

routes for obtaining consumables and replacement parts, a support system which includes equipment suppliers, manufacturers and local agents shall be established together with the execution of this project.

5-1-7 Policy Concerning Period of Work

The equipment rectification through this project is aimed at existing facilities excluding the X-ray blocks.

Excluding X-ray plants, ambulances and part of the obstetrics department equipment, equipment rectified under this project is to be procured for renewal purposes. Therefore, there is no particular need for improvement works to be made for installation purposes and existing facilities should prove sufficient.

The X-ray blocks which are the subject of X-ray plants' procurement are currently under construction and are scheduled for completion by December, 1994.

The period of work is estimated to be 10 months after the conclusion of contracts with a supplier.

5-2 Basic Design Conditions

The basic design conditions for equipment composition are that it complies with the following criteria upon consideration of the basic matters of purpose of equipment use, conditions of use and environment of use.

- (1) Procurement of Japanese made expendable items and parts for this project would be easy as most requested items can be procured from Japan, however for X-ray plants, adoption of a third country made products is to be considered on reflection of degree of prevalence and the capacity of local agent on the subject area.
- (2) Parts, expendable items and reagents are to be purchasable for a period of 10 years after procurement.
- (3) Health workers are to be enabled to receive training or lectures for those items requiring technical guidance.

5-3 Basic Plan

5-3-1 Equipment Plan

Because most of the project equipment is the procurement of items being used in the project institutions, selection and quantity setting of equipment shall be done based upon the requested equipment contents review of section 4-2-9 in consideration of existing equipment. Project equipment and quantities for the subject institutions are displayed in the equipment deployment plan list in Table 5-1. The following tables show the main specifications of the main items of equipment by department.

(1) Surgical Department

Equipment name	Main specifications	Reason for selection
autoclave	steam sterilizing, table-top	to efficiently and surely carry out sterilization of minor surgery forceps.

(2) Laboratory

Equipment name	Main specifications	Reason for selection
microscope	binocular, halogen light source	for use in malaria and tuberculosis screening.

(3) X-ray Department

Equipment name	Main specifications	Reason for selection
X-ray plant	Bucky apparatus, 200mA - 300mA	newly procured for diagnosis of head, chest, abdomen and limbs.

(4) Obstetrics Department

Equipment name	Main specifications	Reason for selection
delivery table	fixed type	renewal of superannuated items.

(5) Vehicles

Equipment name	Main specifications	Reason for selection
ambulance	1 box-type, diesel engine	newly procured for transportation of patients.

5-3-2 Equipment Deployment Plan

Based upon the results of the BHU and RHC equipment study results compiled in section 4-2-8, BHU equipment shall be the subject of review for deficiencies of each study subject item, namely defective or superannuated equipment. Regarding other equipment, BHUs from whom confirmation has been obtained by receipt of the replied study team questionnaire, shall be reviewed as project subject institutions. Similarly, regarding RHC equipment, institutions in which study subject equipment is defective or superannuated shall be made the subject of review. Regarding obstetrics department equipment as in the annex 7 on RHC health workers, institutions which already possess a woman medical officer shall be made the subject of review. Regarding X-ray plants and ambulances, the quantities stated in section 4-2-10 (2) shall be made the subject of review.

(Note) Superannuated equipment here means items which have exceeded their life spans: 10 years for electrical equipment and 20 years for machinery equipment.

Table 5-1 Equipment deployment plan list

(1) Peshawar (4) D. I. Khan

(2) Mardan (5) Hazara

(3) Kohat (6) Malakand

CODE	DESCRIPTION	(1)	(2)	(3)	(4)	(5)	(6)	TOTAL
------	-------------	-----	-----	-----	-----	-----	-----	-------

(1)BHU	No. of BHUs	110	72	54	57	191	179	663
A-01	INSTRUMENTS SET	34	28	0	30	63	93	248
A-02	SPHYGMOMANOMETER (MERCURIAL) DIAGNOSTIC SET	0	22	0	30	75	79	206
A-03	GYNCOLOGICAL EXAMINING SET	110	72	54	57	191	179	663
A-04	TREATMENT SET	110	72	54	57	191	179	663
A-07	EXAMINING TABLE	110	72	54	57	191	179	663
A-12	WEIGHING SCALE FOR ADULT AND INFANT	72	16	7	16	122	122	355
A-13	STERILIZER	27	28	4	36	57	119	271

(2)RHC	No. of RHCs	11	7	9	13	20	14	74
G-06	EXAMINING TABLE	11	7	9	13	20	14	74
H-01	INSTRUMENT TRAY WITH COVER (45CM)	44	28	36	52	80	56	296
H-02	TRAY KIDNEY SHAPED (L/M/S)	44	28	36	52	80	56	296
H-04	BOWLS(21CM)	44	28	36	52	80	56	296
H-05	BASIN(36CM)	33	21	27	39	60	42	222
H-06	JUG(M)	33	21	27	39	60	42	222
H-07	PROBE 188MM	44	28	36	52	80	56	296
H-08	FORCEPS ARTERY MOSQUITO STR	110	70	90	130	200	140	740
H-09	SCISSORS DRESSING STR	66	42	54	78	120	84	444
H-10	NEEDLE HOLDER MAYO-HEGAR 200MM	66	42	54	78	120	84	444
H-11	NEEDLES SUTURE, STRAIGHT AND CURVED	55	35	45	65	100	70	370
H-12	CUSCO'S VAGINAL SPECULUM S/M/L	22	14	18	26	40	28	148
H-14	SPONGE HOLDING FORCEPS 245MM	44	28	36	52	80	56	296
H-15	VULSELM FORCEPS	22	14	18	26	40	28	148
H-16	DILATOR SET HEGAR	11	7	9	13	20	14	74
H-18	SALINE INFUSION STAND	33	21	27	39	60	42	222
H-20	PORTABLE SUCTION UNIT	11	7	9	13	20	14	74
H-22	CHEATLE STERILIZER FORCEPS	44	28	36	52	80	56	296
H-24	DELIVERY SET	10	2	1	5	12	7	37
H-25	AIRWAY (SET OF 4 PCS)	11	7	9	13	20	14	74
H-26	CHEEK RETRACTOR ORINGER AND MOUTH GOUGE	11	7	9	13	20	14	74
H-28	SWAB HOLDERS KRAUSE	44	28	36	52	80	56	296
H-29	TONGUE HOLDING FORCEPS	11	7	9	13	20	14	74
H-30	PEAN FORCEPS 180MM	110	70	90	130	200	140	740
H-31	VOLKMANN'S SPOON (DOUBLE ENDED)	22	14	18	26	40	28	148
H-33	OPERATION THEATER TABLE	11	7	9	13	20	14	74

CODE	DESCRIPTION	(1)	(2)	(3)	(4)	(5)	(6)	TOTAL
H-34	OPERATION THEATER CELLING LAMP	11	7	9	13	20	14	74
H-35	AUTO CLAVE (W/BOILER) MEDIUM	11	7	9	13	20	14	74
H-36	ELECTRIC STERILIZER (45CM)	11	3	7	11	6	9	47
H-40	DRESSING DRUMS	33	21	27	39	60	42	222
H-41	INSTRUMENT TRAY	44	28	36	52	80	56	296
H-43	RUBBER CATHETER (NELATON) EACH SIZE	22	14	18	26	40	28	148
H-44	METAL CATHETER SET	11	7	9	13	20	14	74
H-46	DISSECTION FORCEPS 130MM	55	35	45	65	100	70	370
H-47	DRESSING TROLLEY	22	14	18	26	40	28	148
H-48	DELIVERY TABLE	10	2	1	5	12	7	37
H-50	DELIVERY FORCEPS KEILAND	10	2	1	5	12	7	37
H-52	TOWEL CLIPS	55	35	45	65	100	70	370
H-53	SURGICAL BLADE 10 SIZES	132	84	108	156	240	168	888
H-54	DIAGNOSTIC SET	22	14	18	26	40	28	148
H-55	B. P. APPARATUS DESK	22	14	18	26	40	28	148
H-56	PERCUSSION HAMMER	22	14	18	26	40	28	148
H-57	STETHOSCOPE	44	28	36	52	80	56	296
H-58	LUMBER PUNCTURE NEEDLE	22	14	18	26	40	28	148
I-01	TEMPERATURE CHART HOLDER	110	70	90	130	200	140	740
I-04	SPUTUM CUPS WITH COVER	110	70	90	130	200	140	740
I-05	BEDPAN WITH HANDLE	22	14	18	26	40	28	148
I-06	URINAL MALE	22	14	18	26	40	28	148
I-07	URINAL FEMALE	22	14	18	26	40	28	148
K-01	ELECTRIC CENTRIFUGE	11	2	6	9	16	10	54
K-06	ALBUMINOMETER	11	7	9	13	20	14	74
K-13	SLIDES MICROSCOPIC	11	7	9	13	20	14	74
K-14	CENTRIFUGE TUBE, 15ML	11	7	9	13	20	14	74
K-15	URINO CUP	330	210	270	390	600	420	2220
K-16	GHAMBER NEUBAUR (HEMACYTOMETER)	220	140	180	260	400	280	1480
K-18	E. S. R. STAND WITH TUBE (20 TUBES)	11	7	9	13	20	14	74
K-20	HEMOGLOBINOMETER SHALI'S WITH 10 PIPETTES	11	7	9	13	20	14	74
K-23	MICROSCOCPE BINOCULAR	4	4	6	10	12	2	38
K-27	SPRIT LAMP	11	7	9	13	20	14	74
K-28	TEST TUBE AND HOLDERS SET	11	7	9	13	20	14	74
L-01	X-RAY PLANT 100 M. A - 250 M. A	7	4	7	1	9	5	33
L-02	DEVELOPPING SYSTEM	7	4	7	1	9	5	33
L-03	FILM ILLUMINATOR (1 FILM)	7	4	7	1	9	5	33
M-05	LARYNGOSCOPE	11	7	9	13	20	14	74
N-05	RE-CHARGEABLE FLUORESCENT LAMP	22	14	18	26	40	28	148
N-07	STRETCHER	11	7	9	13	20	14	74
N-09	GENERATOR PORTABLE	11	7	9	13	20	14	74
N-12	AMBULANCE	11	6	9	11	18	14	69

5-3-3 Facility Construction Work Entailed in Equipment Establishment

An X-ray plant is to be deployed under this project in buildings under construction.

The state of progress of X-ray block construction according to the site studies of the study teams is as follows. The scheduled dates for completion were confirmed by discussions with Mr. Hussein Gul, the project director of the Peshawar office of the ADB.

As is made clear by Table 5-2, 30 X-ray blocks are scheduled for completion by June, 1994. The completion limit for the remaining 3 is set for December, 1994 by the Third Health Project which is monitoring their state of progress. It is therefore judged that these 3 blocks also will be completed according to schedule.

Figure 5-1 shows an X-ray block layout plan.

Fig.5-1 X-ray block layout plan

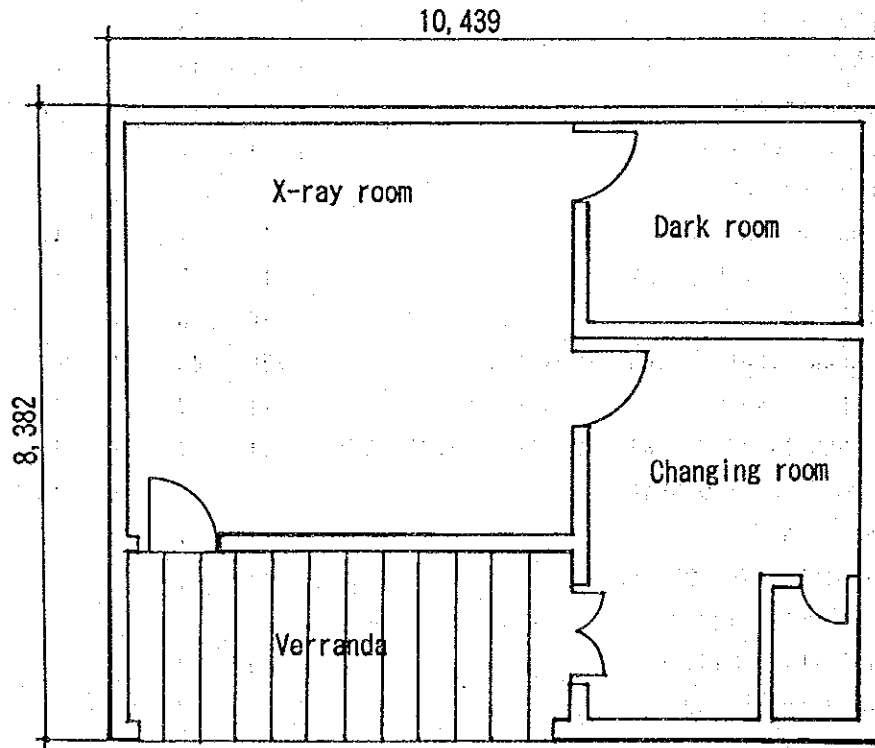


Table 5-2 Progress of X-ray block construction

Divisions	Districts	Names of RHCs	Current Status	X-ray Plant	Completion Scheduled
Peshawar	Peshawar	Gara Tajik Nahaqui	U/C	Not existing	Dec. 1994
			U/C	Not existing	Mar. 1994
	Charsadda	Battagram Jamalabad	U/C U/C	Not existing Not existing	Mar. 1994 Jun. 1994
Nowshera		Dak Ismail Khel Kheshki Manki Sherif Pir Pai	U/C	Not existing	May. 1994
			U/C	Not existing	Apr. 1994
			U/C	Not existing	Apr. 1994
			U/C	Not existing	Mar. 1994
Mardan	Mardan	Gumbat	U/C	Not existing	Apr. 1994
	Swabi	Ambar Kunda Yar Hussain	U/C U/C	Not existing Not existing	Jun. 1994 Jun. 1994
Kohat	Kohat	Choriaki Gumbat Naryab Usterzai	U/C	Not existing	Mar. 1994
			U/C	Not existing	Mar. 1994
U/C			Not existing	Jun. 1994	
U/C			Not existing	Jun. 1994	
Karak		Nari Panus Latember Sabir abad	U/C	Not existing	Jun. 1994
			U/C	Not existing	Mar. 1994
			U/C	Not existing	Apr. 1994
D. I. Khan	D. I. Khan	Pahar Pur	U/C	Not existing	Jun. 1994
Hazara	Abbottabad	Karpani	U/C	Not existing	Dec. 1994
	Haripur	Ghazi Serai Niamat Khan Seri Kot	U/C	Not existing	May. 1994
			U/C	Not existing	May. 1994
U/C			Not existing	Jun. 1994	
Mansehra		Chattar Plan Chowki Khawari Lessan Nawab Sahib Suchan Kalan	U/C	Not existing	Jun. 1994
			U/C	Not existing	Jun. 1994
			U/C	Not existing	Jun. 1994
			U/C	Not existing	Dec. 1994
			U/C	Not existing	Jun. 1994
Malakand	Malakand Agency	Dheri Julagram	U/C	Not existing	Jun. 1994
	Dir	Ziarat Talash	U/C	Not existing	Jun. 1994
	Bunir	Jower	U/C	Not existing	Mar. 1994
	Swat	Khazana Chuprial	U/C U/C	Not existing Not existing	Apr. 1994 Mar. 1994

(Note : U/C means under construction)

5-4 Work Execution Plan

5-4-1 Work Execution Policy

This project is to be executed according to the framework of Japanese grant aid.

This project is to be officially executed after approval of this project and completion of the exchange of notes (E/N) by the 2 governments. After that, a Japanese corporate consultant is to be selected by the Government of Pakistan and the consultant will commence details design of the project contents. After the completion of details design plans and documents, the Japanese corporate supplier settled through tendering shall begin execution of procurement and installation of materials and equipment.

The basic items and points for attention in execution of the work are as follows.

(1) Execution Agency

The overall responsible agency for this project is the NWFP Health Department.

(2) Consultant

Upon completion of the exchange of notes (E/N) between the 2 governments, the Japanese consulting firm shall immediately conclude a consultant agreement with the NWFP Health Department in line with Japanese grant aid procedure. This contract becomes effective upon verification by the Government of Japan and based upon it, the consultant shall execute the following work.

1) Details design stage

Preparation of details design specifications and other technical materials.

2) Tendering stage

Cooperation in work involving the selection of a supplier and a supplier contract.

3) Procurement stage

The supplier is selected through tendering and conclude contracts with the Government of Pakistan. This also becomes effective upon verification by the Government of Japan, and based upon it, the supplier procures and carries the necessary equipment and also provides technical support concerning the installation, operation and maintenance that is carried out by the Pakistan side. Moreover, the Supplier shall provide support to the Pakistan maintenance setup in a way that supply of spare parts and consumables and also technical guidance can be received even after delivery has taken place.

(4) Execution Plan

Regarding the planning of execution, the consultant and project representatives in Pakistan shall confirm such items as the work responsibilities of both countries, periods of commencement and methods within the period of details design. They shall also hold discussions based upon the execution schedule of this report so as to ensure the smooth execution of work by both sides. The work charged to the Pakistan side must be executed according to schedule prior to the commencement of installation work.

(5) Necessity of Engineer Dispatch

The mastering of correct methods of use and methods of maintenance for the equipment after it has been installed in order that it always operates normally and it contributes to precise diagnosis and care, is of vital importance. Therefore, in order to carry out installation work and training of handling of this sort of equipment, the dispatch of manufacturer engineers is necessary. Specifically speaking, this applies to X-ray plants.

(6) Details Design and Supervision

Based upon the contract concluded with the Government of Pakistan, the consultant shall carry out details design and supervision of this equipment project. Details design is the deciding of detailed equipment specifications

based upon the basic design studies, and the preparation of tendering instructions, draft equipment supply contract and equipment specifications. It shall also include the compiling of estimates of costs entailed in equipment procurement.

Supervision is the confirmation of whether or not the work of procurement agents is being done according to contract, and confirmation of the proper delivery on the contracts. Moreover, in order to promote the execution of work, the Consultant shall provide guidance and advice from a fair standpoint and make adjustments. Those contents shall be composed of the following duties.

1. The procedures necessary for selection of the supplier and the witnessing of tendering and the supply contract.
2. Inspection of and consent on shop drawings, equipment specifications and other documents presented by the supplier.
3. Inspection of and consent on the quality and performance of supplied equipment.
4. Supervision of supply, installation work and commissioning of equipment.
5. Reports on the state of progress of work.
6. Witnessing of delivery.

As well as the above duties, the consultant shall also make reports on the state of project progress, payment procedures and completed deliveries to those concerned in the Government of Japan.

5-4-2 Work Supervision Plan

Based upon Japanese grant aid policy, the consultant shall organize a project execution team consistent on details design work, in line with the purport of the basic design, in order to carry out duties smoothly.

Work Supervision Policy

- (1) Maintain close contacts with executing of agencies of both governments in order to aim for the prompt completion of equipment procurement.
- (2) Provide prompt and proper guidance and advice to those concerned with work from a fair standpoint.

- (3) Provide proper guidance and advice regarding the supervision of equipment after installation and delivery.
- (4) After completion of installation, the consultant shall confirm that conditions of the contract have been carried out, witness the delivery of equipment and bring work to a close upon receipt of the approval of the Government of Pakistan.

5-4-3 Equipment Procurement Plan

Method of Equipment Procurement is described as follows;

(1) Method of Supplier Selection and Contract

A supplier for the procurement of equipment shall be selected by carrying out open competitive tendering by individual or corporate Japanese national companies and evaluating the received tenders.

A contract shall be blanket sale and a purchase contract which specify models. The supply of equipment, production, carrying and technical guidance on the installation, adjustment, trial run, operation and maintenance of the equipment shall be included in the contract duties.

(2) Equipment Procurement

Because the procurement of equipment under this project is thought to be made easy in terms of the procurement of Japanese made parts and expendable items, it shall as a rule be procured domestically within Japan. However, because of the ease of obtaining replacement parts and expendable items for X-ray plants, the adoption of third country made products is to be considered.

(3) Method of Transport

Land carriage within Japan shall be by vehicle and carriage from Japan to Karachi in Pakistan shall be by sea.

Land carriage from Karachi to each divisional headquarter shall again be by vehicle.

5-4-4 Execution Processes

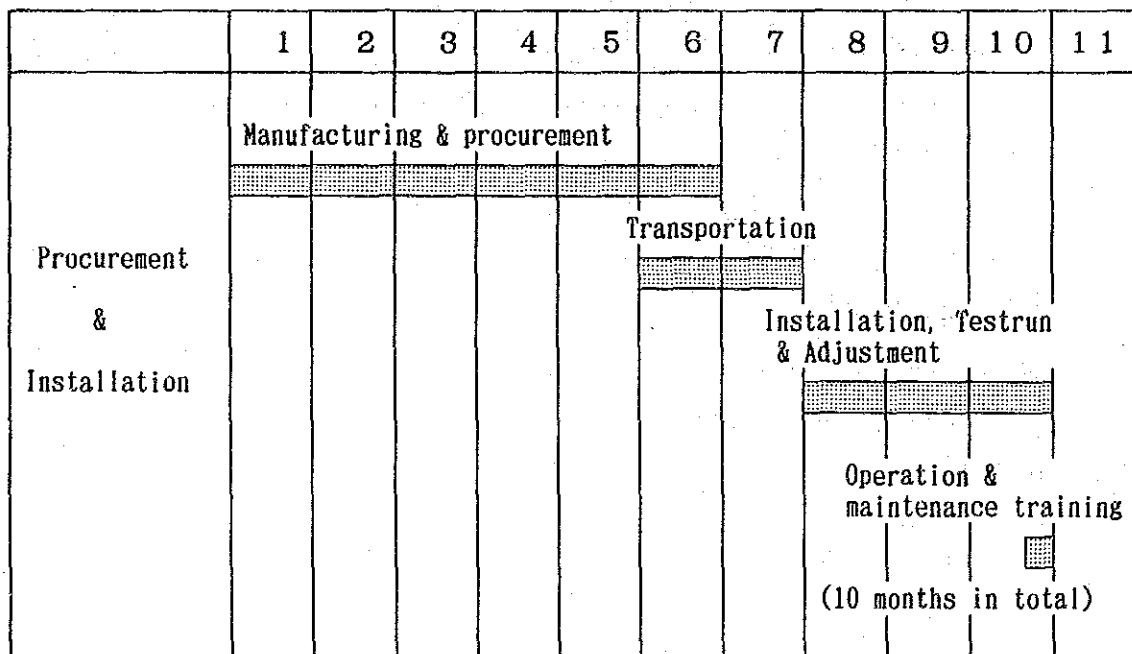
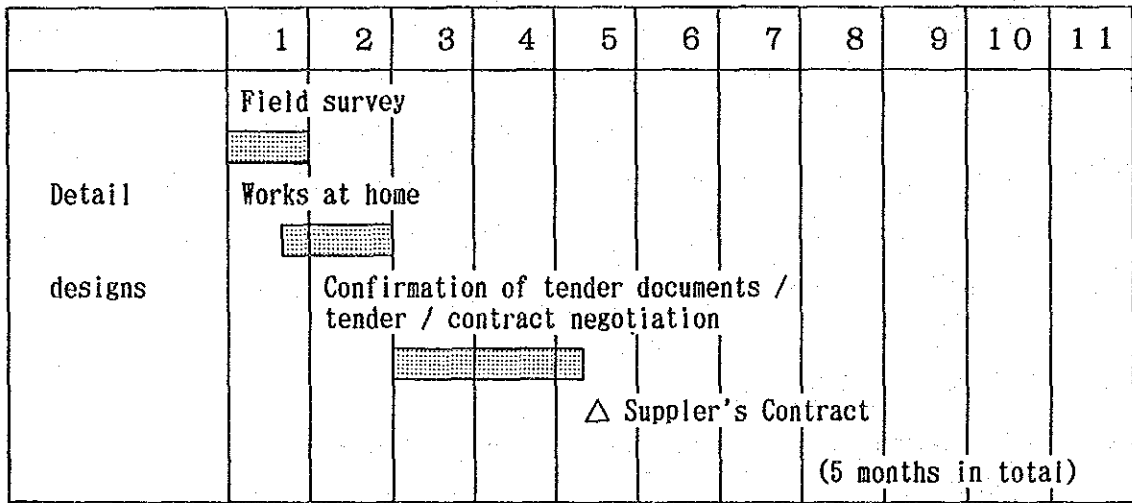
Work Execution Schedule

The periods needed to carry out each stage of work in Japan after the exchange of notes and conclusion of a supplier contract is roughly as follows.

- (1) Equipment production and procurement - 6 months.
- (2) Transport - 1 month.
- (3) Installation, trial-run, adjustment - 3 months.
- (4) Operation and maintenance guidance - 1 month.

The following chart displays the above work processes.

Fig 5-2 Execution process



5-4-5 Rough Estimate of Work Cost

(1) Work Load Areas 1

This project is to be executed with the cooperation of both countries according to the framework for Japanese grant aid. The work load contents for each country are as follows.

1) Government of Japan Work Load

1. Procurement of equipment entered in this basic design study report as Japan side work.
2. Related Procedural Duties.
The transport and domestic carriage of equipment exported from Japan to Pakistan from the port of landing to the subject areas.
 - a) X-ray plants : to be delivered to subject RHCs.
 - b) Ambulances : to be delivered to Peshawar.
 - c) Other equipment : to be delivered to each divisional headquartre.
3. Guidance and explanation on installation, trial-run adjustment, operation and maintenance of this project subject equipment.

2) Government of Pakistan Work Load

The Pakistan side shall carry out any installation work for equipment not included in the Government of Japan load, and duties relating to tax exemption measures as stated below.

1. Preparation of equipment installation areas,
2. Transport of equipment except X-ray plants and ambulances from each divisional headquartre to each subject institution.
3. Institution upgrading work necessary for equipment installation: appliance of electrical wiring and outlets to the installation areas; appliance of water piping and outlets to the installation areas,
4. The exemption or carrying of any normally placed duties, domestic taxes or any other financial surcharges when importing the subject equipment. (Other financial surcharges here also includes costs for installation of foreign made products in Pakistan),

5. The affording of every facility as regards the promptness of customs clearance and domestic carriage procedures for materials and equipment imported from Japan,
6. The supply of storage areas for equipment until it is installed,
7. The affording of every convenience as regards immigration and stay in Pakistan of Japanese nationals concerned with execution of the work,
8. The granting or permission according to Pakistan law of any authorization, tax exemptions and any other sanctions necessary for the execution of this project, and
9. The bearing of all necessary costs not covered by the Japan side.

(2) Approximate Operation Cost

- 1) Operation expenses to be borne by the Government of Japan

The operation cost borne by the Government of Japan is as follows:

1. Equipment costs, and
2. Design and management costs

- 2) Operation costs to be borne by the Government of Pakistan

1. Procedural duty costs

(Bank arrangement commission and letter of authorization to pay issue commission)

: about Rs. 92,000

2. Equipment carriage costs : about RS.135,000

Equipment shall be carried from the each division of headquarter to each site via the district health officer's by NWFP trucks. The distance to each district health officer's is about 250km and a further 150km on average to each BHU and RHC. Costs of transport are calculated at Rs. 0.17/m³ per km.

1,980m³ (110 x 20ft container) x Rs.0.17 rupees/m³ per km x (250km + 150km) = Rs.134,640

3) Integration conditions

Start of integration : February, 1994;

Exchange rate : 1 American Dollar = Yen 106.0

Period of work : 12 months;

Other : based upon the grant aid framework, import taxes for equipment, operation taxes on Japanese corporations and domestic Pakistan taxes shall be exempted as a precondition.

Chapter 6 Project Effects and Conclusion

Chapter 6 Project Effects and Conclusion

6-1 Effects of Project Execution

If this project is executed with the appropriate management and control of the Pakistan side, the effects and improvements listed in the following table will be achieved.

Table 6-1: Level of Effects and Current Situation Improvements Through Project Execution.

Current Situation and Problems	Project Countermeasures	Project Effects and Improvements
85% of local residents live in scattered rural areas and level of access to health services is low.	To deploy vehicles for transportation of patients of each RHC.	To make urban health services such as THQ and DHQ hospitals more accessible for rural residents.
Regional differences in the health setup are large, especially between rural areas and the cities.	To procure basic equipment at BHUs and RHCs dotted around the rural areas.	It will reduce the crude death rate and improve the life expectancy at birth in the rural areas.
Almost all births in the region are done at home, but due to poor hygiene, maternal and infant mortality rates are high.	To procure delivery forceps and delivery tables for use by woman medical officers to enable in RHC and minor complicated deliveries.	Maternal and infant mortality rates will fall due to birth in hygienic environments and the ability to cope with minor complicated deliveries.
Most items of laboratory equipment are superannuated and X-ray plants are not available. Therefore, sufficient diagnosis is not possible due to the poor accuracy of clinical examination.	To raise examination accuracy by renewing superannuated equipment and procurement of X-ray plants.	Levels of accuracy will raise enabling earlier diagnosis and treatment for such a disease as tuberculosis.
Laboratory waste liquids are discharged in an untreated manner and sterilization of forceps etc. is carried out by boiling only.	To procure table-top steam sterilizer for waste liquid discharge and sterilization of forceps etc.	This will prevent secondary infections in RHC.

6-2 Review of Appropriateness of Project Execution

(1) The health service system in NWFP has as its top medical bodies the tertiary institutions of the 3 teaching hospitals and the DHQ hospitals in each district, and these are followed by the THQ hospitals which act as secondary medical institutions. This project is intended for the 74 RHCs and 663 BHUs or primary health institutions which rank below those top level institutions. When one considers that the local residents use these RHCs and BHUs on a daily basis and that the traffic situation in NWFP is not complete, one is able to appreciate that these institutions fulfill a very important role within the health service system within NWFP.

Moreover because residents in the rural areas account for some 85% of the province's total population (about 15 million people), it is expected that this project will bring about huge beneficial effects for the people of NWFP.

(2) The strengthening of RHC and BHU functions that this project achieves will improve the primary health care functions within NWFP, rectify the regional differences and contribute to the promotion of the SAP Project which the Pakistan Government is carrying out as a priority policy.

(3) Project equipment consists of the procurement of new vehicles and the renewing of current equipment which is either insufficient or is superannuated. The newly procured vehicles are consistent with present demand and technical levels and therefore, excluding the vehicles, it is not necessary to increase numbers of personnel. As for the drivers, deployment has already been approved within the standard personnel arrangements of each RHC. The NWFP Health Department will send personnel in line with the deployment of vehicles.

Furthermore under the Third Health Project of the ADB, 4 equipment maintenance workshops will be established in NWFP, and as for the vehicles, workshops are being properly operated, which were under the support and guidance of UNICEF, and so no problems should arise.

6-3 Conclusion and Recommendation

(1) Conclusions

This project will rectify the regional differences in the health service of NWFP by strengthening the functions of primary health care institutions. As a result, because this project will accelerate the enrichment of primary health care which the Pakistan Government is promoting as a priority policy and also contribute to the health of residents in all areas of NWFP, its execution in the form of Japanese grant aid is judged to be appropriate.

(2) Recommendations

The following recommendations are made in order to ensure the prompt execution of this project and the proper operation of the medical equipment.

1) Budgetary Measures

Because the supply of replacement parts for current equipment is difficult, it will be necessary to take measures such as making the onerous supply of replacement parts and expendables compulsory for around 8 years after the end of one year supplier warranty period. Moreover the Health Department must prepare a budget of around Rs. 5.4 million per annum which is the estimated cost of replacement parts and consumables.

2) Maintenance of Equipment

Procurement of equipment replacement parts and consumables is currently done by each district health officer, however in the present situation, equipment management and control is not functioning properly. Regarding equipment maintenance a project for the establishment of medical equipment workshops with the aims of maintenance and repair in NWFP is in progress. Discussions held with the technicians in the workshop showed that they possess enough technical ability to carry out repair of equipment. However with regards to electrical equipment, it is desirable that Japanese shall provide circuit diagrams and service manuals which include expendable items and parts lists as well as information on agents from whom it is possible to purchase these items domestically. It is also desirable that Japanese shall under this project, carry out training in

repair service in order to raise the technical levels of these workshops and as a result, provide help in the construction of a medical equipment maintenance setup in NWFP. An increase of personnel to accompany the future quantities of equipment is desired based upon the Third Health Project.

3) Upgrading of Sanitation Facilities

The treatment facilities for waste liquids and urine in the BHUs and RHCs are incomplete and such waste liquids are currently being discharged in an untreated manner into the ground or drainage. It is possible that infectious pathogenic bacteria are included in these liquids and there is a possibility that they could cause secondary infections to occur via ground or river water. This project ensured that waste liquids from laboratories are discharged after being sterilized with autoclaves, however it is desirable that the Health Department carries out improvement of sanitation facilities in order to ensure that BHUs and RHCs do not become sources of infection.

Furthermore, in order to ensure the smooth execution of Japanese aid to Pakistan, the following suggestion is made.

Much of this project proved to be overlapping with the Family Health Project of the World Bank and the Third Health Project of the ADB among others. Because the study team spent time not originally planned on adjusting these areas, the completion of the basic design study was delayed. In order to ensure the same situation does not arise again in future, it will be necessary for the Pakistan side to adjust such overlapping areas at the request stage.

APPENDIX

1. Member list of the basic design study team

Member list of the Basic Design Study Team

(1) Members of Basic Design Study Team B/D 1 (August 16 - 26, 1993)

Shin-ya Suzuki
Leader,
Grant Aid Division
Bureau of Economic Co-operation
Ministry of Foreign Affairs
Government of Japan

Ryoji Harada
Project Manager
Overseas Project Division
International Total Engineering Co-operation (ITEC)

(2) Members of the Basic Design Study Team B/D 2 (October 16 - November 16, 1993)

Tamotsu Nakasa
Leader
Expert Service Division
Bureau of International Co-operations
International Medical Center of Japan
Ministry of Health and Welfare
Government of Japan

Kiyoto Kurokawa
Grant Aid Planner
First Basic Design Study Division
Grant Aid Planning and Survey Department
Japan International Cooperation Agency (JICA)

Ryoji Harada
Project Manager
Overseas Project Division
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Hiroshi Tasei
Equipment Planner
Overseas Project Division
International Total Engineering Co-operation (ITEC)

(3) Members of Basic Design Study Team B/D 3 (February 1 - 20, 1994)

Same as B/D 2

(4) Members of Draft Final Report Explanation Team (April 8 - 17, 1994)

Atsuko Aoyama
Leader
Expert Service Division
Bureau of International Co-operations
International Medical Center of Japan
Ministry of Health and Welfare
Government of Japan

Kiyoto Kurokawa
Grant Aid Planner
First Basic Design Study Division
Grant Aid Planning and Survey Department
Japan International Cooperation Agency (JICA)

Ryoji Harada
Project Manager
Overseas Project Division
International Total Engineering Co-operation (ITEC)

2. Survey Schedule

Survey Schedule

(1) Basic Design Study B/D 1 (August 16 - 26, 1993)

<u>Number</u>	<u>Date</u>	<u>Schedule</u>
1.	August 16 (Mon)	Lv. Tokyo (PK-753) Ar. Islamabad
2.	17 (Tue)	Courtesy call to JICA Pakistan office, EAD, Ministry of Health, Embassy of Japan, UNICEF and World Bank. Lv. Islamabad for Peshawar (PK-682)
3.	18 (Wed)	Courtesy call to Planning & Development Department and the Director General of Health Services of NWFP.
4.	19 (Thu)	Site survey DHO's Peshawar, RHC, Pir Pai and BHU, Shaidu
5.	20 (Fri)	Site survey at BHU's of Bajaur Agency, Lv. Peshawar for Mingora, Swat district.
6.	21 (Sat)	Site survey at DHQ hospital, Saidu Sharif and Sub THQ hospital, Khawaza Khella. Lv. Mingora for Peshawar.
7.	22 (Sun)	Courtesy call to Secretary, Health Department and meeting at Director General, Health Services
8.	23 (Mon)	Meeting at Director General, Health Services. Lv. Peshawar for Islamabad (PK-683)
9.	24 (Tue)	Reporting to JICA Pakistan Office, Embassy of Japan, EAD and Ministry of Health. Lv. Islamabad for Karachi (PK-309)

10. 25 (Wed) Lv. Karachi for Bangkok (TG-508)
11. 26 (Thu) Lv. Bangkok for Tokyo (JL-734)

(2) Basic Design Study B/D 2 (October 18 - November 19, 1993)

<u>Number</u>	<u>Date</u>	<u>Schedule</u>
1.	October 18 (Mon)	(Consultants) Lv. Tokyo (PK-753) Ar. Islamabad
2.	19 (Tue)	Courtesy call to JICA Pakistan office, Embassy of Japan and Federal Ministry of Health for explanation of Inception Report and Schedule and request of answers of questionnaire.
3.	20 (Wed)	Lv. Islamabad (PK-682) Ar. Peshawar Courtesy call to Health Department of NWFP for discussions, explanation of Inception Report and Schedule and request of answers for questionnaire.
4.	21 (Thu)	Discussions at Health Department and field survey at Sub THQ Hospital, Mattani.
5.	22 (Fri)	Lv. Peshawar Ar. Mingora
6.	23 (Sat)	Meeting with DHO, Swat and field survey at Sub THQ Hospital, Khawaza Khella and Madyan.
7.	24 (Sun)	Field survey at Sub THQ hospitals, Mangloar and Besham.
8.	25 (Mon)	(Governmental members) Lv. Tokyo (PK-753) Ar. Islamabad (Consultants) Field survey at Sub THQ Hospitals, Kabbar and Matta.

9. 26 (Tue) (Governmental members)
 Courtesy call to JICA Pakistan Office, Embassy of Japan and Federal Ministry of Health
- (Consultants)
 Field survey at Sub THQ hospitals, Pachakalai, Daggar and Totalai.
 Lv. Mingora
 Ar. Peshawar
10. 27 (Wed) (Governmental members)
 Lv. Islamabad (PK-682)
 Ar. Peshawar
- (Governmental members and Consultants)
 Courtesy call and discussions at Health Department of NWFP and field survey at Sub THQ hospital, Pabbi.
11. 28 (Thu) (Governmental members and Consultants)
 Discussions at Health Department and field survey at RHC, Jamalabad.
12. 29 (Fri) (Governmental members)
 Lv. Peshawar
 Ar. Mingora
- (Consultants)
 Team meeting.
13. 30 (Sat) (Governmental members)
 Field survey at DHQ hospital, Saidu Sharif, Sub THQ hospital, Kawaza Khella and BHUs.
- (Consultants)
 Discussions at Health Department
14. 31 (Sun) (Governmental members and consultants)
 Discussions at Health Department

15. November 1 (Mon) (Governmental members)
Discussions with Health Department of the minutes of discussions.

(Consultants)
Meeting with DHQ, Charsadda

16. 2 (Tue) (Governmental members)
Signing of minutes of discussions
Lv. Peshawar (PK-685)
Ar. Islamabad

(Consultants)
Meeting with DHOs, Mardan and Kohat and field survey at RHC Usterzai.

17. 3 (Wed) (Governmental members)
Reporting to JICA Pakistan Office and Embassy of Japan.
Lv. Islamabad (PK-310)
Ar. Karachi

18. 4 (Thu) (Governmental members)
Lv. Karachi (AF-172)
Ar. Bangkok

(Consultants)
Discussions at Health Department

19. 5 (Fri) (Governmental members)
Lv. Bangkok
Ar. Tokyo

(Consultants)
Discussions at Health Department

20. 6 (Sat) Meeting with DHO, Swabi and Field Survey at RHC, Shabazgari.
Lv. Peshawar via Dir
Ar. Chitral
Meeting with DHO Dir and Field survey at RHCs, Khawarai and Ziarat Talash
21. 7 (Sun) Discussions with Federal Ministry of Health and UNICEF, and Meeting with DHO, Chitral and field survey at RHC, Kaguzai.
Lv. Chitral
Ar. Peshawar
22. 8 (Mon) Discussions with Federal MOH and World Bank and field survey at Khyber Teaching Hospital
23. 9 (Tue) Team meeting
24. 10 (Wed) Discussion with Federal MOH
25. 11 (Thu) Meeting with DHOs, Bannu and Lakkimarwat and
Lv. Peshawar
Ar. Abottabad
Meeting with DHOs, Abottabad and Mansehra.
Site survey at RHC Havelian BHU, Mir pao.
(Abottabad District) and RHC, Shinkiari and BHU, Kandian (Mansehra District).
26. 12 (Fri) Study of Data and
Lv. Peshawar
Ar. Besham
27. 13 (Sat) Meeting with DHO, D. I. Khan and Site survey at RHC, Paharpur.
Lv. Besham via Kohistan
Ar. Mingora
Meeting with DHO, Kohistan and site survey at RHC, Pattan and BHU, Sigiar.

28. 14 (Sun) Discussions with Health Department, and survey of the Central Workshop and local agents of manufacturers. Meeting at JICA Pakistan office.
29. 15 (Mon) Discussions at Health Department and survey of local agents.
30. 16 (Tue) Discussions at Health Department on Memorandum
31. 17 (Wed) Discussions at Health Department on Memorandum
32. 18 (Thu) Signing of Memorandum
Lv. Peshawar (PK-683)
Ar. Islamabad
Reporting to JICA Pakistan office
Lv. Peshawar (PK-319)
Ar. Karachi
33. 19 (Fri) Lv. Karachi (TG-508 and TG-640)
Ar. Tokyo

(3) Basic Design Study B/D 3 (February 1 - 20, 1994)

<u>Number</u>	<u>Date</u>	<u>Schedule</u>
1.	February 1 (Tue)	(Governmental members and Consultants) Lv. Tokyo (TG-641 and TG-507) Ar. Karachi
2.	2 (Wed)	Courtesy call to JICA Pakistan office, EAD, MOH and Embassy of Japan.
3.	3 (Thu)	Discussions at Islamabad offices and ADB, UNICEF and ODA.
4.	4 (Fri)	Move to Peshawar and Team Meeting
5.	5 (Sat)	Team meeting
6.	6 (Sun)	Discussions at Health Dept. of NWFP and World Bank, Peshawar.
7.	7 (Mon)	Discussions with Health Dept. and team meeting. (Consultants) Site survey to RHCs, Gara Tajik, Battagram and Nahaqi.
8.	8 (Tue)	Signing on minutes of discussions at Health Dept. and team meeting. (Consultants) Site survey to RHCs, Pir Pai, Khashki, Manki Sharif and Dak Ismail Khel.
9.	9 (Wed)	(Governmental members) Move to Islamabad

- (Consultants)
Site survey at RHCs, Gumbat, Toru, Yar Foussein, Chor Laki, Gumbat and Naryab
10. 10 (Thu) (Governmental members)
Discussions with Islamabad offices of ADB and World Bank
- (Consultants)
Site survey at RHCs, Kalpani, Ghazi, Serai Niamat, Khan, Seri Kot, Latember, Sabir Abad and Ahmed Khel.
11. 11 (Fri) (Governmental members)
Analysis of data
- (Consultants)
Site survey at RHCs, Suchan Kalan, Chatterplan, Chowki, Khawari, Lassan, Jamal, Khazana, and Chuprial.
12. 12 (Sat) (Governmental members)
Discussions with WHO Islamabad offices and EAD.
- (Consultants)
Discussions with Health Dept., Peshawar offices of World Bank and ADB.
13. 13 (Sun) (Governmental members)
Lv. Islamabad
Ar. Karachi
- (Consultants)
Discussions with Peshawar offices of ADB and Health Dept.
14. 14 (Mon) (Governmental members)
Lv. Karachi
Ar. Frankfurt

- (Consultants)
15. 15 (Tue) (Governmental members)
Lv. Frankfurt
Ar., Washington D.C.
- (Consultants)
16. 16 (Wed) (Governmental members)
Discussions at JICA USA office
- (Consultants)
Discussions with Health Dept.
17. 17 (Thu) (Governmental members)
Discussions with World Bank Headquarters
- (Consultants)
Issuing the letter to team leader
18. 18 (Fri) (Governmental members)
Discussions with World Bank Headquarters
- (Consultants)
Move to Islamabad
19. 19 (Sat) (Governmental members)
Lv. Washington D.C.
Ar. New York
- (Consultants)
Discussions with Health Dept., Peshawar, offices of
ADB and World Bank, and move to Islamabad.
- Lv. Islamabad
Ar. Karachi
20. 20 (Sun) (Governmental members and Consultants)
Ar. Tokyo.

(4) Explanation of Draft Final Report (April 8 - 17)

<u>Number</u>	<u>Date</u>	<u>Schedule</u>
1.	April 8 (Tue)	Lv. Tokyo (PK-751) Ar. Islamabad
2.	9 (Sat)	Courtesy call to JICA Pakistan office, Federal Ministry of Health and EAD.
3.	10 (Sun)	Move to Peshawar Courtesy call to Health Dept.
4.	11 (Mon)	Discussions with Health Dept., Peshawar offices of World Bank and ADB.
5.	12 (Tue)	Courtesy call to UNICEF and ADB, and Meeting at Health Dept.
6.	13 (Wed)	Discussions on minutes of discussions
7.	14 (Thu)	Signing on minutes of discussions
8.	15 (Fri)	Move to Islamabad
9.	16 (Sat)	Reporting to Federal MOH, EAD and JICA Pakistan office, and move of Karachi (PK-319)
10.	17 (Sun)	Lv. Karachi (TG-502 and TG-640) Ar. Tokyo

3. Attendant's List

Attendant's List

(1) Japanese Side

Embassy of Japan

Mr. Koichi Murase : First Secretary
Mr. Masahiko Tanoi : First Secretary

JICA Pakistan Office

Mr. Akihiro Mitarai : Director/Resident Representative
Mr. Kazushige Aragaki : Deputy Director
Mr. Hiroshi Shiono : Deputy Director
Mr. Mohammad Jilani : Chief Programme Officer

(2) Pakistani Side

Federal Ministry of Health, Pakistan

Mr. Faris Rahman Khan : Joint Secretary

Federal Ministry of Economic Affairs Division

Mr. Shahid Humayun : Deputy Secretary

Planning & Development Department of NWFP

Mr. Abdul Jalil Mughal : Additional Secretary
Mr. Zahid Elahi : Chief Foreign Aid

Finance Department of NWFP

Mr. Kamran Ali Qureshi : Additional Secretary

Health Department of NWFP

Mr. Mohamood Khan	:	Secretary (Until January 1994)
Dr. Nader Khan	:	Secretary (From January 1994)
Dr. Sadar Ul Mulk	:	Director General
Dr. Zortalav Khan	:	Project Director
Mr. Sayed Mobasir Shams	:	Senior Planning Officer
Dr. Haq Daq Khan	:	Acting Director General
Dr. Saifur Rahman	:	Project Director
Mr. Asik Hussain	:	Planning Officer
Mr. Fazal Mohammad	:	Statistical Officer
DHO's Peshawar		
Dr. Abdul Aziz Khan	:	District Health Officer
DHO's Charsadda		
Dr. Mubarak Hussain	:	District Health Officer
DHO's Mardan		
Dr. Muhamood Saleen	:	District Health Officer
DHO's Swabi		
Dr. Saeed Badshah	:	District Health Officer
DHO's Kohat		
Dr. Syed Kausar Ali Shah	:	District Health Officer
DHO's Karak		
Dr. Taj Mohammad Khan	:	District Health Officer
DHO's D. I. Khan		
Dr. Saadullah Khan	:	District Health Officer
DHO's Lakki Marwat		
Dr. Muhammad Iqbal Marwat	:	District Health Officer
DHO's Bannu		
Dr. Julal Khan Masud	:	District Health Officer

DHO's Kohistan

Dr. Muhammed Iqbal : District Health Officer

DHO's Mansehra

Dr. Mahammad Rabij : District Health Officer

DHO's Malakand

Dr. Shaiber Mian : District Health Officer

DHO's Chitral

Dr. Mahammad Usman Khan : District Health Officer

DHO's Dir

Dr. Mukehtan Abwed : District Health Officer

DHO's Swat

Dr. Siraj Ud Din : District Health Officer

(3) International Aid Agency

World Bank Washington Headquarters

Mr. Christopher D. Walker : Senior Health & Population Specialist
Population & Human Resources Division
South Asia Country Department

Ms. Yasuyo Abe : Staff Member

World Bank Islamabad Office

Dr. M. Bashirul Haq : Health & Population Projects Advisor

World Bank Peshawar Office

Dr. Inamullah Khan : Project Manager

Dr. Jamil Khan Bungash : Planning & Monitoring Officer

UNICEF Islamabad office

Ms. Zubeida Khatoon : Project Officer

Dr. Naveed Sadgai : Project Officer

UNICEF Peshawar Office

Mr. Abal Ahad : Project Director
Dr. Dairiku Hozumi : Asst. Project Officer
Ms. Riffat Sardar Ph. D. : Project Officer
Ms. Rubina Khair : Senior Programme Assistant

ADB Manila Headquarters

Dr. Wan Azmin Bin Wan Ahmed : Health Specialist, Education,
Health & Population Division (West)

ADB Islamabad Office

Mr. Rinus Zijsveld : Senior Project Implementation Officer
Ms. Samia Abbas : Project Implementation Officer

ADB Peshawar Office

Mr. Hussain Gul Turi : Third Health Project
Dr. Ghulsm Falooqi : Planning & Monitoring Officer
Mr. Unab Gul : Account Officer

British Council

Ms. Rubina Hyder : Project Officer

ODA/UK

Ms. Carole Presern : Country Officer

Pakistan Child Survival Project (USAID)

Dr. Theo Lippeveld : H.I.S. Advisor

Health, Population & Nutrition

Social Sector Programme (USAID)

Dr. Rushna Ravji : Chief

4. Minutes of Discussions

4-1 Minutes of Discussions at B/D II

MINUTES OF DISCUSSIONS
 BASIC DESIGN STUDY
 ON
 THE PROJECT FOR THE IMPROVEMENT OF MEDICAL EQUIPMENT
 FOR THE NORTH-WEST FRONTIER PROVINCE
 IN THE ISLAMIC REPUBLIC OF PAKISTAN

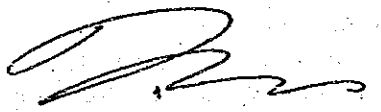
In response to a request of the Government of the Islamic Republic of Pakistan, the Government of Japan decided to conduct a Basic Design Study on the Project for THE IMPROVEMENT OF MEDICAL EQUIPMENT FOR THE NORTH-WEST FRONTIER PROVINCE (hereinafter referred to as "the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Islamic Republic of Pakistan study teams, headed by Mr. Shinya SUZUKI, Grant Aid Division, Economic Cooperation Bureau, from August 16th to 26th, 1993 and headed by Dr. Tamotsu NAKASA, Bureau of International Cooperation, International Medical Center of JAPAN, Ministry of Health and Welfare, from October 18th to November 11th, 1993.

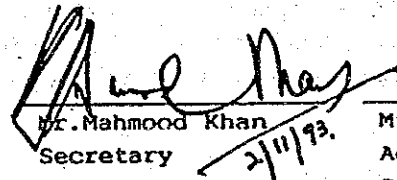
The Teams held discussions with the officials concerned of the Government of Pakistan and conducted field surveys at the study area.

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

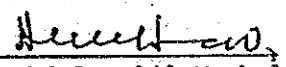
Peshawar, November 2nd, 1993



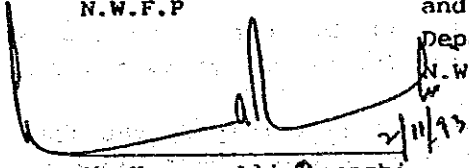
Dr. Tamotsu NAKASA
 Leader
 Basic Design Study Team
 JICA



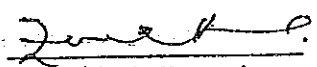
Mr. Mahmood Khan
 Secretary
 Health Department
 N.W.F.P



Mr. Abdul Jalil Mughal
 Additional Secretary
 Planning, Environment
 and Development
 Department
 N.W.F.P



Mr. Kamran Ali Qureshi
 Additional Secretary
 Finance Department
 N.W.F.P



Mr. Farhat Hussain
 Joint Secretary
 Economic Affairs
 Division
 Ministry of Finance
 and Economic Affairs

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve the primary medical care in the North-West Frontier Province through provision of medical equipment.

2. Project sites

The Government of North-West Frontier Province prepared the PC-1 form for improvement of medical equipment of BHUs and RHCs in the North-West Frontier Province which was conceptually approved by the Government of the North-West Frontier Province and the Government of Pakistan. From the point of urgency of improvement of facilities, the Pakistani side stated the implementing order of the project sites as described in ANNEX-I.

3. Executing Agency

The Health Department of North-West Frontier Province is responsible for the administration and execution of the Project.

4. Items requested by the Government of Pakistan

Provision of the equipment and its priorities described in ANNEX-II were finally requested by the Pakistani side. But the team recommended the priority as described in ANNEX-III. However, the final components of the Project may differ from the above items and priorities, if it is judged necessary after further studies.

5. Conditions for Provision

The items requested by the Pakistani side will be provided on condition that the following points are clarified and satisfied.

- (1) to be implemented site survey by the team,
- (2) to secure and station such staff members as medical doctors, technicians and other paramedicals, and
- (3) not to have any duplication plan of procurement by other donors.

6. Japan's Grant Aid Program

- (1) The Government of Pakistan has understood the system of Japanese Grant Aid explained by the team.
- (2) The Government of North-West Frontier Province take necessary measures described in ANNEX-IV, for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

7. Schedule of the study

- (1) The consultants will proceed to further studies in Pakistan until November 11th, 1993.

- (2) JICA will prepare the draft report and dispatch a mission in order to finalize the contents of the report around January, 1994.
- (3) In case the contents of the report is accepted in principle by the Pakistani side, JICA will complete the final report and send it to the Pakistani side by March, 1994.

8. Additional request by the Pakistani side

- (1) The Pakistani side requested the team to extend the scope of project to all DHQ, AHQ, THQ and subTHQ hospitals in the North-West Frontier Province and FATA. The team will convey to the Government of Japan the above request of the Government of Pakistan.
- (2) The Pakistani side requested to extend the site survey to all the district of NWFP. But the team expressed the difficulties to cover the whole area within this survey.
The team recommended that the contents of PC-1 should be implemented in step by step manner, and after implementation of this project the Pakistani side should send a new request based upon the evaluation of this project.
- (3) The Pakistani side expressed strong needs for X-ray unit. But the team stated that the study for the X-ray unit would be implemented to RHCs not covered by "The Third Health Project" financed by ADB loan.

9. Data and information

The Pakistani side will submit the data and information, requested by the questionnaire in August, 1993 and in October, 1993, to the team until November 7th, 1993.

ANNEX-I

The execution of improvement of primary medical care facilities will be implemented by the following order.

Division	District	Number of facilities	
		RHC	PHU
(1) Peshawar	1)Charsadda	3	56
	2)Khyber Agency	-	13
	3)Nowshera	6	35
	4)Peshawar	2	66
	5)Mohmand Agency	1	24
(2) Hazara	1)Abottabad	4	58
	2)Haripur	5	39
(3) Malakand	1)Buner	1	19
	2)Swat	2	59
	3)Malakand Agency	1	19
	4)Bajaur Agency	1	14
(4) Kohat	1)Kohat	5	23
	2)Karak	5	23
(5) Mardan	1)Mardan	5	50
	2)Swabi	2	41
(6) D.I.Khan	1)Bannu	3	38
(7) Malakand	1)Chitral	4	13
	2)Dir	7	59
(8) Hazara	1)Kohistan	2	38
	2)Mansehra	9	106
(9) D.I.Khan	1)D.I.Khan	4	43
	2)Lakki Marwat	3	37
	3)N.Waziristan Agency	1	18
	4)S.Waziristan Agency	-	20
	5)Tank	3	20
(10) Kohat	1)Kurrum Agency	-	19
	2)Orakzai Agency	3	22

2/11/93

ANNEX - II

CODE	DESCRIPTION	QTY	PRIORITY (A/B/C)
(1) BHU			
A-01	INSTRUMENTS SET	4	A
A-02	SPHYGMOMETER (MERCURIAL) DIAGNOSTIC SET	2	A
A-03	GYNCOLOGICAL EXAMINING SET	1	A
A-04	TREATMENT SET	1	A
A-05	OBSTETRIC DELIVERY TABLE	1	B
A-06	PATIENT BED	2	F
A-07	EXAMINING TABLE	1	A
A-08	STRETCHER	1	A
⊙ A-09	X-RAY FILM ILLUMINATOR (1 FILM)	1	A
A-10	OXYGEN INHALER SET	2	A
⊙ A-11	REFRIGERATOR	1	-
A-12	WEIGHING SCALE FOR ADULT AND INFANT	2	A
⊙ A-13	STERILIZER	1	A
A-14	LABORATORY EQUIPMENT	1	C
A-15	LABORATORY TABLE	1	C
A-16	BICYCLE	1	B
⊙ A-17	MOTOR CYCLE, 50CC FURNITURE FOR BHU SAME AS OF RHC	1	B
(2) RHC			
① FURNITURE			
G-00	FURNITURE		
G-01	REVOLVING CHAIR	4	B
G-02	OFFICE CHAIR	12	A
G-03	OFFICE TABLE	12	A
G-05	STEEL ALMIRAH(LOCKER)	6	A
G-06	EXAMINATION COUCH	4	A
G-07	BENCHES WITH ARMS AND BACK REST	15	A
G-08	REVOLVING CHAIR	10	B
G-10	FOLDING CHAIRS	20	B
G-11	FOLDING SCREEN (3 FOLD)	4	A
② INSTRUMENTS/APPLIANCES			
H-00	INSTRUMENTS/APPLIANCES		
H-01	INSTRUMENT TRAY WITH COVER (45CM)	4	A
H-02	TRAY KIDNEY SHAPED (L/M/S)	4	A
H-04	BOJLS(21CM)	4	A
H-05	BASIN(36CM)	8	A
H-06	JUG(M)	8	A
H-07	PROBE 183MM	6	A
H-08	FORCEPS ARTERY MOSQUITO STR	30	A
H-09	SCISSORS DRESSING STR	6	A
H-10	NEEDLE HOLDER MAYO-HEGAR 200MM	6	A

CODE	DESCRIPTION	QTY	PRIORITY (A/B/C)
H-11	NEEDLES SUTURE, STRAIGHT AND CURVED	20	A
H-12	CUSCO'S VAGINAL SPECULUM S/M/L	4	A
H-14	SPONGE HOLDING FORCEPS 215MM	4	A
H-15	YULSELUM FORCEPS	2	A
H-16	DILATOR SET HEGAR (SRT OF 20 PCS)	2	A
H-17	INSTRUMENT STERILIZER (36CM)	4	A
H-18	SALINE INFUSION STAND	5	A
H-19	OXYGEN THERAPY UNIT	5	A
H-20	PORTABLE SUCTION UNIT	2	A
H-21	PELVIMETER	2	A
H-22	CHEATLE STERILIZER FORCEPS	6	A
H-23	SPONGE HOLDING FORCEPS	6	A
H-24	DELIVERY SET	1	A
H-25	AIRWAY (SET OF 4 PCS)	4	A
H-26	CHEEK RETRACTOR ORINGER AND MOUTH COUGE	2	A
H-28	SWAB HOLDERS KRAUSE	6	A
H-29	TONGUE HOLDING FORCEPS	2	A
H-30	PEAN FORCEPS 180MM	12	A
H-31	VOLKMANNS SPOON (DOUBLE ENDED)	3	A
H-32	BONE SAW	1	C
H-33	OPERATION THEATRE TABLE	1	A
H-34	OPERATION THEATRE CELLING LAMP	1	A
H-35	AUTO CLAYE (W/BOILER) MEDIUM	2	A
H-36	ELECTRIC STERILIZER (45CM)	1	A
H-37	ANEASTHESIA APPARATUS	1	A
H-38	SUCKER MACHINE	1	A
H-39	DIATHERMY SET	1	A
H-40	DRESSING DRUMS	12	A
H-41	INSTRUMENT TRAY	12	A
H-42	PROCTO SCOPE	2	A
H-43	RUBBER CATHETER (NELATON) EACH SIZE	4	A
H-44	METAL CATHETER SET	2	A
H-46	DISSECTION FORCEPS 130MM	10	A
H-47	DRESSING TROLLY	4	A
H-48	DELIVERY TABLE	1	A
H-50	DELIVERY FORCEPS KEILAND	2	A
H-52	TOYEL CLIPS	20	A
H-53	SURGICAL BLADE 10 SIZES PKT OF 100	12	A
H-54	DIAGNOSTIC SET	2	A
H-55	B. P. APPARATUS DESK	4	A
H-56	PERCUSSION HAMMER	2	A
H-57	STETHOSCOPE	6	A
H-58	LUMBER PUNCTURE NEEDLE W/4	2	A

11793

CODE	DESCRIPTION	Q'TY	PRIORITY (A/B/C)
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③ WARD EQUIPMENT

I-00	WARD EQUIPMENT		
I-01	TEMPERATURE CHART HOLDER	20	A
I-02	HOSPITAL BED	30	
I-03	BEDSIDE LOCKERS	30	C
I-04	SPUTUM CUPS WITH COVER	10	A
I-05	BEDPAN WITH HANDLE	4	A
I-06	URINAL MALE	4	A
I-07	URINAL FEMALE	4	A

④ LABORATORY EQUIPMENT

K-00	LABORATORY EQUIPMENT		
K-01	ELECTRIC CENTRIFUGE	1	A
K-02	BURETTE STAND	1	A
K-03	PIPETTE RACK	1	A
K-04	GRINOMETER SET	2	A
K-05	WIRE GAUZE, 210X210MM, 10/PACK	2	A
K-06	ALBUMINOMETER	1	A
K-07	BEAKER SET	3	A
K-09	REAGENT GLASS BOTTLE SET	1	A
K-11	GRADUATED CYLINDER SET	1	A
K-12	FUNNELS SET	1	A
K-13	SLIDES MICROSCOPIC, 100/CASE	100	A
K-14	CENTRIFUGE TUBE, 15ML	30	A
K-15	URINO CUP	20	A
K-16	CHAMBER NEUBAUER (HEMACYTOMETER)	1	A
K-18	E. S. R. STAND WITH TUBE (20 TUBES)	1	A
K-20	HEMOGLOBINOMETER SHALI'S WITH 10 PIPETTES	1	A
K-23	MICROSCOPE BINOCULAR	1	A
K-25	STOP WATCH	2	A
K-26	TABLE LABORATORY	1	A
K-27	SPRIT LAMP	2	A
K-28	TEST TUBE AND HOLDERS SET	1	A
K-30	GLUCOMETER	1	A

⑤ X-RAY EQUIPMENT

L-00	X-RAY EQUIPMENT		
L-01	X-RAY PLANT 100 M. A (25 UNITS)	1	A
L-02	DEVELOPPING SYSTEM	1	A
L-03	FILM ILLUMINATOR (1 FILM)	6	A

CODE	DESCRIPTION	QTY	PRIORITY (A/B/C)
⑥ DENTAL EQUIPMENT			
N-00	DENTAL EQUIPMENT		
② N-01	DENTAL UNIT (25 UNITS)	1	A
N-02	DENTAL INSTRUMENT SET (25 UNITS)	1	A
N-03	DENTAL CABINET	1	A
N-04	ORAL INSTRUMENT SET	1	A
② N-05	LARYNGOSCOPE	2	A
⑦ OTHER ITEMS			
N-00	OTHER ITEMS		
② N-02	TYPEWRITER	3	C
② N-03	REFRIGERATOR (9 CFT)	1	B
② N-04	AIR CONDITIONER	1	B
② N-05	RE-CHARGEABLE FLUORESCENT LAMP	4	B
N-06	STOVE PRIMUS	2	B
N-07	STRETCHER	2	A
N-08	BICYCLE	1	A
② N-09	GENERATOR PORTABLE	1	A
N-10	WEIGHING SCALE (ADULT/CHILD)	1	A
② N-11	4WD NISSAN PATROL, 4200CC DIESEL 25NOS	1	A
② N-12	4WD NISSAN PATROL AMBULANCE, 4200CC DIESEL 74NOS	1	A
⑧ AUTOPSY ITEMS			
O-00	AUTOPSY ITEMS		
O-01	POSTMORTEM INSTRUMENT SET	1	A
O-02	ORDINARY WEIGHING MACHINE	1	A

ANNEX-III

EQUIPMENT LIST

(1) BHU

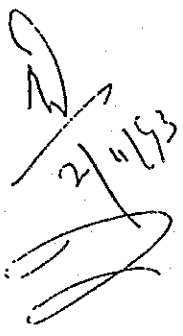
CODE	DESCRIPTION	PRIORITY
A-01	Instruments Set	B
A-02	Sphygmomanometer (mercurial) Diagnostic Set	B
A-03	Gynecological examining set	B
A-04	Treatment Set	B
A-05	Obstetric Delivery Table	B
A-06	Patient Bed	B
A-07	Examining Table	B
A-08	Stretcher	B
A-09	X-ray Film Illuminator	B
A-10	Oxygen Inhaler Set	B
A-11	Refrigerator	B
A-12	Weighing Scale for Adult and Infant	B
A-13	Sterilizer	B
A-14	Laboratory Equipment	B
A-15	Laboratory Table	B
A-16	Bicycle	B
A-17	Motor Cycle	B
	Furniture for BHU same as RHC	C

2/11/83

(2) RHC

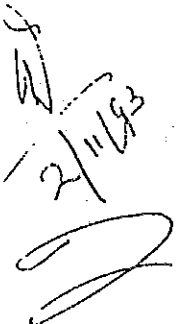
<u>CODE</u>	<u>DESCRIPTION</u>	<u>PRIORITY</u>
G-00	Furniture	
G-01	Revolving Chair	C
G-02	Office Chair	C
G-03	Office Table	C
G-05	Steel Almirah(Locker)	C
G-06	Examining Couch	C
G-07	Benches with Arms and Back Rest	C
G-08	Revolving Chair	C
G-10	Folding Chair	C
G-11	Folding Screen(3 hold)	C
H-00	Instruments/Appliances	
H-01	Instrument Tray with Cover (45cm)	B
H-02	Tray Kidney Shaped	B
H-04	Bowls (21cm)	B
H-05	Basin (36cm)	B
H-06	Jug (M)	B
H-07	Probe 188mm	B
H-08	Forceps Artery Mosquite str.	B
H-09	Scissors Dressing str.	B
H-10	Needle Holder Mayo-Hegar 200mm	B
H-11	Needle Suture, straight and curved	A
H-12	Cusco's Vaginal Speculum S/M/L	A
H-14	Sponge Holding Forceps 245mm	B
H-15	Vulselum forceps	B

CODE	DESCRIPTION	PRIORITY
H-16	Dilator Set Hegar	A
H-17	Instrument Sterilizer (36cm)	A
H-18	Saline Infusion Stand	B
H-19	Oxygen Therapy Unit	A
H-20	Portable Suction Unit	A
H-21	Pelvimeter	B
H-22	Cheatle Sterilizer Forceps	B
H-23	Sponge Folding Forceps	B
H-24	Delivery Set	A
H-25	Airway	A
H-26	Cheek Retractor Oringer and Mouth Couge	B
H-28	Swab Holding Krause	A
H-29	Tongue Holding Forceps	A
H-30	Pean Forceps 18mm	B
H-31	Volkmanns Spoon (double ended)	B
H-32	Bone Saw	B
H-33	Operation Theatre Table	B
H-34	Operation Theatre Ceiling Lamp	A
H-35	Auto Clave (w/boiler)Medium	A
H-36	Electric Sterilizer(45cm)	B
H-37	Aneasthesia Apparatus	A
H-38	Sucker Machine	B
H-39	Diathermy Set	A
H-40	Dressing Drums	B
H-41	Instrument Tray	B
H-42	Procto Scope	B
H-43	Rubber Catheter(neraton)each size	A
H-44	Metal Catheter Set	B
H-46	Dissection Forceps 130mm	B



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CODE	DESCRIPTION	PRIORITY
H-47	Dreessing Trolly	B
H-48	Delivery Table	A
H-50	Delivery Forceps Keiland	A
H-52	Towel Clips	B
H-53	Surgical Blade 10sizes	A
H-54	Diagnostic Set	B
H-55	B.P.Apparatus Desk	B
H-56	Percussion Hammer	B
H-57	Stethoscope	B
H-58	Lumber Puncture Needle	B
I-00	Ward Equipment	
I-01	Temperature Chart Holder	B
I-02	Hospital Bed	B
I-03	Bedside Locker	B
I-04	Sputum Cups with Cover	B
I-05	Bedpan With Handle	B
I-06	Urinal Male	B
I-07	Urinal Female	B
K-00	Laboratory Equipment	
K-01	Electric Centrifuge	A
K-02	Burette Stand	B
K-03	Pipette Rack	B
K-04	Urinometer Set	B
K-05	Wire Gauze, 210x210mm	B
K-06	Albuminometer	A



 2/11/93

CODE	DESCRIPTION	PRIORITY
K-07	Beaker Set	B
K-09	Reagent Glass Bottle Set	B
K-11	Graduated Cylinder Set	B
K-12	Funnels Set	B
K-13	Slides Microscopic	A
K-14	Centrifuge Tube, 15ml	A
K-15	Urino Cup	B
K-16	Chamber Neubaur (Hemacytometer)	A
K-18	E.S.R. Stand with Tube	A
K-20	Hemoglobinometer Shili's with 10 Pipettes	B
K-23	Microscope Binocular	A
K-25	Stop Watch	B
K-26	Table Laboratory	B
K-27	Sprit Lamp	B
K-28	Test Tube and Holder Set	A
K-30	Glucometer	B
L-00	X-ray Equipment	
L-01	X-ray Plant 100mA	B
L-02	Development System	B
L-03	Film Illuminator (1 film)	B



 2/11/53

CODE	DESCRIPTION	PRIORITY
M-00	Dental Equipment	
M-01	Dental Unit	B
M-02	Dental Instrument Set	B
M-03	Dental Cabinet	B
M-04	Oral Instrument Set	D
M-05	Laryngoscope	B
N-00	Other Items	
N-02	Typewriter	C
N-03	Refrigerator (9cft)	C
N-04	Air Conditioner	C
N-05	Re-chargeable Fluorescent Lamp	C
N-06	Stove Primus	C
N-07	Stretcher	A
N-08	Bicycle	C
N-09	Generator Portable	B
N-10	Weighing Scale (adult/child)	B
N-11	Vehicle	C
N-12	Ambulance	A
O-00	Autopsy Item	
O-01	Postmortem Instrument Set	B
O-02	Ordinary Weighing Machine	B



 2/11/83

ANNEX-IV

Necessary measures to be taken by the Government of Pakistan in case Japan's Grant Aid is executed.

1. To provide the land for temporary site office, warehouse and stock yard during the implementation period,
2. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the Project at port of disembarkation,
3. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contract such facilities as may be necessary for their entry in Pakistan and stay therein for the performance of their work,
4. To maintain and use properly and effectively the facilities constructed and equipment purchased under the Grant,
5. To bear all the expenses other than those to be borne by the Grant, necessary for the execution of the Project, and
6. To bear commissions to the Japanese foreign exchange bank for the banking services based on Banking arrangement.

W
2/11/93
D

4-2 Memorandum at B/D II

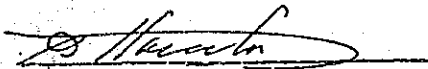
MEMORANDUM
BASIC DESIGN STUDY
ON

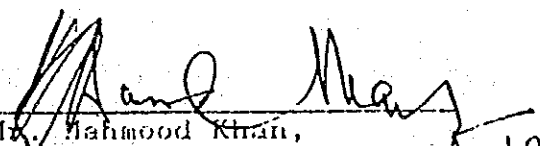
THE PROJECT FOR THE IMPROVEMENT OF MEDICAL EQUIPMENT FOR THE
NORTH WEST FRONTIER PROVINCE IN THE ISLAMIC REPUBLIC OF PAKISTAN


Based upon the field survey which was carried out by the Basic Design Study Team from October 18th to November 18th, 1993, the study team compiled into this memorandum the main items of result of the field survey and the discussions described on the attached sheets.

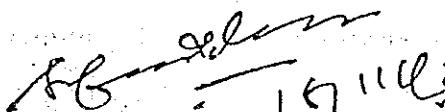
After discussions the contents of this memorandum have mutually been agreed upon by the officials concerned of the Health Department of North West Frontier Province and the Basic Design Study Team.

Peshawar, November, 18th 1993.


Mr. Harada Ryoji
Project Manager,
Basic Design Study Team
JICA.


Mr. Mahmood Khan,
Secretary
Health Department
NWFP. 18/11/93


Dr. Haq Dad Khan,
Acting Director General
Health Services NWFP.


Dr. Saifur Rehman
Project Director (BHSC)
Directorate General Health
Services N.W.F.P.

ATTACHMENT


1. Questionnaire from the study team.

The Study Team requested the Health Department to prepare the answers for the questionnaire reference No. JICA/1006/Admn/93 dated November 11th, 1993 which was submitted on November 14th, 1993. The Health Department mentioned that the answers would be dispatched to Mr. ARAGAKI C/O JICA Pakistan Office by November 30th, 1993. In addition, the study team stated that the Questionnaire includes the additional questions prepared by Dr. Nakasa, the team leader and the submission of the answers for the above questionnaire is essential for the Japan's cooperation.

2. Districts where the field survey has been conducted.

The Study team mentioned to the Health Department that the field survey was carried out to the following Districts from August 18th to 23rd, 1993 and from October 18th to November 17th, 1993.


Division,	District.
1) Peshawar.	1. Charsadda. 2. Khyber Agency. 3. Nowshera 4. Peshawar.
2) Hazara.	1. Abbottabad. 2. Haripur. 3. Kohistan 4. Mansehra.
3) D.I.Khan	1. Bannu. 2. D.I.Khan. 3. Lakki Marwat. 4. Tank.
4) Malakand.	1. Buner 2. Swat 3. Chitral. 4. Dir 5. Malakand Agency.
5) Kohat.	1. Karak 2. Kohat
6) Mardan	1. Mardan 2. Swabi.


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3. Project sites.

The Health Department confirmed the following RHCs as the Project sites.

DIVISION	DISTRICT	NAME OF RHCs
Peshwasr	Peshawar	Gara Tajik. Nahaqi.
	Charsadda.	Batagram Jamalabad. Sher Pao
	Nowshera.	Akora Khattak. Dak Ismail Khel Khair Abad Kheski. Manki Sharif. Pir Pai.
Mardan.	Mardan.	Gumbat Katlang Shahbaz Garhi. Teru Takht Bhahi.
	Swabi.	Ambar Kunda Yar Hussain.
Kohat	Kohat	Chorlaki Gumbat Lachi Naryab Usterzai.
	Karak	Nari Panus Latember Sabir abad. Ahmed Khel
D. I. Khan	Bannu	Domel Kakki
	D. I. Khan	Pahar Pur Paros Sidalian At Kotjai. Kirri Shamoza.
	Tank.	Ama Khel Gomal Bazar Gul Imam


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	Lakki Marwat	Landiwa Tajori Titter Khel Gambila
Hazara.	Abbottabad.	Havelian. Kalpani Lora. Moribaddben
	Haripur	Ghazi Khanpur Kot Najibullah Serai Niamat Khan Seri Kot
	Kohistan.	Dassu Pattan.
	Mansehra.	Banna Chattar Plan Chowki Kawai Khawarai Lassen Nawab Sahib Oghi Suchan Kalan Shinkiari.
Malakand.	Malakand Agency	Dheri Julagram Skhakot.
	Buner	Jawar
	Chitral	Ayun Kaghuzai Mastuj
	Dir	Barawal Banda Munda Gul Abad Lal Qila Ziarat Talash Warai. Khazana Chuprial.
	Swat.	


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Total	74 RHCs
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The Health Department requested the study team to increase the number of BHUs as project sites from the number i.e. 691 which are described in PC.I to the currently existing number i.e. 972. However the team expressed difficulties to cover BHUs not included in PC.I.

4. X-Ray and Dental Units.

After the elimination of chances of duplication of Equipment procurement, the Health Department finally requested to provide X-Ray and Dental Units for the following RHCs. The study team explained the current situation of X-Ray and Dental Units of those RHCs based upon its field survey.

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1) X-RAY. 25

DISTRICT	NAME OF RHC	THE CURRENT SITUATION.
Peshawar.	Badaber	Under construction to be completed by June 1994.
Charsadda.	Sherpao	Functioning; no need of replacement.
Karak	Ahmad Khel	Under construction.
Mardan	Takhtbhai. <i>SE</i> (2007-75)	No X-Ray block
Mansehra.	Shinkiari.	X-Ray block completed, X-Ray plant installed; no need of procurement.
Swat.	Chuprial	Under construction, to be completed by June 1994.
Buner.	Jower	under construction, to be completed by June 1994.

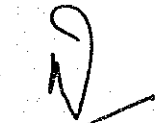
For the RHCs whose X-Ray blocks are under construction, X-Ray units will be provided through the Annual Development plan of the Health Department. However the Health Department requested the Government of Japan to provide X-Ray units to those X-Ray Blocks which will be completed by June 1994.

The study team consented that they would convey the above request from the Health Department, to the Government of Japan.

2) Dental Unit.

DISTRICT	NAME OF RHC	THE CURRENT SITUATION.
Kohat	Lachi.	Functioning; no need of replacement.
Karak	Sabir Abad	Functioning; no need of replacement.

	Latamber	-do-
	Nari Panos	-do-
Bannu	Domel	-do-


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DISTRICT	NAME OF RHC	THE CURRENT SITUATION.
	Kakki.	Functioning; no need of replacement.

	Landiwah	-do-
D. I. Khan	Paroa	-do-
	Kirrishamozai	-do-
	Paharpur	-do-

Tank	Gul Imam.	-do-
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Mardan	Takht Bahi.	-do-
	Shahbaz Garhi	-do-
	Katlang	-do-

Swabi.	Ambar Kunda.	-do-
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Dir.	Munda.	-do-
	Lal Qilla	-do-
	Ziarat Talash.	-do-
	Gul Abad.	-do-

Chitral	Mastuj.	-do-
	Ayun	-do-

Swat.	Khazana	Functioning; no need of replacement.
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Abbottabad.	Ghazi.	-do-
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Haripur.	Seri Kot.	-do-
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5. AMBULANCES.

The study team confirmed that Ambulances will be procured to the following RHCs through the Family Health Project and already donated by other donors like Pakistan Overseas foundation.

Therefore, the procurement of ambulances for the following RHCs will be excluded out of the scope of the Project.

The Health Department requested the Government of Japan to provide the Ambulances for 64 RHCs other than the following RHCs. However the Study Team expressed the difficulties to accept the request made by the Health Department.

DISTRICT	NAME OF RHC	NAME OF DONOR/LOAN
Charsadda	Jamalabad	Family Health Project (World Bank)
Nowshera.	Khair Abad.	-do-
Mardan.	Takht Bahi.	-do-
D.I.Khan	Keri Shamoza.	-do-
Bannu.	Domel	-do-
Bannu.	Kakki.	Pakistan Overseas Foundation
Lakki Marwat	Tajori.	-do-
Mardan	Katlang	Union Council
Kohistan.	Dassu	Annual Development Plan.
	Pattan	-do-

9
18/11/93

6. Microscopes.

The study team confirmed that 330 microscopes will be procured to BHUs and RHCs through the Family Health Project. Therefore the procurement of microscopes for BHUs and RHCs will be excluded out of the scope of the captioned Project.

7. Equipment for BHUs.

The study team confirmed that 480 sets of equipment will be procured to BHUs and MCH Centers whose equipment are not sufficient through the Family Health Project. Therefore, the procurement of equipment for BHUs will be excluded out of the scope of the captioned project. However the Government of NWFP Health Department requested for the procurement of equipment on the remaining 211 BHUs. The study team stated that it is impossible to accept the above request as clarification is not made which institutions to be distributed the equipment set.

8. Motorbikes and Bicycles.

The study team confirmed that 90 units of Motorbikes and 500 units of Bicycle will be procured to RHCs and BHUs where none are available, through the Family Health Project. Therefore, the procurement of Motorbikes and Bicycles will be excluded out of the scope of the captioned project.

4-3 Minutes of Discussions at B/D III

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY
ON
THE PROJECT FOR THE IMPROVEMENT OF MEDICAL EQUIPMENT
FOR THE NORTH-WEST FRONTIER PROVINCE
IN THE ISLAMIC REPUBLIC OF PAKISTAN

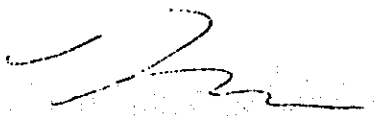
In response to a request of the Government of the Islamic Republic of Pakistan, the Government of Japan has decided to conduct a Basic Design Study on the Project for THE IMPROVEMENT OF MEDICAL EQUIPMENT FOR THE NORTH-WEST FRONTIER PROVINCE (hereinafter referred to as "the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Islamic Republic of Pakistan study teams, B/D-1, headed by Mr. Shinya SUZUKI, Grant Aid Division, Economic Cooperation Bureau, from August 16th to 26th, 1993 and B/D-2, headed by Dr. Tamotsu NAKASA, Bureau of International Cooperation, International Medical Center of JAPAN, Ministry of Health and Welfare, from October 18th to November 11th, 1993. and B/D-3, headed by Dr. Tamotsu NAKASA from February 2nd to 13th, 1994.

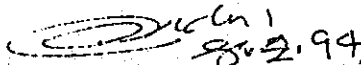
The Teams held discussions with the officials concerned of the Government of Pakistan and conducted field surveys at the study area.

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


Peshawar, February 8th, 1994



Dr. Tamotsu NAKASA
Leader
Basic Design Study Team
JICA



Dr. Nadir Khan
Secretary
Health Department
N.W.F.P



Mr. Abdul Jalil Mughal
Additional Secretary
Planning, Environment
and Development
Department
N.W.F.P

ATTACHMENT

1. confirmation.

The both sides have confirmed all the points appearing in the Minutes of Discussions signed on November 2nd 1993 and Memorandum signed on November 18th 1993.

And additional and modified items were provided as follows.

2. Items provided by the Government of Pakistan

(1) Provision of the equipment and its priorities described in ANNEX-I were finally requested by the Pakistani side.

However, the final components of the Project will be decided after further studies.

(2) The Pakistani side promised to enter into negotiation with such donors as World bank, ADB and solve the overlapping problem and notify the way of solution to the donors until March 10th. 1994. (1st. step, see ANNEX-II.)

3. Items provided by the Japanese Team

(1) Solution to the overlapping problem among donors.

The overlapping of the project should be settled by the Pakistani side. Subject to the solution of this problem, the project provides a suitable basis for the Japanese grant aid.

(2) Project sites are limited to BHUs which complete and submit the requested questionnaire of "MEDICAL EQUIPMENT OF PHC CENTERS IN NWFP" (MEMORANDUM dated Nov. 18, 1993) to JICA Pakistan office until the end of February 1994, and to RHCs which were surveyed by the team.

(3) Concerning deliveries, the equipment will be delivered at a warehouse located in each divisional headquarter. However, ambulances will be delivered at a warehouse in Peshawar.

(4) Additional necessary measures to be taken by the Pakistani side.

To arrange the appropriate building with facilities of electricity, water supply, drainage etc. before commencement of equipment installation work.

4. Schedule of the study

(1) JICA will prepare the draft report and dispatch a mission in order to finalize the contents of the report around April, 1994.

(2) In case the contents of the report is accepted in principle by the Pakistani side, JICA will complete the final report and send it to the Pakistani side by May, 1994.

5. Data and information

(1) The Pakistani side will submit the data and information, requested by the questionnaire on February 6th, 1994, to the team by February 18th. 1994.

(2) The Pakistani side will submit the annual programme report of PIU (Project Implementation Unit) of Family Health Project (World Bank) to the Japanese side via JICA Pakistan Office, Islamabad.
(See PC-1 Family Health Project (World Bank) Page 192.)

ANNEX-I

EQUIPMENT LIST

Selection criteria

- a. Non availability of consumables
- b. No personnel to operate
- c. Not meeting function of institutions
- d. Not for medical use
- e. Overlapping with UNICEF PROJECTS etc.

Priority

A=1st. priority B=2nd. priority

(1) BHU

CODE	DESCRIPTION	a	b	c	d	e
A-01	Instruments Set					A
A-02	Sphygmomanometer (mercurial) Diagnostic Set					A
A-03	Gynecological examining set					A
A-04	Treatment Set					A
A-05	Obstetric Delivery Table			X		B
A-06	Patient Bed				X	B
A-07	Examining Table					A
A-08	Stretcher				X	B
A-09	X-ray Film Illuminator			X		B
A-10	Oxygen Inhaler Set	X				B
A-11	Refrigerator				X	B
A-12	Weighing Scale for Adult and Infant					A
A-13	Sterilizer					A
A-14	Laboratory Equipment	X		X		B
A-15	Laboratory Table			X		B
A-16	Bicycle				X	B
A-17	Motor Cycle		X			B
	Furniture for BHU same as RHC				X	B

S

A.

(2) RHC

CODE	DESCRIPTION	a	b	c	d	e
G-00	Furniture					
G-01	Revolving Chair				X	B
G-02	Office Chair				X	B
G-03	Office Table				X	B
G-05	Steel Almirah(Locker)				X	B
G-06	Examining Couch					A
G-07	Benches with Arms and Back Rest				X	B
G-08	Revolving Chair				X	B
G-10	Folding Chair				X	B
G-11	Folding Screen(3 hold)				X	B
H-00	Instruments/Appliances					
H-01	Instrument Tray with Cover (45cm)					A
H-02	Tray Kidney Shaped					A
H-04	Bowls (21cm)					A
H-05	Basin (36cm)					A
H-06	Jug (M)					A
H-07	Probe 188mm					A
H-08	Forceps Artery Mosquite str.					A
H-09	Scissors Dressing str.					A
H-10	Needle Holder Mayo-Hegar 200mm					A
H-11	Needle Suture, straight and curved					A
H-12	Cusco's Vaginal Speculum S/M/L					A
H-14	Sponge Holding Forceps 245mm					A
H-15	Vulselum forceps					A

CODE	DESCRIPTION	a	b	c	d	e
H-16	Dilator Set Hegar					A
H-17	Instrument Sterilizer (36cm)					A
H-18	Saline Infusion Stand					A
H-19	Oxygen Therapy Unit					A
H-20	Portable Suction Unit					A
H-21	Pelvimeter		X			B
H-22	Cheatle Sterilizer Forceps					A
H-23	Sponge Folding Forceps					A
H-24	Delivery Set					A
H-25	Airway					A
H-26	Cheek Retractor Oringer and Mouth Gouge					A
H-28	Swab Holding Krause					A
H-29	Tongue Holding Forceps					A
H-30	Pean Forceps 18mm					A
H-31	Volkmanns Spoon (double ended)					A
H-32	Bone Saw		X			B
H-33	Operation Theatre Table					A
H-34	Operation Theatre Ceiling Lamp					A
H-35	Auto Clave (w/boiler)Medium					A
H-36	Electric Sterilizer(45cm)					A
H-37	Aneasthesia Apparatus					A
H-38	Sucker Machine				see H-20	B
H-39	Diathermy Set					A
H-40	Dressing Drums					A
H-41	Instrument Tray					A
H-42	Procto Scope					A
H-43	Rubber Catheter(neraton)each size					A
H-44	Metal Catheter Set					A
H-46	Dissection Forceps 130mm					A

CODE	DESCRIPTION	a	b	c	d	e
H-47	Dreesing Trolly					A
H-48	Delivery Table					A
H-50	Delivery Forceps Keiland					A
H-52	Towel Clips					A
H-53	Surgical Blade 10sizes					A
H-54	Diagnostic Set					A
H-55	B.P.Apparatus Desk					A
H-56	Percussion Hammer					A
H-57	Stethoscope					A
H-58	Lumber Puncture Needle					A
I-00	Ward Equipment					
I-01	Temperature Chart Holder					A
I-02	Hospital Bed				X	B
I-03	Bedside Locker				X	B
I-04	Sputum Cups with Cover					A
I-05	Bedpan With Handle					A
I-06	Urinal Male					A
I-07	Urinal Female					A
K-00	Laboratory Equipment					
K-01	Electric Centrifuge					A
K-02	Burette Stand					A
K-03	Pipette Rack					A
K-04	Urinometer Set					A
K-05	Wire Gauze, 210x210mm					A
K-06	Albuminometer					A

S

A

CODE	DESCRIPTION	a	b	c	d	e
K-07	Beaker Set					A
K-09	Reagent Glass Bottle Set					A
K-11	Graduated Cylinder Set					A
K-12	Funnels Set					A
K-13	Slides Microscopic					A
K-14	Centrifuge Tube, 15ml					A
K-15	Urino Cup					A
K-16	Chamber Neubaur (Hemacytometer)					A
K-18	E.S.R. Stand with Tube					A
K-20	Hemoglobinometer Shili's with 10 Pipettes					A
K-23	Microscope Binocular					A
K-25	Stop Watch					A
K-26	Table Laboratory					A
K-27	Sprit Lamp					A
K-28	Test Tube and Holder Set					A
K-30	Glucometer					A
L-00	X-ray Equipment					
L-01	X-ray Plants					A
L-02	Development System					A
L-03	Film Illuminator (1 film)					A

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Ch *8*

CODE	DESCRIPTION	a	b	c	d	e
M-00	Dental Equipment					
M-01	Dental Unit				X	B
M-02	Dental Instrument Set				X	B
M-03	Dental Cabinet				X	B
M-04	Oral Instrument Set				X	B
M-05	Laryngoscope					A
N-00	Other Items					
N-02	Typewriter			X		B
N-03	Refrigerator (9cft)			X		B
N-04	Air Conditioner			X		B
N-05	Re-chargeable Fluorescent Lamp					A
N-06	Stove Primus			X		B
N-07	Stretcher					A
N-08	Bicycle				X	B
N-09	Generator Portable					A
N-10	Weighing Scale (adult/child)				X	B
N-11	Vehicle				X	B
N-12	Ambulances					A
O-00	Autopsy Item					
O-01	Postmortem Instrument Set	X				B
O-02	Ordinary Weighing Machine	X				B

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 A large checkmark or flourish on the left.
 The number "18" written vertically on the right.
 The letter "a" written at the bottom right.

4-4 Minutes of Discussions at Draft Final Report Explanation

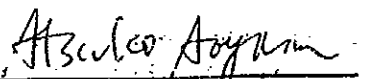
MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY
ON
THE PROJECT FOR THE IMPROVEMENT OF MEDICAL EQUIPMENT
FOR THE NORTH-WEST FRONTIER PROVINCE
IN THE ISLAMIC REPUBLIC OF PAKISTAN
(CONSULTATION ON DRAFT REPORT)


In August, November 1993, and February 1994, the Japan International Cooperation Agency (JICA) dispatched the Basic Design Study teams on the Project for THE IMPROVEMENT OF MEDICAL EQUIPMENT FOR THE NORTH-WEST FRONTIER PROVINCE (hereinafter referred to as "the Project"), to the Islamic Republic of Pakistan, and through discussions, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

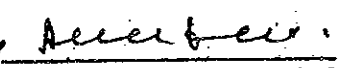
In order to explain and consult the Pakistani side on the components of the draft report, JICA sent to the Islamic Republic of Pakistan a study team, which is headed by Dr. Atsuko AOYAMA, Bureau of International Cooperation, International Medical Center of JAPAN, Ministry of Health and Welfare, and is scheduled to stay in the country from April 8th to April 16th, 1994.


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

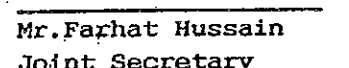
Peshawar, April 16, 1994


Dr. Atsuko AOYAMA
Leader
Basic Design Study Team
JICA


16.4.94
Dr. Nader Khan
Secretary
Health Department
N.W.F.P.


Mr. Abdul Jalil Mughal
Additional Secretary
Planning, Environment
and Development
Department
N.W.F.P.


Mr. Kamran Ali Qureshi
Additional Secretary
Finance Department
N.W.F.P.


Mr. Farhat Hussain
Joint Secretary
Economic Affairs Div.
Ministry of Finance
& Economic Affairs.

ATTACHMENT

1. Components of Draft Final Report

The Government of Pakistan has agreed and accepted in principles the components of the Draft Final Report proposed by the team.

2. Japan's Grant Aid system

(1) The Government of Pakistan has understood the system of Japanese Grant Aid explained by the team.

(2) The Government of Pakistan will take the necessary measures described in ANNEX-I, for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

3. Further schedule

The team will make the Final Report in accordance with the confirmed items, and send it to the Government of Pakistan by the end of May 1994.

4. Confirmation and additional items.

The both sides have confirmed all the points appearing in the Minutes of Discussions signed on November 2nd, 1993, February 8th, 1994 and Memorandum signed on November 18th, 1993.

And additional and modified items were provided as follows.

(1) Items provided by the Government of Pakistan

1) The Government of NWFP arranged the Joint Meeting while JICA, the World Bank, and Asian Development Bank missions stayed in Peshwar, on Apr. 16, 1994 including Dr. Atsuko AOYAMA, JICA Study Team, Mr. Christopher D. Walker, World Bank, Head Office and Dr. Wan Azmin, Asian Development Bank, Head Office, presented the Draft Final Report to both Banks, and concluded that there would be no overlapping. The both Banks have no objection in case the overlapping potential items such as ambulances (Family Health Project) and X-ray plants (Third Health Project) would be provided through Japan's grant.

2) The Pakistani side will submit the copy of annual programme report of PIU (Project Implementation Unit) of Family Health Project (World Bank) to the Japanese side via JICA Pakistan Office, Islamabad.

3) The Pakistani side requested the team to implement the next project to improve DHQ, AHQ, THQ and subTHQ hospitals in the North-West Frontier Province and FATA, and also expressed strong needs for such excluded out equipment as anaesthesia apparatus and other minor surgery, laboratory equipment (see Draft Final Report page 57-59.) for the next project. The team explained that the team was not a position to promise the new project, but official request should be proposed through the Government of Pakistan. The team will convey to the Government of Japan the above needs of the Government of NWFP.

(2) Items provided by the Japanese Team

Operation costs to be borne by the Pakistani side is shown in Draft Final Report as follows,

1. Procedural duty cost; about Rs. 92,000- (See page 90.)
2. Equipment carriage cost; about Rs. 135,000- (See page 90.)
3. Annual maintenance costs; about Rs. 5.5 million (See page 71.)

The Pakistani side has understood the costs and will prepare the budget in case Japan's grant is executed.

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ANNEX-I

Necessary measures to be taken by the Government of Pakistan in case Japan's Grant Aid is executed.

1. To provide the land for temporary site office, warehouse and stock yard during the implementation period,
2. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the Project at port of disembarkation,
3. To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contract such facilities as may be necessary for their entry in Pakistan and stay therein for the performance of their work,
4. To maintain and use properly and effectively the facilities constructed and equipment purchased under the Grant,
5. To bear all the expenses other than those to be borne by the Grant, necessary for the execution of the Project, and
6. To bear commissions to the Japanese foreign exchange bank for the banking services based on Banking arrangement.
7. To arrange the appropriate building with facilities of electricity, water supply, drainage etc. before commencement of equipment installation work.

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5. Major collected data and documents

- (1) Staff Appraisal Report, Third Health Project, ADB
- (2) PC-1, Third Health Project, Health Department, NWFP
- (3) Staff Appraisal Report, Family Health Project, World Bank, 1991
- (4) PC-1, Family Health Project, Health Department, NWFP, 1991
- (5) Annual Joint Monitoring Mission, 1st Family Health Project
South Asia Resion - Country Department III
Population and Human Resources Division
- (7) Family Health Project I Progress Report 6 - 12, 1993
- (8) Current Expenditure 1993 - 94 Health Dept. NWFP
- (9) Health Situational Analysis NWFP
- (10) Health Planning Guidline 1993

6. Water Analysis Report

WATER ANALYSIS REPORT

Sample No.	1	2
Sampling Place	MANGLOR	MATHANI
Sampling date	1993. 10. 24	1993. 10. 24
Wrdition	Colorless	
Analysis date	1994. 1. 13	1994. 1. 13
p H (25°C)	7.84	7.73
Electric Conducting (μ s/cm) (25°C)	838	649
Turbidity (degree)	below 1	below 1
Oxygen Consumption (pH8.3) (mg CaCO ₃ /l)	0	0
Oxygen Consumption (pH4.8) (mg CaCO ₃ /l)	275	298
Total Hardness (mg CaCO ₃ /l)	355	294
Calcium (mg CaCO ₃ /l)	224	230
Magnesium Ion (mg CaCO ₃ /l)	131	64
Chlorine Ion (mg Cl/l)	24.1	5.2
Total Iron (mg Fe/l)	0.09	0.06
Silica (mg SiO ₂ /l)	11.1	14.9
Color level (degree)	below	below
Sulfuric Acid Ion (mg SO ₄ /l)	31.3	6.0
Nitric Acid Ion (mg NO ₃ /l)	77.8	13.1
Chemical Oxygen Demand (mg O/l)	below 1	below 1

7. List of RHC Health Workers

R H C Medical personnel NWFP

DIVISION	DISTRICT	RHC	M.O.	W.M.O	MEDICAL TECH	DENTAL SURGION	DENTAL TECH	X-RAY TECH	DAI	LHV	LAB. TECH	EPI S/V	MALARIA S/V	
Peshawar	Peshawar	Gara Tajik	2	1	2	1	1	1	1	1	1	3	1	
		Nahagi	2	1	2	-	-	-	1	1	1	3	1	
		Badaber	-	-	-	-	-	-	-	-	-	-	-	-
	Charsadda	Battagram	2	1	2	1	1	1	-	1	1	1	2	1
		Jamalabad	2	1	2	1	1	1	-	1	1	1	2	1
		Sherpao	2	1	2	1	1	1	1	1	1	1	2	1
		Akera Khatak	2	1	2	1	1	1	1	1	1	1	2	1
		Dak Ismaili khel	2	1	2	1	1	1	1	1	1	1	2	1
		Kair Abad	2	1	2	1	1	1	1	1	1	1	2	1
		Kheshki	2	-	2	1	1	1	1	1	1	1	2	1
Mardan	Mardan	Mauki sharif	2	1	2	1	1	1	1	1	1	2	1	
		Pir Pai	2	2	2	1	1	-	1	1	1	2	1	
		Gumbat	1	-	2	1	1	1	-	1	1	1	2	1
		Katlong	2	1	2	1	1	1	1	-	1	1	2	1
		Shabbaz Garhi	2	1	1	1	1	1	1	1	1	1	2	2
		Toru	2	-	1	1	1	1	-	1	1	1	2	1
		Takht Bahi	2	-	1	1	1	1	-	1	1	1	2	1
		Ambar Kunda	2	-	2	1	1	1	-	1	1	1	1	1
		Yar Hussain	1	-	2	1	1	1	-	1	1	1	1	1
		Kohat	Kohat	Cherlaki	1	-	1	1	-	-	1	1	1	2
Gumbat	1			-	1	1	1	-	1	1	1	1	1	
Lachi	2			1	1	1	1	-	1	1	1	1	1	
Naryab	1			-	1	1	1	-	1	1	1	1	1	
Ustarzai	1			-	1	1	1	-	1	1	1	1	1	
Par Panus	1			-	2	-	1	1	-	1	1	1	1	
Latember	2			-	2	-	1	1	-	1	1	1	1	
Sabir Abad	1			-	2	-	1	1	-	1	1	1	1	
Ahmad Abad	1			-	2	-	1	1	-	1	1	1	1	
Jandari	-			-	1	-	-	-	-	-	-	-	-	-

R H C Medical personnel N W F P

DIVISION	DISTRICT	RHC	M.O.	W.M.O	MEDICAL TECH	DENTAL SURGION	DENTAL TECH	X-RAY TECH	DAI	LHV	LAB. TECH	EPI S/V	MALARIA S/V		
D. I. Khan	Bannu	Domei	2	1	4	1	1	1	4	1	1	1	1		
		Gombila	2	-	2	1	1	-	-	-	1	1	1		
	D. I. Khan	Kakki	Kakki	2	1	5	1	1	-	1	1	1	1	1	
			Daharpur	1	-	6	1	1	-	1	-	1	2	1	
		Paroa	Paroa	2	1	9	1	1	-	1	1	1	2	1	
			Sidalian At Kotjai	2	-	3	-	-	-	-	1	1	1	2	1
		Kirri Shamoza	Kirri Shamoza	2	-	7	1	1	-	1	1	1	2	1	
			Landiwa	1	-	2	1	1	1	1	1	1	1	1	1
		Tajori	Tajori	2	-	2	1	1	1	1	1	-	1	1	1
			Tittor Khel	2	-	2	1	1	1	1	1	1	1	1	1
		Tana	Ama Khal	1	-	2	1	1	1	-	1	-	1	2	1
			Gumal Bazar	1	1	2	-	-	-	-	1	1	-	2	1
		Gul Iman	Gul Iman	1	1	1	1	1	1	-	1	1	1	2	1
			Havelian	2	1	4	1	1	1	1	1	1	-	4	1
Kalpani	Kalpani	1	-	2	-	1	1	1	1	1	1	1	1		
	Lora	2	1	2	1	1	1	1	1	1	1	1	1		
Moribadden	Moribadden														
	Ghazi	2	1	1	-	-	-	-	1	1	1	1	1		
Haripur	Kanpur	2	1	3	1	1	1	1	1	1	1	1	1		
	Kot Najeebullah	1	1	-	1	1	1	1	1	1	1	1	1		
Serai Niamat Khan	Serai Niamat Khan	2	1	1	1	1	1	1	1	1	1	1	1		
	Seri Kot	1	1	1	1	1	1	1	1	1	1	1	1		
Kohistan	Dassu	1	-	-	-	1	1	-	2	-	1	2	-		
	Pattan	1		3	1	1	1	-	2	-	1	2	-		
Mansehra	Banna	1	-	1	1	1	1	-	1	1	-	-	-		
	Chattar Plan	1	1	-	1	1	1	-	1	1	1	2	1		
Chowki	Chowki	1	-	4	1	1	1	-	1	1	1	2	1		
	Kawai	1	1	4	1	1	1	-	1	1	-	1	1		
Khawari	Khawari	1	1	4	-	1	1	-	1	1	1	2	1		

R H C Medical personnel NWFP

DIVISION	DISTRICT	RHC	M. O.	W. M. O	MEDICAL TECH	DENTAL SURGION	DENTAL TECH	X-RAY TECH	DAI	LHV	LAB. TECH	EPI S/V	MALARIA S/V	
Hazara	Mansehra	Lassan Nawab Sahib	1	-	1	1	-	-	-	1	1	2	1	
		Oghi	1	1	4	1	-	-	1	1	1	-	1	
		Sachan Kalal	1	-	1	1	1	-	-	1	1	-	1	
		Shinkhari	2	1	4	1	1	-	-	1	1	2	1	
		Dheri Julagram	2	1	6	-	-	-	-	1	1	1	2	-
		Skhaket	1	-	3	-	-	-	-	1	1	-	2	-
		Jawar	2	-	4	-	-	-	-	-	1	1	1	1
		Bagh	1	-	2	-	-	-	-	-	-	-	-	1
		Ayun	1	-	-	1	1	1	-	-	1	1	2	1
		Kaghuzai	1	-	-	1	1	1	-	-	1	1	2	1
Malakand	Malakand	Mastuj	-	-	2	1	1	-	-	1	1	1	-	
		Brawal Banda	1	1	2	-	1	-	-	1	1	2	1	
		Munda	2	1	3	1	1	-	-	1	1	2	1	
		Gulbad	2	-	3	1	1	-	-	1	1	2	1	
		Lal Qila	2	-	3	-	1	-	-	1	1	2	1	
		Ziarat Talash		1	3	1	1	-	-	2	2	1	2	1
		Warri	2	1	3	-	-	-	-	-	-	1	3	1
		Khazana	2	1	4	1	1	-	-	1	1	1	1	1
		Chuprial	2	1	4	-	-	-	-	-	1	1	1	1
		Swat	Swat											

8. Survey result of Existing BHU Equipment

Survey Result of Existing BHU Equipment

Devisison	BHU	Equipment	Existing
Peshawar	110	Diagnostic set	76
		Sphygmomanometer	126
		Scale for infant	38
		Srerilizer	83
Mardan	72	Diagnostic set	44
		Sphygmomanometer	50
		Scale for infant	56
		Srerilizer	44
Kohat	54	Diagnostic set	64
		Sphygmomanometer	79
		Scale for infant	47
		Srerilizer	73
D. I. Khan	57	Diagnostic set	30
		Sphygmomanometer	30
		Scale for infant	16
		Srerilizer	36
Hazara	191	Diagnostic set	63
		Sphygmomanometer	75
		Scale for infant	122
		Srerilizer	57
Malakand	179	Diagnostic set	93
		Sphygmomanometer	79
		Scale for infant	122
		Srerilizer	119
Total	663	Diagnostic set	424
		Sphygmomanometer	498
		Scale for infant	308
		Srerilizer	415

9. Survey result of Existing RHC Equipment

Survey Result of Existing RHC Equipment

Jan. 1994

(⊙ in order, ○ Q'ty, Used in years)

Division, RHC	Anesthesia	Sterilizer	Delivery Table	Glucose Meter	Centrifuge	Microscope
MARDAN						
Gumbat						
Katalang		⊙ 2.0	⊙ 0.0		⊙ 5.0	
Shahbaz Garhi		⊙ 6.0			⊙ 5.0	⊙ 17.0
Toru		⊙ 4.0				⊙ 18.0
Takht Bhai		⊙ 0.0	⊙ 20.0		⊙ 0.0	⊙ 0.0
SWABI						
Amba Kund					⊙ 0.0	⊙ 0.0
Yar Hussain					⊙ 1.0	⊙ 1.0
KOHAT						
Churlaki		⊙ 6.0			⊙ 6.0	⊙ 6.0
Gumbat		⊙ 12.0	⊙ 14.0			⊙ 14.0
Lachi					⊙ 29.0	⊙ 27.0
Naryab		⊙ 30.0				
Ustarzai		⊙ 6.0			⊙ 3.0	⊙ 3.0
KARAK						
Nari Pnos		⊙ 18.0			⊙ 16.0	⊙ 18.0
Latambar		⊙ 10.0			⊙ 6.0	⊙ 8.0
Sabir Abad					⊙ 19.0	
D. I. KHAN						
Pahar Pur		⊙ 10.0	⊙ 0.0			
Proha		⊙ 2.0	⊙ 28.0			
Cotjai		⊙ 15.0	⊙ 15.0			⊙ 15.0
Kiri Shamoza						
BANNU						
Domil		⊙ 12.0			⊙ 12.0	⊙ 13.0
Kukki					⊙ 9.0	⊙ 5.0
TANK						
Anakhel		⊙ 28.0			⊙ 0.1	
Gomal Bazar		⊙ 8.0			⊙ 8.0	⊙ 8.0
Gul Inan			⊙ 9.0		⊙ 9.0	⊙ 9.0
LAKKI						
Landiwa		⊙ 12.0			⊙ 10.0	⊙ 12.0
Tajori		⊙ 10.0	⊙ 6.0		⊙ 27.0	⊙ 27.0
Titar Khel		⊙ 13.0	⊙ 16.0		⊙ 16.0	⊙ 16.0
Gambila			⊙ 8.0		⊙ 12.0	⊙ 12.0
ABBOTTABAD						
Havelian		⊙ 0.0	⊙ 27.0			
Kalpani		⊙ 1.0				
Lara		⊙ 2.0	⊙ 22.0			
Mori Badban						

Survey Result of Existing RHC Equipment Jan. 1994

(⊙ in order, ○ Q' ty, Used in years)

Division, RHC	Anesthesia	Sterilizer	Delivery Table	Glucose Meter	Centrifuge	Microscope
HARIPUR						
Ghazzi		⊙ 6.0	⊙ 17.0			
Khanpur		⊙ 0.2				
Kot Najeebullah		⊙ 1.0	⊙ 21.0			
Serai Niamat Khan		⊙ 2.0				
Serikot		⊙ 3.0				⊙ 24.0
KOHISTAN						
Dasu						⊙ 0.0
Pattan					⊙ 0.0	⊙ 0.0
MANSEHRA						
Banna						⊙ 0.0
Chattar Plain		⊙ 18.0	⊙ 18.0			⊙ 12.0
Chowki		⊙ 18.0	⊙ 18.0		⊙ 1.0	⊙ 5.0
Kawai		⊙ 2.0				⊙ 21.0
Khawarai		⊙ 0.6				
Lassan Nawab Sahib						⊙ 4.0
Oghi		⊙ 5.0	⊙ 5.0		⊙ 2.0	⊙ 2.0
Suchan Kalan		⊙ 6.0	⊙ 6.0			⊙ 6.0
Shinkhari		⊙ 1.0			⊙ 2.0	⊙ 2.0
MALAKAND AGENCY						
Dheri Julagram			⊙ 3.0		⊙ 2.5	⊙ 1.5
Sakhakot		⊙ 0.0	⊙ 0.0			⊙ 2.0
Ashkai						
CHITRAL						
Ayun		⊙ 1.0	⊙ 1.0			
Kaghuzai		⊙ no power				⊙ 2.0
Mastuj						⊙ 1.0
Dirosch	⊙ 1.0	⊙ 5.0			⊙ 2.0	⊙ 2.0
DIR						
Barawal Banda						⊙ 2.0
Munda		⊙ 2.0			⊙ 2.0	⊙ 2.0
Gulabad		⊙ 0.0			⊙ 2.0	⊙ 2.0
Lai Qila						⊙ 1.0
Ziarat Talash		⊙ 0.0				⊙ 4.0
Warrai					⊙ 2.0	⊙ 2.0
Dir	⊙ 0.0		⊙ 2.0		⊙ 2.0	⊙ 2.0
AURAKZAI AGENCY						
Ghiljo					⊙ 0.0	⊙ 0.0
Kurez						
N. WAZIRISTAN						
Spin Wam		⊙ 12.0	⊙ 12.0			

Survey Result of Existing RHC Equipment

Division	District	RHC	Microscope *Existing	Centrifuge *Existing	Sterilizer *Existing	Delivery *Existing
Peshawar	Peshawar	Gara Tajik	*			
		Nahaqi				
	Charsadda	Batagram	*			
		Jamalabad	*			
		Sher Pao				
	Nowshera	Akora Khattak	*			
		Dak Ismail Khan	*			
		Khair Abad	*			
		Kheshki	*			
		Manki Sharif				
	Pir Pai					
Mardan	Mardan	Gumbat				
		Katlang		*	*	*
		Shahbaz Garhi		*	*	
		Toru			*	
	Swabi	Takht Bhahi	*	*	*	
		Ambar Kunda	*	*		
		Yar Hussain	*	*		
Kohat	Kohat	Chorlaki	*	*	*	
		Gumbat				
		Lachi				
		Naryab				
	Karak	Usterzai	*	*	*	
		Nari Panus				
		Latember	*	*		
		Sabir Abad				
Ahmed Khel						
D. I. Khan	D. I. Khan	Pahar Pur				*
		Paros			*	
		Sikalian at Kotjai				
		Kirri Shamoza				
	Bannu	Domel				
		Kakki	*	*		
		Ama Khel		*		
	Tank	Gomal Bazar	*	*	*	
		Gul Iman	*	*		*
	Lakki Marwat	Landiwash				
		Tajori				*
Titter Khel						
Gambila					*	

Survey Result of Existing RHC Equipment

Division	District	RHC	Microscope *Existing	Centrifuge *Existing	Sterilizer *Existing	Delivery *Existing	
Hazara	Abbotabad	Havelian			*		
		Kalpani			*		
		Lora			*		
	Haripur	Woribaddben					
		Ghazi			*		
		Khanpur			*		
		Kot Najibullah			*		
		Serai Niamat Khan			*		
		Seri Kot			*		
		Kohistan	Dassu	*			
	Pattan		*	*			
	Mansehra	Banna	*				
		Chatter Plan					
		Chowki	*	*			
		Kawai			*		
		Khawarai			*		
		Lassan Nawab Sahib	*				
		Oghi	*	*	*	*	
		Suchan Kalan	*		*	*	
		Shinkiari	*	*	*		
Malakand	Malakand Agency	Deri Julagram	*	*		*	
		Skhakot	*		*	*	
	Bunner Chitral	Jawar					
		Ayun			*	*	
		Kaghuzai	*				
	Dir	Mastuj	*				
		Barawal Banda	*				
		Munda	*	*	*		
		Gul Abad	*	*	*		
		Lal Qila	*				
Malakand	Dir	Ziarat Talsh	*		*		
		Warai	*	*			
		Khazana	*				
		Chuprial	*				

10. Photographs

(1) RHC , Takh Bahi



① Front view of OPD



② Male waiting room



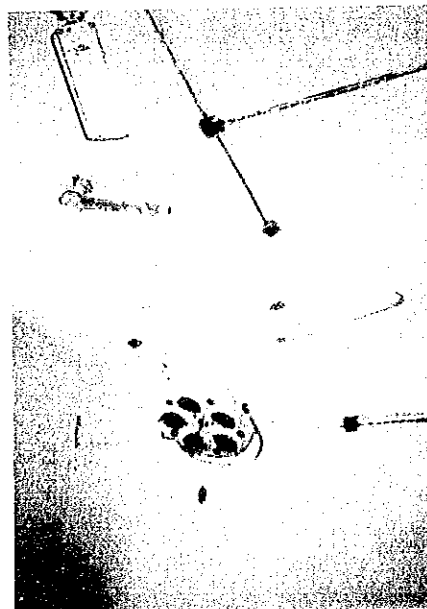
③ Front view of Dental Block



④ Dental unit ; extraction is often performed.

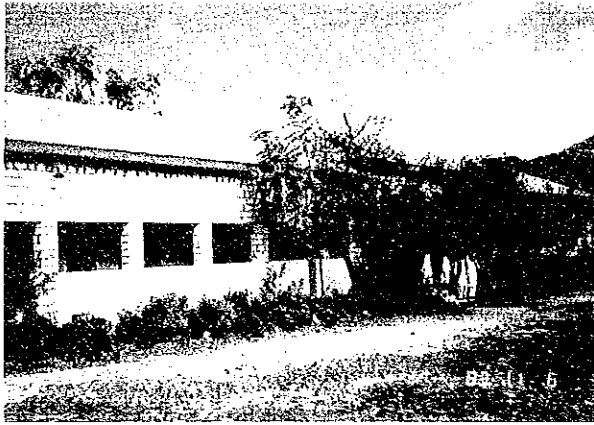


⑤ Operation theatre : superannuated operation table and instruments.



⑥ Operation theatre : superannuated shadowless light on the ceiling.

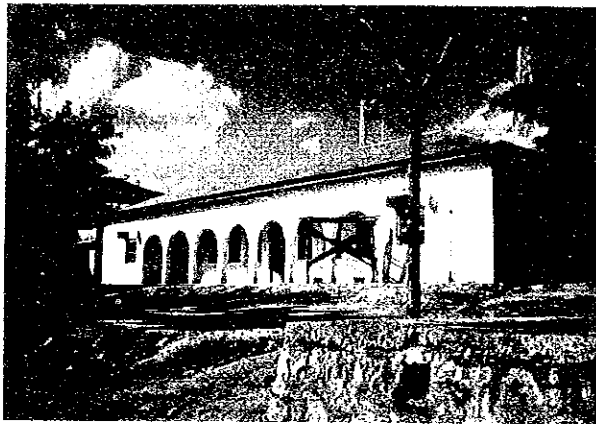
(2) RHC , Warai



① Outlook of OPD



② Outlook of X-ray Block



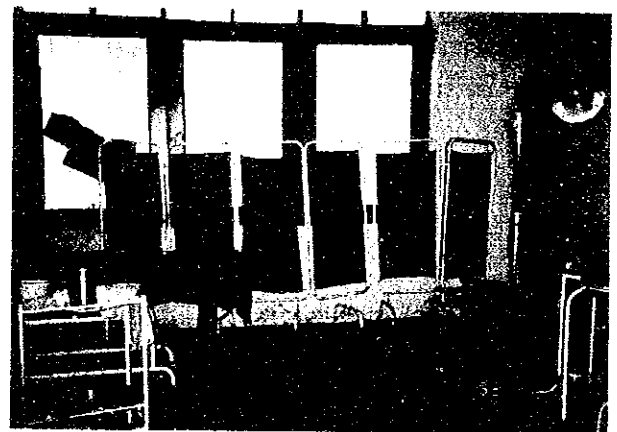
③ Outlook of new ward



④ Outlook of Dental Block



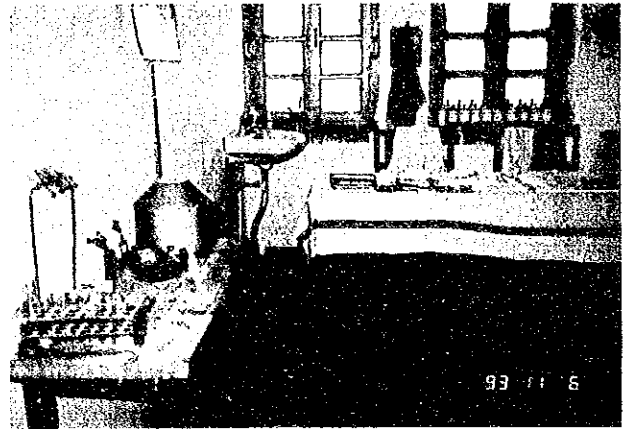
⑤ Dental unit ; being used frequently.



⑥ Operation theatre ; most of equipent are superannuated. The inside is kept tidy.

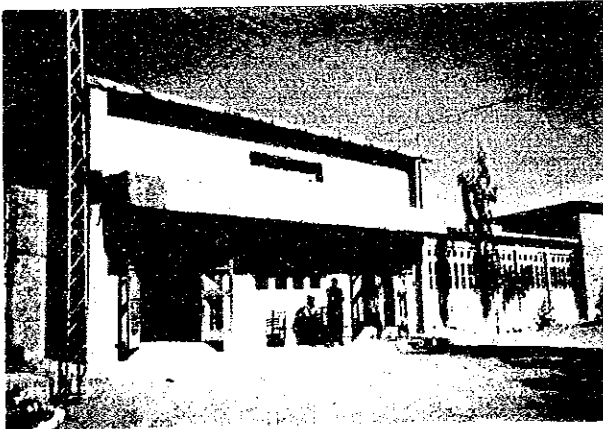


⑦ Instrument cabinet ; Assorted forceps and instruments are kept inside.



⑧ Laboratory ; There exist only a few units of superannuated equipment.

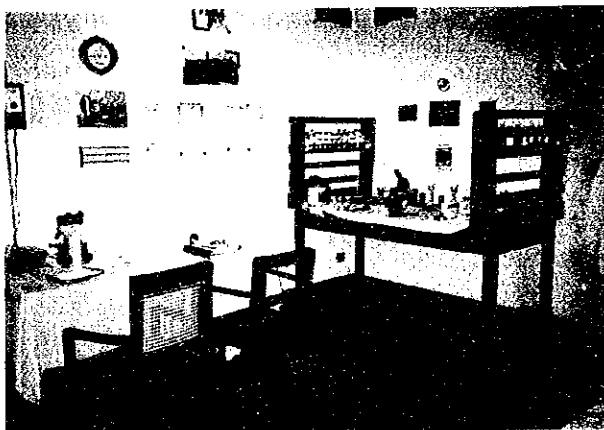
(3) RHC , Gumbat



① Frontside of OPD Block



② Frontside of new X-ray block

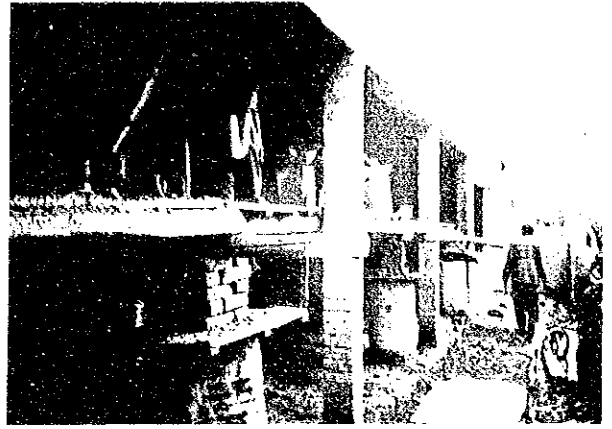


③ Laboratory ; equipped with only a few microscopes and some instruments.

(4) RHC , Naryab



① Frontside of OPD Block

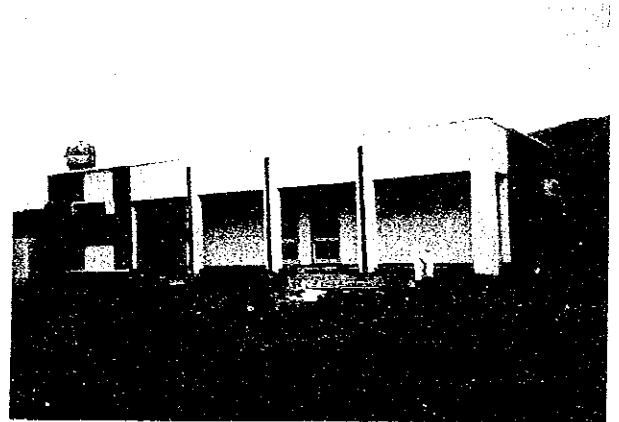


② X-ray Block , under construction.

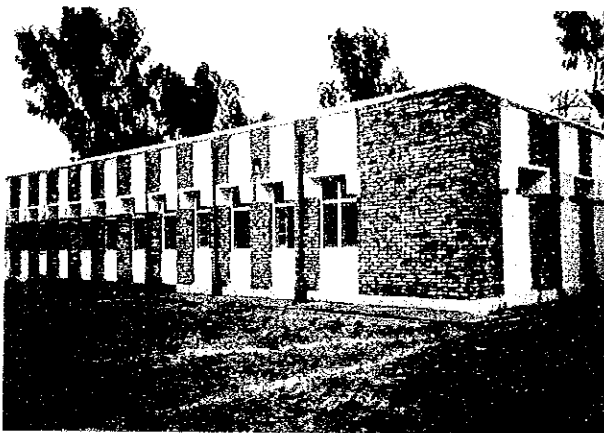
(5) RHC , Latember



① Front side

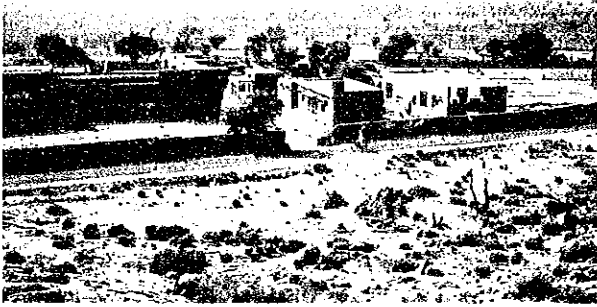


② X-ray Block : nearly completed.

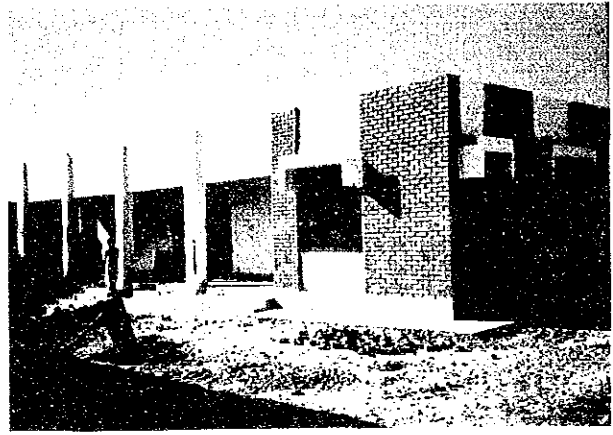


③ New Ward : nearly completed.

(6) RHC , Nari Panus

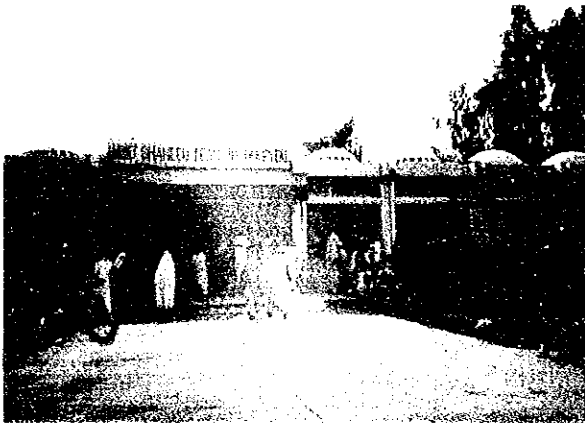


① Front view



② X-ray Block : under construction.

(7) Hayat Saheed Teaching Hospital



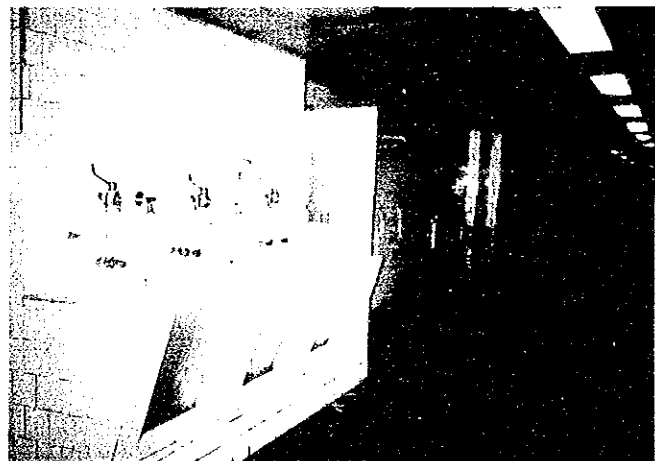
① Front view



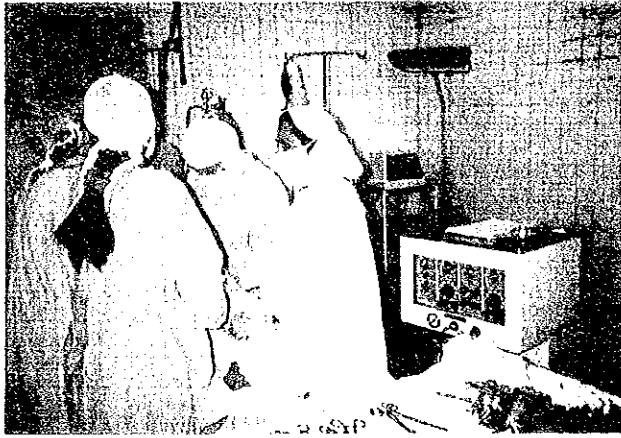
② Central workshop : general workshop equipped with the Third Health Project.



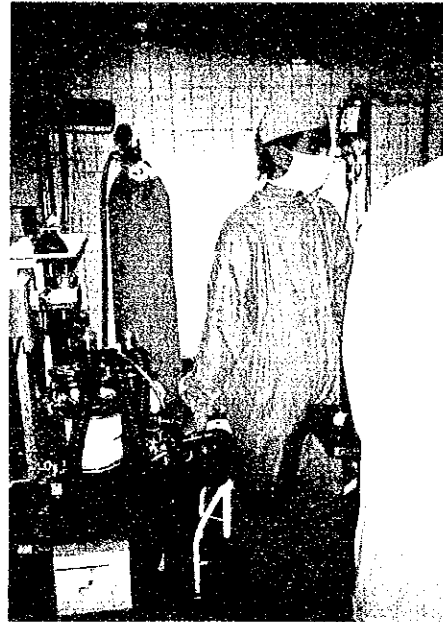
③ Central workshop : electronic workshop well equipped with the Third Health Project.



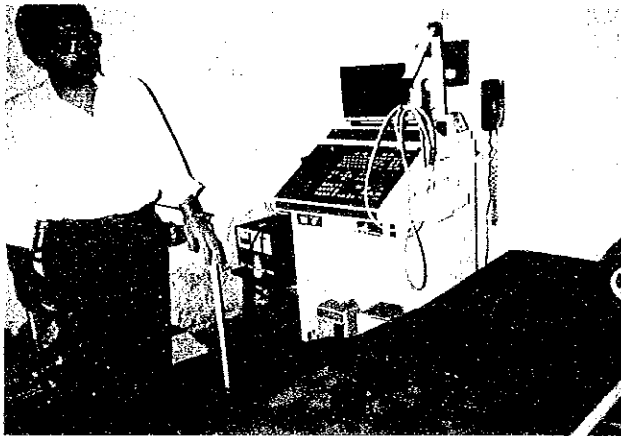
④ Operation theatre : washing sink



⑤ Operation theatre : under operation of Caesarian Section.



⑥ Operation theatre : anaesthesia apparatus



⑦ OPD : ultrasound diagnosis unit



⑧ Laboratory

(8) NWFP Health Department



① Signing of the minutes :
Dr. Nader Khan, Mr. Mubashir Shams,
Dr. Atsuko Aoyama and Mr. Kurokawa



② SAP meeting :
Dr. Nader Khan, Mr. Christopher D. Walker,
Mr. Basiur Haq & # Dr. Wan Azmin

JICA