the consultant agreement, the approval of the detailed design drawings prepared based on the contents of this Basic Design Study Report and the conclusion of the construction contract.

2) Smooth Execution of Pakistani Scope of Work

The Basic Design Study Team has already explained the Japan's grant aid cooperation system to the representatives of the Government of Pakistan. It is necessary for the Government of Pakistan to make timely budgetary appropriations for the execution of its scope of the work to be done under the project within the framework of the Government of Pakistani fiscal year. It is necessary that the approval of the ground leveling work and the application for building permission be obtained and the work to provide electricity, telephone service and city water for use in the construction work be completed prior to the start of the Japanese scope of work and that the work to supply electricity and city water for use in the facilities be completed at least 2 months prior to the completion of the construction work for the smooth execution of the inspection of the facilities and the trial run of the equipment at the time of completion of the construction work.

3) Periodical Inspection and Maintenance

- a. Periodical inspection and repair ledgers should be kept to ensure effective maintenance and management of equipment.
- b. Maintenance and operating manuals, circuit diagrams, and other such information should be kept.
- c. Specialized cleaning personnel should be hired. In addition to learning common cleaning methods, they should be taught the cleaning and washing techniques required for rooms that require a high degree of sanitary condition so that a hygienic environment can be maintained for the facilities.

- d. Steps should be taken to discover rain seepage, water leaks, and clogged drain pipes quickly and to repair them quickly, before damage spreads.
 - e. Filters for removing iron particles and sand from the water supply should be cleaned periodically, and the disinfectant must be replenished.
 - f. The septic tank filters should be cleaned periodically and the disinfectant must be replenished.
- 4) Fund for Medical Equipment
- It is recommendable to save the fund for the purpose of replacement and/or major repair of the medical equipment, which will be provided under the Project.
- 5) Annual reports on the operation of the MCH Centre
- We wish to suggest that the MCH Centre submit an annual report (including finance, paying bed etc.) on its operation to JICA once annually after its completion. We believe that the MCH Centre will be able to acquire a better overview of the state of the operations through the report.
- 6) Relationship between PIMS and Punjab province, NWFP
- PIMS, which controls the MCH Centre, is operated as an independent organization under the control of the Federal Ministry of Health. The related facilities in Punjab Province and NWFP, which are the targets of the Project, are operated under the control of the Health Department of each State Government. As the Federal Government is not empowered to control the State Governments, there exists no single administrative organization which exercises general control over them. The Steering Committee of Maternal and Child Health Project, comprising representatives of the organizations concerned (the Federal Government, State Governments, etc.), is acting as the only controlling agency. As the role of the Committee becomes more and more important not only during implementation but also after completion of the Project, it is desired that the Committee will develop as a permanent organization.
- 7) Systematic Employment of Manpower
- According to the personnel plan, 60 staff members (15% of 400 employees needed for the Project) are transferred from PIMS. Regarding the remaining 340 people, it is important to employ them systematically, at the time of completion of facilities construction and equipment installation (including trial runs), with preparation and training periods being taken into account.

Appendices

Appendices

1. Member List of the Survey Team (1)
2. Survey Schedule (3)
3. List of Party Concerned in the Recipient Country..... (7)
4. Minutes of Discussion.....(11)
5. Cost Estimation Borne by the Recipient Country(42)
6. Other Relevant Data(43)

1. Member List of the Survey Team

Basic Design Study Team (Dec. 4, 1995 - Jan. 12, 1996)

Mr. K. Nishikawa	Leader	Deputy Director First Basic Design Study Div. Grant Aid Study & Design Dept., JICA
Dr. K. Akashi	Technical Advisor	Bureau of International Cooperation, International Medical Center of Japan Ministry of Health and Welfare
Ms. C. Komatsu	Technical Advisor	Bureau of International Cooperation, International Medical Center of Japan Ministry of Health and Welfare
Mr. T. Uemachi	Coordinator	General Affairs Div., General Affairs Dept., JICA
Mr. M. Ikawa	Project Manager	Architectural Design Div. Nihon Sekkei, Inc.
Mr. S. Sakai	Architectural Planner	Architectural Design Div. Nihon Sekkei, Inc.
Ms. Y. Ito	Health and Medical Consultant	Nihon Sekkei, Inc.
Mr. M. Okada	Building Equipment Planner	Environmental & M/E Engineering Design Div. Nihon Sekkei, Inc.
Mr. Y. Kaneko	Medical Equipment Planner	Nihon Sekkei, Inc.
Mr. H. Nakashima	Cost Planner	Cost Estimating Dept. Nihon Sekkei, Inc. (Supporting Staff)
Mr. S. Ishikawa	Building Equipment Planner	Environmental & M/E Engineering Design Div. Nihon Sekkei, Inc. (Supporting staff)

Explanation Team for Draft Basic Design Study (Mar. 19 - Mar. 28, 1996)

Mr. E. Kita	Leader	Bureau of International Cooperation, International Medical Center of Japan Ministry of Health and Welfare
Dr. K. Akashi	Technical Advisor	Bureau of International Cooperation, International Medical Center of Japan Ministry of Health and Welfare
Ms. C. Komatsu	Technical Advisor	Bureau of International Cooperation, International Medical Center of Japan Ministry of Health and Welfare
Mr. H. Kinomoto	Coordinator	First Basic Design Study Div. Grant Aid Study & Design Dept., JICA
Mr. M. Ikawa	Project Manager	Architectural Design Div. Nihon Sekkei, Inc.
Mr. S. Sakai	Architectural Planner	Architectural Design Div. Nihon Sekkei, Inc.
Mr. Y. Kaneko	Medical Equipment Planner	Nihon Sekkei, Inc.
Mr. Y. Tomono	Architectural Design	Architectural Design Div. Nihon Sekkei, Inc.(Supporting Staff)

2. Survey Schedule

Basic Design Study Team (Dec. 4, 1995 - Jan. 12, 1996)

No.	Date	Activities	Stay
1	Dec. 4 (Mon)	Narita - Bangkok - (Member "B)	on board
2	5 (Tue)	Karachi - Islamabad Courtesy Call to and Meeting with JICA	Islamabad
3	6 (Wed)	Courtesy Call to and Meeting with PIMS Courtesy Call to MOH Site Survey and Visit to Existing Facilities PIMS	- ditto -
4	7 (Thu)	Meeting with PIMS and Survey Islamabad Hospital	- ditto -
5	8 (Fri)	Analysis of Information	- ditto -
6	9 (Sat)	Visit to Barakahu Rural Health Centre (RHC) Visit to Nursing College PIMS	- ditto -
7	10 (Sun)	Visit to Islamabad, Hospital PIMS Visit to Children's Hospital PIMS Meeting with PIMS	- ditto -
8	11 (Mon)	Meeting with PIMS Visit to Children's Hospital PIMS Visit to Nursing College PIMS Narita - Islamabad (Member "A)	- ditto -
9	12 (Tue)	Meeting with JICA Courtesy Call to and Meeting with PIMS Courtesy Call to Japanese Embassy Courtesy Call to MOH Courtesy Call to EAD	- ditto -
10	13 (Wed)	Visit to and Meeting with PIMS Courtesy Call to DHO Attock Visit to DHQ Attock Visit to Attock Nursing School	Peshawar
11	14 (Thu)	Meeting with PE & D Visit to Public Health Nursing School - Peshawar Visit to DHO Hospital - Peshawar Visit to RHC - Pirpai Visit to BHU	Islamabad
12	15 (Fri)	Analysis of Information	- ditto -
13	16 (Sat)	Meeting with PIMS Visit to Federal Government services Hospital Visit to MCH - Abapara Visit to RHC - Tarilai	- ditto -
14	17 (Sun)	Meeting with PIMS Meeting with UNICEF Meeting with WHO	- ditto -
15	18 (Mon)	Meeting with PIMS Meeting with World Bank	- ditto -
16	19 (Tue)	Meeting with PIMS Visit to BHU - Bimbertarar Meeting with ADB	- ditto -

No.	Date	Activities	Stay
17	20 (Wed)	Redport to JICA Report to EAD	- ditto -
18	21 (Thu)	Meeting with Steering Committee Report to Japanese Embassy Sign of Minutes	- ditto -
19	22 (Fri)	Islamabad - Narita (Member "A") Analysis of Information	- ditto -
20	23 (Sat)	Site Survey in PIMS Meeting with PIMS Meeting with Federal Government Services Hospital Meeting with MCH Centre	- ditto -
21	24 (Sun)	Meeting with PIMS Meeting with Ministry of Women Development Meeting with MOH Meeting with JICA	Islamabad
22	25 (Mon)	Analysis of Information	- ditto -
23	26 (Tue)	Site Survey in PIMS Meeting with DHQ - Attock Meeting with Public Health Nursing School Meeting with DHQ - Nowsera	- ditto -
24	27 (Wed)	Meeting with PIMS Investigation of Construction Field and Medical Equipment Conditions	- ditto -
25	28 (Thu)	Meeting with PIMS Meeting with RHC - Barakahu	- ditto -
26	29 (Fri)	Analysis of Information	- ditto -
27	30 (Sat)	Meeting with PIMS Investigation of Construction Field and Medical Equipment Conditions	- ditto -
28	31 (Sun)	Meeting with PIMS Meeting with MOH Meeting with CDA, Fire Department and Public Works	- ditto -
29	Jan. 1 (Mon)	Islamabad - Narita (Miss Ito) Meeting with MOH NWFP Meeting with WAPDA Investigation of Construction Field and Medical Equipment Conditions	- ditto -
30	2 (Tue)	Meeting with PIMS Investigation of Construction Field and Medical Equipment Conditions	- ditto -
31	3 (Wed)	Meeting with PIMS Meeting with Pak Telecom	- ditto -

No.	Date	Activities	Stay
32	4 (Thu)	Meeting with PIMS Investigation of Construction Field and Medical Equipment Conditions Meeting with SUI GAS Ltd. Report to JICA	- ditto -
33	5 (Fri)	Islamabad - Narita (Mr. Sakai) Team Meeting	- ditto -
34	6 (Sat)	Meeting with PIMS Investigation of Construction Field and Medical Equipment Conditions	- ditto -
35	7 (Sun)	Meeting with PIMS Investigation of Construction Field and Medical Equipment Conditions	- ditto -
36	8 (Mon)	- ditto -	- ditto -
37	9 (Tue)	- ditto -	- ditto -
38	10 (Wed)	Sign of Technical Note Redport to JICA Islamabad - Lahore (Member "B")	Lahore
39	11 (Thu)	Investigation of Construction Field and Medical Equipment Conditions Lahore - (Member "B")	on board
40	12 (Fri)	- Bangkok - Narita	

Member "A" : Member of JICA

Member "B" : Member of JICA (Consultant)

Explanation Team for Draft Basic Design Study (Mar. 19 - Mar. 28, 1996)

No.	Date	Activities	Stay
1	Mar. 19 (Tue)	Narita - Bangkok - Lahore	Lahore
2	20 (Wed)	Lahore - Islamabad Courtesy Call to Japanese Embassy Meeting with JICA	Islamabad
3	21 (Thu)	Courtesy Call to MOH Meeting with PIMS	- ditto -
4	22 (Fri)	Analysis of Information	- ditto -
5	23 (Sat)	Meeting with PIMS	- ditto -
6	24 (Sun)	Signing of Minutes of Discussion Report to JICA and Japanese Embassy	- ditto -
7	25 (Mon)	Meeting with PIMS	- ditto -
8	26 (Tue)	Islamabad - Lahore -	On board
9	27 (Wed)	- Bangkok	Bangkok
10	28 (Thu)	Bangkok - Narita	

3. List of Party Concerned in the Recipient Country

(1) PIMS: Pakistan Institute of Medical Sciences

Mr. Humayun Faiz Rasul	Chairman Board of GOVERNORS
Prof. Mushtaq Ahmed Khan	Executive Director
Dr. M. Javed Chaudhry	Joint Executive Director Children Hospital
Dr. Rubina Mahsud	Assistant Director, Islamabad Hospital
Dr. Hashim Raza	Deputy Director Children Hospital
Dr. S. Batool Mazhar	Consultant Obstericians
Dr. Gul N. Rehman	Consultant MCH, Children's Hospital
Dr. Mubashar Haneef Malik	Assistant Director, Children's Hospital
Mr. Muhammad Aslam	Deputy Director (Engg.)
Mr. Khalid Latif Batta	Engineering Adviser
Mr. Syed Waqar-Ul-Hassan Akhtar	Superintendent Administration
Miss Mumtez Begun	Nursing Director Children Hospital

(2) Federal Government

Ministry of Health, Government of Pakistan

Mr. Moeen Afzal	Secretary
Dr. W. Rasheen Qureshi	Deputy Director General National Health
Dr. Fahim Arshad Malik	Deputy D.G.
Mr. Muhammad Sh Ariff	Statistical Officer

Economic Affairs Division, Government of Pakistan

Mr. Rashid M. Ansari	Joint secretary
Mr. Shahid Humayun	Deputy Secretary

Planning & Development Division

Mr. Hakim Khattak	Director
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(3) ICT

RHC Barakau

Dr. Mohammed Tahiv	Medical Officer in Charge
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Federal Government Service Hospital

Dr. Masid Rasput	Medical Superdoctor
Dr. Samia Janjua Frodog	Head of The Dept. of Obstric & Gynecology

Regional MCH Centre

Dr. Sohail Karim

Deputy Director

Dr. Rehana Hamid

Obstetrician

RHC Terlai

Mr. Yahyu Shain

Admin. Officer the Children's Hospital

Dr. Fozie Amjad

W.M.O.

DHO Health Office

Dr. Azhar

Islamabad Fire Service

Mr. Syed Sarfraz Haider Shirazi

Fire Officer

Capital Development Authority

Mr. S.A.T. Wasti

Director P.R.

Water And Power Development Authority

Mr. Syed Saim Raza

Executive Engineer

Shifa International Hospital Ltd.

Mr. Khalid A. Shaheen

Manager House Keeping

Pakistan Environmental Protection Agency

Mr. Anjum Bari Farooqi

Deputy Director

Environment Urban Affairs Forestry & Wildlife

Mr. Muhammad Zafarullah Khan

Additional Secretary

Pakistan Meteorological Dept.

Mr. Shabaz Ahmad

Divisional Engineer

Sui Northern gas Pipelines Ltd.

Mr. Sarfraz Ali Sheikh

Deputy Chief Engineer

Pak Telecom

Mr. Shabaz Ahmad

Divisional Engineer

(4) Punjab Province

Atok Public Health Nurse School

Dr. Saeeda Khatoon Principal
Dr. Khalid Saifullah Director

(5) NWFP

Planning, Environment & Development Department

Mr. Javed Majeed Additional Secretary
Mr. Youns Khan Secretary Health
Dr. Azmat Afridi D.G. Health Service
Mr. Sayed Mubashir Shams Senior Planning Officer

Public Health Nursing School Peshawar

Dr. Nasim Sfikahar Principal
Dr. Nek Dad Afridi Assist. Provincial Coordinator

DHO Hospital

Dr. Khalid, Mah-Mood

DHO Nowshera Hospital

Dr. Muhamad Yaqub Director
Dr. Mamoona Riffat OB/GY Doctor

RHC Pirpai

Dr. Mushtaq Ahmed Kahan
Dr. Hafiz Said Mahmood

(6) International Organization

UNICEF

Dr. Sareer Ara Project Officer

WHO

Mr. Sawat Rnaboat Medical Officer

World Bank

Dr. Siraj Ul Haq Muhmud Consultant Health & Population Project

ADB

Dr. Vincent Pj De Wit

Health Specialist Education, Health &
Population Division

Dr. Wan Azmin

Project Implementation Officer Social Sect.

4. Minutes of Discussion
(Basic Design Study Team)

MINUTES OF DISCUSSION
ON
THE BASIC DESIGN STUDY ON THE PROJECT FOR
THE ESTABLISHMENT OF MATERNAL AND CHILD HEALTH CENTRE
IN
THE ISLAMIC REPUBLIC OF PAKISTAN

In response to the request from the Government of Pakistan, the Government of Japan decided to conduct a basic design study on the Project for the Establishment of the Maternal and Child Health Centre (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Pakistan the Basic Design Study Team (hereinafter referred to as "the Team"), headed by Mr. Yoshiaki Nishikawa, Deputy Director of First Basic Design Study Division, Grant Aid Study & Design Department, JICA, and is scheduled to study in the country from December 4, 1995 to January 11, 1996.

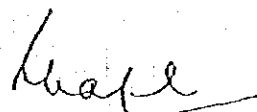
The Team held a series of discussions with the officials concerned of the Government of Pakistan and conducted field surveys at the study area.

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

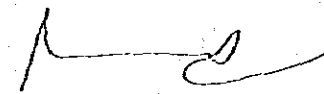
Islamabad, December 21, 1995

西川 芳 昭

Mr. Yoshiaki Nishikawa
Leader
Basic Design Study Team
JICA



Mr. Moeen Afzal
Secretary
Ministry of Health
Government of Pakistan



Prof. Dr. Mushtaq A. Khan
Chairman of the steering
Committee MCH Project
PIHS

Economic Affairs Division

ATTACHMENT

1. Objective

The objective of the Project is to contribute to the improvement of the maternal and child health services and to its human resources development by constructing physical facilities and procuring the equipment.

2. The main functions of Maternal and Child Health Centre (MCHC) to be constructed in the Project are as follows;

(1) To train health professionals such as doctors, nurses, lady health visitors (LHVs), community health workers (CHWs) and others as considered appropriate.

(2) To develop a functional and mutual referral system for maternal health care in the selected districts through the training.

3. Project Site

The Project site is shown in Annex II, with the total area of approximately 13,500 m², adjacent to Islamabad Child Hospital which is a part of Pakistan Institute of Medical Sciences (PIMS).

4. Responsible and Executing Agencies

(1) Ministry of Health, Government of Pakistan, is responsible agency.

(2) PIMS, in collaboration with the steering committee for the Maternal and Child Health Project, is executing agency.

5. Items Requested by the Pakistani Side

After discussions with the Team, the following items were finally requested by the Pakistani side.

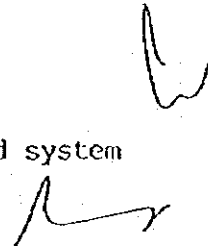
(1) Construction of physical facilities which are described in Annex I -1.

(2) Procurement of equipment related to the Project which are described in Annex I -2.

However, the final components of the Project, both quantity and specifications, will be decided after further surveys in Pakistan, discussion with the Pakistani side and analyses in Japan.

6. Japanese Grant Aid System

(1) The Pakistani side has understood the Japanese grant aid system explained by the Team as described in Annex III.



- (2) The Pakistani side will take necessary measures, as described in Annex IV, for the smooth implementation of the Project on condition that Japanese Grant Aid is extended to the Project.

7. Other Relevant Issues

Both sides have confirmed the following;

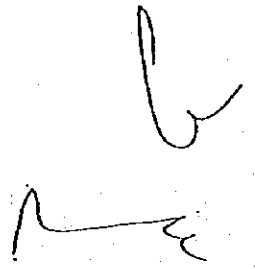
- (1) The Pakistani side will prepare the revised PC-1 for the Project for internal clearance within its Government.
- (2) The existing facilities and equipment in PIMS shall be utilized as much as possible under the coordination of the executive director of PIMS.
- (3) a) PIMS shall submit the operation plan of midway house to the Team through JICA Pakistan Office by 10 Jan. 1996.
b) PIMS shall submit the personnel recruitment plan of the MCH centre to the Team through JICA Pakistan Office by 10 Jan. 1996.
- (4) In order to realize the objective of the Project on condition that Japanese Grant Aid is extended to the Project,
a) The Government of Pakistan will make necessary arrangements to secure the adequate budget for the facilitation of the Project.
b) The Government of Pakistan will allocate and secure enough budget to operate and maintain properly and effectively the physical facilities and the equipment of the Project.
c) The Pakistani side will assign appropriate teaching, medical, paramedical and administrative staff in order to operate and maintain the physical facilities and equipment of the Project.
d) PIMS will utilize the income generated from the paying unit solely for the training activities and operation of the centre, and keep JICA Pakistan office periodically informed about the financial situation.
e) PIMS, in consultation with the steering committee of the Maternal and Child Health Project, will be responsible for the distribution of equipment for the selected DHQ and training materials for Public Health Nursing School in NWFP and Punjab province.
- (5) In order to proceed with field surveys smoothly,
a) The Pakistani side will confirm the security and safety of the Team in and around the site.
b) Through the steering committee of the Maternal and Child Health Project, the Pakistani side will establish a task force concerned

with the Project that can provide necessary data, information, and advices for the Team.

8. Schedule of the Study

- (1) The Team will proceed to further studies in Pakistan until January 11, 1996.
- (2) Based on the Minutes of Discussion, and technical and financial examination of the study result, JICA will prepare the draft basic design report and dispatch a mission to Pakistan in order to explain its contents around March, 1996.
- (3) In case that the contents of the draft report is accepted in principle by the Government of Pakistan, JICA will complete the final report and send it to the Government of Pakistan by the end of April, 1996.

g.m



Annex I

Items Requested by the Pakistani Side

1. Construction of the physical facilities

Requirements	Quantity	Priority
1) Training Facility;		
Seminar room	2, +1	A, B
Resource room	1	A
Library	1	A
Training Coordinator room	1	A
Support staff room	1	A
Facilitator room	1	A
Auditorium	1	A
2) Health Care Facility (OPD);		
Reception/registration area + waiting hall	1	A
Antenatal clinic/cubicle	4, +6	A, B
Waiting room with audiovisual aids	2	A
Immunization room	1	A
Ultrasound room	1	A
CIG room	1	A
Conference room	1	A
Consulting room	2, +2	A, B
Family planning OPD	2, +1	A, B
Pharmacy	1	A
Social welfare office	1	A
Cafeteria	1	A
Utility store	1	A
Drug store	1	A
3) Diagnostic facility;		
Pathology reception	1	A
Pathology laboratory/Pathologist room	1	A
X-ray room	1	A
X-ray development room	1	A
Ultrasound room	1	A
ECG room	1	A
Sterilization room	1	A
Blood bank room (divided into 3 by partition)	1	A
Laundry	1	A
Health workers lounge	1	A
Store	1	A
Mortuary	1	A
4) Indoor facility (Ward);		
Paying unit		
• Paying bed (single-bed room)	15, +5	A, B
• Paying bed (two-bed room)	20	A
Antenatal bed	75, +15	A, B
Postnatal bed with cot		
Isolation bed		
Nursery space	1	A
Conference room	2	A

Requirements	Quantity	Priority
Consultant room	4	A
(Emergency/reception indoor)		
Observation room	1	A
Casualty medical officer room	2	A
Nurse room	1	A
Waiting area for the family	1	A
5) Delivery facility		
Normal 1st stage labour room	1	A
High risk 1st stage labour room	1, +1	A, B
Normal delivery room	1	A
High risk delivery room	1, +1	A, B
Eclampsia room	1	B
Isolation room	1	B
Conference room	1	A
Operation theatre		
• major	2	A
• isolation	1	A
• minor/family planning	1	A
Changing area	1	A
Recovery area	1	A
Anaesthetist room	1	A
6) Residential facility for trainee;		
2-bed room	15	A
Cafeteria	1	A
Kitchen	1	A
Common room	1, +1	A, B
Warden room	1	A
7) Administration facility;		
Deputy director room	1	A
Nurse superintendent room	1	A
Project office	2, +1	A, B
Meeting room	1	A
Administrative office (including accountant)	1	A
Medical record room (with computer)	1	A
8) Midway house		
Waiting hall for patients and families	1	A

Priority : A : Essential for the Project
 B : More consideration necessary

Each item mentioned above includes the necessary common space such as corridor, storage, machine room and toilet, and the necessary utilities such as electricity, water supply, sewage etc.

2. Procurement of equipments

S.NO	DESCRIPTION	Quantity	Priority
RADIOLOGY DEPT			
1	General Radiography System	1	A
2	Mobile X-ray Unit	3	B+
3	X-Ray Film development equipments	2	B+
4	Film illuminator	1	A
LABORATORY			
1	Spectrophotometer	1	A
2	Water bath	1	A
3	Pipette Washer	1	A
4	PH Meter for fetal blood sampling	1	C
5	Clinical Rotator	1	A
6	Laboratory Sterilizer	1	A
7	Drying Oven	1	A
8	Hot Air Sterilizer	1	A
9	Electronic Balance	1	B
10	Clinical Refractometer	1	A
11	Blood Cell Counter	1	A
12	Table Top Centrifuge	1	A
13	Hematocrit Centrifuge	1	A
14	Tolly Counter	1	C
15	Incubator	1	B
16	Blood Bank Refrigerator	1	B+
17	Auto Dispenser	1	A
18	Micropipets	1	B+
19	Research Microscope	1	A
20	Laboratory Center Table	1	B+
21	Water Distilling Apparatus	1	A
22	Electrolyte Analyzer	1	A
23	Automatic Dilutor	1	A
24	Wintrobe Hematocrit set	1	A
25	Hemoglobinometer	1	C
26	Beckman model J6 B Centrifuge	1	B
27	Freezer	1	A
28	Hemoglobinometer	1	C
29	Incubator(35-37°C)	1	B
30	ELISA reader for torch screening	1	B
31	HIV Testing & HPSHG testing	1	A
32	Digital Bilirubin Analyzer	1	A
33	Blood gas analyzer	1	A
Out-Patient			
1	Gynecological Examining Table	4	B+
2	Gynecological Examining Unit	14	B+
3	Examining Table	10	B+
4	Linear Scan(Curvilinear with vaginal)	2	A
5	Doppler Fetal Detector	14	B+
6	Film Illuminator	6	B+
7	Diagnostic Set	6	B+
8	Sphygmomanometer	14	B+
9	Weighing Scale	14	B+
10	Measuring Scale	14	B+
11	Gynecological Instruments Set	28	B+
12	Cuseo's Vaginal Speculum set	100	B+
13	Traube's Obstetric Stethoscope	20	B+
14	Kotaka's Placenta Forceps set for 6.8.10.12.14		B+
15	Refrigerator	4	B+
16	Instruments Cabinet	10	B+

S.NO	DESCRIPTION	Quantity	Priority
17	Stethoscope	20	B+
18	Electrocardiograph(3-ch)	3	B+
19	CTG monitor	2	A
20	Colposcope with camera	2	C
21	Boiling sterilizer	6	B+
22	Operating laparoscope (Family planning)	1	C
23	Operating laparoscope (Indoor)	1	C
24	Examining light	14	B+
25	Colposcope	1	C
26	Family planning (IUD insertion kit)		C
27	Family planning (Norplant insertion kit)		C
Labour Pain Room			
1	Bed with mattress	24	B+
2	Gynecological Examining Unit	20	B+
3	Automatic Infusion Pump	24	B
4	Pertocorder with CTG monitor	12	B+
5	I V Pole with each bed	24	B+
6	Oxygen flow meter with humidifier bottle for piping system	24	B+
7	Suction bottle for piping system	24	B+
8	Stethoscope with each bed	24	B+
9	Sphygmomanometer	24	B+
10	Doppler Fetus Detector	6	B+
11	Entonox provision through inhalation analgesia	10	C
12	Ultrasound machine	1	A
13	Boiling sterilization	2	B+
14	Over bed table with each bed	24	B+
Delivery room			
1	Delivery table	14	B+
2	Vacuum Extractor	3	B+
3	Doppler Fetus Detector	3	B+
4	Infant warmer	7	B+
5	Infant Dressing/Treatment table	7	B+
6	Infant Scale, Automatic	5	B+
7	Operating Lamp	28	B+
8	Automatic Infusion Pump Peristaltic	10	B
9	Suction Unit with floor stand	7	B+
10	Normal Delivery Instruments set	100	B+
11	Pertocorder	6	B+
12	Water sterilizer, Ultra-biolet(washg hands)	7	B+
13	Instruments trolley	20	B+
14	Hi-Lo Stretcher	10	B+
15	Stethoscope	14	B+
16	Kick bucket	20	B
17	I V Pole with each bed	14	B+
18	Infant bath	7	B+
19	Infant Transportation incubator	4	B+
20	Wheelchair	6	B+
21	Amnioscope	20	C
22	Infant laryngoscope and resuscitation set	4	B+
23	Small autoclave	1	A
24	Acid base checking equipment	1	C
25	Boiling sterilizer	2	C
26	Baby resuscitation set	8	B
Operating Room for OB/GYN			
1	Universal Operation Table(Oil-Hydraulic foot pedals)	10	B+
2	Aus-Suction unit	8	B+

3.2

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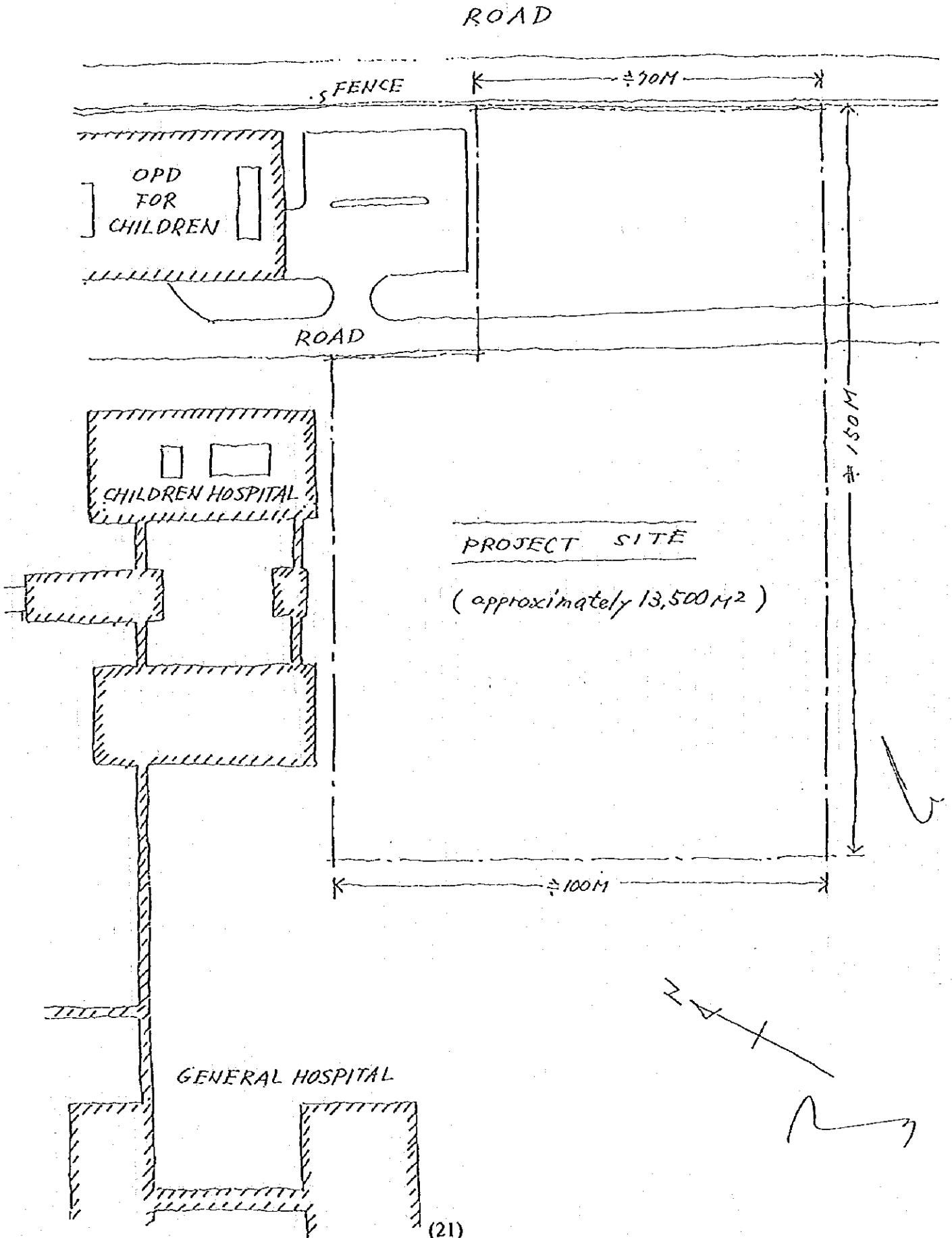
S.NO	DESCRIPTION	Quantity	Priority
3	Suction unit with floor stand	10	B+
4	Automatic Infusion Pump Peristaltic	10	B+
5	Operating Lamp	16	B+
6	Anesthesia Apparatus	8	B+
7	Patient Monitor with recorder & Cart	8	B+
8	Film Illuminator, wall recessed	8	B+
9	Instrument cabinet, wall recessed	8	B+
10	Abortive Instruments set	20	B+
11	Caesarean Section Set	20	B+
12	Refrigerator	4	B+
13	Electro Surgical Unit	8	B+
14	Water sterilizer Ultra-violet (for wash hand)	4	B+
15	Stretcher	8	B+
16	V Pole	16	B+
17	Laryngoscope	10	B+
18	Defibrillator section	4	B+
19	Hysterectomy set (Abdomen)	10 each	B+
20	Laparotomy instrument (abdominal surgery set)	2	A
21	Boiling sterilizer	10	C
22	Baby resuscitation set	4	B+
23	Small autoclave unit	2	C
24	Laparoscope (operating)	1	C
25	Laparoscope (for sterilization)	2	A
26	Hysteroscope (operating)	1	C
27	Vaginal operation set	3	A
Ward			
1	bed with mattress	170	B+
2	Bedside cabinet	170	B+
3	Doppler fetal Detector	16	B+
4	Ultrasonic Nefulizer with stand	5	B+
5	Diagnostic set	32	B+
6	Film Illuminator	10	B
7	Stretcher	16	B+
8	Suction unit with floor stand	16	B+
9	Instruments cabinet	16	B+
10	Stethoscope	20	B+
11	Sphygmomanometer	20	B+
12	Over bed table with each bed	170	B
13	Ultrasound machine	2	C
Newborn Babies room (Well babies Room)			
1	Incubator with trolleys	4	B+
2	Baby bassinet with stand baby bedside cot)	60	B+
3	Phototherapy unit	10	B+
4	Baby resuscitation set	6	C
5	Infant incubator with apnoea alarm	4	C
6	Boiling sterilizer	6	C
7	Examining light	6	B
8	Breast pump electronic	10	C
9	Breast pump manual type	10	C
10	Ictrometer	1	A
Mortuary room			
1	Mortuary Refrigerator	6	B+
2	Mortuary cot	6	B+
Emergency room			

3.2

S.NO	DESCRIPTION	Quantity	Priority
1	Gynecological Examining Table	3	B+
2	Gynecological Examining Unit	6	B+
3	Examining bed	5	B+
4	Suction Unit with floor stand	2	B+
5	Film Illuminator	5	B+
6	Diagnostic Set	5	B+
7	Sphygmomanometer	6	B+
8	Stretcher	4	B+
9	Refrigerator	2	B+
10	Emergency cart	4	B+
11	Doppler fetal monitor	2	B+
12	CTG Monitor	2	C
Education			
1	Overhead Projector	6	B+
2	Slide Projector	6	B+
3	TV set	4	B+
4	VTR Set	4	B+
5	Copy machine	3	B+
6	Screen	6	B+
7	Photographic equipment Video camera	1	B+
8	Still camera	1	B
9	Dark room equipments	1	C
10	Computer system with printer	1	A
11	Computer system with printer(OPD)	2	B
12	Computer system with printer(each ward)	3	C
13	Computer system with printer(Labour room)	1	C
14	Vehicles for the community / field visit	3	B+
Maintenance center / Accessories			
1	General Purpose maintenance tool set	1	A
2	Electrical maintenance tool set	1	A
3	Electric tester	1	A
4	Ambulance with resuscitation equipment for each site	3	C
5	Central sterilization unit / Autoclave	-	B+
6	Landry set	-	B
7	Kitchen set	-	B
Hospital in district area			
District Head Quarter Hospital			
	Basic Obstetric equipment for selected DHQ	-	B+
District public nursing school			
	Training materials	-	B+

Priority A: Essential for the project.
 B+: Consideration of quantity
 B: More consideration necessary
 C: Considered as not appropriate to be included.

Annex II
The Project Site



Japan's Grant Aid Scheme

(1) Grant Aid Procedures

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

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

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

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

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

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

3.2

(2) Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereafter referred to as "the Study"), conducted by JICA on a requested project (hereafter 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:

- a) 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 implementation.
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- d) Preparation of a basic design of the Project
- e) Estimation of costs of the Project

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

The Government of Japan requests the Government of the 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 organizations 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 select (a) firms(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA. The consulting firm(s) used for the Study is(are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

(3) Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles 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 Notes (E/N)

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

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

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

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

g. 2

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

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

5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

6) Undertakings required of the Government of the Recipient Country

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

- (1) To secure land necessary for the sites of the Project and to 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 sites.
- (3) To secure buildings prior to the procurement in case the installation of the equipment.
- (4) To ensure all the expense and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- (5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.

(6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.



(7) "Proper Use"

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

(8) "Re-export"


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

(9) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should 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 the Government of the recipient country or its designated authority under the Verified Contracts.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.
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Annex IV

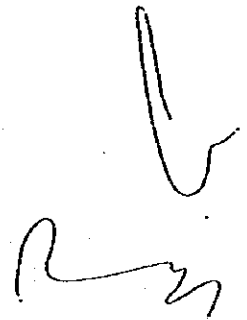
Necessary measures to be taken by the Government of Pakistan on condition that Japanese Grant Aid is extended to the Project;

1. To provide data and information necessary for the Project.
2. To secure the land for the site of the Project.
3. To clear and fill the site to the agreed level prior to the commencement of the construction.
4. To insure the necessary budget and personnel for the proper and effective implementation of the Project.
5. To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities to the Project site as follows;
 - (1) the distribution of electricity line to the site
 - (2) the city water distribution main to the site
 - (3) the drainage main to the site
 - (4) the telephone trunk line to the main distribution frame/panel of the building
6. To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement.
 - (1) Advising commission of Authorization to Pay.
 - (2) Payment commission
7. To ensure prompt unloading, tax exemption, and custom clearance at the port of disembarkation in Pakistan and internal transportation therein of the products under the Grant.
8. 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 Pakistan and stay therein for the execution of the Project.
9. To exempt Japanese nationals involved in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in Pakistan with

respect to the supply of the products and the services under the verified contracts.

10. To bear all the expenses other than those to be borne by the Grant, necessary for the construction of the facilities as well as for the transportation and installation of the equipment.

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(Explanation Team of Draft Basic Design Study)

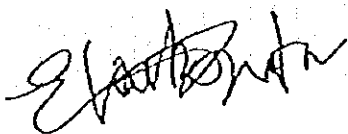
MINUTES OF DISCUSSION
ON
THE BASIC DESIGN STUDY ON THE PROJECT FOR
THE ESTABLISHMENT OF MATERNAL AND CHILD HEALTH CENTRE
IN
THE ISLAMIC REPUBLIC OF PAKISTAN
(CONSULTATION ON THE DRAFT BASIC DESIGN)

From December 1995 to January 1996, Japan International Cooperation Agency (JICA) dispatched the Basic Design Study Team on the Project for the Establishment of Maternal and Child Health Centre (hereinafter referred to as "the Project"), and through discussions, field survey, and the results of technical examination in Japan, JICA has prepared the draft basic design.

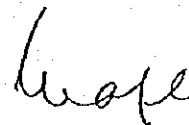
In order to explain and consult with the concerned officials of the Government of Islamic Republic of Pakistan on the components of the draft basic design, JICA sent to Pakistan a study team (hereinafter referred to as "the Team"), which is headed by Dr. Etsuko Kita, and is scheduled to study in the country from 19th to 28th March, 1996.

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

Islamabad, 24th March, 1996

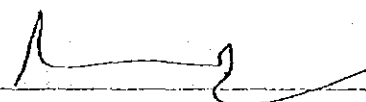


Dr. Etsuko Kita
Leader
Draft Basic Design Consultation Team
JICA



Mr. Moeen Afzal
Secretary
Ministry of Health

Economic Affairs Division



Prof. Mushtaq A. Khan
Project Director and Chairman of
Steering Committee
Maternal and Child Health Project

ATTACHMENT

1. Components of Draft Report

The Pakistani side has agreed and accepted in principle the components of the draft basic design report presented by the Team. The Pakistani side and the Team reached common recognition on main items of physical facilities as described in ANNEX-I, and on equipment listed in ANNEX-II.

2. Japan's Grant Aid Program

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

2-2 The Pakistani side will take necessary measures described in ANNEX-III for the smooth implementation of the Project on condition that Japan's grant aid is extended to the Project.

3. Schedule of the Study

JICA will complete the basic design report in accordance with the confirmed items, and send it to the Government of Pakistan around May, 1996.

4. Operation of the Maternal and Child Health Centre

In the event that Japan's grant aid is extended to the Project, the Pakistani side shall take necessary measures to ensure that the physical facilities constructed and equipment procured under the Project be operated, maintained and used properly and effectively, and especially shall undertake following measures.

4-1 To allocate adequate amount of budget necessary for proper operation including proper maintenance of the Maternal and Child Health Centre which is estimated in the draft report and confirmed by the Pakistani side.


4-2 The Pakistani side will assign appropriate number of teaching, medical, paramedical and administrative staff in order to operate and maintain the physical facilities and equipment of the Project.

4-3 PIMS will utilize the income generated from the paying unit solely for the training activities and operation of the Maternal and Child Health Centre, and keep JICA Pakistan office periodically informed about the financial situation.

5. Lecture Room

The Pakistani side requested a lecture room (previously requested as an auditorium) with step floors to be included in the Project, promising to submit concrete utilization plan of the lecture room. The Japanese side took note of

 (30)



above request and will convey it to relevant authority in Japan.

6. Scope of works

Pakistani side has agreed that the planting work for trees etc. (except courtyard) is including in the scope of works to be borne by Pakistani side.

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ANNEX-I COMPONENTS OF PHYSICAL FACILITIES

Main Building

- 1st Floor : Paying Ward, High-risk Patient Bed,
General Ward, etc.
- Ground Floor : Administrative office, Emergency Dept.,
Operation Theatre, Delivery Room, C.S.S.D.,
Mechanical & Electrical Room, etc.
- Basement : X-ray Room, Pathology Laboratory,
Blood Bank, etc.

OPD Building

- 1st Floor : Bed Room for Trainee, Training Coordinator Room,
Seminar Room, Library, etc.
- Ground Floor : Clinical Cubicles, Consultation Room,
(Semi-basement) Family Planning Room, Pharmacy, Waiting Hall, etc.

Annex II

Equipment List

S.NO	DESCRIPTION	Quantity
Radiology dept		
1	General Radiography System (500mA)	1
2	Mobile X-ray Unit (125kV)	1
3	X-Ray Film Development Equipments	1
4	Film Illuminator (wall mounted)	1
5	Radiology Instruments Set	1
6	Linear Scan w/Cart (Curvilinear with vaginal)	1
Pathology laboratory		
1	Spectrophotometer	1
2	Water bath (Stainless)	1
3	Pipette Washer and Dryer	1
4	Clinical Rotator	1
5	Laboratory Autoclave	1
6	Drying Oven	1
7	Hot Air Sterilizer	1
8	Electronic Balance	1
9	Clinical Refractometer	1
10	Automatic Blood Cell Counter	1
11	Table Top Centrifuge	2
12	Hematocrit Centrifuge	1
13	Tolly Counter, Manual type	2
14	Incubator	1
15	Blood Bank Refrigerator	2
16	Auto Dispenser	1
17	Micropipets	4
18	Research Microscope, Binocular	3
19	Laboratory Center Table	2
20	Water Distilling Apparatus	2
21	Electolyte Analyzer (Na,K,Cl)	1
22	Blood Sedimentation Set	1
23	Freezer (for -30C,)	1
24	HIV Testing & HBsAg testing set(Elisa)	1
25	Digital Bilirubin Analyzer	1

Annex II

Equipment List

S.NO	DESCRIPTION	Quantity
26	Blood Gas Analyzer (pH,pO ₂ ,pCO ₂)	1
27	Storage Cabinets	1
28	Laboratory Instruments Set	1
	Out-patient dept	
1	Obstetric Examining Table	4
2	Obstetric Examining Unit	4
3	Examining Table, General	10
4	Linear Scan w/Cart (Curvilinear with vaginal)	1
5	Doppler Fetal Detector	7
6	Film Illuminator (Desk type)	6
7	Diagnostic Set	6
8	Sphygmomanometer (Stand type)	14
9	Weighing Scale	2
10	Measuring Scale	1
11	Gynecological Instruments Set	2
12	Cusco's Vaginal Speculum set	4
13	Traube's Obstetric Stethoscope	14
14	Kotaka's Placenta Forceps set	4
15	Refrigerator, General	4
16	Instruments Cabinet	6
17	Stethoscope (Dual type)	14
18	Electrocardiograph (3-ch type)	2
19	Cardiotocography (CTG) monitor	2
20	Boiling sterilizer (Desk type)	6
21	Examining Light (Stand type)	4
22	Clinical instrument set	4
23	Bed with mattress	5
	Labor room	
1	Labor Bed with mattress	9
2	Automatic Infusion Pump	3

Annex II

Equipment List

S.NO	DESCRIPTION	Quantity
3	Cardiotocography (CTG) monitor	2
4	I V Pole (Stand type)	6
5	Oxygen flowmeter with humidifier bottle (for piping sys	3
6	Suction bottle for piping system	1
7	Stethoscope (Dual type)	6
8	Sphygmomanometer (Stand type)	6
9	Doppler Fetal Detector	2
10	Linear Scan w/Cart	1
11	Boiling sterilizer (Desk type)	2
Delivery room		
1	Delivery Table	7
2	Vacuum Extractor	2
3	Doppler Fetal Detector	3
4	Infant warmer	4
5	Infant Dressing/Treatment table	3
6	Infant Scale, Automatic	3
7	Operating Light (Combination type) w/Spare Lamp	7
8	Suction Unit with floor stand	7
9	Normal Delivery Instruments set	30
10	Cardiotocography (CTG) monitor	5
11	Instruments trolley	7
12	Stretcher	2
13	Stethoscope (Dual type)	7
14	kick bucket	7
15	I V Pole (Stand type)	7
16	Infant bath	4
17	Infant portable incubator	4
18	Wheelchair	2
19	Infant laryngoscope and resuscitation set	3
20	Autoclave, Desk type	1
21	Instruments Cabinet	2
22	Refrigerator, General	1

Annex II

Equipment List

S.NO	DESCRIPTION	Quantity
Operating theatre		
1	Gynecological Operation Table(Oil-Hydraulic foot pedals)	1
2	Aus-Suction unit	2
3	Suction Unit with floor stand	4
4	Infusion Pump	4
5	Operating Light (Combination type)	4
6	Anesthesia Apparatus	4
7	Patient Monitor with recorder & Cart	4
8	Film Illuminator (wall mounted, 4films)	4
9	Instruments Cabinet	4
10	Abortive Instruments set	8
11	Caesarean Section Set	12
12	Refrigerator, General	2
13	Electro Surgical Unit	4
14	Stretcher	2
15	I V Pole (Stand type)	8
16	Laryngoscope Set	4
17	Difibrillator w/Stand	1
18	Hysterectomy set (for Abdomen)	4
19	Laboratory instrument (for Abdominal surgery) set	2
20	Resuscitator for Both Neonate and Adult	4
21	Laparoscope (for sterilization)	2
22	Vaginal operation set	4
23	Operation instruments set	4
24	Infant warmer	1
Recovery room		
1	Bed with mattress	10
2	I V Pole (Stand type)	10
3	Instruments Cabinet	2
4	Instruments trolley	2
Ward		
1	Bed with mattress	125

Annex II

Equipment List

S.NO	DESCRIPTION	Quantity
2	Bedside cabinet	125
3	Doppler Fetal Detector	4
4	Ultrasonic Nebulize with stand	4
5	Diagnostic set	8
6	Film Illuminator (wall mounted, 2films)	4
7	Stretcher	4
8	Suction Unit	4
9	Instruments Cabinet	8
10	Stethoscope (Dual type)	12
11	Sphygmomanometer (Desk type)	12
12	Over bed table	125
13	Baby bassinet with stand baby bedside cot	62
14	Instruments trolley	8
15	Prescription counter	8
16	Ward instrument set	4
17	Obstetric Examining Table	1
18	Examining Light (Stand type)	1
	Nursary room	
1	Phototherapy unit	2
2	Icterometer	1
	Mortuary	
1	Mortuary Refrigerator (2bodies)	2
2	Mortuary cot, Stainless Steel	1
	Emergency room	
1	Gynecological Examining Table	2
2	Gynecological Examining Unit	2
3	Examining Table, General	2
4	Suction Unit	4
5	Film Illuminator (wall mounted , 2films)	1
6	Diagnostic Set	5

Annex II

Equipment List

S.NO	DESCRIPTION	Quantity
7	Sphygmomanometer (Desk type)	5
8	Stretcher	2
9	Refrigerator, General	1
10	Emergency cart	2
11	Doppler Fetal Detector	1
12	Instruments Cabinet	2
13	Bed with mattress	10
14	Cusco's Vaginal Speculum set	2
15	Examining Light (Stand type)	2
16	Infant laryngoscope and resuscitation set	1
17	Clinical instrument set	4
18	Difibrillator w/Stand	1
19	Gynecological Instruments Set	4
Pharmaceutical room		
1	Prescription counter	4
2	Medical refrigerator	2
Training Dept		
1	Overhead Projector	2
2	Slide Projector	1
3	TV set	2
4	VTR Set	2
5	Copy machine	2
6	Screen	2
7	Photographic equipment Video camera	1
8	Still camera	1
9	Computer system with printer(Training)	1
10	Computer system with printer (Out-patient)	2
11	Vehicles for the community	2
For maintenance		

Annex II

Equipment List

S.NO	DESCRIPTION	Quantity
1	General Purpose maintenance tool set	1
2	Electrical maintenance tool set	1
3	Electric tester	1
Sterilization room (CSSD)		
1	High pressure steam sterilizer	2
2	Ultrasonic cleaner	1
3	Instrument sterilizing tray(L.M.S)	12
4	Cast(square, L.M.S)	12
5	Forceps stand	12
6	Working table	4
7	Instrument carriage	2
8	Sterilizing Instruments storage Cabinet	10
For in provincial area		
District Head Quoter Hospital (DHQ)		
1	Delivery Table w/ IVPole	2
2	Linear Scan w/Cart	2
3	Doppler Fetal Detector	2
4	Operating Light	2
District public nursing school		
1	Childbirth Phantom	11
2	Uterine cervical model	11

Annex II

Item to be considered to increase it's quantity depending on budget of Japanese Government

S.NO	DESCRIPTION	Requested add q'ty	Priority
1	Childbirth Phantom	1	A
2	Uterine cervical model	1	A
3	Slide projector set	1	A
4	TV and VTR set	1	A
5	Speaker system	1	A
6	Ventilator for anesthesia Apparatus	2	B
7	Examining light(stand type)	10	C
8	Bed with mattress(Normal → 2 clank bed /spec change)	30	D
9	IV Pole(stand type)	3	E
10	Overhead projector	1	F
11	Extinox provision through inhalation analgesin	1	G
12	Weighing scale	4	H

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ANNEX-III NECESSARY MEASURES TO BE TAKEN BY THE GOVERNMENT OF PAKISTAN
ON CONDITION THAT JAPANESE GRANT AID EXTENDED TO THE PROJECT

1. To provide data and information necessary for the implementation of the Project.
2. To secure the land for the site of the Project prior to the commencement of the construction works.
3. To bear the following commissions to the Japanese foreign exchange bank for the banking service based upon the Banking Arrangement:
 - 1) Advising commission of the Authorization to Pay (A/P)
 - 2) Payment commission
4. To ensure prompt unloading and customs clearance at the port of disembarkation in Pakistan and internal transportation therein of the products purchased under the Grant.
5. 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 Pakistan and stay therein for the execution of the Project.
6. To exempt Japanese nationals involved in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in Pakistan with respect to the supply of the products and the services under the verified contracts.
7. To bear all the expenses, other than those to be borne by the Grant, necessary for the Project.

5. Cost Estimation Borne by the Recipient Country

The breakdown of expenses to be borne by the Government of the Islamic Republic of Pakistan is estimated as follows:

1) Expenses borne by the Pakistan

- a. Road, Parking, Planting, etc. 8,500 thousand Rs.
- b. Replacement of piping 1,500 thousand Rs.
- c. Infrastructure work 7,000 thousand Rs.
- d. Furniture and fixture 3,000 thousand Rs.

20,000 thousand Rs. (about 60,000 thousand yen)

2) Estimate Conditions

- a. Time : January 1996
- b. Exchange rate : 1 US dollar = 101.00 yen; 1Rs = 3.02yen
- c. Construction period : The construction period is to consist of single phase.
The periods required for detailed design and construction work are as shown in the implementation schedule.
- d. Miscellaneous : The Project is to be executed in compliance with Japan's grant aid system.

6. Other Relevant Data

SITE PLAN

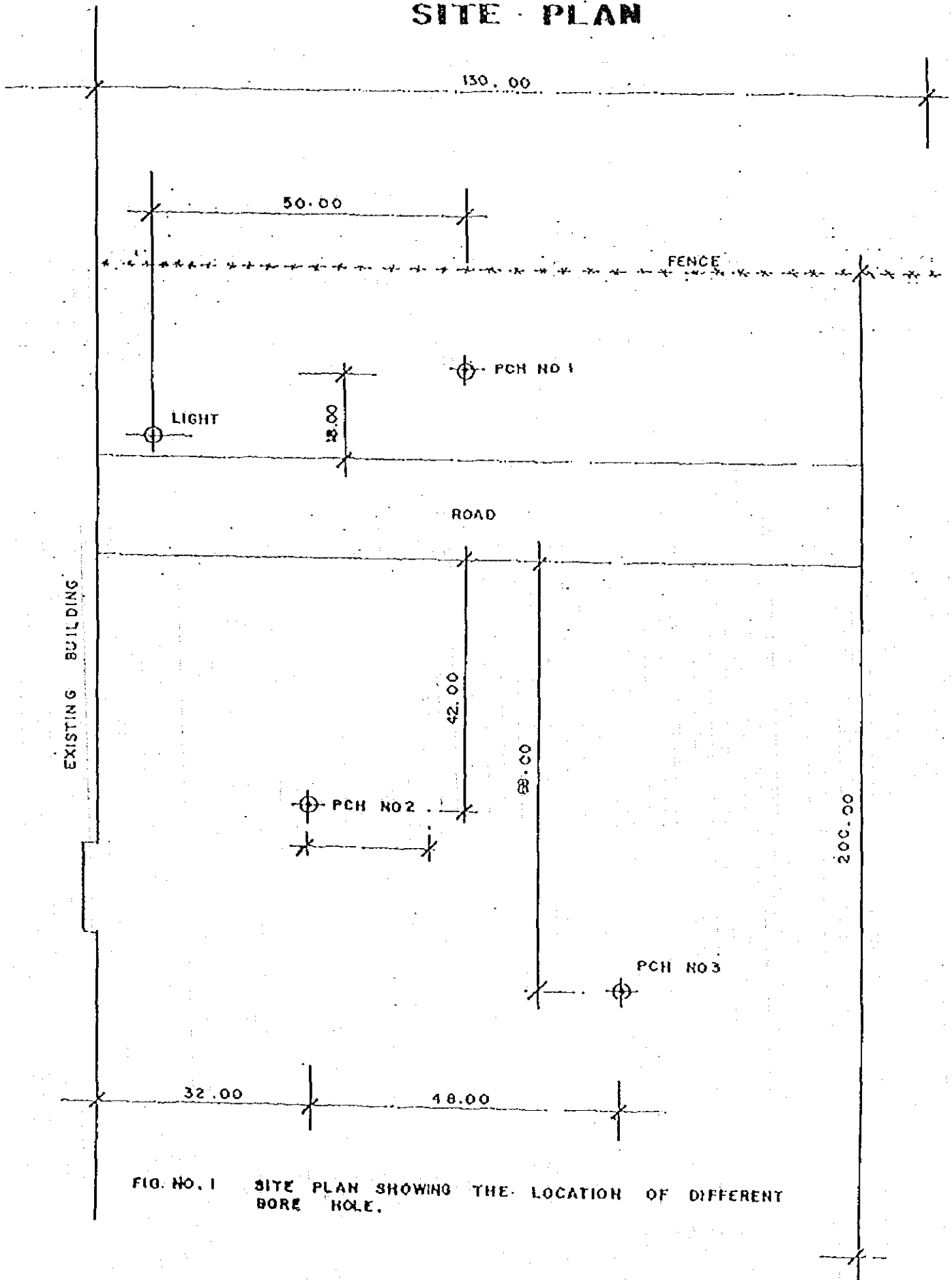


FIG. NO. 1 SITE PLAN SHOWING THE LOCATION OF DIFFERENT BORE HOLE.

SOIL SURVEY FORMS

RECORD OF BORING

PROJECT : MATERNAL & CHILD HELTH CENTRE (PIMS)

BOREHOLE NO. PCH- 1

CLIENT M/S NHION SEKKEI

WATER LEVEL 9.4 meters

STRUCTURE _____

GROUND LEVEL 98.0

DIA OF HOLE 6"

LOGGED BY SHAHID RAHMAN

Date	Reduced Level	Depth (m)	Sample	Thick-ness (m)	Strata encountered	Legend	S.P.T. No. of blows	S.P.T. CURVE							
								10	20	30	40	50	60		
10/1/96		0-2.5	<input checked="" type="checkbox"/>	2.5	SILTY CLAY EARTHY BROWN FINE GRAINED SOFT AND FAIRLY PLASTIC IN NATURE		2, 2, 2								
"		2.5-5.0	<input checked="" type="checkbox"/>	2.5	CLAY EARTHY BROWN TO REDDISH BROWN, FINE GRAINED, STIFF AND FAIRLY PLASTIC TO MED-PLASTIC IN NATURE.		3, 5, 7								
"		5.0-10	<input checked="" type="checkbox"/>	5.0	SILTY CLAY EARTHY BROWN TO REDDISH BROWN FINE GRAINED AND FIRM WHICH IS FAIRLY PLASTIC TO MED- PLASTIC.		3, 3, 4								
"			<input checked="" type="checkbox"/>		AS ABOVE BUT THE SOIL IS SOMEWHAT STIFF AND IS FAIRLY PLASTIC		4, 7, 7								
							N=14								

- Disturbed sample
- Undisturbed sample
- Standard penetration test
- Water sample
- Drill core sample
- Vane Shear test

Remarks : *minimized & checked by Dr. Coolejish*

Date started 10-1-96 Date finished 10-1-96

Scale: 1 blg division = 0.5 m

Logged by _____

Checked by _____

Fig. No. 2

SOIL SURVEY FORMS

RECORD OF BORING

PROJECT : MATERNAL & CHILD HEALTH CENTRE (PIMS)

BOREHOLE NO. PCH-2

CLIENT M/S. NHION SRKKEI

WATER LEVEL 9.6m

STRUCTURE _____

GROUND LEVEL 99.0

DIA OF HOLE 6"

LOGGED BY SHAHID RAHMAN

Date	Reduced Level	Depth (m)	Sample	Thick-ness (m)	Strata encountered	Legend	S.P.T. No. of blows	S.P.T. CURVE							
								10	20	30	40	50	60		
11-1-96		0-4.0	•	4.0	SILTY CLAY EARTHY BROWN, FINE-GRAINED STIFF AND FAIRLY PLASTIC IN NATURE		4,5,5 N=10								
"		4.0-6.0	•	2.0	AS ABOVE		3,5,5 N=10								
12-1-96		6.0-9.0	•	3.0	CLAY EARTHY BROWN FINE-GRAINED STIFF AND FAIRLY TO MED-PLASTIC ALSO TRACE GRITTY CONCRETIONS ARE PRESENT.		3,5,5 N=10								
"		9.0-10.0	•	1.0	SANDY SILT - GREYISH BROWN MED. GRAINED V. DENSE AND HAVING GRITTY TO PEBBLY CONCRETIONS		14,20,50 N=70								

- Disturbed sample
- Undisturbed sample
- Standard penetration test
- Water sample
- Drill core sample
- Vane Shear test

Remarks: *maintained and checked by Mr. Brodijit*

Date started 11/1/96

Date finished 12/1/96

Scale: 1 big division = 0.6m

Logged by _____

Checked by _____

Flg. No. 3

SOIL SURVEY FORMS

RECORD OF BOREHOLE

PROJECT: MATERNAL & CHILD HEALTH CENTRE (PIMS)

BOREHOLE NO. PCH-3

CLIENT M/S NIHON SEKKEI

WATER LEVEL not encountered

STRUCTURE _____

GROUND LEVEL 98.25

DIA OF HOLE 8"

LOGGED BY SHAHID RAHMAN

Date	Reduced Level	Depth (m)	Sample	Thick-ness (m)	Strata encountered	Legend	S.P.T. No. of blows	S.P.T. CURVE						
								10	20	30	40	50		
13-1-96			☒		SILTY CLAY EARTHY BROWN, FINE-GRAINED AND STIFF WHICH IS FAIRLY PLASTIC IN NATURE		5, 0, 7 N=13							
"			☒		SILTY CLAY AS ABOVE		5, 5, 8 N=13							
14-1-96			☒	9.5	AS ABOVE, BUT FROM 6.75m THE STRATA BECOMES MORE CLAYEY AND PLASTIC. ALSO TRACE GRITTY CONCRETION ARE OBSERVED AT PLACES		3, 5, 6 N=11							
		0-9.5			SILTY CLAY EARTHY BROWN FINE-GRAINED STIFF AND FAIRLY PLASTIC		2, 2, 7							
"		9.5-10.0	☒	0.5	SANDY SILT GRAYISH BROWN MED. GRAINED AND LOOSE WITH TRACE GRITTY CONCRETIONS.		N=9							

- Disturbed sample
- ☒ Undisturbed sample
- ↓ Standard penetration test
- ▲ Water sample
- Drill core sample
- ✕ Vane Shear test

Remarks: *maintained and checked by the budget*

Date started 13/1/96

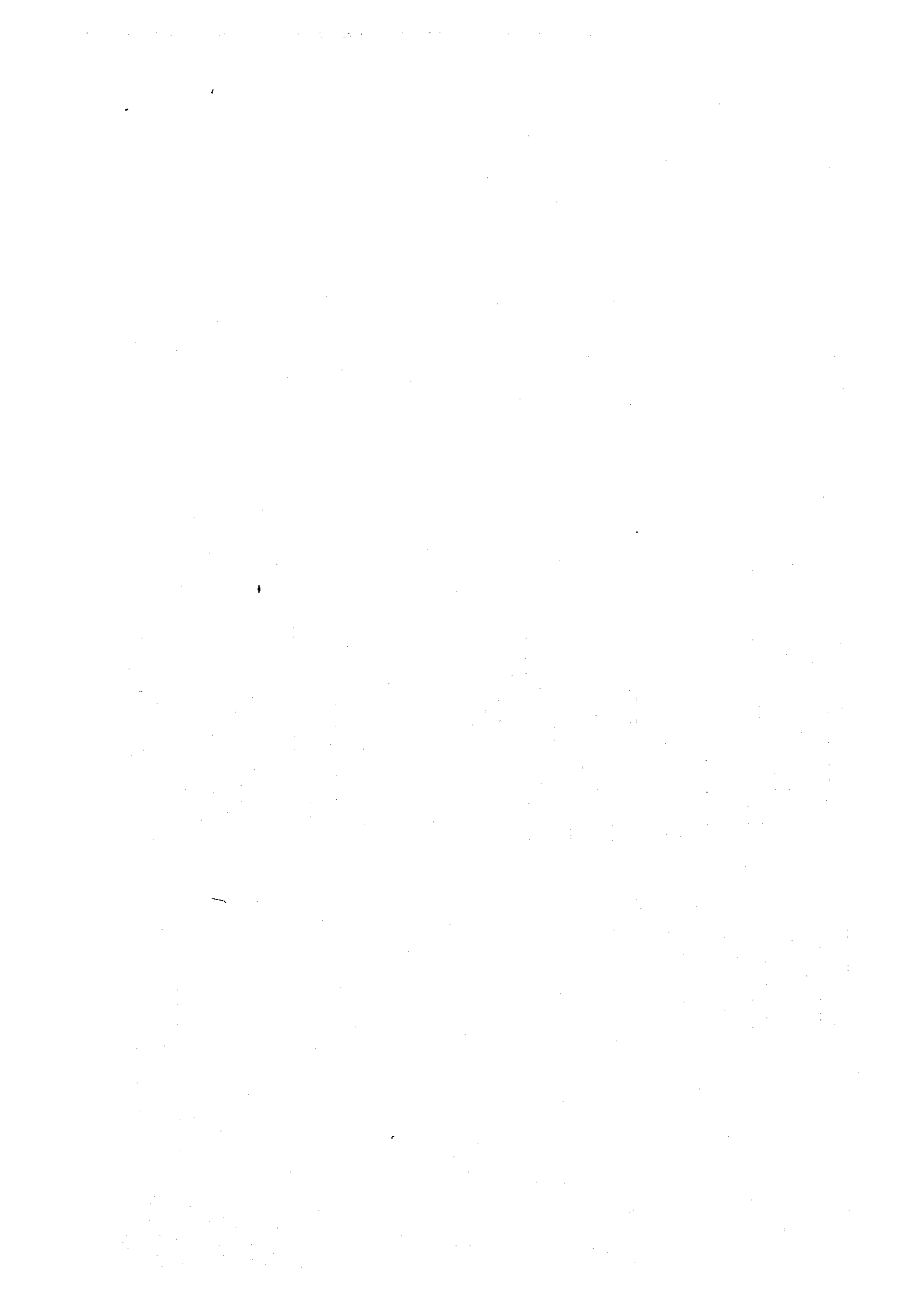
Date finished 14/1/96

Scale: 1 big division = 0.1

Logged by _____

Checked by _____

Fig. No. 4



JICA

